Maternal and Child Health Services Title V Block Grant

Massachusetts

FY 2016 Application/ FY 2014 Annual Report

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I. General Requirements

I.A. Letter of Transmittal

The Commonwealth of Massachusetts
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July 15, 2015

Michele Lawler, M.S., R.D., Director
Division of State and Community Health
Maternal and Child Health Bureau
Health Resources and Services Administration
5600 Fishers Lane, Room 5C-26
Rockville, MD 20857

Dear Ms. Lawler:

On behalf of the Commonwealth of Massachusetts, we are pleased to submit the Massachusetts **Initial *FY16 Application and FY14 Annual Report for the Maternal and Child Health Services Block Grant Program***. A copy of this transmittal letter is attached to our Web-based submission. The Application has been prepared in its entirety by the Bureau of Family Health and Nutrition (BFHN), under the leadership of Ron Benham, Director, BFHN. The Bureau is the "Title V Agency" for the Commonwealth.

Questions or requests for additional information may be directed to Katherine P. Messenger (617- 624-6079), Bureau of Family Health and Nutrition.

We look forward to your response.

Sincerely,

Eileen M. Sullivan
Chief Operating Officer
Massachusetts Department of Public Health

Ron Benham
Director
Bureau of Family Health and Nutrition

cc: Katherine Messenger

I.B. Face Sheet

The Face Sheet (Form SF424) is submitted electronically in the HRSA Electronic Handbooks (EHBs).

I.C. Assurances and Certifications

The State certifies assurances and certifications, as specified in Appendix C of the 2015 Title V Application/Annual Report Guidance, are maintained on file in the States' MCH program central office, and will be able to provide them at HRSA's request.

I.D. Table of Contents

This report follows the outline of the Table of Contents provided in the "GUIDANCE AND FORMS FOR THE TITLE V APPLICATION/ANNUAL REPORT," OMB NO: 0915-0172; published January 2015; expires December 31, 2017.

I.E. Application/Annual Report Executive Summary

I. Introduction

Maternal and child health is a significant priority and investment in Massachusetts (MA), a national leader in MCH programs and policy. The Massachusetts Department of Public Health (MDPH), the state Title V agency, is committed to protecting and improving the health status, functional status, and quality of life of residents across the lifespan, with special focus on at-risk populations, low-income groups, and cultural and linguistic minorities. In FY15, MA received $10.7 million in federal Title V funds, and matched every $4 in federal funding with $16 in state funding. Title V population-based preventive and systems building services benefit all women and children in the state. In FY14 Title V provided direct and enabling services to 977,906 pregnant women, infants, children, and children and youth with special health needs. In addition, MA has achieved almost universal health insurance coverage with less than 4% of adults, and less than 2% of children, uninsured in 2014. There are high quality and diverse health resources in the state, offered along a continuum of care. MDPH provides outcome-driven, evidence-based programs to promote wellness and prevent and control disease. While MA has made progress on the 2010-2015 MCH priorities, health disparities persist and the Title V program is trying to improve its services and outcomes with fewer financial resources. Key accomplishments and challenges relative to the 2010-2015 Title V priorities and the MCH population domains are described below.

II. Accomplishments & Challenges

<u>Women's/Maternal and Perinatal/Infant Health</u>

MDPH's Sexual and Reproductive Health Program (SRHP) saw a 2.7% increase in long-acting reversible contraception (LARC) provision in its clinics from FY13 to FY14. In FY14, SRHP convened a group of OBGYNs to improve access to postpartum LARC insertion in hospitals prior to discharge to reduce the risk of subsequent pregnancies. Medicaid reimbursement structure was identified as the primary challenge to providing this service; the group is working with Medicaid to explore reimbursement options.

MA has a strong newborn screening program. Since 2009, MA has achieved timely follow-up annually for 100% of infants with positive screens for definitive diagnosis and clinical management for all MA mandated conditions. In FY14, 99.3% of MA births were screened for hearing loss.

The breastfeeding initiation rate for MA births in 2013 was a record high 86.0%. In 2014, 53.7% of infants were breastfed at six months of age, exceeding the national prevalence of 49.4%. Currently, 23 of the 48 MA hospitals and one birth center are committed to becoming Baby Friendly.

Challenges exist to improving the health and well-being of women in their childbearing years, such as the increasing number of babies born to mothers using opiates. In 2012, 17.2 infants/1000 live births developed neonatal abstinence syndrome (NAS) in MA, an incidence five times the national average. The increase in maternal use of opiates and subsequent NAS diagnoses is indicative of a larger trend in substance use among MA residents.

Child and Adolescent Health

Access to reproductive and sexual health services and education for adolescents has improved significantly. The teen birth rate in 2014 was 4.9 births per 1,000 women aged 15-17 years, down from 6.0 in 2013. Since 2009, the rates for 15-17 years old have been steadily declining. However, disparities in teen birth rates persist; rates for blacks and Hispanics are three to seven times higher than for whites.

In 2011/2012, 88.7% of children were in excellent/very good health, and 26.2% of children had one or more current chronic conditions. Injuries remain the leading causes of morbidity and mortality among children and adolescents. Between 2003 and 2012, the rate of non-fatal hospital discharges for children aged 0-9 decreased 13%, and rates of unintentional motor vehicle-related deaths for ages 0-14 decreased 54.8%. The percent of child passengers under age 12 observed to be properly restrained increased from 88% in 2009 to 94% in 2014.

There has been an increased focus on bullying and violence. Anti-bullying legislation was passed in 2010, and subsequently screening has increased. Homicides for youth aged 10-24 are down in all high incidence areas by as much as 50%. Comprehensive data collection and analysis are a challenge. The National Violent Death Reporting System does not include many MA towns and the YRBS only surveys in-school youth, which may miss more vulnerable youth.

Children and Youth with Special Health Needs

MDPH is committed to promoting medical home for all children. Initiatives such as the Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant contribute to improving medical home. MDPH Care Coordinators were located in the CHIPRA practices and provided direct care coordination services, technical assistance on medical home transformation, support for family partnerships, and participated in the national medical home learning collaborative. In FY15 MA received a Systems Integration Grant from HRSA/MCHB to enhance the system of services for CYSHCN and their families and plans to increase the proportion of CYSHCN who receive integrated care through a patient-centered medical home.

Transition to adulthood for CYSHCN remains an unmet need. Based on 2009/10 data, only 47% of MA youth with special health care needs aged 12-17 years received the services necessary to make transitions to appropriate adult health care, work, and independence. Parents are often not aware of all of their rights, how to advocate for their child's needs, or the resources they have to advocate for their child. Providers often lack knowledge and skills to facilitate transition planning and readiness. In FY14, MDPH hired a full-time Youth Transition Coordinator to identify

needs, resources, and training and support for families, youth, and providers.

Crosscutting/Lifecourse

MA made progress improving emotional wellness and social connectedness across the lifespan. MDPH played a key role in passing 2010 postpartum depression (PPD) legislation that requires a clinical provider to report data to MDPH annually if they screen a postpartum woman for PPD. MDPH will add a social emotional connectedness question to the MA Pregnancy Risk Assessment Monitoring System (PRAMS) Questionnaire in FY16. Despite these accomplishments, there is still a dearth of mental health services. For example, the increasing number of children with identified behavioral health challenges is outpacing the system's ability to address their needs.

MA is a leader in oral health. An Advisory Committee was established in FY14 to develop the Perinatal Oral Health Practice Guidelines for prenatal, dental and pediatric providers, making MA the seventh state to have specific perinatal and pediatric guidelines. Additionally, MA Health Quality Partners, a coalition of physicians, hospitals, health plans, patients, academics, and government agencies is working to improve the quality of health care, and included oral health screening and treatment for pregnant women in its 2013 Perinatal Care Recommendations.

Racial and ethnic disparities are seen across all Title V priorities and in most MCH outcomes, including maternal health status prior to pregnancy, school readiness, childhood obesity, violence, preventive care visits, medical home, and transitions for CYSHCN. Although MA is seeing measurable progress in its previous five-year priorities, these advances may still mask health inequity.

III. Needs Assessment

Over the past year, MDPH conducted a statewide needs assessment to understand the strengths and gaps in services and identify the most pressing MCH health needs. An expert Steering Group advised and guided the process. A Work Group collected and analyzed data from interviews, focus groups, surveys, and state and national data sources, and developed 10 MCH priorities with corresponding objectives and strategies. Town hall meetings allowed public commentary on the proposed state priorities and strategies. The result is a five-year state action plan for addressing the priorities.

IV. Needs Assessment Findings & Plan for the Coming Year

Emergent needs identified through the Needs Assessment and strategies for addressing the new priorities are highlighted below. The table illustrates the final 10 Title V priorities for 2015-2020 and the corresponding National Performance Measures.

Domain	Priority	National Performance Measure
Women's/Maternal	Preventive care: Promote equitable access to preventive health care including sexual and reproductive health services.	NPM 1: % of women with a past year preventive visit
	Substance use: Address substance use among women of reproductive age to improve individual and family functioning.	State Performance Measure TBD
Perinatal/Infant	Healthy Lifestyle: Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.	NPM 4: A) % of infants who are ever breastfed and B) % of infants breastfed exclusively through 6 months
	Violence & Injury: Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	NPM 5: % of infants placed to sleep on their backs
Child	Violence & Injury: Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	NPM 7: Rate of injury-related hospital admissions per population ages 0 through 9 years
	Environmental Health: Reduce the impact and burden of environmental contaminants on children and their families.	State Performance Measure TBD
Adolescent	Violence & Injury: Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	NPM 7: Rate of injury-related hospital admissions per population ages 10 through 19 years
	Preventive care: Promote equitable access to preventive health care including sexual and reproductive health services.	NPM 10: % of adolescents with a preventive services visit in the last year
CYSHCN	Medical Home: Increase connections to Medical Home for all children, including those with special health needs.	NPM 11: % of children with and without special health care needs having a medical home
	Transitions to Adulthood: Support effective health-related transition to adulthood for adolescents with special health care needs.	NPM 12: % of children with and without special health care needs who received services necessary to make transitions to adult health care
Crosscutting/Life course	Health & Racial Equity: Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.	State Performance Measure TBD
	Emotional Wellness & Social Connectedness: Promote emotional wellness and social connectedness across the lifespan.	State Performance Measure TBD
	Oral Health: Promote equitable access to dental care and preventive measures for pregnant women and children.	NPM 13: A) % of women who had a dental visit during pregnancy and B) % of infants and children, ages 1 to 6 years, who had a preventive dental visit in the last year

Women's/Maternal Health

Substance use and preventive care, with a focus on sexual and reproductive health, are priorities for Maternal/Women's Health. The incidence of substance use disorders in pregnant women and subsequent delivery of infants with NAS is increasing. An advisory group of staff and community partners will convene to identify data and programmatic needs and to develop and implement strategies to address maternal substance use.

There is also a need to promote sexual and reproductive health services within a preventive care framework. Women's health must become broader than preconception and interconception health alone, with an increased

focus on coordinated and continuous women's health care. A key strategy in FY16 is to work with providers to implement expanded federal family planning services recommendations for preconception health and other preventive health services.

Perinatal/Infant Health

Healthy lifestyle promotion and violence and injury prevention are priorities for Perinatal/Infant Health. A key aspect of healthy lifestyle is breastfeeding. In FY16, MDPH will strengthen collaboration between birth hospitals and WIC. WIC will focus on breastfeeding education during the prenatal period and continue its postpartum education and support for breastfeeding.

Safe sleep practices are associated with a lower rate of Sudden Infant Death Syndrome. MDPH is participating in the National Collaborative Improvement and Innovation Network to reduce infant death through initiatives promoting safe sleep, reducing preterm births, and addressing social determinants of health.

Child Health

Violence and injury prevention and environmental health are priorities for Child Health. Injuries remain the leading cause of morbidity for children; the main causes of non-fatal hospital discharges among children 0-9 are falls and poisonings. In FY16 WIC, Department of Children and Families, Early Intervention and Head Start will collaborate to increase poison prevention program education sessions for vulnerable populations. MDPH will continue to support the MA/RI Regional Poison Control Call Center.

MA ranks second nationwide for old housing stock, a major source of childhood lead poisoning. Asthma rates are among the highest in the country, with about 1 in 10 children having a diagnosis. To address the environmental health priority, a key strategy for FY16 is to work with clinicians and other health care providers to improve screening and provide culturally appropriate education about lead and other environmental hazards to children.

Adolescent Health

Violence and injury prevention and preventive care are priorities for Adolescent Health. Injuries are the leading cause of morbidity for adolescents; the top causes of hospitalization are poisonings, falls and motor vehicle injuries. Self-inflicted injury is of particular concern, and a key strategy for the next year is to assume a coordinating role for all of the suicide prevention related components of the 2014 An Act Relative to the Reduction of Gun Violence.

Preventive care, with a focus on sexual and reproductive health and substance use, is also a need for adolescents. To address this priority, School-Based Health Centers (SBHC) will focus professional development on increasing SBHC clinicians' capacity to address adolescent male concerns and increase behavioral health screening.

Children and Youth with Special Health Needs

Medical home and transition to adulthood are priorities for CYSHCN. A key strategy to increase awareness and connection to medical home is to align work with the CYSHCN Systems Integration Grant. Staff will participate in a

cross-state Learning Community to develop common aims related to three systems integration strategies identified by MCHB: cross-systems care coordination, integration (e.g. establishing a reliable feedback loop), and development/enhancement of a shared resource that will provide families, providers and others with needed resources and/or information. To improve transitions to adulthood, a strategy in FY16 is to seek opportunities to present health-related transition information, including information on public benefits for youth and their families.

Crosscutting/Lifecourse

Health and racial equity, oral health, and emotional wellness and social connectedness are priorities for the Crosscutting/Lifecourse domain.

Racial and ethnic disparities are seen in most MCH outcomes, and continue to disproportionately affect non-Hispanic black and/or Hispanic populations compared to whites. In the next year, strategies to address this priority will focus on workforce development and training for Title V staff. Leadership will incorporate the principles of health equity, racial justice, and the social determinants of health into a new staff orientation and provide opportunities to learn from expert speakers and colleagues.

A high percentage of children and pregnant women do not receive recommended dental preventive and treatment services. Disparities in both access to oral health services and oral health status persist among racial/ethnic groups, CYSHCN, low-income, and rural populations. The MA Perinatal Oral Health Practice Guidelines are being finalized; they will be promoted through professional organizations and piloted in three community health centers.

The need to promote social and emotional wellness across the lifespan continues to be a priority in MA. To improve emotional wellness and social connectedness for families in FY16, MDPH will conduct activities to increase social connectedness screening rates, reduce social isolation through support groups and improve access to community resources for pregnant and parenting families.

MA has improved MCH health outcomes over the past five years. Nearly all MA residents have health insurance; maternal and infant mortality rates are among the lowest in the nation; teen birth rates are declining and are among the lowest in the nation; hospitalizations due to injury for children and adolescents continue to decline; and MA is a national leader in family engagement. With these strengths, MA is well positioned to address challenges and emerging issues including health disparities, rising numbers of homeless families, increasing numbers of families affected by substance use, the need for more behavioral health services for families and young children, and increasing the percentage of children receiving primary care in a medical home, including those with special health needs.

II. Components of the Application/Annual Report

II.A. Overview of the State

Massachusetts has long been at the forefront of public health with a prestigious history of involvement and innovation dating back to the 1700s when the smallpox inoculation was pioneered and the first public clinics were opened. Since then, the public health system has provided critical services to protect and enhance the health of all residents of the Commonwealth. Today, the Massachusetts Department of Public Health (MDPH) continues this legacy by providing outcome-driven, evidence-based programs to promote wellness and prevent and control disease as well as disability. MDPH conducts surveillance for chronic diseases, occupational hazards, injuries, behavioral risks, and other indicators of public health issues; and further, MDPH provides 24/7 coverage to detect, prevent, and resolve infectious, environmental, and bio-terrorism threats to the health of the public. This state overview puts into context the Massachusetts Title V program within the state's health care delivery environment.

Specific to the Maternal and Child Health (MCH) population, Massachusetts has been a national leader in MCH programs and policy. The state's commitment and dedication to the MCH population is demonstrated by matching of Federal Title V funds. While states are required to match every $4 of Federal Title V money with at least $3 of State and/or local money, Massachusetts provides significantly more state funding: $16 state for every $4 federal. The Title V program resides in the MDPH Bureau of Family Health in Nutrition (BFHN).

The philosophy of the Title V program is to fully address the health needs of mothers and children, focusing on a life course approach. Massachusetts's efforts also focus on the systems, programs and services needed to optimize the health of the entire family. In BFHN, the foundation of all systems and programs is addressing the needs of women, children and youth, including those with special health needs, within the context of the family.

The Director of the Title V program reports directly to the Commissioner of Public Health, who reports to the Secretary of the Executive Office of Health and Human Services (EOHHS). This structure provides Title V with tremendous capacity to promote systems of service, coordinate initiatives, and work collaboratively across the full range of relationships necessary for a comprehensive approach to Title V goals. The context of the Title V program within the MDPH and the EOHHS means that the priorities and initiatives of both are synergistic and furthered by many formal and informal relationships.

Principal Characteristics

Massachusetts is the 14th largest state by population, based on 2012 estimates. With an average of 840 people per square mile, it is the 4th most densely populated state. The population grew by 3.0% between 2010 and 2014. The Commonwealth's estimated population in 2014 was 6,745,408, with more than 20% of residents aged less than 18 years. By 2030 however, the Massachusetts population is expected to grow dramatically older, with a projected one in five residents aged 65 years or older.

The population is also becoming increasingly racially and ethnically diverse. According to 2013 Census estimates, racial and ethnic minorities constituted 24.9% of the population (non-Hispanic Blacks 8.1%, Hispanics 10.5%, Asians 6.0%, and two or more races 2.1%). This represents a 46% increase in the proportion of minorities since 2000 with a nearly 54% increase in the proportion of Hispanics. In 2000, minorities constituted 17% of the population

(Non-Hispanic Blacks 5.5%, Hispanics 6.8%, Asians 3.8%, and two or more races 0.9%).

Racial and ethnic differences often correlate with economic and health differences. Minority populations in Massachusetts often have lower socioeconomic status and less access to services, including opportunities for exercise, access to healthy foods, and preventive health services. In Massachusetts, 11.4% of the population lives below the federal poverty level (FPL). Racial and ethnic minorities are overly represented, with 30.3% of Hispanics and 22.4% of non-Hispanic blacks living below the FPL.

Massachusetts's foreign-born population grew from 10% of the population in 1990 to 15% during 2008-2012. The number of asylees and refugees in the state grew almost 10%, from 7,459 during 2005-2009 to 8,169 in 2010-2013. During 2013, 28% of births were to foreign-born women, and during the 2013-2014 school year, 18% of public school students had a first language other than English.

Eleven percent (11%) of the Massachusetts population has one or more types of disability, including sensory, cognitive, self-care, and independent living disabilities. The prevalence of disabilities increases with age: one in three (33%) persons aged 65 years and older has one or more disabilities. Massachusetts ranks 41st among the states for percent of the population with any disability among those aged 65 year and older (US average: 35.8%) and 18th for those aged 5 to 15 years (MA: 7.2%; US: 6.4%).

Overall, Massachusetts residents have high levels of income and education built upon a diversified economic base. The state's major historical industries of shoes and textiles during the 20th century have been replaced over the past few decades as Massachusetts has solidified itself as a center of higher education and high-tech industry. The state has outperformed nearly all other leading technology states in growth in the IT industry recently and is primed for significant growth with world-leading research universities and many private research laboratories. Massachusetts is also a global leader in life sciences, from pharmaceuticals and medical devices to diagnostics and nanotechnology. The state ranks first in the nation in the percent of persons over 25 years who have a bachelor's degree or more. Sixty percent (60%) of residents have attended college and 89% have at least a high school diploma. These achievements are offset by the fact that 11% of the population has not graduated from high school. Education is closely related to income. Those with an advanced degree have a median income that is more than three times that of those with less than a high school education ($72,385 vs. $22,461).

These advantages have translated into a history of availability and access to health services, including strong support for funding of health and social service programs. Massachusetts is home to the first community health center in the nation founded at Columbia Point, Dorchester in 1975. Today, community health centers represent the largest primary care network in the state, serving some 889,000 state residents through more than 285 sites. The sites are well distributed throughout the state, in both rural and urban areas, with a higher concentration in low income areas. The state's health centers represent a major source of care for medically underserved women and children.

The high cost of living in the state presents challenges, especially for families. Among all families with children aged 18 years or less, 12.8% live below the federal poverty level. New state legislation introduced in 2015 raised the minimum wage from $8/hour to $9/hour and will continue to increase over the next two years to $11/hour.

Massachusetts has also seen improvements in the unemployment rate, which has fallen in the past 2 years to 4.9%, compared with 5.5% nationally. Despite the economic recovery seen in Greater Boston, the area's high cost of living has steadily eroded the real standard of living for nearly all but the affluent. The share of homeowners who are "cost burdened"—spending more than 30% of their income on housing—has skyrocketed from less than 27% in 2000 to more than 38% in 2013; the number of cost burdened renters has increased from 39% to more than 50%, with more than 25% spending more than half their income on rent alone. The cost of living in the Massachusetts is higher than the national average, with the median rent in 2013 almost 20% higher than in the US.

State Health Agency Priorities and Initiatives

In 2014, Massachusetts released the MA State Health Improvement Plan, or SHIP, as a comprehensive action-oriented 5 year strategic plan to align health efforts across the state. The SHIP was developed under the leadership of the MDPH in cooperation with dozens of public and private sector leaders to establish a vision, direction, and outline with clear priorities and measureable objectives to improve health in the Commonwealth. The SHIP serves as a tool not just for MDPH, but also for health providers, government agencies, community-based organizations, advocates, academics, policy makers, and other stakeholders committed to health equity and continued success in implementing health reform. Three areas of focus were identified through the SHIP development process to capitalize upon in order to meet the goals of improvement in health outcomes for Massachusetts residents: 1) health equity is a major priority in all health priority domains, 2) health reform initiatives at the state and national level depend upon population health management and prevention, and 3) strong public health infrastructure is essential in order to achieve the priority health outcomes.

The SHIP outlines the key health systems and health priority areas for the state, and how these priority areas will be addressed to ultimately improve the health of all people in the Commonwealth. For health systems infrastructure, the SHIP set a systems standard to "assure health equity and health reform goal attainment through robust systems and resources for monitoring, protecting, and promoting the health and well-being of the entire Massachusetts population." Key measures for attaining this standard include enhancing the capacity of local health departments to respond to public health needs, creating plans to increase workforce capacity, increasing licensing and regulatory enforcement capacity, and creating a Public Health Data Warehouse, The work on the Public Health Data Warehouse is divided into two areas: evaluating the quality and scope of individual data sets and then linking data sets together. The 2015 goal was to evaluate 15% of the 300 MDPH data sets and link 5% of them. The former goal has been met. Linkage efforts have centered on supporting the Governor's recommendations to address the current opioid crisis. It is anticipated that the linkage goal will be met and likely exceeded by the end of the year.

In addition to public health system transformation, the SHIP identified seven domains of priority health issues/topics: 1) Active Living, Health Eating, and Tobacco-Free Living; 2) Chronic Disease Prevention and Control; 3) Infectious Disease Prevention and Control; 4) Substance Abuse Prevention, Intervention, Treatment and Recovery; 5) Injury, Suicide and Violence Prevention; 6) Maternal, Child, and Family Health Promotion; and 7) Environment Risk Factors and Health. Domain 6 focuses on ensuring the health and well-being of women, children and families. The key MCH standards outlined in Domain 6 include reduced teen births, improved maternal health and infant outcomes, and positive early childhood health and development. Title V has primary responsibility for addressing this priority, broadly implementing the strategies identified in the plan, and monitoring of the SHIP's indicators. The SHIP and a Strategic Plan have been submitted for accreditation from the Public Health Accreditation Board.

Health Care Reform/ACA Implementation and Impact on MCH and CSHCN Populations

Massachusetts has led the nation in reforming healthcare and the health insurance marketplace. In 2006, under Governor Mitt Romney, the Commonwealth embarked upon a substantial overhaul of its health care system to reduce the number of uninsured residents, estimated at about 8.5% of the state's population aged 65 years or younger in 1998. The legislature implemented a health insurance mandate with tax penalties and created the Commonwealth Health Insurance Connector Authority to link citizens with new and existing health plans that have varying levels of state subsidies, depending on members' income levels.

While Massachusetts served as the model for national reform, the passage of the Affordable Care Act (ACA) brought additional changes. The ACA expanded Medicaid coverage to approximately 45,000 residents who previously did not have coverage. As a result of both state and federal healthcare reform, 439,000 more people have health insurance in Massachusetts. According to the most recent Massachusetts Health Insurance Survey results of 2014, insurance coverage remains strong with 96.3% of residents insured, well above national coverage rates (88.5% based on early estimates from the National Health Interview Survey).

Although most residents have insurance coverage, 3.7% of residents remain uninsured. The 2014 uninsurance rates in Massachusetts for children (1.5%), young adults aged 19-25 years (6.0%) and non-elderly adults (5.1%) were below the national uninsurance rates for these age groups (6.1%, 20.1% and 17.0%, respectively). The uninsured population were mostly working-age adults and disproportionately male, single, Hispanic, or below 400% the Federal Poverty Level (FPL) than the general population. Although many of the remaining uninsured may be eligible for public coverage or a subsidy to purchase insurance based on family income levels, three of four uninsured respondents (75.3%) reported the high cost of coverage as a burden. Other challenges to obtaining insurance included lack of knowledge of how to get coverage (46.3%), loss of job or change of employers (43.4%), lack of availability of employer-sponsored insurance (40.7%), and loss of eligibility for MassHealth or Commonwealth Care (30.4%).

The ACA increased funding for Community Health Centers, which provide services to underserved populations regardless of a family's ability to pay. Massachusetts received $202,446,147 for primary care services, which enabled expansion of service hours and renovation or building of new clinical spaces. Children with preexisting conditions, including 339,504 children in Massachusetts, could no longer be denied health insurance coverage. Lifetime limits on insurance coverage were also eliminated, benefiting 975,000 women and 633,000 children. The health law expanded mental health and substance use disorder benefits helping 885,944 Massachusetts residents.

With broadening health insurance coverage, the demand for primary care services increases. The 2012 Massachusetts Medical Society workforce study identified family medicine physicians in 'severe shortage' and internal medical physicians in 'critical shortage,' with community health centers having more of a challenge recruiting physicians than other practice settings. Shortages of primary care physicians, especially in underserved areas, create the need for other providers to deliver services. Other providers of primary care include nurse practitioners and physician assistants. The percentage of Massachusetts residents seeing a nurse practitioner, physician assistant, or midwife rather than a general doctor for health care increased from 36% in 2010 to 39.4% in 2012. Key strategies to address primary care shortages include incentive programs such as loan repayment and other evidence-based retention initiatives. The MPDH Health Care Workforce Center collects and monitors data, including data on licensed health care workforce and health access, to inform policy recommendations and strategies, education, and allocation of resources.

In spite of the primary care shortage, Massachusetts has one of the highest concentrations of primary care physicians in the country, with 196 primary care physicians (including general practice, family practice, OBGYN, pediatric, and internal medicine) per 100,000 population. Among office-based primary care physicians, 81.6% worked with physician assistants and/or nurse practitioners in their practices. The use of nurse practitioners and physician assistants expands access to primary care providers and has the potential to reduce health care costs due to differences in provider compensation.

Another significant remaining barrier to care in Massachusetts in 2014 was the cost of care. In the Massachusetts Health Insurance Survey, more than one in four respondents reported an unmet health care need due to cost over the past 12 months. Further, almost one in five survey respondents reported difficulty with family medical bills in the past year and more than one in ten respondents reported someone in the family went without needed health care due to family health care costs. These difficulties were more common for adults in lower-income families, the uninsured, and those in fair or poor health with an activity limitation.

Massachusetts residents reported good access to and use of health care in 2014 (due to a change in survey design, estimates in the 2014 Massachusetts Health Insurance Survey are not directly comparable to 2008-2011 estimates). A majority of respondents reported having a usual source of care other than the emergency department (87.7%), a visit to a general doctor or specialist over the past 12 months (86.8%), and a visit to a general doctor for preventive care over the past 12 months (78.5%). Access to and use of care tended to be better for children and females; for example, 94.5% of children reported having a usual source of care other than the emergency department compared to 84.6% of non-elderly adults and female respondents were more likely to have a usual source of care and a visit to a general doctor or specialist, a visit to a general doctor for preventive care, and a dental visit in the past 12 months than male respondents. Rates of health care access and use was disproportionately lower among racial and ethnic minorities. Non-Hispanic blacks, Hispanics, and those reporting other or multiple races were less likely than non-Hispanic whites to report having a usual source of care or a visit to a general doctor for preventive care over the past 12 months. Further, respondents with family incomes below 400% FPL tended to report lower rates of health care access and use in 2014 than those with higher incomes.

Assessing the impact of the ACA on health status is difficult at this time. According to the Kaiser Family Foundation State Health Facts, Massachusetts remains one of the best states for women's health, with 86% of women reporting their health status as good to excellent. Yet disparities persist as minority women continue to report poorer health status with 15% of non-Hispanic black and 29% of Hispanic women reporting fair or poor health status as compared to 12% of non-Hispanic white women. Meeting the mental health needs of Massachusetts women also remains a challenge, with 39% of women reporting poor mental health at least once in the last 30 days.

The health care infrastructure in Massachusetts is changing due to market forces and the impact of health care reform. The ACA encourages the formation of groups of providers responsible for the care of a specific population of patients in Accountable Care Organizations (ACOs). The goal is to improve the quality of care and reduce costs through the use of evidence-based treatment, involving patients and families in care, providing team-based care and more transparent cost and quality data. The Centers for Medicare and Medicaid Services (CMS) are using ACOs to reduce Medicare expenditures. Massachusetts currently has nine such ACOs. If ACOs are successful in reducing costs while improving health quality for seniors, the model may be expanded to other populations.

Process Used by Title V Agency to Prioritize Competing Factors

In determining the Title V MCH Block Grant priorities, MDPH made a conscious effort to align strategies and measures with the SHIP in order to strengthen efforts and reinforce commitment to priority areas. The process to identify the Title V MCH Block Grant priorities for the next five years utilized data, interviews, focus groups, and surveys to assess the magnitude, trend and severity of health topics as well as the feasibility of action. The challenge of the Title V Director has been and will always be to balance the needs of the MCH populations with the resources, expertise, and political will to effect change that improve outcomes.

In ongoing decision-making for MCH programs and activities, the Title V management team uses the following list of overarching principles to assess the importance, magnitude, value and priority of competing factors:

- Promote health and well-being of MCH populations
- Utilize a lifecourse perspective and understanding of the impact of social determinants of health to inform decisions
- Promote continuity of care among all populations
- Promote health equity among the increasingly diverse MCH populations in Massachusetts
- Ensure community engagement through partnership and collaboration
- Focus on family involvement, including fathers
- Target interventions as early as possible and focus on teachable moments
- Be aware of and responsive to emerging trends, both fiscal and scientific

The Title V management team examines available data and evidence and incorporates stakeholder input through surveys, interviews, and focus groups to inform decisions. Priorities reflect the knowledge gained from existing and past MDPH programs to determine which activities are most feasible and will result in the greatest potential public health impact. The exact methodology for identifying the 10 Title V priorities for 2015-2020 is described in detail in Section II.B.1.

Current and Emerging Issues and the Extent to which Poverty, Racial/Ethnic Health Disparities, and Geography Create Unique Challenges

Massachusetts residents overall enjoy better health care and health outcomes than US residents on average. For instance, in terms of infant mortality, breastfeeding initiation, teen pregnancy, and birth weight, Massachusetts ranks favorably compared with other states. Nevertheless, there are needs for additional services and supports to address several emerging health issues including substance use, poverty and homelessness, mental health, and autism where substantial racial, ethnic, and geographic disparities in health outcomes persist.

Substance Use

An important emerging issue affecting MCH populations in Massachusetts is opiate abuse. In March 2014, Governor Deval Patrick declared a public health emergency in light of the rising number of deaths from opioids. The incidence

of substance use disorders in pregnant women and subsequent delivery of infants with neonatal abstinence syndrome (NAS) have been increasing in recent years both nationally and in Massachusetts. The problem of NAS is particularly pronounced in Massachusetts, where the incidence of NAS births is estimated to be as high as five times the national average, with some hospitals experiencing an incidence of NAS births greater than 20 times the national average.

Poverty and Homelessness

An increasing percentage of Massachusetts children are living in poverty, with more than a quarter of youth in Suffolk County (Boston) and nearly a third in Hampden County (southwest) living in families with incomes below the FPL in 2012. As of 2012, more than 15% of the state's children were living in poverty, a troubling statistic given the well-established links between childhood poverty and a host of negative, long-lasting outcomes. During the 2013-2014 school year, 33.6% of students received free or reduced school lunch.

The impact of the economic recession has resulted in an unprecedented rise in the number of homeless families. Massachusetts saw the fifth highest increase in homelessness among all states between 2012 and 2013. As of June 2015, there were approximately 4,300 families with children and pregnant women housed in shelters through Emergency Assistance, a program that provides emergency shelter and rehousing services to homeless families with children, with nearly 1,296 housed in motels. Additionally, many more families are doubled up, living in unsafe conditions, or living in their cars.

Mental Health

Maternal depression is an important public health issue that can have negative effects on parenting skills, the relationship between a mother and her child, and child development.

According to data from the 2012 MA PRAMS, 5.9% of new mothers reported often or always feeling down, depressed or hopeless (compared with 7.7% during 2007-2008, 9.4% during 2009-2010, and 9.0% in 2011). Survey language was slightly different during 2007-2008 and 2012 compared to 2009-2011, which may account for some of the variation. Hispanic (7.1%) and Black non-Hispanic (10.0%) mothers were more likely to report feeling down, depressed and sad than their White non-Hispanic (4.8%) and Asian (4.0%) counterparts. Mothers living at or below 100% of the FPL (10.8%) were more likely to report feeling down, depressed, or hopeless than those living above 100% of the federal poverty level (3.9%).

Autism

The rising rate of autism is an emerging concern both nationally and in Massachusetts. In 2010, the CDC estimated that 1 in 68 children, approximately 1.5% of the population, have an autism spectrum disorder (ASD), an increase from estimates of 1 in 150 (0.7%) in 2000. The most recent National Survey of Children with Special Health Care Needs, conducted in 2009/10, estimates 8.6% of MA children ages 2-17 years currently have autism, Asperger's disorder, Pervasive Development Disorder, or other ASD, compared to 7.9% nationwide. In a 2009 research paper, ASD is 21% less likely to be documented among black children and 24% less likely to be documented among Hispanic children as compared to white children. For children with an ASD diagnosis in Early Intervention (EI), MDPH pays for autism services that are not covered by any other payor. By state law, private health insurers must provide coverage for the diagnosis and treatment of ASD, but not all insurers are subject to the state mandate (such as self-insured plans), and many children in EI do not have private health insurance.

For more information on Emerging Issues, refer to Section II.F.5.

State Statutes, Regulations and Initiatives Relevant to Title V Program Authority

It is important to contextualize the MCH Needs Assessment and selection of priority areas within state statutes and other regulations to improve population health through the most effective and efficient mobilization of available resources. There are no statutes in Massachusetts directly related to the establishment or operation of a Title V program as defined by HRSA/MCHB. There are, however, many statutes and regulations that address issues related to MCH and CYSHCN. Recent examples of statutes and regulations related to MCH priorities, all of which involved leadership or significant input by Title V, include:

- expanded birth defects monitoring and surveillance regulations
- postpartum depression legislation
- expanded newborn blood screening regulations
- expanded public health practice for dental hygienists
- expansion of breastfeeding in public places
- required periodic measurement of BMI in schools
- bullying prevention in schools
- sports concussion prevention
- junior operator law and primary child passenger restraint law for children under age 14.

Some other key state initiatives that address MCH priorities and that have Title V program involvement include the following:

- Chapter 224 of the Acts of 2012, the state's major health care cost containment law, was adopted to enhance quality of care and contain costs in the wake of achieving near universal access to health insurance. MCH programs assist participants in obtaining health insurance coverage, if needed, and work to increase the proportion of children who receive integrated care through a family-centered medical home approach.
- In early 2015, Governor Charlie Baker announced a 16 member Opioid Working Group and issued a call on insurers to more effectively manage opioid prescribing practices; MDPH Commissioner Monica Bharel is a member of the Working Group. Current efforts include a listening tour throughout the state to gather feedback from the community and ideas on the best ways to halt this epidemic. In addition, the working group hosted eight stakeholder meetings to determine steps the government can take to address the opioid crisis, and submitted a statewide strategy to combat opioid addiction and curb overdose deaths to the Governor in June 2015. Recommendations included working with healthcare providers to ensure that all infants with NAS are referred to EI by hospital discharge, and increasing training to prenatal and postpartum providers regarding caring for women with substance use disorders.
- In March 2015, Governor Baker unveiled reforms to reduce family homelessness and proposed a $20 million 'End Family Homelessness Reserve Fund' in the budget to be spent on short-term assistance to families. BFHN receives funding from the Department of Communities and Housing Development (DCHD) to provide on-site visits to homeless families living in motels and works closely with both DCHD and EOHHS agencies seeking solutions to the crisis of homelessness among young families.
- Executive Order 540 was issued in 2012 to promote improved performance management across all agencies of government and called for Administration and Finance to develop a strategic plan that would hold the state accountable to improve in four areas: finance, health care, performance and government. MDPH and Title V activities have an enhanced focus on continuous quality improvement (CQI) utilizing evidence-based practices

and promising innovations that provide the best opportunities for cost effective results.

II.B. Five Year Needs Assessment Summary

II.B.1. Process

Goals, framework and methodology

Beginning in July 2014, the Massachusetts Department of Public Health (MDPH) conducted a systematic review of the health needs in the state to ensure that MDPH programs effectively serve and meet the needs of the MCH population. The outcome of the review, or Needs Assessment, is a five year action plan addressing 10 health priorities specific to the MCH population of Massachusetts.

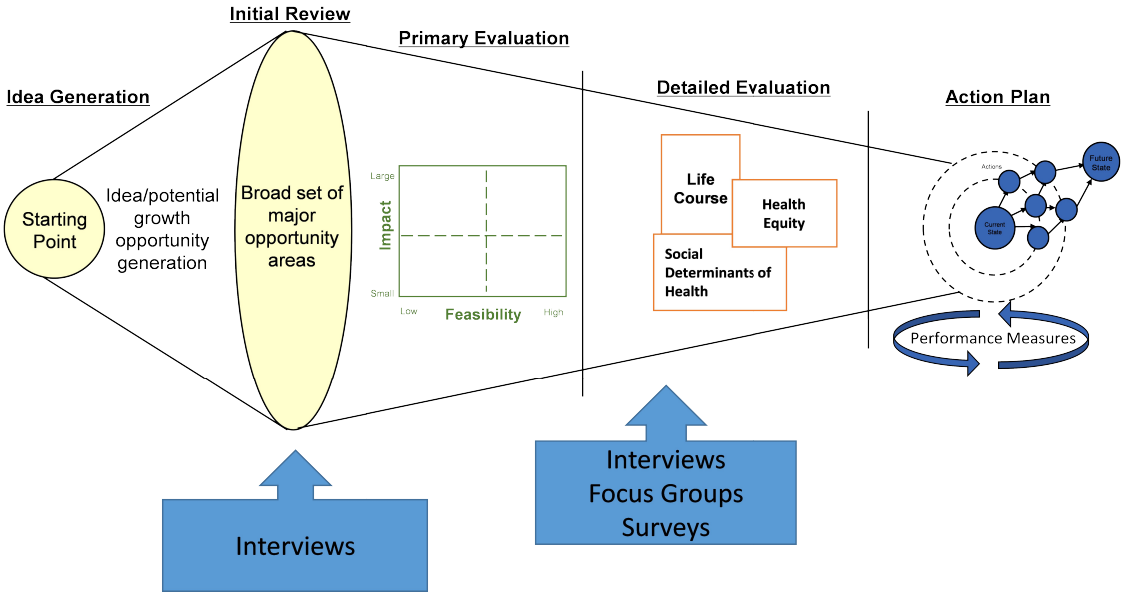
The goals of the Five-Year Needs Assessment were as follows:

1. To receive feedback and insight from community and key stakeholders on current MCH policies and programs;
2. To identify the most pressing health issues facing the MCH population in MA for the next five years (2015-2020); and
3. To create a state action plan that is aligned and coordinated with existing strategic plans across all MDPH bureaus and programs receiving Title V funding.

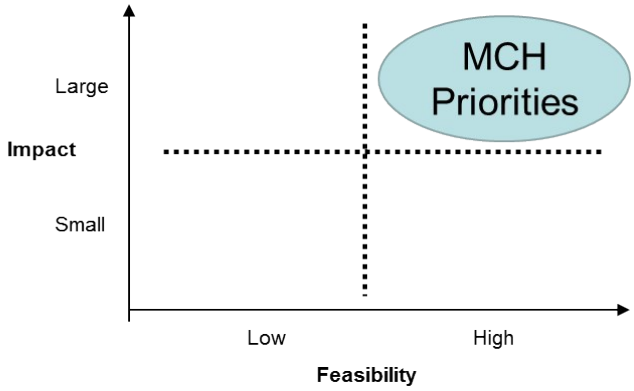
To complete the Five-Year Needs Assessment, MDPH established a project governance structure comprised of two bodies: the Steering Group and the Work Group. The Steering Group consisted of 17 members and included MDPH Bureau leads and directors along with epidemiologists and family representatives. The group was co-chaired by the MDPH Assistant Deputy Commissioner and the Director of the Bureau of Family Health and Nutrition/Title V Director. The Steering Group provided guidance and ensured that the Needs Assessment was aligned with current and future bureau and departmental strategies. The Steering Group also provided resources including relevant reports, data, and the support of key personnel.

The Work Group, comprised of MCH program staff and epidemiologists, led the research process by conducting interviews and focus groups, analyzing data, and synthesizing findings. Work Group members presented key findings and recommendations to the Steering Group in an iterative process that informed the selection of the state's priorities, national performance measures, objectives, and strategies.

The Work Group and Steering Group began the Needs Assessment process by developing a long list of potential priorities. Next, the Work Group analyzed qualitative and quantitative data to narrow the list of potential priorities, which were then considered from a Life Course, Social Determinants of Health, and Health Equity perspective. Finally, the Work Group and Steering Group developed an action plan for the chosen priorities, including performance measures, objectives, and strategies.



The first step in selecting state priorities was *Idea Generation*. The Steering Group suggested a broad set of 110 priority areas. The Work Group added potential priorities from the 2010-2015 Title V state priorities and priorities recommended in external and internal key informant interviews, surveys, and focus groups. During the *Initial Review*, the Work Group analyzed state and national data relevant to the priority areas. There were 80 priorities with compelling and available data. In the *Primary Evaluation*, these 80 priorities were scored against measures of impact and feasibility (including alignment with National Performance Measures).



The chart above represents a conceptual map of how the Steering Group and Work Group considered the feasibility of addressing a suggested priority and whether the priority would have a significant impact on the target population. The x-axis, feasibility, considers whether the issue falls within the MDPH subject matter competency, the degree of political and organizational will, resources available and relative cost to address the issue, alignment with the core mission of MCH and MDPH, availability of partners and external resources, and whether addressing the issue will have a compounded impact with other priorities selected. The y-axis, impact, focuses on the incidence and prevalence of each issue, the potential for influencing short and long term outcomes, disparities associated with the issue (socioeconomic, cultural, geographic, racial, or ethnic), potential to prevent or mitigate the issue, and the degree to which addressing the issue enhances collaboration with state and community partners.

Upon establishing high impact and high feasibility, the Work Group scored the potential priorities to further refine the list. The table below represents an adaptation of the Criteria-Based Rating, as presented at the MCHB/CDC/CityMatCH 2014 Training Course in MCH Epidemiology, which MDPH used to rank the remaining potential priorities. The priorities that ranked highest using the Criteria-Based Rating were then grouped into 13 larger categories.

	Impact			Feasibility		
Potential Priority	Magnitude (1-4)	Severity (1-4)	Trend (1-4)	Link w/ NPM (1-4)	Feasibility (1-4)	Total Score

During the *Detailed Evaluation* step, the Work Group examined each of the 13 priority areas through the following lenses: Life Course, Health Equity, and Social Determinants of Health. This evaluation helped refine the focus and specific language of each priority. The Work Group aligned the 13 priority areas with an MCH population domain and relevant NPM to ensure that the priorities appropriately spanned all population domains and would be measurable by eight of the 15 NPMs. The Work Group presented the 13 priority areas to the Steering Group for further refinement. The Steering Group merged several priorities and turned one into a guiding framework to inform the action planning phase. The result was a final list of 10 priorities.

In the *Action Plan* stage of the Needs Assessment process, the Work Group engaged with internal and external stakeholders to refine priority language, strategies, and objectives. The Work Group also solicited input from MDPH program staff and epidemiologists, who oversee initiatives that focus on the MCH domains. The internal staff were critical players in developing specific, measurable, achievable, relevant, and time-phased (SMART) objectives and identifying key strategies for the five-year state action plan. The Work Group held town hall meetings to gather feedback from the external MCH community to affirm and revise the priorities and strategies.

Stakeholder involvement

In addition to the active involvement of the Steering Group throughout the Needs Assessment process and the engagement with MCH program managers and epidemiologists to set objectives and strategies, MDPH also involved consumers in the Needs Assessment process through interviews, focus groups, a public input survey, and two town halls.

The Title V Public Input Survey was available online and distributed through social media, partner organizations, and

key personnel at MDPH. The survey sought to quantify the extent to which respondents agreed that the 10 identified priorities were important issues for the MCH population in the next five years. It also solicited input on strategies MDPH should undertake to achieve the priorities. There were 115 responses to the survey.

The Work Group also organized two town hall meetings, which were held at Bridgewater State University and Holyoke Community College. The town hall meetings were open to the public and served as a forum for consumers to comment on the priorities identified through the Needs Assessment process and give input on strategies for each priority. There was a particular emphasis on identifying strategies to advance health equity in MA. The town halls were also made available via webinar for those unable to attend in person. A total of 72 people attended the town halls.

Quantitative and qualitative methods

The Work Group conducted 15 internal and 52 external key informant interviews throughout the Needs Assessment process. Most interviews took place at the beginning of the process to help identify the most important issues for the next five years. The internal interviews were with MDPH bureau and division directors who have perspective on ongoing and emerging issues in MCH. Their expertise spanned the fields of nutrition, substance use, birth defects, early childhood, children and youth with special health needs, violence, injury, environmental health, emergency preparedness, data management, and health equity. As subject matter experts, the internal stakeholders also provided input during the development of objectives and strategies to address the priorities.

The 52 external key informant interviews were held with individuals who work with the MCH population in the community. They came from fields including academia, medicine, public health, non-profit, and community-based work. In their roles they serve as professors, researchers, physicians, nurses, hospital administrators, public health program managers, and executive directors. They shared their expertise and experience working with each of the six MCH population domains, reflected on MA's progress on the previous Title V priorities, and identified potential new state priorities.

In addition, 14 focus groups were held with 142 individuals to inform development of the priorities and strategies for achieving the priorities. The goal was to achieve a representative sample of the MCH population, including groups in multiple regions of the state and with people speaking languages other than English.

Domain	Population group	Number of participants
Maternal/Women & Perinatal/Infant	Pregnant and parenting teens	11
	Low-income mothers	11
	Spanish-speaking mothers	12
Child & Adolescent	Teen girls	10
	Teen boys	15
	LGBTQ youth	7
CYSHCN	Youth with SHCN	7
	Spanish speaking parents of CYSHCN	8
	Vietnamese parents of CYSHCN	14
	Parents of children/youth with very complex medical needs	9
Crosscutting or Lifecourse	Fathers	15
	Military families	7
	Families facing housing insecurity	13
	Spanish-speaking Families facing housing insecurity	3
Total		**142**

Data were also collected through two surveys. The first targeted adolescents to learn about the most important health issues in their community, and received 228 responses. The results were used to examine whether the selected priorities for this population domain were appropriate, and to brainstorm specific strategies for improving the health of adolescents. The second survey targeted parents of CYSHCN to improve services and supports for children and youth with special health care needs and their families. It received 569 responses including 21 in Spanish. The surveys were distributed through social media, partner organizations, and key personnel at MDPH.

Data sources

The major data sources used in the Needs Assessment process were national and state datasets, surveys, key informant interviews, focus groups, and existing MDPH materials such as program reports, strategic plans, and needs assessments. Among existing materials, the primary document utilized was the MA State Health Improvement Plan (SHIP), developed as part of MDPH's accreditation process. The SHIP was used to align programs, plans, and priorities of the Title V Block Grant with those of the entire state.

The following table below lists the quantitative and qualitative data sources, grouped by population, used to inform the Needs Assessment process:

Population	Data Sources
Women, Mothers & Infants	Quantitative: MA PRAMS; Massachusetts Child Psychiatry Access Project; Birth and Infant Death files; Maternal Death files and Death files of Women of Reproductive Age; BRFSS; PELL; BSAS; National Survey of Children's Health; Migration Policy Institute; NIS; NHIS; Massachusetts Youth Health Survey; YRBSS; Bureau of Environmental Health; CDC Qualitative: Key informant interviews; focus groups; MDPH program reports; strategic plans; and needs assessments.
Children and Adolescents	Quantitative: 2015 Title V Youth Health Survey; MA Violent Death Reporting System; MA Hospital Discharge Database; MA Center for Health Information and Analysis; MA YRBS; MA Youth Health Survey (MA YHS); National Survey of Children's Health; Child Death Review; MA Child Maltreatment Report; Strategic Plan for Asthma in MA 2015-2020; MA DCF Annual Report; MA CBHI Quarterly Utilization Report; MA Environmental Statistics; "MA Injury Surveillance Reports: Injuries to MA children and youth"; MA Dealer transaction data 2006-2013. Qualitative: 2015 Title V Youth Health Survey; key informant interviews; focus groups; MDPH program reports; strategic plans; and needs assessments.
Children and Youth with Special Health Care Needs	Quantitative: 2015 Title V CYSHCN Family Survey; "Pediatrics: Economic Burden of Childhood Autism Spectrum Disorders" 2014, National Survey of Children's Health, American Academy of Pediatrics 2014, Closing the Divide: How Medical Homes Promote Equity in Health Care—Results from the Commonwealth Fund 2006 Health Care Quality Survey, Yale Journal Biological Medicine, Arch Pediatric Adolescent Med, GIM Grand Rounds- Venc: UC Denver, Internal Medicine Journal Qualitative: 2015 Title V CYSHCN Family Survey; key informant interviews; focus groups; MDPH program reports.
Crosscutting or Lifecourse	Quantitative: Administration for Children and Families, US Federal Budget 2007 & 2008, The New York Times, WGBH News, Mass.gov, Patriot Ledger, Polaris Project, Mass General Press Releases, ABC News, Herald News, HHS, Mass Live Qualitative: Title V Public Input Survey; MA State Health Improvement Plan; key informant interviews; focus groups; MDPH program reports.

Interface between the collection of data, state priorities, and the state action plan

MDPH used a data-driven process to develop the MA Title V priorities and state action plan. The initial list of 110 priorities generated from stakeholder input was narrowed down through several data-driven evaluations. In addition, a priority was only considered for selection if there was sufficient data available to track progress over the next five years. For those priorities that did not align with any of the 15 National Performance Measures, the Work Group ensured that MDPH could feasibly develop a State Performance Measure. Finally, MDPH developed the State Action Plan by linking objectives and strategies to each of the identified priorities taking into consideration data availability, access and analytic capacity.

II.B.2. Findings

II.B.2.a. MCH Population Needs

Women's/Maternal

A review of state and national data sets, key informant interviews, and focus groups identified two major areas that emerged as priorities for Maternal/Women's Health in MA: substance use and preventive care, with a particular focus on sexual and reproductive health services.

Data from the 2012 MA Pregnancy Risk Assessment Monitoring System (PRAMS) show that 64.2% of mothers report drinking alcohol during the three months before becoming pregnant. As nearly 40% of MA women report that they were not trying to become pregnant when they conceived, women who drink alcohol risk exposing their unborn babies to alcohol from the time of conception. While data suggest that the majority of women who smoked prior to pregnancy stop smoking during their pregnancy, many mothers return to smoking after pregnancy, potentially exposing their infants to second-hand smoke. In addition, the national incidence of antepartum maternal opiate use has increased from 1.17/1,000 deliveries in 2000 to 5.63/1,000 deliveries in 2009. Incidence of NAS also increased nationally from 1.2/1,000 live births to 3.39/1,000 live births, with an estimated cost of $750 million. In MA, the estimated NAS incidence is 13.2 infants/1,000 live births in 2013, five times greater than the national level.

Qualitative data from providers and consumers identified areas for improvement: 1) universal and consistent screening of mothers for substance use, including alcohol and tobacco, throughout pregnancy and at birth; 2) provider education to increase care capacity and reduce stigma for patients; 3) improved family and recovery support services (peer coaching and care management), and improved care coordination during pregnancy, postpartum and beyond among all providers including medical, behavioral health, child welfare, and Early Intervention; 4) guidelines related to marijuana use in pregnancy and while breastfeeding; and 5) more treatment options, including supportive housing and increased support after long-term residential treatment.

Of the mothers who responded to the 2012 MA PRAMS, 60.7% indicated that they were trying to conceive when they became pregnant. Among women not trying to conceive, 52.8% said that they were not using any birth control at the time they became pregnant. Data from 2012 MA PRAMS show that lack of birth control at the time of unplanned pregnancy was 61.7% among Medicaid participants, compared to 30.2% among mothers with private insurance. These findings corroborate state and community stakeholders' identification of equitable access to quality sexual and reproductive health services, in the context of preventive care, as an unmet need for maternal and women's health. Key family planning strategies include increasing access to long-acting reversible contraceptives (LARC). As mothers' age increases in MA, assisted reproductive technology (ART) use is also steadily increasing, making ART an important aspect of family planning conversations. Furthermore, sexual and reproductive health education and services need to be more inclusive of the lesbian, gay, bisexual, transgender, and questioning or queer (LGBTQ) population. Stakeholders suggested that sexual orientation be systematically collected as part of client demographic information to inform program planning and implementation.

Interviewees also stated that focusing on women's health is an effective framework to improve maternal, perinatal, and infant health concurrently. Women's health needs to become broader than preconception and inter-conception health alone. To improve the health of both a woman and her infant, healthcare needs to be coordinated and continuous, with increased attention on providing social and emotional support beyond the birthing period.

Focus groups throughout the state highlighted pressing needs and gaps in services, with childcare as the most often cited need for families. Participants explained that childcare is both expensive and inaccessible for many families, particularly low-income families.

"[Childcare] is basically giving up your whole paycheck. It's rent or a car payment…and that's just for one kid." – Mother at Hanscom Air Force Base, January 2015

Lack of readily available information on services, programs and pregnancy was frequently mentioned as another unmet need. In a focus group with pregnant women, one woman reported "googling" everything about her pregnancy since she felt she had nowhere else to get the answers. Focus group participants also stated that they wish they had known about services or programs available to them sooner. This sentiment was shared among fathers, who expressed frustration about not knowing about services to support healthy eating, substance use treatment, and child care.

"Why do we have to learn about these programs from being incarcerated?" – Father in Springfield, December 2014

All focus groups cited substance use as a major challenge for their peers. Substance use was identified as a particularly devastating problem within communities as it breaks up families and has far-reaching sequelae, and focus group participants advocated for better and more comprehensive services for those struggling with substance use disorders.

"When you start trying to talk about being an effective parent, this community is disproportionately impacted by addiction." – Father in Springfield, December 2014

Perinatal/Infant

Two major areas emerged as priorities for Perinatal/Infant Health in MA: healthy lifestyle promotion, and violence and injury prevention.

A review of the literature and state and national datasets provided the first indication that these were critical priorities for perinatal and infant health. Women who are overweight or obese have increased risk of complications during pregnancy including gestational diabetes, preterm birth, stillbirth, cesarean delivery, and having an infant with a birth defect. Additionally, women who are underweight during pregnancy have a greater risk of having a low birth weight infant. In MA, only 50% of women meet a normal BMI range prior to pregnancy. Another key aspect of healthy lifestyle promotion impacting infants is breastfeeding. Although MA exceeds the national average for infants receiving any breastmilk at six months [54% (MA) vs. 49% (US)], MA is still lower than the Healthy People 2020 goal of 61% and disparities remain among breastfeeding rates across socioeconomic status. Among MA women receiving WIC during pregnancy, 82% of women ever breastfeed compared to 90% of women not receiving WIC. This disparity widens in the postpartum period: at eight weeks postpartum, 59% of mothers receiving WIC during pregnancy report any breastfeeding compared to 78% of mothers not receiving WIC.

Placing infants to sleep on their back (supine position) has been associated with lowered risk of Sudden Infant Death Syndrome, the third leading cause of infant death in MA. MA PRAMS data show a modest increase in the percent of infants who are placed supine to sleep, from 78.5% in 2009 to 80.0% in 2012. However, there are disparities in the practice by race and ethnicity, maternal age, and education. Mothers least likely to place their babies on their backs for sleep were non-Hispanic black (59.9%), Hispanic (65.4%), less than 20 years of age (62.2%) and those with high school education or less (72.1%). Further, to reduce sleep-related Sudden Unexpected Infant Death, an infant should be placed supine, alone in a separate sleeping surface, free from excessive bedding or padding. In 2012, 39% of mothers reported placing their baby to sleep on the same sleep surface with another

person at least five times per week.

Focus groups also reinforced the need to continue promoting healthy eating, breastfeeding, and safe sleep practices.

"We have access to a lot of canned foods, processed stuff, and sodium…we need education about healthy choices in the community." – Father in Springfield, January 2015

In a focus group with teen mothers, participants reported widely varying experiences with breastfeeding and discussed the challenges they faced. Several mothers wished that there had been more breastfeeding support when they had breastfeeding difficulties. One mom said that she "felt pressured into using formula" by hospital staff.

"My baby would only latch on in one position and on one of the breasts. It was too difficult, so I gave up." – Teen mother in Gardner, January 2015

The knowledge and practices among mothers in focus groups on infant sleeping was varied. Several mothers commented on knowing the risk of co-sleeping, but still felt there were ways to co-sleep safely. Other moms wished that they had more information from their providers on safe sleep techniques for their infants. One mother relayed a story to the focus group when she had accidentally fallen asleep with her baby on her bed and rolled over; while no harm was done, she was scared and never allowed it to happen again.

Child

Two major areas emerged as priorities for children in MA: violence and injury prevention, and environmental health.

Injuries are the leading cause of morbidity in MA for children. The rate of non-fatal hospital discharges was 144.6 per 100,000 children ages 0-9 years in 2012, a decrease of 13% since 2003. The most common causes of hospitalization were falls (42%) and poisonings (15%). Forty-three percent (43%) of children ages 0-17 years in MA had at least one adverse family experience, with one in five reporting two or more adverse experiences.

MA ranks second nationwide for old housing stock, a major source of childhood lead poisoning. In addition, asthma among MA residents is among the highest in the country, with about 1 in 10 children having a diagnosis of asthma. Furthermore, racial and ethnic minorities and low-income populations bear a disproportionate burden of environmental exposures.

Interviews with community members and health professionals confirmed that reducing unintentional injuries and preventing violence continue to be important priorities for children. Areas for intervention within injury prevention included suggestions for reductions in motor vehicle injuries, falls, pedestrian injury, bullying, concussions and violence. Health care workers and researchers urged further understanding of the impact of adverse childhood experiences and educating communities about the long-lasting effects of such experiences. Key informants

suggested programmatic efforts should consider the growing body of literature on the association between poverty, brain development, and health outcomes across the lifespan when allocating resources.

Stakeholders also proposed greater investment in early childhood programs, with a goal of health equity. Within an ecological framework of health, both pre-kindergarten and after-school programs were proposed as key investments in early life. Race to the Top was cited as one example of a program that effectively supports prevention, health, safety, and early childhood programs to benefit families, educators and providers. Others suggested models for growth that specifically address income-related disparities, to ensure that the poorest families are eligible to receive wrap-around services and a high-quality education.

Several stakeholders stated that a significant gap in past Title V efforts was not addressing environmental health. Environmental exposures have deleterious and long-lasting effects on a child's health and development. Environmental health is also an important issue for the MCH population because it links to other Title V priority areas. For example, there is a clear connection between lead poisoning and violence and school readiness and performance.

Focus groups among parents identified the need for comprehensive interventions early in a family's life, with top needs of childcare, stable housing, and transportation. Low-income parents also mentioned systemic barriers such as complex eligibility requirements to receive housing or food stamps, and the overall difficulty in navigating multiple social services systems.

"This is the same number (that I have been given to call) *and receiving* (sic) *different information…and you wonder why people go in there and get frustrated and cause scenes?"* – Father in Springfield, January 2015

Adolescent

Two major areas emerged as priorities for the adolescent population in MA: violence and injury prevention, and preventive care.

Injuries are the leading cause of morbidity among adolescents. The rate of hospitalization for non-fatal injury was 203.1 per 100,000 adolescents aged 10-19 years in 2012. The most common causes of hospitalizations among adolescents were poisonings, falls and motor vehicle injuries. Self-inflicted injury is a particular concern, with more than 1 in 10 high school students seriously considering suicide in the past year in MA according to the 2013 Youth Risk Behavior Survey (YRBS); higher rates of suicide ideation are seen among LGBTQ, female, and multi-racial students. Bullying within middle and high schools is also prevalent, with 36% of middle school students and 25% of high school students reporting being the victims of bullying in the 2013 YRBS.

According to the 2011/2012 National Survey of Children's Health (NSCH), 91% of MA adolescents 12-17 years had a preventive medical visit in the previous year. There are underlying disparities by subpopulations with lower rates among non-Hispanic blacks (83%), adolescents in mother-only households (84%), and those living in households under 100% of the Federal Poverty Level (FPL) (85%). Risky sexual behaviors persist: MA high school students report decreasing condom use at last intercourse (65% in 2005 vs. 58% in 2013) and nearly one in four high school

students report drinking alcohol at last intercourse (24%) in the 2013 YRBS. In the 2015 Youth Health Priority Survey (n=228), substance use was the top priority listed by youth (31%), followed by mental health (19%), and injury and violence (14%). These results were corroborated by findings in the 2013 YRBS, where 74% MA 12th graders reported lifetime alcohol use and 41% reported lifetime marijuana use.

Interviews with key stakeholders highlighted a greater need to focus on reducing unintentional injuries as well as the prevention of violence. In the past five years, MA saw an increase in awareness of bullying and violence issues and subsequent increases in screening. Stakeholders felt the anti-bullying legislation was a positive step forward and substantial progress has been made in preparing schools and training staff to address this priority; yet these efforts have not been evaluated for success. Stakeholders also commented on addressing sexual harassment, sexual assault, and the social consequences of sexting and similar actions. It was also recommended to prioritize understanding violence in its relation to behavioral issues. Substance use was also recognized as a priority area for adolescents. Concerns were expressed regarding the medical marijuana program and dispensaries as well as smoking and cigarettes. Interventions focusing on reducing smoking should highlight the influence of e-cigarettes and other tobacco products.

Support for preventive health among stakeholders focused on reproductive and sexual health for adolescents. Recommendations for further prioritization included increased access to education around safer sex and reproductive health services, reducing barriers for males accessing preventive services, promoting adolescent gynecology, and promoting social connectedness in the context of digital technology, which are often overlooked within other services. Stakeholders also felt that the next set of priorities should continue to emphasize reducing disparities, address the most marginalized youth, include both sexes equally, focus on access to services broadly, and strengthen connection among the priority areas.

Focus groups with adolescents revealed an unmet need for increased access to comprehensive sexual health education. Among LGBTQ youth, there remains a great need for education around preventing sexually transmitted infections and unwanted pregnancies. For youth identifying as transgender, questioning, and queer, there was an even greater gap in education and services regarding sexual health.

"Schools break up females and males into two groups to teach sex ed. I don't feel like I am represented at all. Sexual identity, as well as gender identity, is very straight." – LGBT youth in Northampton, December 2014

Focus groups also indicated the need to address violence more comprehensively, especially for young men. While there are identified safe spaces, such as community centers, where youth feel protected, many youth noted the permeation of community violence in their everyday lives.

"This is a safe space but if you go outside…In the park you are seen with a friend in a gang…it's about who you are associated with." – Teenage boy in Springfield, January 2015.

Positive youth development also emerged as a theme throughout focus groups, highlighting the need in local communities for more positive role models.

"Another way is to bring successful people in to mentor---people look up to baseball players and this really impacts our society." – Teenage boy in Springfield, January 2015

CYSHCN

Two major areas emerged as priorities for MA children and youth with special health needs (CYSHCN): medical home and transition to adulthood.

Data from the 2009/10 National Survey of Children with Special Health Care Needs (NS-CSHCN) estimate that 18% of MA children aged 0-17 years have special health care needs, compared with 15% nationally. Less than half (47%) of MA CYSHCN received care through a medical home. CYSHCN did not fare equally well on all components of the medical home measure, and coordination of care emerged as an important area in need of improvement. Further, the proportion of CYSHCN receiving care in a medical home varied by certain sociodemographic characteristics. Hispanic CYSHCN were less likely to meet medical home criteria (34%) than their non-Hispanic black (54%) and non-Hispanic white (50%) counterparts, and publicly insured CYSHCN (35%) were less likely to receive care within a medical home than privately insured CYSHCN (52%). Only two-thirds (68%) of parents of CYSHCN reported that they can easily access community services. Although the proportion of CYSHCN with health insurance coverage is high (0.8% of CYSHCN did not have insurance at the time of survey administration in 09/10), the proportion of CYSHCN whose families paid more than $1,000 out of pocket in medical expenses for the child increased from 1 in 5 (20%) during 2005/6 to 1 in 4 (26%) during 2009/10. Results from the 2015 MDPH CYSHCN survey confirmed that challenges remain in accessing care through medical homes for CYSHCN: 45% of respondents (n=569) reported their child does not receive care in a medical home.

Only 47% of MA youth with special health care needs (YSHCN, aged 12-17 years) received the services necessary to make transitions to appropriate adult health care, work and independence, and this proportion in 2009/10 did not change in the five years since the previous survey administration in 2005/06. A large proportion of parents of YSHCN (81%) reported that their health care providers usually or always encourage their youth to take responsibility for his/her own health care needs, such as taking medication, understanding their diagnosis, and following medical advice; however, only one-third reported receiving appropriate anticipatory guidance regarding transition to adult health care. Since the NS-CSHCN 2009/10 survey, challenges in providing transition services for CYSHCN persist. In the 2015 MDPH CYSHCN survey, only 41% of parents surveyed reported the child's primary care physician has talked to them or their child about moving to a medical care provider who cares for adults once the child gets older.

Qualitative data confirmed many of the findings from the quantitative data review. Medical home utilization was identified by nearly all stakeholders interviewed as needing improvement. Stakeholders indicated a need to reform payment systems, to incorporate transitions into the patient-centered medical home model, and to ensure a standardized definition of medical home that uses an integrated model. The needs of CYSHCN are complex, and include a growing need for integrating behavioral health services into pediatric primary care in a medical home. Families with CYSHCN need additional support to address these needs adequately, through a holistic, inter-disciplinary, lifecourse perspective which emphasizes care coordination and collaboration.

Transition to the adult health care system, closely tied to medical home, remains a high priority. Stakeholders

expressed concern about lack of services, trained adult health care providers, and supports for YSHCN as these adolescents transition to adult-oriented care. Staff commented that more can be done to help improve self-management and independence in YSHCN, whether it is regarding taking medications consistently or simply knowing a health provider's name and number. Finally, staff commented on the need to improve system integration so that health care providers and schools work collaboratively to support transition-aged youth.

Stakeholders felt that CYSHCN are inadequately educated about important health issues that affect all children and youth, including healthy weight and nutrition, physical activity, and healthy sexuality. Efforts should be made to ensure inclusion of CYSHCN in basic health education classes, including sexual and reproductive health. A related priority, identified in the majority of interviews, is the continued need to fund programs and services aimed at eliminating disparities among CYSHCN, particularly through outreach or marketing efforts. Disparities in awareness of available community programs and services and in parents' ability to advocate for needed service for their children persist across race/ethnicity and socio-economic groups. Consequently, MDPH should augment its effort to improve the availability of culturally and linguistically appropriate information and resources, to improve health literacy, especially for non-English speaking families. While culturally and linguistically appropriate services improve outcomes for all families, families of CYSHCN often feel especially isolated when cultural norms are not understood.

Focus groups with YSHCN and parents of CYSHCN highlighted the need for ongoing support with navigating a difficult health care system.

"My child was in EI when she was three years old and after that we have no services. Because of language barriers I don't know where to get help. I knew something was wrong with my child, but for four years I received no services, I didn't know where to go. But at BMC I saw the Vietnamese support group on a list of programs just by chance." – Vietnamese-speaking parent of a child with special health needs in Dorchester, December 2014

Additionally, cultural competency, including lack of adequate interpretation services, was identified as a major barrier in accessing health services, advocating for one's care, and leading a healthy lifestyle.

"In our culture, family – parents and children – sleep together, maybe on the floor. If ABA [applied behavioral analysis] staff comes they see and say parents and children have to sleep in separate rooms. They file a 51A, report to DCF. The family is scared, does not want to have this service anymore. – Vietnamese-speaking parent of a child with special health needs

Families were also concerned with the emotional wellbeing of their children. Depression was identified as an important issue for CYSHCN, and efforts are needed to promote social connectedness, to combat feelings of intense social isolation. Focus group participants reiterated the need to improve the provision of information to families of CYSHCN regarding services and supports available in their communities. Again, this is of particular importance for families with language barriers. Participants noted that it is difficult to be a strong advocate for their child when they do not know the full range of services and supports that are available to them.

"My EI provider told me: 'you are the lead case manager for your child.'" – English-speaking parent of a child with

special health needs in Natick, December 2014

Cross-cutting/Life course

Three major areas emerged as priorities for the Cross-cutting/Life course domain in MA: health and racial equity, oral health, and emotional wellness and social connectedness. A review of the literature and state and national datasets provided the first indications that there are unmet needs and service gaps in all three areas.

Health and racial equity

Across all MCH population domains, measures in health disparities by race/ethnicity persist. For example, in 2013, preliminary data show the overall infant mortality rate in MA was 4.1 deaths/1,000 live births, and 3.6 deaths/1,000 live births among non-Hispanic white infants. Yet, among non-Hispanic black infants, the preliminary rate was 8.7/1,000 births, more than twice the white rate, and still higher than the white rate 20 years ago, in 1994 (5.3 deaths/1,000 live births). Even among similar socio-economic strata, non-Hispanic black infants have poorer birth outcomes. Non-Hispanic black and Hispanic mothers in MA PRAMS are more than six times as likely to report the presence of negative physical symptoms due to race as non-Hispanic white mothers. The breadth and depth of these disparities are seen in most MCH outcomes, including maternal health status prior to pregnancy, school readiness, childhood obesity, violence, preventive care visits, medical home and transition, which all continue to disproportionately negatively impact non-Hispanic black and Hispanic populations as compared to non-Hispanic whites.

Community members also highlighted health equity as one facet of social justice, and discussed the role that structural racism plays in health inequity. One interviewee noted, *"In general, MA is a healthy state for white people and much less healthy for people of color. Our state data really mask disparities."* Interviews further suggested MDPH mirror work by the Boston Public Health Commission, whose Racial Justice and Health Equity Initiative is a broad organizational transformation process, which aims to integrate health equity and racial justice principles and practices into all Commission work, both internal and external, in order to measurably reduce inequities in Boston.

Focus group participants discussed the cumulative impact that racism has had on their lives. Many experienced discrimination at the work place, in school, while accessing medical services, and in everyday interactions with people. Racism fueled sadness, stress, and anger. Current events around police brutality against communities of color were particularly triggering for both youth and adults.

"Sometimes I brush [racism] off. Even though they're little things like this, I see that it all adds up." – Teenage girl in Lynn, December 2014

"I won't stand for the pledge of allegiance until I know there is 'liberty and justice for all'. I don't see that yet." – Teenage girl in Lynn, December 2014

"After giving birth to my second child, the nurse said, 'No more kids.' I didn't know if she meant that I should not have more kids or that I could not have any more kids. I don't know if they sterilized me and I didn't dare ask

because of the fear." – Spanish-speaker mother in Somerville, January 2015

Oral health

A high percentage of children and pregnant women do not receive recommended dental preventive and treatment services. Disparities in both access to oral health services and oral health status persist among racial/ethnic groups, children with special health care needs, low-income populations and rural residents. MA PRAMS 2011 data show that among non-Hispanic black recent mothers, only 50% had a dental visit within the year prior to giving birth, compared to 72% of non-Hispanic white mothers. 2014 preliminary BRFSS data reveal that 90 % of all MA children ages 3-17 have visited a dentist in the past year. However, more than 246,000 children on MassHealth did not receive any dental services in FY14. Communities without fluoridation in rural Western MA and Cape Cod account for the majority of dental ER visits.

While MDPH has made progress in promoting preventive oral health measures and universal access to affordable dental care, MassHealth participants continue to have significant unmet needs in oral health, particularly during pregnancy, postpartum, and early childhood. Stakeholders suggest that, over the next five years, MDPH promote building workforce capacity for dental care providers, incorporate the perinatal oral health guidelines into residency programs, and facilitate the integration of oral heath into primary care. The key informant interviews and focus groups reinforced the quantitative data findings.

Emotional wellness and social connectedness

Quantitative data reflects the need to promote social and emotional wellness across the life course. MA PRAMS reports that between 11% and 14% of mothers under age 24 suffer from depression as defined by the CDC. Further, according to the NSCH, 12% of mothers report having no one to turn to for emotional help and support with parenting. Among children enrolled in Early Intervention from 0-6 months with 0-3 risk factors, 14% have a social delay reported. Mental health challenges affect youth as well, with more than 1 in 10 MA high school students reporting that they seriously considered suicide.

Stakeholders strongly felt that the mental health and emotional wellness of women, children, and youth should be a priority for the next five years. There is still widespread stigma and shame around postpartum depression and social media is increasingly contributing to social isolation, particularly among adolescents. Stakeholders recommended improving the integration of behavioral health into primary care to reduce the disconnect between physical and mental health. Further, the lack of culturally appropriate services, including adequate interpreter/translation supports, limits the ability to meet mental health needs across the state. Others noted that behavioral health services are not only limited, but expensive with high co-pays, non-reimbursed medications and limited therapy.

The focus groups echoed many of the needs related to emotional wellness and social connectedness.

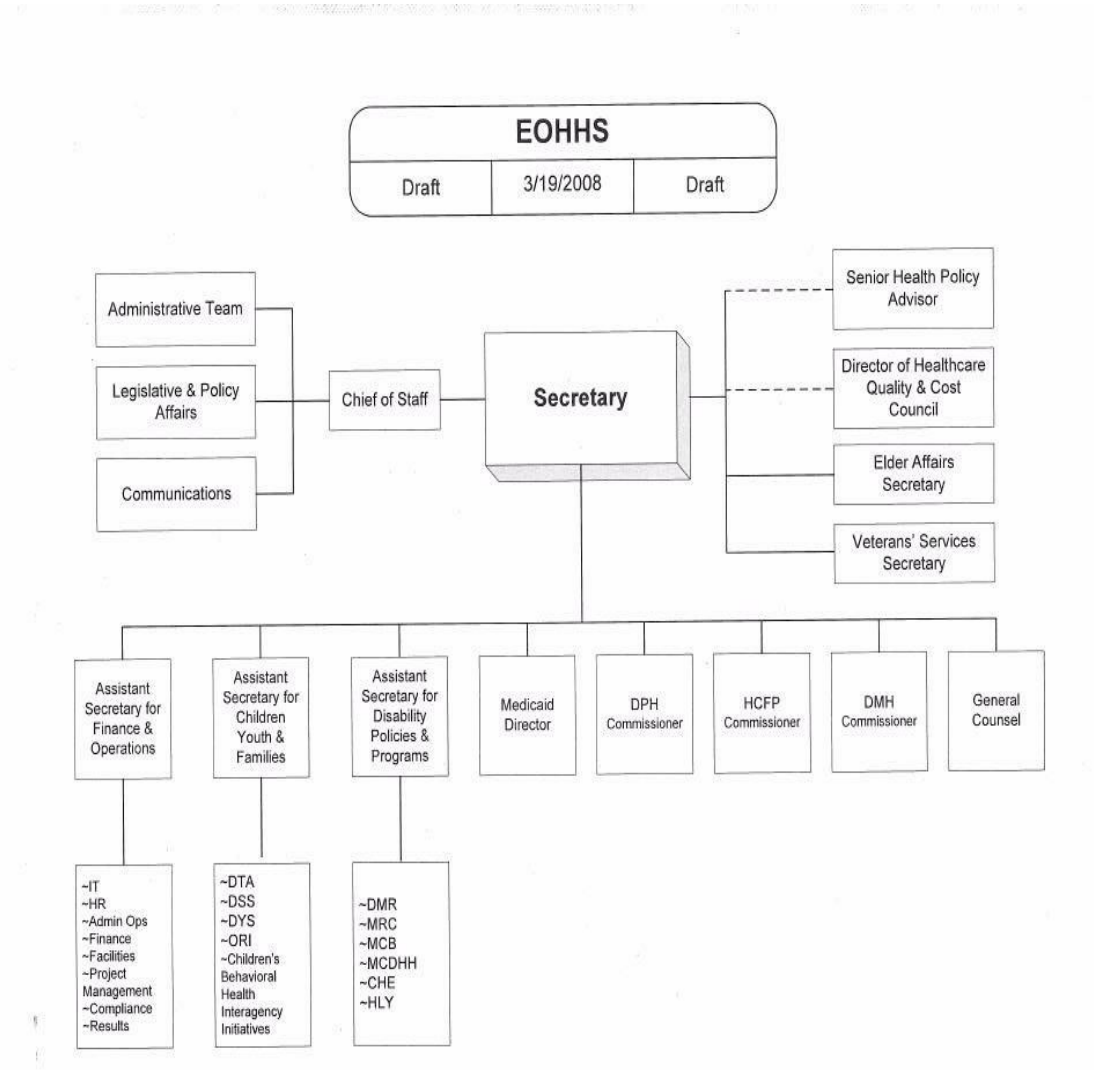
"I have no social support. I get depressed and have to deal with it myself. I only have my husband and his family." – Spanish-speaking mother in Lawrence, March 2015

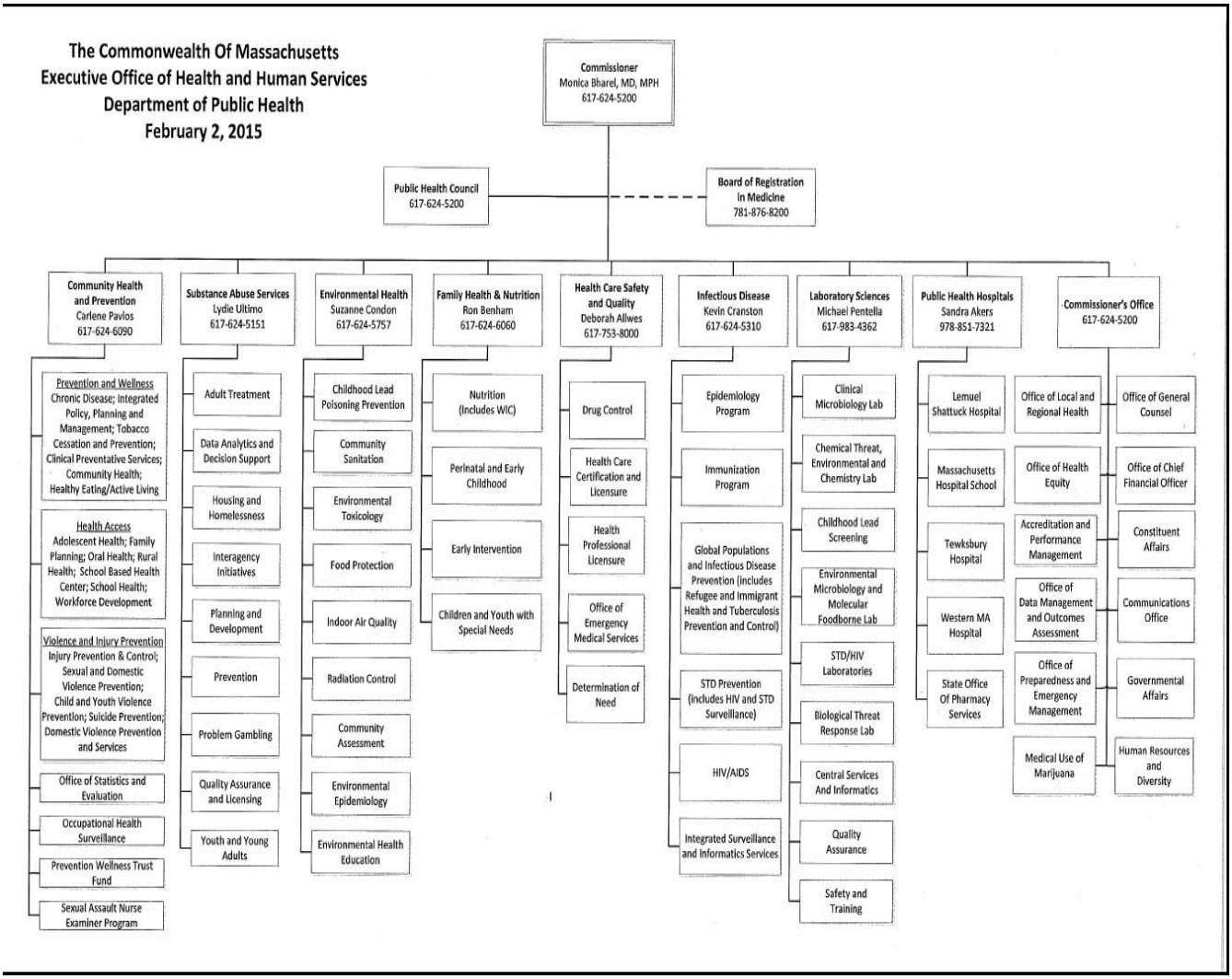
II.B.2.b Title V Program Capacity

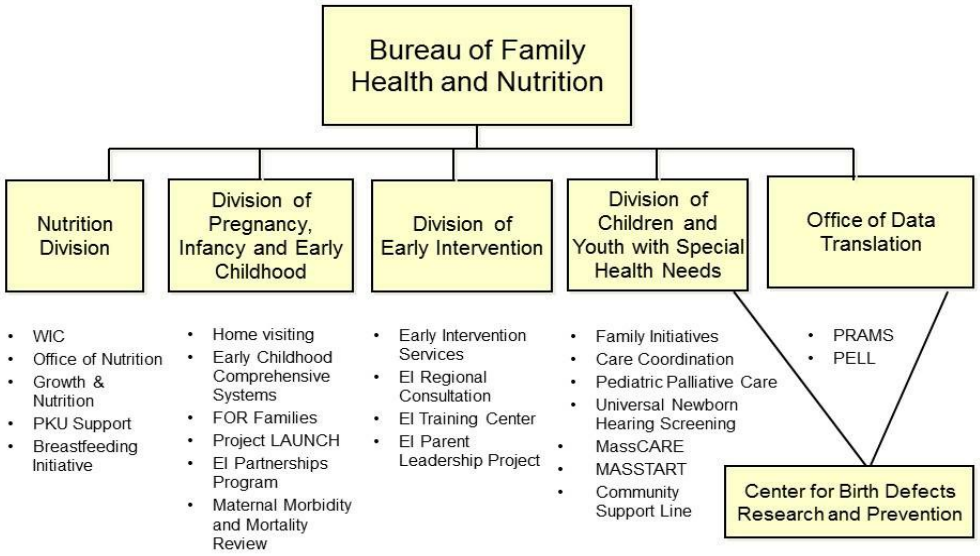
II.B.2.b.i. Organizational Structure

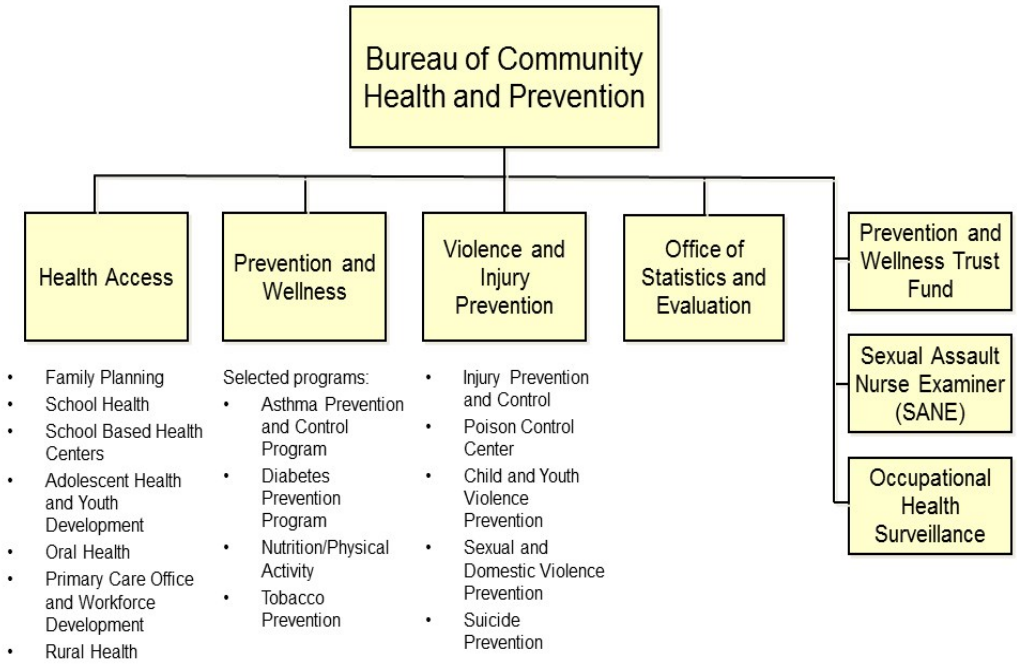
The Bureau of Family Health and Nutrition (BFHN), in the Massachusetts Department of Public Health (MDPH) is the Title V Agency for the Commonwealth of Massachusetts. The BFHN reports directly to the Commissioner of Public Health. Ron Benham, Director of the BFHN, is the Title V director for MA. A sister Bureau within MDPH, the Bureau of Community Health and Prevention (BCHAP), headed by Carlene Pavlos, includes MCH-related programs and initiatives. BFHN and BCHAP staff work closely on many initiatives, including the Needs Assessment, priority setting, and the annual application and report.

MDPH is part of the Executive Office of Health and Human Services (EOHHS), where legal, human resources, and information technology have been centralized. The Secretary for Health and Human Services reports to the governor. Organizational charts for EOHHS, MDPH, BFHN and BCHAP (additional Title V Partnership programs) organizational charts are provided below.




The Commonwealth Of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
February 2, 2015
Commissioner
Monica Bharel, MD, MPH
617-624-5200
Public Health Council
617-624-5200
Board of Registration in Medicine
781-876-8200
Community Health and Prevention
Carlene Pavlos
617-624-6090
Prevention and Wellness
Chronic Disease; Integrated Policy, Planning and Management; Tobacco Cessation and Prevention; Clinical Preventative Services; Community Health; Healthy Eating/Active Living
Health Access
Adolescent Health; Family Planning; Oral Health; Rural Health; School Based Health Center; School Health; Workforce Development
Violence and Injury Prevention
Injury Prevention & Control; Sexual and Domestic Violence Prevention; Child and Youth Violence Prevention; Suicide Prevention; Domestic Violence Prevention and Services
Office of Statistics and Evaluation
Occupational Health Surveillance
Prevention Wellness Trust Fund
Sexual Assault Nurse Examiner Program
Substance Abuse Services
Lydie Ultimo
617-624-5151
Adult Treatment
Data Analytics and Decision Support
Housing and Homelessness
Interagency Initiatives
Planning and Development
Prevention
Problem Gambling
Quality Assurance and Licensing
Youth and Young Adults
Environmental Health
Suzanne Condon
617-624-5757
Childhood Lead Poisoning Prevention
Community Sanitation
Environmental Toxicology
Food Protection
Indoor Air Quality
Radiation Control
Community Assessment
Environmental Epidemiology
Environmental Health Education
Family Health & Nutrition
Ron Benham
617-624-6060
Nutrition (Includes WIC)
Perinatal and Early Childhood
Early Intervention
Children and Youth with Special Needs
Health Care Safety and Quality
Deborah Allwes
617-753-8000
Drug Control
Health Care Certification and Licensure
Health Professional Licensure
Office of Emergency Medical Services
Determination of Need
Infectious Disease
Kevin Cranston
617-624-5310
Epidemiology Program
Immunization Program
Global Populations and Infectious Disease Prevention (includes Refugee and Immigrant Health and Tuberculosis Prevention and Control)
STD Prevention (includes HIV and STD Surveillance)
HIV/AIDS
Integrated Surveillance and Informatics Services
Laboratory Sciences
Michael Pentella
617-983-4362
Clinical Microbiology Lab
Chemical Threat, Environmental and Chemistry Lab
Childhood Lead Screening
Environmental Microbiology and Molecular Foodborne Lab
STD/HIV Laboratories
Biological Threat Response Lab
Central Services And Informatics
Quality Assurance
Safety and Training
Public Health Hospitals
Sandra Akers
978-851-7321
Lemuel Shattuck Hospital
Massachusetts Hospital School
Tewksbury Hospital
Western MA Hospital
State Office Of Pharmacy Services
Commissioner's Office
617-624-5200
Office of Local and Regional Health
Office of Health Equity
Accreditation and Performance Management
Office of Data Management and Outcomes Assessment
Office of Preparedness and Emergency Management
Medical Use of Marijuana
Office of General Counsel
Office of Chief Financial Officer
Constituent Affairs
Communications Office
Governmental Affairs
Human Resources and Diversity





Both BFHN and BCHAP are managed by experienced unit or division directors with administration and finance, policy, and planning support centers.

The Childhood Lead Poisoning Prevention Program and the Office of Health Equity are also significant components of Title V and reside in the Bureau of Environmental Health and the MPDH Commissioner's Office, respectively.

The BFHN maintains staff in the five MDPH regional offices. Many staff, such as care coordinators for CYSHCN and FOR Families home visitors, provide direct services to individuals and families. Others work closely with BFHN programs, providing regional and local training and technical assistance, information and referral to services, coordination of services for families, performance monitoring, and other capacity building activities; these include the regional Early Intervention specialists and the Family TIES parent staff, the voices behind the statewide 1-800 number for families with children with special health care needs.

The BFHN is committed to protecting and improving the health status, functional status, and quality of life of MA residents across the lifespan, with special focus on at-risk populations, low-income groups, and cultural and linguistic minorities. MCH-related programs within the BFHN and in other MDPH Bureaus are listed and briefly described in a Table organized by the MCH Population Domains. This list includes programs and activities funded from both the MCH Federal-State Partnership and from other federal or state funds; the sources of funding are indicated in the Table. The Table, labeled *MCH-Related Programs, Brief Descriptions, and Services Provided,* is part of Attachment 2.

II.B.2.b.ii. Agency Capacity

Description of Title V agency capacity

The BFHN identifies and addresses the needs of women, infants and young children, and children and youth, especially those with special health needs.

The Director of the BFHN, the Title V administrator, is a senior manager in MDPH and reports directly to the Commissioner of Public Health. He is integrally involved in collaborations and decision-making regarding both internal and cross-agency program development that affects MCH populations. He collaborates with and seeks input from professional organizations, consumer representatives, advocacy groups, and community providers, and participates on multiple committees and taskforces addressing MCH issues in the state.

All MCH services and initiatives are reported in an integrated manner and staff and leadership of BFHN, BCHAP, and other MDPH Bureaus and programs work together to address common issues and crosscutting initiatives. The resulting integration of needs assessment, planning, program implementation, and evaluation is evident in our five-year needs assessment and the program activities and accomplishments described in this Application and Annual Report. The BFHN has overall responsibility for the Title V program and funds, including submission of the Five-Year Needs Assessment, Application and Annual Report, and sign-off on the Title V Block Grant budget.

MA has strong organizational, programmatic, and analytic capacity in all of the MCH domains. This is reflected in the organizational units contributing to the Federal-State Partnership (see subsection II.B.2.b.i.: *Organizational Structure*). Programs and activities, organized by the MCH population domains, are summarized in the Table in Attachment 2.

At this writing, MDPH is adjusting to a statewide Early Retirement Incentive Program (ERIP) instituted by the Governor to address a significant state budget shortfall for FY16. Staff funded from federal sources were not eligible and thus Title V-funded positions are not directly affected. However, BCHAP (along with several other bureaus in the department) will have significant reductions in staff that will have a major impact on programmatic areas that are part of the Federal-State Partnership, including several in the Division of Health Access. Organizational changes may occur as a result of these staff reductions. Throughout MDPH, decades of expertise and knowledge will be lost.

Some state funded staff reductions will strain our federal MCH funds, as essential functions may need to be picked up with federal dollars. These include the position of Director of the Birth Defects Monitoring and Surveillance Program, an essential position that will have to be supported with federal rather than state funds. Significant staffing losses in MDPH's Budget Office are shifting additional responsibilities to bureaus; this will require additional training and inter-bureau coordination.

Historically, the MA Title V program has been a leader in the development of a statewide system of services that reflect the principles of comprehensive, community-based, family-centered care for CYSHCN. The state Medicaid program (MassHealth) fully covers medical assistance for "rehabilitation services for blind and disabled individuals under the age of 16 receiving benefits under Title XVI (the Supplemental Security Income Program)." With this statewide coverage, the Title V program does not need to provide medical assistance services to this population.

Steps to ensure statewide systems of services

Programs and initiatives to ensure statewide systems include the following:

1. State program collaboration with other state agencies and private organizations – See Subsection II.B.2.c: *Partnerships, Collaboration, and Coordination* for detailed information about the partnerships and collaborative activities with multiple state agencies and private organizations.
2. State support for communities – School-based Health Center and Essential School Health Services programs funded by state Partnership dollars provide nursing and other health care resources to school districts in communities across the state.
3. Coordination with health components of community-based systems – Several and varied services for CYSHCN assure that families receive maximum benefit from a wide range of community-based services and systems, including health care providers, education, and social services. The programs include Care Coordination Services, a Community Support Line, Family TIES, MASSSTART, and EI Regional Consultation Centers.
4. Coordination of health services with other services at the community level – Efforts are specifically targeted at integrating health into community-based early childhood systems of care. Activities under the direction of Title V staff include MECCS, MIECHV, Project LAUNCH, Essentials for Childhood, and Race to the Top Early Learning Challenge.

II.B.2.b.iii. MCH Workforce Development and Capacity

MCH Workforce

As of June 2015, approximately 197 full-time equivalent (FTEs) employees throughout MDPH work on Title V Partnership programs, with 100 FTEs of these paid from Title V Partnership funds. Approximately 21 of the Partnership-funded total are based in the MDPH regional offices or other off-site locations. The number paid directly by the MCH Block Grant is 82 for FY15, including 6.5 current vacancies. They will represent 42% of all FTEs and 82% of all Partnership FTEs. Their share of total staffing continues to decrease, due to reduced Title V funding that has not kept up with inflation and bargaining unit increases and to successful efforts to cost-share staff with other federal discretionary grants. These totals and percentage distributions may continue to change during FY16 as efforts continue to bring the Title V budget into a more secure long-term equilibrium based on expectations of little or no future growth in allocations from MCHB. Receipt of additional grants during the fiscal year may increase FTEs.

Brief information about the Title V Partnership senior management team (listed below) and their qualifications is provided in Attachment 1.

- Ron Benham, Title V Director and Director, Bureau of Family Health and Nutrition (BFHN)
- Karin Downs, Title V MCH Director and Director, Division of Pregnancy, Infancy, and Early Childhood, BFHN
- Judy Hause, Nutrition Division Director, BFHN
- Hafsatou Diop, Director, Office of Data Translation, BFHN
- Suzanne Gottlieb, Director of Family Initiatives, BFHN
- Carlene Pavlos, Director, Bureau of Community Health and Prevention (BCHAP)
- Craig S. Andrade, Acting Director, Division of Health Access, BCHAP
- Leonard M. Lee, Director, Division of Violence and Injury Prevention, BCHAP
- Georgia M. Simpson May, Director, Office of Health Equity, MDPH

Parent and family involvement is particularly strong in the MA Title V program. Not counting short-term positions and service on task forces, the BFHN employs over 14 parents who represent approximately 11 FTE staff. This includes EI Parent Leadership Project, Family TIES, and Universal Newborn Hearing Screening staff. Flexibility in work hours and locations has enabled us to hire and retain this large group of committed and skilled people. Details about how parents, families, and other consumers are involved are provided in subsection II.B.2.c*: Partnerships, Collaboration, and Coordination*, section II.F.1.: *State Action Plan and Strategies by MCH Population Domain*, and subsection II.F.3: *Family Consumer Partnership*. The multiple roles they carry out are displayed in a Figure included in Attachment 3.

Assuring culturally competent service delivery

MDPH has developed and utilized several mechanisms to promote and provide culturally competent approaches in services delivery. The MDPH Office of Health Equity (OHE), supported in part with federal Title V funds, leads these efforts. Examples below relate to data collection and analysis, professional development, community involvement in program planning, implementation, and evaluation, allocation of resources, and performance standards.

Data collection and analysis

In 2006, MDPH developed and published its Race, Ethnicity and Language (REL) Data Collection Standards based on four principles:

1. Encourage patient self-report in the registration process
2. Allow for the selection of multiple race categories
3. Collect information on detailed ethnicity groups as well as broad race categories
4. Maintain consistency with Federal OMB standards

Since then training has been offered to MDPH staff and vendors, and data collection forms and systems have been revised to follow the Standards. In 2015, MDPH drafted LGBT Data Collection Standards to expand current best practices for demographic and diversity data collection. As of April 2015, these Standards are under review by the MDPH Commissioner's Office.

Professional development

All EOHHS employees are required to receive diversity awareness training. MDPH ranks the highest in completion rates (over 90% at any given time) among all nine EOHHS agencies. Managers and supervisors receive further training. Since 2013, all MDPH contract managers have been routinely trained in the Culturally and Linguistically Appropriate Services (CLAS) Standards. Since 2008, all MDPH-contracted vendors of direct services have been required to cooperate with MDPH's efforts to meet the CLAS Standards. These vendors are required to conduct CLAS self-assessments and submit CLAS work plans annually. They receive training and technical support upon request. The OHE is also working in collaboration with the EOHHS Center for Staff Development to produce cultural humility and unintended bias trainings for staff and hiring managers.

Community involvement in program planning, implementation, and evaluation

MDPH requires, as part of all procurement processes, that before a Request for Responses (RFR) is issued, a Request for Information (RFI) must be disseminated to stakeholder groups, including consumers and advocates, to collect feedback that will inform the way purchased or reimbursed services will be designed, delivered and monitored. In their applications for MDPH funding, prospective vendors are required to describe their strategies for collecting client feedback and ensuring quality improvement.

Allocation of resources

As part of CLAS contractual requirements, direct-service providers are expected to provide certified interpreters and translated materials for clients with limited English proficiency in a timely manner and at no cost to the client. MDPH provides financial support for service providers to cover the cost of interpreters and translations for certain services. Some Bureaus and programs allow vendors to allocate MDPH-awarded funds to cover the cost of interpreters and translations. Any MDPH-sponsored event must follow accessibility guidelines for reasonable accommodations, including ASL and Communication Access Realtime Translation (CART). MDPH, along with its sister agencies within EOHHS, maintains and promotes a Language Access Plan to ensure meaningful and universal access to MDPH services, programs and activities for people who self-identify as having a limited English proficiency or preference for materials and services in a preferred language. The Plan is updated biennially and updates for 2015 were recently submitted for approval to the Office of Immigrants and Refugees.

Performance Standards

Since 2008, the CLAS Initiative has conducted internal assessments of all MDPH Bureaus and Programs to measure the extent to which CLAS-related policies and practices are followed. Findings and recommendations are collected and shared with MDPH leadership. OHE staff provides guidance and support, including trainings and tools,

to all Bureaus and Programs to ensure that staff and vendors meet standards for cultural competence, language access and workforce diversity. Many Bureaus and Programs require that contracted vendors' staff receive training in cultural competence, including trauma-informed care. MDPH's Workforce Diversity Plan, Diversity Officer and Diversity Council inform the content, strategies and priorities of the MDPH Strategic Plan and the MA State Health Improvement Plan (SHIP). The SHIP identifies a "health disparities elimination goal/strategy" for each of its domains or priority health issues.

II.B.2.c. Partnerships, Collaboration, and Coordination

MDPH is committed to building, strengthening, and sustaining partnerships with other organizations to better serve the MCH population and expand the capacity and reach of the Title V program. MDPH collaborates with families, public and private sector entities, federal, state and local government programs, clinical providers, academia, and public health organizations. Three tables provided in Attachment 4 describe partnerships with external organizations, including government agencies, universities, and public health organizations (Table 1); MCH programs within MDPH, including other MCHB investments and HRSA programs (Table 2); and families and consumers (Table 3). These partnerships, collaboration, and coordination give great depth and effectiveness to the MA Title V program and are integral to our daily operations.

Tables 1 and 2 describe the type and extent of each partnership using the Levels of Cooperation scale used in the MPDH procurement process. The scale is included in Requests for Response (RFRs) and is used to evaluate an applicant's collaboration with community partners. In Table 1, programs are highlighted that are located within the BFHN itself, assuring integrated programming and close collaboration across MCH priorities.

Levels of Cooperation

Networking: information-sharing

Linkages: agreements which include referrals, intake, interagency consultations, monitoring referral outcomes, and participation in joint planning meetings which usually do not involve sharing of funds.

Collaboration: specific formal agreement to accomplish common purposes including specific allocations of staff time and funds, quantities of services, timeline, use of each other's sites, joint staff trainings and co-sponsorship of events.

Integration: formal horizontal or vertical affiliation or merger of agencies with resultant structural and leadership changes.

The MA Title V MCH and CYSHCN Programs are committed effective partnerships with families. Programs and services are improved when consumers and professionals work together to design and implement programs, develop policy, and ensure continuous quality improvement. Families from diverse linguistic, cultural, socioeconomic and geographic areas are involved as partners across Title V activities including strategic and program planning, evaluation, needs assessments, advisory committees, and learning collaboratives. Family advisors participated in 2015 Block Grant Needs Assessment activities including focus groups, surveys, Town Hall meetings, and serving on the Steering Group. See both Table 3 in Attachment 4 and section II.F.3. *Family Consumer Partnership*.

II.C. State Selected Priorities

No.	Priority Need	Priority Need Type (New, Replaced or Continued Priority Need for this five-year reporting period)	Rationale if priority need does not have a corresponding State or National Performance/Outcome Measure
1	Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.	New	
2	Promote equitable access to preventive health care including sexual and reproductive health services.	Continued	
3	Address substance use among women of reproductive age to improve individual and family functioning.	New	
4	Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.	Continued	
5	Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	Continued	
6	Reduce the impact and burden of environmental contaminants on children and their families.	New	
7	Increase connections to Medical Home for all children, including those with special health needs.	Continued	
8	Support effective health-related transition to adulthood for adolescents with special health care needs.	Continued	
9	Promote equitable access to dental care and preventive measures for pregnant women and children.	Continued	
10	Promote emotional wellness and social connectedness across the lifespan.	Continued	

The 2015 Needs Assessment process, based on frameworks of social determinants, health equity and life course, began by identifying 110 potential priority areas for the state of Massachusetts. After months of deliberation and discussion, the following 10 priorities were selected for the Maternal and Child Health populations for the next five years (2015-2020):

Health and Racial Equity: Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.
Preventive Care: Promote equitable access to preventive health care including sexual and reproductive health services.
Substance Use: Address substance use among women of reproductive age to improve individual and family functioning.
Healthy Lifestyle: Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.
Violence & Injury: Promote safe, stable, nurturing environments to reduce violence and the risk of injury.
Environmental Health: Reduce the impact and burden of environmental contaminants on children and their families.
Medical Home: Increase connections to Medical Home for all children, including those with special health needs.
Transitions to Adulthood: Support effective health-related transition to adulthood for adolescents with special health care needs.
Oral Health: Promote equitable access to dental care and preventive measures for pregnant women and children.
Emotional Wellness & Social Connectedness: Promote emotional wellness and social connectedness across the lifespan.

Overarching frameworks that informed the MA priority selection process included: Social Determinants and Health Equity, and Life Course models. The Social Determinants and Health Equity models underscore that disparities exist in individual as well as population health outcomes due to differential access to economic opportunities, community resources and social factors. Economic opportunities may include adequate income, jobs and educational opportunities. Community resources may include access to quality housing, quality schools, recreational facilities, healthy foods, transportation resources, health care and a clean and safe environment. Social factors may include social network and support, leadership, political influence, organizational networks and experience of racism. The role of public health is to establish public policy to achieve health equity and promote population based strategies.

Social Determinants & Health Equity Model

- **Social Determinants of Health framework**
  - Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
    - E.g., Availability of resources to meet daily needs (e.g., safe housing and local food markets), Exposure to crime, violence, and social disorder
    - Weathering hypothesis – cumulative impact of multiple stresses
- **Health Equity Model**
  - Disparities exist in the health outcomes due to differential access to economic opportunities, community resources and social factors

The Life Course Model will also be used as an overarching framework for all of MA's priorities. The model posits that a complex interplay of biological, behavioral, psychological, and social factors affect health outcomes across the span of a person's life. These factors can be either protective or harmful. Furthermore, the health and socioeconomic status of one generation directly affects the health status of the next generation. Two key components of the life course model include 1) understanding the pathways and trajectories that lead to a multitude of health outcomes, and 2) focusing on the impact of early programming or exposure to risk that may have long term health consequences. The model also suggests that there are critical or sensitive periods of development that may lend themselves to more effective interventions.

With frameworks established, the Needs Assessment began by generating a list of 110 potential priority areas informed by the 2010-2015 Title V Priorities, Steering Group brainstorming, and key informant interviews. The Work Group conducted an initial review of state population and survey data to assess whether each proposed priority area addressed a major issue facing the MCH population in MA. The Work Group also considered whether there was sufficient data to inform a suggested priority; if not, the priority was dropped.

The Work Group evaluated the remaining 80 priorities using a criteria-based rating framework that weighted their feasibility, impact, and alignment with 2015 National Performance Measures to create a summary score measure. "Feasibility" was determined by the level of MDPH subject matter competency, political and organizational will, resources available and relative cost, alignment with the core MCH and MDPH mission, availability of partners and resources to leverage the work of MDPH, and whether there is a synergistic effect among multiple priorities. "Impact" was determined by the number of people affected (incidence and prevalence), the effect on short- and long-term outcomes for individuals, populations, and across generations, reduction of disparities, and the effect on collaboration among stakeholders. With a scored and ranked list of potential priorities by population domain, the Work Group assessed which priorities should be considered for further review based on scores. The Steering Group also reviewed the feasibility and impact, and the list of potential priorities was further refined and sorted into major topic areas.

Thirteen categories were created to encompass the remaining 80 priorities from the original list. To cover the breadth and scope of MCH issues, the Work and Steering Groups opted to develop broad priorities, with the intent

of developing more specific strategies for each priority. For example, the following priority areas were grouped into the Violence and Injury priority category: unintentional injury, domestic violence, bullying, suicide, adverse childhood experiences, and gun violence. Rather than focusing specifically on any one of these topics, MA chose to set a priority that would allow its Title V program to address all of these topics. With 13 categories identified, the Work Group developed a first draft of priority statements. After several iterations with key stakeholders, many of whom were MDPH program leads, the Work Group presented a list of 13 priority statements to the Steering Group for feedback. Since states could choose between seven and 10 priorities, the Steering Group consolidated three priorities on Women's Health – *Sexual and Reproductive Health*, *Preventive Care*, and *Well-Woman Health* – into one statement under the umbrella of Preventive Care. An important discussion among key stakeholders, the Work Group, and the Steering Group was how to best address and integrate health and racial equity in the priorities. Discussions resulted in three options: 1) to look at each priority through a health and racial equity lens, 2) to have a specific priority on health and racial equity, or 3) to specifically articulate a health and racial equity focus in each priority. The Steering Group decided that an overarching framework in addition to a specific priority was the best way for MA to address and hold itself accountable for promoting health and racial equity.

The 10 selected 2015-2020 priorities reflect a continuation of seven priorities and three new priorities from the previous five year reporting cycle (2010-2015). The three priorities added in 2015 were 1) Health and Racial Equity, 2) Substance Use, and 3) Environmental Health. The remaining seven priorities selected for this reporting cycle align closely to seven of the priorities from the previous cycle. Replaced from the previous cycle were, *1) Improve the health and well-being of women in their childbearing years, 2) Reduce unintentional injury and promote healthy behavior choices for adolescents and, 3) Improve data availability, access, and analytical capacity.* However, these three priorities are reflected in the new priority list and guiding frameworks. The priority on well-woman health was consolidated into the Preventive Care priority. Similarly, unintentional injury was placed under the Violence and Injury umbrella. The Steering Group also decided to drop one 2010-2015 priority – data availability, access, linkages, and analytic capacity – because developing and enhancing the MCH data infrastructure did not fall directly within any of the population domains. Yet, it is a critical element to inform policy and program development within all domains and will be considered a guiding framework when developing the state action plan.

The following section provides a brief rationale behind selecting each priority and the factors that have contributed to changes in the priority needs since the previous five year reporting cycle:

Health and Racial Equity: Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.

- This priority emerged through discussions with key stakeholders and focus groups. Further, since MCH connects with families at critical periods of development, it is particularly important to address health and racial inequities.
- Data revealed that major disparities exist in nearly all MCH priority areas in MA. Non-Hispanic black and Hispanic mothers in MA PRAMS are more than six times as likely to report the presence of negative physical symptoms due to race as non-Hispanic white mothers.
- This is a new priority.

Preventive Care: Promote equitable access to preventive health care including sexual and reproductive health services.

- Well woman and maternal health was identified as a critical priority for MCH in MA. In particular, stakeholders cited the need for improved access to sexual and reproductive health services and education for women and adolescents, including those with special health needs.
- Data revealed that 85% of high school students were taught about HIV/AIDS in school and 57% were taught to use a condom. Data also reported that 12% of students reported being tested for HIV and STDs and 65% of high school students reported using a condom at the last time of intercourse.
- The priority is continued from the 2010 Needs Assessment.

Substance Use: Address substance use among women of reproductive age to improve individual and family functioning.

- Substance use is an area in which MA compares poorly to national rates. The incidence of neonatal abstinence syndrome in MA is 17.2 infants/1000 live births, which is five times the national rate. Additionally, 62% of mothers in MA report drinking in the three months prior to their pregnancy.
- During the Needs Assessment process, an inter-bureau substance use group was convened to address substance use as it relates to women's health.
- This is a new priority.

Healthy Lifestyle: Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.

- Promoting healthy lifestyles, and addressing issues such as obesity and gestational diabetes, was identified as a critical priority for MCH. Stakeholders identified breastfeeding promotion as a key component of a healthy lifestyle for mothers and infants.
- Data revealed that only 50% of women meet normal BMI ranges prior to their pregnancies, which puts them at a higher risk for poor birth outcomes. Disparities in breastfeeding rates exist by socio-economic status: at eight weeks postpartum, 59% of mothers receiving WIC during pregnancy report any breastfeeding compared to 78% of mothers not receiving WIC.
- The priority is continued from the 2010 Needs Assessment.

Violence and Injury: Promote safe, stable, nurturing environments to reduce violence and the risk of injury.

- Injuries remain the leading cause of morbidity and mortality for youth in MA.
- More than 1 in 10 high school students report seriously considering suicide in the previous year; higher rates of suicide ideation are seen among LGBTQ, female, and multi-racial students. Data further revealed that one in seven middle and high school students report some kind of non-suicidal self-injury in the past year.
- The priority is continued from the 2010 Needs Assessment.

Environmental Health: Reduce the impact and burden of environmental contaminants on children and their families.

- Several key stakeholders felt that a major gap in previous Title V efforts was environmental health, given the deleterious outcomes associated with environmental exposures among women of reproductive age, pregnant women, and young children. The Bureau of Environmental Health at MDPH focuses a majority of their programming on these populations.
- Among children aged 0-17 in MA, 10.2% suffer from asthma, with MA ranking 39th among all states.

- MA ranks second nationwide for old housing stock, a major source of childhood lead poisoning. In calendar year 2013, nearly 7,000 MA children had blood lead levels above the Centers for Disease Control and Prevention's reference value of 5 µg/dL.
- This is a new priority.

Medical Home: Increase connections to Medical Home for all children, including those with special health needs.

- Medical Home was a consistent theme across interviews and focus groups related to the CYSHCN population. There are also myriad efforts at MDPH and in MA to increase connections to a medical home for all children.
- Only 47% of CSHCN receive coordinated, ongoing, comprehensive care within a medical home.
- The percentage of children who are connected to a Medical Home is positively correlated with income, ranging from 44% at the lowest levels of household income to 74% at the highest levels.
- The priority is continued from the 2010 Needs Assessment.

Transitions to Adulthood: Support effective health-related transition to adulthood for adolescents with special health care needs.

- Similar to Medical Home, supporting transitions to adulthood was identified as an essential component in the health of CYSHCN. For example, in a focus group of parents of CYSHCN in western MA, several parents expressed concern about transitioning their child to adult primary care, saying they had no confidence that their child would be taken care of to the extent needed.
- Only 47% of YSHCN aged 12-17 years in MA received the services necessary to make transitions to appropriate adult health care, work and independence.
- The priority is continued from the 2010 Needs Assessment.

Oral Health: Promote equitable access to dental care and preventive measures for pregnant women and children.

- In 2009, a study conducted in MA revealed 57% of women did not have their teeth cleaned during their pregnancy. In addition, 66% of licensed dentists with a Massachusetts address are not MassHealth (Medicaid) providers. This continues to be an unmet need in MA.
- Further data from MassHealth shows there were about 246,000 children in MA who had not seen a dentist in FY14. Additionally, communities in Western MA and Cape Cod without access to fluoridation account for a majority of dental ER visits.
- The priority is continued from the 2010 Needs Assessment.

Emotional Wellness and Social Connectedness: Promote emotional wellness and social connectedness across the lifespan.

- Emotional wellness is increasingly understood as a broad need affecting the development of individuals during key times in their lives. This builds on the life course perspective that mental health is a cumulative outcome of the interaction of genetics, and environment.
- Mental health and wellness among young children, adolescents, and adults was a consistent theme in key informant interviews and focus groups.
- In MA in 2009/2010, 9.3% of mothers experienced postpartum depression. In addition, 6% of children and youth in MA report having no adult mentor.
- The priority is continued from the 2010 Needs Assessment.

II.D. Linkage of State Selected Priorities with National Performance and Outcome Measures

NPM 1-Percent of women with a past year preventive medical visit

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	74.3	75.0	76.0	77.0	78.0

NPM-4 A) Percent of infants who are ever breastfed

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	83.0	83.4	83.9	85.4	87.0

NPM-4 B) Percent of infants breastfed exclusively through 6 months

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	20.6	21.0	21.5	22.0	22.7

NPM 5-Percent of infants placed to sleep on their backs

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	79.6	81.2	83.5	85.0	87.6

NPM 7-Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9 and adolescents 10 through 19

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	142.9	141.1	139.4	137.6	135.9

NPM 10-Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	91.4	91.7	92.1	92.4	92.8

NPM 11-Percent of children with and without special health care needs having a medical home

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	51.8	56.5	57.1	57.6	58.2

NPM 12-Percent of adolescents with and without special health care needs who received services necessary to make transitions to adult health care

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	47.9	48.9	49.9	50.9	52.0

NPM-13 A) Percent of women who had a dental visit during pregnancy

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	49.9	49.9	51.9	53.2	54.9

NPM-13 B) Percent of children, ages 1 through 17 who had a preventive dental visit in the past year

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	83.3	84.0	85.5	88.0	91.6

Massachusetts chose the following eight National Performance Measures for the 2015-2020 reporting cycle:

Domain	National Performance Measure	Priority
Women's/Maternal	1. Percent of women with a past year preventive visit	Promote equitable access to preventive health care including sexual and reproductive health services.
Perinatal/Infant	4. A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months 5. Percent of infants placed to sleep on their backs	Improve environments, systems, and policies to promote healthy weight, nutrition, and active living. Promote safe, stable, nurturing environments to reduce violence and the risk of injury.
Child	7. Rate of injury-related hospital admissions per population ages 0 through 9 years	Promote safe, stable, nurturing environments to reduce violence and the risk of injury.
Adolescent	7. Rate of injury-related hospital admissions per population ages 10 through 19 years 10. Percent of adolescents with a preventive services visit in the last year	Promote safe, stable, nurturing environments to reduce violence and the risk of injury. Promote equitable access to preventive health care including sexual and reproductive health services.
CYSHCN	11. Percent of children with and without special health care needs having a medical home 12. Percent of children with and without special health care needs who received services necessary to make transitions to adult health care	Increase connections to Medical Home for all children, including those with special health needs. Support effective health-related transition to adulthood for adolescents with special health care needs.
Crosscutting/Life course	13. A) Percent of women who had a dental visit during pregnancy and B) percent of infants and children, ages 1 to 6 years, who had a preventive dental visit in the last year	Promote equitable access to dental care and preventive measures for pregnant women and children.

These eight NPMs were selected after the priority areas were determined. The national MCH priority areas, which correspond to the NPMs, informed our selection of state priority areas.

1. Percent of women with a past year preventive visit

NPM 1 was chosen to link with the preventive care priority in the Women's/Maternal domain.

Maternal health and well-being contribute greatly to fetal, infant and child health. Preconception preventive visits provide women and their healthcare providers the opportunity to identify and address risk factors that can affect reproductive outcomes, beginning with pregnancy intention. According to 2012 MA PRAMS data, 39% of MA births occurred to mothers who had not planned to become pregnant, with 57% of Medicaid participants reporting that they had not used any birth control when they conceived an unplanned pregnancy. Thus, yearly preventive visits provide an opportunity for reproductive life planning. Mothers with unplanned pregnancies are less likely to start prenatal care in

the first trimester, which increases the risk of pregnancy complications and can lead to poor outcomes for both infant and mother. Additionally, women often do not realize that they are pregnant in the first few weeks, and the first prenatal visit with a health care provider typically occurs 6-12 weeks after conception. Overall, 91% of MA mothers received prenatal care beginning in the first trimester. However, proportions varied by race/ethnicity, with 94% of non-Hispanic white mothers receiving early care vs. 82% of non-Hispanic black mothers.

Lack of essential vitamins early in pregnancy and exposure to alcohol, tobacco and other illicit drugs anytime during pregnancy can adversely affect fetal development and result in pregnancy complications including miscarriage, stillbirth, low birth weight, and birth defects. In addition, second-hand smoke increases the risk for sudden infant death syndrome (SIDS), asthma, and other respiratory problems. Obesity, hypertension and gestational diabetes mellitus (GDM) are increasing among women of reproductive age. These conditions are known risk factors for poor pregnancy and infant outcomes, and can be best managed with early detection and treatment, ideally prior to conception.

Preventive visits allow women to receive smoking and substance use cessation treatment, to enter pregnancy fully immunized and in the best possible physical and mental health, leading to optimal outcomes for both mother and infant. However, disparities in accessing preventive services exist, and may be related to inequitable adverse birth outcomes.

4. A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months

NPM 4 was chosen to link with the healthy lifestyle priority in the Perinatal/Infant domain.

Breastfeeding positively affects both infant and mother and confers long-lasting benefits to both. Breastfeeding is well-documented to reduce rates of gastrointestinal, respiratory, and ear infections as well as asthma and SIDS. Furthermore, breastfeeding has been shown to reduce obesity and type 2 diabetes in children and GDM in mothers in subsequent pregnancies. Mothers who sustain breastfeeding also have a decreased risk of breast and ovarian cancers. Breastfeeding reduces health disparities by providing infants with similar nutritional and immunological benefits, making it a healthcare equalizer regardless of population demographics. Exclusive or any breastfeeding tends to decrease rapidly following discharge unless mothers receive timely, appropriate interventions and support. Breastfeeding support should begin with prenatal education on the benefits and techniques of breastfeeding and extend past delivery discharge.

According to 2014 NIS data, the MA exclusive breastfeeding rate at six months was 17.5% (vs. 18.8% nationally). However, breastfeeding varies by socio-economic status in MA. According to 2012 MA-PRAMS data at eight weeks postpartum, 59% of mothers receiving WIC during pregnancy report any breastfeeding compared to 78% of mothers not receiving WIC. Many women return to work within weeks of giving birth and are challenged to maintain breastfeeding due to inherent difficulties in balancing work and family.

This NPM was selected to focus programmatic efforts on improving environments, systems and policies to promote healthy weight and improve health outcomes for mothers and infants by promoting breastfeeding initiation and exclusivity.

5. Percent of infants placed to sleep on their backs

NPM 5 was chosen to link with the violence and injury priority in the Perinatal/Infant domain.

Preventing morbidity and mortality resulting from child injury begins with ensuring that infants are placed to sleep on their backs in a safe sleep environment. About 3,500 infants die suddenly and unexpectedly in the U.S. and 30-45 in MA each year. Although the causes of death in many of these children cannot be explained, most occur while the infant is sleeping in an unsafe sleeping environment.

MA 2012 PRAMS data show that 80% of mothers put their infant to sleep in the recommended supine position. However, variations by race/ethnicity and socioeconomic factors persist. Mothers least likely to place their babies on their backs for sleep were non-Hispanic black (60%), those mothers less than 20 years old (62%), Hispanics (65%), or those receiving WIC services (69%) compared to 88% of non-Hispanic whites, 83% of mothers age 30 years and older, and 88% of WIC non-participants.

This NPM was selected to place programmatic emphasis on promoting safe sleep environments for infants in MA and to help monitor the success of current efforts in this area. The activities included in the state action plan in this focus area will be well-aligned with the work that is being done by the MA Infant Mortality CoIIN Safe Sleep Workgroup. This work includes a recent quality improvement initiative that demonstrated that safe sleep practices can be integrated into the care of preterm infants.

7. Rate of injury-related hospital admissions per population ages 0 through 19 years

NPM 7 was chosen to link with the violence and injury priority in the Child and Adolescent domains.

Injuries are the leading causes of morbidity and mortality among children and adolescents in MA and include unintentional injuries as well as self-inflicted and assault-related injuries. Measuring injury-related hospitalizations presents the opportunity to focus on the largest burden of morbidity in the state for these populations.

The rate of hospitalization for children aged 0-9 years was 145 per 100,000 persons in 2012, and unintentional injury hospitalizations represented 94% of hospital discharges. The main causes of unintentional injury in this age group were falls (45%) and poisonings (16%). For MA adolescents aged 10-19 years, the burden of injury-related hospitalizations is also high; in 2012 the rate of hospitalization due to injury was 203 per 100,000, with unintentional injury representing 71% of all hospitalizations. Poisoning was the most common cause of hospitalization, representing 27% of all hospitalizations; and further, 79% of all poisonings were self-inflicted. In the 2013 Youth Health Survey, one in seven middle school and high school students reported non-suicidal self-injury. Falls and motor vehicles injuries were also common causes of hospitalizations in this age group.

The different causes and contexts of injury hospitalizations require age group specific strategies to reduce hospitalization rates. For this reason, MA has chosen to include the NPM for both the Child and Adolescent domains.

Strategies to decrease hospitalizations will be considered in an ecological framework to include the critical role of families and environments to reduce the risk of injury.

10. Percent of adolescents with a preventive services visit in the last year

NPM 10 was chosen to link with the preventive care priority in the Adolescent domain.

Preventive health visits for adolescents include physical examination; discussion of health-related topics including healthy eating, physical activity, substance use, sexual behavior, violence, and motor vehicle safety; and immunizations. There is a demonstrated need to address these health-related issues with adolescents in MA. 2013 Youth Health Survey data indicate that by 12th grade, eight in 10 MA youth reported lifetime alcohol use, and more than one in three reported lifetime cigarette smoking. Almost one third drank one or more glasses of soda per day and less than half reported being physically active for 60 minutes per day on five or more of the past seven days. Bullying remains a prevalent issue with 36% of middle school students and 25% of high school students reporting being victimized. Dating violence occurred 7% among MA middle school students and 10% among high school students. Of MA high school students, 40% reported reading/sending text messages while driving. In the 2015 Title V Youth Health Priority Survey, MA youth identified their top priorities as substance use, mental health, and injury and violence, all topics clinicians can cover in preventive care visits.

While the 2011/12 MA data from the NSCH indicate the prevalence of adolescent preventive visits to be 91%, subpopulations experience disparate rates, including low income, mother-only households and non-Hispanic black households. This NPM is a critical marker of progress in promoting equitable access to preventive health care for adolescents.

11. Percent of children with and without special health care needs having a medical home

NPM 11 was chosen to link with the medical home priority in the CYSHCN domain.

Effective promotion of health and health services for CYSHCN is best accomplished within a system of care that is integrated, comprehensive, coordinated, family-centered and consistent across the lifespan. An important component of a well-functioning system of care is the provision of primary care services within a medical home.

Despite recent efforts to promote medical home, many children in MA do not receive care that meets these criteria. According to the 2011/12 NSCH, 49% of CSHCN and 67% of non-CSHCN in MA met the criteria for having a medical home. Focusing specifically on CSHCN, data from the 2009/10 NS-CSHCN estimated that 47% of MA CSHCN received care in a medical home. However, they did not fare equally well on all components of the medical home measure, and care coordination was identified as a need. Furthermore, the proportion of CYSHCN receiving care in a medical home varies by race and socioeconomic factors.

MDPH strategies to improve the system of care for CYSHCN, and all children, include the promotion of medical home. Monitoring progress on this NPM will help measure the success of these efforts and will enable more focus on subpopulations of children who have historically been less likely to receive care that meets this definition. The

strategies and activities included in the state action plan for this NPM will be well aligned and integrated with the work being done in the HRSA-sponsored Children and Youth with Special Health Needs Systems Integration Project.

12. Percent of children with and without special health care needs who received services necessary to make transitions to adult health care

NPM 12 was chosen to link with the transitions priority in the CYSHCN domain.

The *National Consensus Framework for Improving Quality Systems of Care for Children and Youth with Special Health Care Needs* project identified 'transition to adulthood' as one of the core components of the structure and process of an effective system of care for CYSHCN. Despite this focus on the importance of effective transitions, most youth with special health care (YSHCN) both nationally and in MA are not receiving needed transition services. According to data from the 2009/10 NS-CSHCN, only 47% of YSHCN aged 12-17 years received the services necessary to make transitions to appropriate adult health care, work and independence, and this proportion has not increased since the previous survey administration in 2005/6.

An important focus of the work of the MA CYSHCN Program involves working with both providers and families to promote effective transitions for YSHCN. Monitoring progress on this NPM will allow MDPH to measure the success of these efforts.

13. A) Percent of women who had a dental visit during pregnancy and B) Percent of infants and children, ages 1 to 6 years, who had a preventive dental visit in the last year

NPM 13 was chosen to link with the oral health priority in the Cross-cutting/Lifecourse domain.

Oral health is an important part of overall health. Recent studies suggest that gum disease can adversely affect the health of the pregnant mother and her unborn baby. Oral diseases are associated with serious health problems including cardiovascular disease, stroke, diabetes, respiratory infections, osteoporosis, and adverse pregnancy outcomes. Pregnant women are also particularly susceptible to periodontal disease. Some studies have linked maternal periodontal disease with premature birth, low birthweight, pre-eclampsia, ulcerations of the gingival tissue, pregnancy granuloma, and tooth erosion. These risks increase in women who smoke or experience nutritional deficiencies. According to 2011 MA PRAMS data, 88% of new mothers reported ever having had their teeth cleaned. Among the women who had their teeth cleaned during pregnancy, only 48% had their teeth cleaned during the most recent pregnancy. About 18% of mothers reported that their last teeth cleaning was before the year prior to pregnancy – over two years ago in most cases. The prevalence of ever having teeth cleaned among mothers in MA was 95% among those living at > 100% FPL versus 73% among those living at ≤ 100% FPL. While data from BRFSS report that 90% of MA children ages 3-17 have visited a dentist in the past year, and 65% of children ages 6-17 have sealants, data from MassHealth reveal nearly 45% of eligible children did not receive dental services in FY14. Communities in Western MA and the Cape without access to fluoridation account for most dental ER visits.

II.E. Linkage of State Selected Priorities with State Performance and Outcome Measures

States are not required to provide a narrative discussion on the State Performance Measures (SPMs) until the FY2017 application

II.F. Five Year State Action Plan

II.F.1 State Action Plan and Strategies by MCH Population Domain

State Action Plan Table						
Women/Maternal Health						
State Priority Needs	**Objectives**	**Strategies**	**National Outcome Measures**	**National Performance Measures**	**ESMs**	**SPMs**
Promote equitable access to preventive health care including sexual and reproductive health services.	1. By 2020, increase by 5% from baseline (74.3%, 95% CI [71.6 - 76.9] from BRFSS) the percent of women (ages 18-44) with a past year preventive visit. 2. By 2020, increase by 10% from baseline the percentage of women who receive contraception	1a. Establish baseline measures with MassHealth (Medicaid) for the number of women who received a preventive visit within the past year. 1b. Work with MassHealth to increase preventive visits among MassHealth participants.	Rate of severe maternal morbidity per 10,000 delivery hospitalizations Maternal mortality rate per 100,000 live births Percent of low birth weight deliveries (<2,500 grams) Percent of very low birth weight deliveries (<1,500 grams)	Percent of women with a past year preventive medical visit		

	among MassHealth participants (baseline and increase to be determined from MassHealth data). 3. By 2020, increase by 10% from baseline the percentage of women who participate in MassHealth who receive a postpartum visit (baseline and increase to be determined from MassHealth data).	2. Work with MassHealth to increase Effective Contraceptive Counseling according to CDC guidelines. 3. Work with MassHealth to increase postpartum visits (MassHealth has several quality improvement projects underway to promote the postpartum visit including expanding outreach to participating women and improving billing systems for providers).	Percent of moderately low birth weight deliveries (1,500-2,499 grams) Percent of preterm births (<37 weeks) Percent of early preterm births (<34 weeks) Percent of late preterm births (34-36 weeks) Percent of early term births (37, 38 weeks) Perinatal mortality rate per 1,000 live births plus fetal deaths Infant mortality rate per 1,000 live births Neonatal mortality rate per 1,000 live births Post neonatal mortality rate per 1,000 live births Preterm-related mortality rate per 100,000 live births			
Address substance use among women of reproductive age to improve individual and	1. By 2020, increase by 3 per year the number of birth hospitals (out of 47 total) with	1a. Convene an advisory group of MDPH and community partners to guide action on				

family functioning.	consistently implemented maternal substance use / Substance Exposed Newborns (SEN) screening guidelines (baseline and change to be determined by surveying birth hospitals). 2. By 2020, increase by 3 per year the number of birth hospitals (out of 47 total) that develop and implement a plan to improve services for women with substance exposed pregnancies (baseline and change to be determined by surveying birth hospitals). 3. By 2020, through increased use of non-pharmacologic interventions, decrease by 20% the number of infants in MA at risk for NAS needing pharmacologic	the maternal substance use priority. 1b. Survey hospitals about current substance use screening and breastfeeding policies for substance using mothers, and consistency of policy implementation in order to establish a baseline. 1c. Disseminate Guidelines for Community Standard for Maternal / Newborn Screening (MDPH SEN Guidelines) to hospitals and community health centers. 1d. Identify strategies to implement the MDPH SEN Guidelines in pilot sites. 1e. Use lessons learned from pilot sites to develop best practices / tool kits and disseminate statewide.				

	therapy (baseline and change to be determined by surveying birth hospitals).					
	4. By 2020, increase by 50% the number of birth hospitals (out of 47 total) that establish a referral system to Early Intervention (EI) for all SEN infants before or at the time of discharge (baseline and change to be determined by surveying birth hospitals).	1f. Collaborate with the MA Neonatal Quality Collaborative (NeoQIC) to identify Continuous Quality Improvement (CQI) initiatives related to screening.				
		2a. Establish a Maternal Substance Use Action Learning Collaborative that will use CQI strategies to improve the service system for women using substances in pregnancy, including screening, referral, and treatment.				
		2b. Identify and disseminate best practices for ensuring postpartum recovery and parenting support for mothers with substance use disorders, including methods for establishing services for mothers before hospital discharge.				

		3a. Partner with the Massachusetts Perinatal and Neonatal Quality Collaborative (MPNQC) on a CQI collaborative among birth hospitals to develop and disseminate best practice guidelines and educational materials for SEN, based on toolkits of potentially better practices around the care of infants at risk for NAS. Toolkits have already been developed through partnership with the Vermont Oxford Network (VON), the Ohio Perinatal Quality Collaborative and the Northern New England Perinatal Quality Improvement Network. 3b. Partner with NeoQIC and MA Breastfeeding Coalition to develop Breastfeeding guidelines for mothers who use substances				

		and disseminate these guidelines to all birthing hospitals. 3c. Conduct follow-up survey of hospitals after the implementation of breastfeeding for SEN guidelines to evaluate substance screening rates and breastfeeding practices, and provide hospital support to increase guideline implementation. 4a. Survey hospitals about current Early Intervention referrals to establish a baseline. 4b. Partner with NeoQIC and EI on a quality improvement collaborative to establish a mechanism for referral to services including EI for all SEN infants before or at discharge at three pilot sites. Proposed sites are Beth Israel				

		Deaconess Medical Center, Massachusetts General Hospital, and University of Massachusetts Memorial Hospital. 4c. Develop best practices / toolkits using lessons learned from these three pilot sites and replicate at all 47 birthing hospitals. 4d. Survey hospitals to determine change in referral systems to EI to evaluate success of new referral mechanism for SEN infants.				

Women/Maternal Health

Women/Maternal Health - Plan for the Application Year

Massachusetts has identified two priorities for Women's and Maternal Health for the next five years.

1. Promote equitable access to preventive health care including sexual and reproductive health services.
2. Address substance use among women of reproductive age to improve individual and family functioning.

Progress towards the first priority will be measured by the percent of women with a past year preventive visit. Key Massachusetts Department of Public Health (MDPH) programs that have a plan for improving this measure include: Sexual and Reproductive Health Program (SRHP), Adult Medicaid Quality Grant, Early Intervention Partnerships Program (EIPP), Welcome Family, and FOR Families.

Over the next year, MDPH will develop a state performance measure for the priority related to addressing substance use among women of reproductive age. Plans for FY16 are discussed as they relate to the priority more broadly. The Bureau of Family Health and Nutrition will partner closely with the Bureau of Substance Abuse Services, other MDPH

stakeholders, birth hospitals, and community-based organizations to address this priority. In addition, Early Intervention (EI), EIPP, and the MA Home Visiting Initiative (MHVI) will be key Title V programs serving women using substances.

NPM 1: Percent of women with a past year preventive visit

Sexual and Reproductive Health Program

Through MDPH's Sexual and Reproductive Health Program (SRHP) (formerly the Family Planning Program), contracted providers offer comprehensive family planning services to decrease unintended pregnancy and decrease incidence of sexually transmitted infections. Vendors operate in targeted high-need communities and with key priority populations (e.g. low-income, uninsured, adolescent, refugee and immigrant populations, and others). Vendors must provide clinical family planning services on site or by referral, and may also provide education and technical assistance on family planning topics, outreach to promote utilization of family planning services, and/or supportive services to assist highest-need populations in accessing clinical family planning services.

SRHP funds eight agencies statewide to provide clinical family planning services. Clients who are eligible for these services include:

a. Uninsured Massachusetts residents at or below 300% Federal Poverty Level (FPL).
b. Clients with MassHealth Limited (no other MassHealth plan).
c. Insured clients whose insurance does not cover contraceptives at the time of service, and also meet the residency and income criteria. This includes plans that never cover contraceptives as well as plans with annual spending caps on prescriptions and/or medical devices (e.g., IUD). For this group, MDPH will serve as secondary coverage to cover the cost of the contraceptives only.
d. Insured clients who have a need for confidential family planning care and cannot be assured that using their insurance will not violate their confidentiality, and also meet the residency criteria. Clients who may require confidential care include 1) clients under 26 years of age who are covered under a parent/guardian plan and 2) survivors of domestic violence. Clients with insurance products that assure confidentiality are expected to utilize those products regardless of need for confidential care.

Agencies bill MDPH for clinical services by using Medicaid billing codes; six of these codes are for preventive medicine visits. Agencies determine which code is appropriate based on the age of the client and whether the client is new or returning. This billing information provides data for the MCH Block Grant. Of all preventive health visits MDPH funded in family planning services in FY14, 95.2% of those visits were made by females. In FY16, family planning providers will continue to be a source of primary care for many women providing preventive health visits, blood pressure screening, BMIs, testing for sexually transmitted diseases, physical exams, immunizations, referrals for care, and more.

In addition, SRHP has been working with funded providers to implement the 2014 *Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Population Affairs* which has expanded family planning to include new recommendations on preconception health and other preventive health services. Preconception health services include screening for obesity, smoking, violence, mental health and reproductive life planning. Other preventive health services include breast and cervical cancer screening, immunizations, and others based on nationally recognized standards of care. The SRHP has revised its standards to meet these new guidelines and is in the process of completing site visits and providing technical assistance to providers to ensure

that the new guidelines are being implemented. Ongoing training on the new guidelines will be provided by the Family Planning National Training Centers. SRHP will also explore opportunities to train other maternal and child health providers, such as community health centers (CHC) on these nationally recognized guidelines.

Adult Medicaid Quality Grant

MassHealth is working to improve postpartum visit (PPV) rates through a quality improvement project for the Adult Medicaid Quality Grant. PPV includes contraception counseling and immunizations such as seasonal flu vaccines. MDPH staff will continue to participate in the workgroup. The project includes three interventions: 1) MassHealth distributed a provider bulletin with tips for improving patient engagement, scheduling and follow-up, and appropriate use of postpartum billing codes; 2) MassHealth partnered with Text4baby to launch a Massachusetts version of the Text4baby program. Additional messages on postpartum care are sent to MassHealth members who sign up for the service; 3) and MassHealth is working with the Central Massachusetts Area Health Education Center to deliver a three-day training to CHWs on improving women's interconception health including the importance of PPV. This training was offered in four different areas in the state last fall. Two additional trainings will be offered this spring. This grant program ends in December 2015. Working with MassHealth, MDPH will establish baseline measures of the number of reproductive-age women served at CHCs to measure improvement in the use of Effective Contraception, including the use of LARC.

MassHealth requires Managed Care Organizations (MCOs) to design and implement a performance improvement project (PIP) to improve PPV rates for both the External Quality Review (EQR) and MCO Quality Improvement Goal (QI Goals) requirements. These PIPs include MCOs offering support groups to new mothers, making outreach calls and sending letters promoting PPV, and addressing scheduling and transportation needs of the participant. These visits include discussion of planning for subsequent pregnancies and of interconception contraception, including LARC. MDPH will work with MassHealth and CHCs to increase the proportion of women who receive PPV.

Early Intervention Partnerships Program

The Massachusetts Early Intervention Partnerships Program (EIPP) is a high-risk maternal and newborn screening, assessment and service system. EIPP provides home visiting and group services to over 550 families annually by a team that includes an MCH nurse, a mental health clinical professional, and a community health worker (CHW). Implemented in 2003, EIPP has demonstrated capacity for early identification of maternal and infant risk factors and linkages to services to prevent or mitigate poor health and/or developmental outcomes. EIPP provides maternal and infant health assessment and monitoring, health education and guidance, screening and appropriate referrals and linkage with WIC and other resources. Through a variety of interventions and strategies to foster continuity of care, EIPP addresses the complex physical, emotional, and environmental health needs of pregnant and postpartum women who may not be eligible for other programs.

In FY16, EIPP sites will continue to implement best practices to support EIPP participants in attending preventive care visits. Ongoing training will continue for EIPP staff in an effort to prevent staff burnout and promote strong community collaborations with health care providers.

Clinical literature indicates that employing CHWs can be a cost effective way to preserve connections with families who are at the highest risk of disengaging from a complicated health care system. Successful EIPP sites have hired

CHWs that are accepted in two distinctly different environments, the homes of their neighbors and the professional health care delivery system. This has resulted in sustained program participation of eligible high-risk pregnant women. All EIPP sites are strongly encouraged to send their CHWs to a 40 hour training course facilitated by one of two training centers in the state, the Community Health Education Center and the Outreach Worker Training Institute. EIPP contracts require that at least 40% of their cost reimbursement contracts go towards supporting the role of the CHW including the provision of training. As a result, many CHWs have been able to participate in this intensive training.

Welcome Family

Welcome Family, a universal one time nurse home visit available to all mothers with newborns, funded through MHVI, serves families in four pilot communities. The goal of Welcome Family is to provide an entry point into a larger system of care for children and their families. Nurses respond to identified needs by providing brief intervention, education, support, and making appropriate referrals to formal and informal services.

Welcome Family nurses screen participants for access to a health care provider and refer to primary care when needed. Among women who responded “no” to the question of whether they have a health care provider when they are not pregnant, 53.6% received a referral to a primary care provider. A majority of women (82.3%) reported that it was “easy” to access health care services. Among those who reported that it was “a little difficult” (9.9%) or “very difficult” (1.3%), the primary reasons cited were transportation (7.6%) and not having a primary care provider (5.3%). Welcome Family program staff will use this information to better understand the barriers new mothers face in accessing preventive health care and to document strengths and gaps in services in the target communities.

FOR Families

The FOR Families Program [Follow-up, Outreach and Referral] is a statewide home visiting program whose primary goal is to help families transition from homelessness to stable permanent housing. FOR Families is a joint program of the Massachusetts Department of Housing and Community Development and MDPH.

Home visiting services are provided to homeless families who are temporarily sheltered in hotels/motels throughout the state due to the lack of shelter capacity. Staff are human service professionals with extensive public health, community health and child welfare experience. They assess families, make referrals based on identified needs, and coordinate services with an array of community-based programs.

Service coordination and referrals to mainstream services include WIC, EI, primary health care, domestic violence services and substance abuse treatment. FOR Families collaborates with Housing Assistance Programs and sister state agencies such as the Department of Children and Families, the Department of Transitional Assistance and the Department of Mental Health to coordinate care. Home visitors identify local volunteer groups and faith-based organizations to provide the families with transportation, activities for children, meal programs and other necessities.

FOR Families encourages women to obtain regular preventive health visits. The families served in the Emergency Assistance shelter system are living below the federal poverty level. Women have difficulty accessing healthcare due to the lack of public transportation in certain areas of the state and insufficient financial resources to use public

transportation. Home visitors assist clients to access state subsidized healthcare transportation as well as provide bus passes when available from donations. Clients are referred to prenatal care upon disclosure of pregnancy to the home visitor. During 2014, the number of homeless families living in hotels increased from 1,317 to 1,943. The total number of homeless families living in hotels is decreasing in FY15 due to the increase in shelter capacity statewide. In general, there were fewer than 200 pregnant women living in hotels throughout FY14. At this time FOR Families does not have a system to track measureable data. However, beginning next year program staff will utilize a database to capture information on primary care, birth control knowledge, and prenatal care.

Priority: Address substance use among women of reproductive age to improve individual and family functioning.

Substance use negatively affects maternal and child health and places substantial burden on state health and human service systems. The Title V needs assessment yielded suggestions for program improvement including more services for families, education for service providers and parents, earlier identification of mothers and infants needing services and better integration of care.

A number of initiatives are planned for FY16 to address the needs of women and children affected by maternal substance use. A new position has been created within BFHN to coordinate maternal substance use initiatives. This position is closely linked to a new position funded by BSAS to improve the capacity of the treatment system to serve pregnant women. BSAS recently received a SAMHSA grant to increase access for pregnant women to medication-assisted treatment. In FY16, BFHN will assist BSAS with the implementation of this grant through participation on the Moms Do Care state Advisory Group. Strong collaboration is being fostered within MDPH, and with community partners including the Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC), a statewide quality improvement collaborative of birth hospitals to improve the care of the neonate with Neonatal Abstinence Syndrome (NAS).

In FY16, MDPH will convene an advisory group of MDPH staff and community partners to identify data and programmatic needs, and develop and implement strategies to address maternal substance use including hospital screening guidelines.

In FY16, activities will begin to ensure that birth hospitals across the state have adopted and consistently implemented guidelines related to screening of substance exposed newborns (SEN). Birth hospitals will be surveyed to clarify their current screening and breastfeeding policies and practices for SEN, as well as their referral mechanisms to supportive services including EI. By 2020, the objective is to increase by three per year the number of birth hospitals with consistently implemented maternal substance use/SEN screening guidelines. Follow-up surveys of hospitals on use of screening guidelines will be used to evaluate success and inform further changes.

MDPH also aims by 2020 to increase by three per year the number of birth hospitals that develop and implement a plan to improve services for women with substance exposed pregnancies. To achieve this, a Maternal Substance Use Action Learning Collaborative will be established in FY16 with three hospitals to address their screening and referral practices, as well as collaborative practices with community providers, in order to improve the system of care for women with substance exposed pregnancies and their babies.

In FY16, MDPH will work with community partners including the Massachusetts Perinatal and Neonatal Quality Collaborative (MPNQC) to examine hospital-initiated referral to EI and the system implications of the recent increase in NAS. Hospitals will be surveyed to determine their current referral practices to EI and will collaborate on improving referral rates. By 2020, the objective is to increase by 50% the number of birth hospitals that establish a referral system to EI for all SEN infants before or at the time of discharge. Follow-up surveys of hospitals on EI referral mechanisms for eligible infants will be used to evaluate success and inform further changes.

Existing home visiting services, including the MA Home Visiting Initiative, EIPP, and EI are increasing their capacity to serve pregnant women and new mothers using substances and their babies. Planned efforts in FY16 include initiating the development of referral and collaboration guidelines to strengthen relationships between substance use disorder treatment providers and home visiting programs; continuing an Early Intervention/Neonatal Abstinence Syndrome workgroup which will address recommendations by the Governor's Opioid Working Group.

MDPH will continue to identify and apply for funding when possible to expand the treatment and support needs of pregnant women with substance use disorders, and their children.

Additional activities to improve Women's/Maternal Health

Sexual and Reproductive Health Program

Although intended pregnancy will not be a state or national measure in FY15 and FY16, sexual and reproductive health program activities will continue to play a key role in the improvement of women's and maternal health in Massachusetts. Collaboration will continue with the DHHS/OPA on the Title X Family Planning Program. Efforts to improve the provision of LARC insertion post-delivery and at the PPV will continue. These efforts will be integrated into the Title V Block Grant, and will include working with physicians, Medicaid and other insurers to improve the reimbursement structure. The Access Program will continue to provide case management services to women seeking abortions in FY16.

Family Planning and Rape Crisis Center training partners are currently developing a facilitator's guide to be used for a train-the-trainer in FY16. Educational materials are also being translated into Spanish, Portuguese, and Chinese. Incorporating violence screening and referral will be assessed at all comprehensive site reviews of MDPH-funded family planning programs based on the new Request for Responses and the revised program standards. Training on the intersection of intimate partner violence and reproductive coercion is being developed to incorporate trauma-informed approaches into the partner notification services provided by the Commonwealth's Disease Intervention Specialists who inform many residents experiencing violence about positive sexually transmitted infection test results.

The SRHP program will obtain feedback on which materials it should revise or develop to best implement the Quality Family Planning priorities such as tiered contraceptive method counseling, long-acting methods, and reproductive life planning. The program will widely test and revise the emergency contraception materials for rape survivors, improving their overall accessibility by creating materials with a more client-centered and trauma-informed approach. The process will include extensive focus testing with providers, patients of rape crisis centers, hospitals and Sexual Assault Nurse Examiners.

CDC MCH Epidemiology Workforce Development

A CDC Epidemic Intelligence Service (EIS) Officer has been assigned to MDPH for two years, beginning in August 2015. He will be working in the Office of Data Translation in the Bureau of Family Health and Nutrition. MDPH will continue to participate in the CDC/University of Chicago program to address severe maternal morbidity (SMM), will analyze SMM data, and will develop fact sheets to inform hospitals, health care providers and policy-makers.

Additional activities to improve women's and maternal health can be found in the Cross-cutting/Life course domain, including efforts to address postpartum depression, improve social connectedness, and promote oral health before, during, and after pregnancy.

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Women/Maternal Health - Annual Report

NPM 1 - Percent of women with a past year preventive medical visit

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	74.3	75	76	77	78

FY14 Title V Block Grant activities to improve Women's and Maternal Health focused on the 2010 national and state performance measures to improve prenatal care utilization and reduce unintended pregnancy. The primary programs at MDPH contributing to those efforts include Women, Infants, and Children (WIC) Nutrition Program, MA Home Visiting Initiative (MHVI), Sexual and Reproductive Health Program (SRHP), and Early Intervention Partnerships Program (EIPP).

NPM 18: Percent of infants born to pregnant women receiving prenatal care beginning in the 1st trimester

Women, Infants, and Children (WIC) Nutrition Program

The WIC program provides supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five years who are found to be at nutritional risk. WIC nutrition staff screen all pregnant and postpartum participants to assess utilization of prenatal care. Less than 1% of prenatal women enrolled in WIC in June 2014 reported inadequate prenatal care. Providing referrals to health care providers is a core WIC service.

According to PRAMS 2012 data, 84.7% of WIC participants enrolled in prenatal care in the first trimester, compared to 94.4% of non-participating mothers. In 2014, 44.5% of the pregnant women WIC serves enrolled in the first trimester. Local WIC agencies continually monitor and seek opportunities to improve this metric. For example, WIC Community Coordinators prioritized the message that WIC services can be accessed prior to the first medical visit for the pregnancy. The early prenatal WIC enrollment metric is anticipated to remain part of the WIC's performance management system. New outreach material for clinicians will emphasize a pregnant woman's ability to enroll in WIC prior to her first obstetrics visit. Additionally, a strengthened relationship between WIC and obstetric providers

focused on breastfeeding will likely result in additional referrals for prenatal women.

MA Home Visiting Initiative

The MA Home Visiting Initiative (MHVI), funded by HRSA/MCHB, provides evidence-based home visiting services to help pregnant and parenting families attain and maintain optimal health and well-being for all family members, including raising children who are physically, socially and emotionally healthy and ready to learn. MHVI serves families prenatally through age five years in the 17 highest need communities in the state. Over the past four years (through September 30, 2014) MHVI served 2,260 families.

Home visiting agencies conduct community outreach to pregnant women to encourage early enrollment into programs, helping to reach women at risk of late entry to prenatal care. In FY14, 33.1% of participants enrolled in MHVI prenatally. MHVI home visitors encourage prenatal participants to attend their scheduled prenatal care visits and identify and mitigate maternal risk factors associated with late and inadequate prenatal care by screening mothers for substance use, domestic violence, and depression and referring participants to appropriate resources. MHVI has a maternal health benchmark measure to increase the proportion of participants who receive at least 80% of the number of prenatal care visits recommended by the American College of Obstetrics and Gynecology. In FY14, 26.8% of participants met this benchmark, an increase from 21.1% in FY13. These data are used to inform home visiting program strategies for successfully enrolling women in prenatal care.

SPM 1: Percent of pregnancies among women age 18 and over that are intended

Sexual and Reproductive Health Program

Funding for the SRHP increased in FY14 and FY15. In FY15, the Department of Health and Human Services, Office of Population Affairs (DHHS/OPA), awarded MDPH an Emergency Replacement Grant to provide Title X family planning services in four counties in western Massachusetts. While MDPH SRHP has always had a strong relationship with DHHS/OPA, the awarding of federal Title X funds to SRHP in FY15 has solidified and strengthened this relationship. This funding allowed services to continue at one sub-recipient with seven clinics in an area of the state with high teen births, sexually transmitted diseases, and health disparities. Subsequently, MDPH was awarded a $1.3 million three year grant for the same service area effective April 1, 2015. SRHP will implement this grant with an additional two sub-recipients to increase service sites, including expansion to a previously unfunded and high need community. State funding for family planning received a slight increase in FY15 and is expected to remain at or near FY15 levels for FY16.

The release of the 2014 *Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Population Affairs* will have a significant impact on the provision of family planning services. For the first time, there are national standards on family planning services for all providers. This guidance provides an increased focus on tiered contraceptive counseling based on effectiveness and preconception care including reproductive life planning. SRHP revised its standards to meet these new guidelines and began comprehensive site reviews based on this guidance. In FY15, three comprehensive site reviews will be completed using the new standards. Contracted programs are currently provided technical assistance and training on implementing the new guidance.

SRHP saw a 2.7% increase in long-acting reversible contraception (LARC) provision in SRHP clinics from FY13 to FY14. With the renewed focus on the more effective methods, the program anticipates additional increases for

FY15. Challenges to increased LARC provision include financial barriers such as upfront stocking costs and reimbursement challenges for providers, lack of patient awareness of availability and effectiveness, and provider training and acceptance of LARC use with adolescents.

In FY14, Massachusetts was chosen to participate in an Association of State and Territorial Health Officials (ASTHO) LARC Learning Community with five other states. The goal of the project is to improve access to postpartum LARC insertion in hospitals prior to discharge, thus reducing the risk of subsequent pregnancies. In FY15, SRHP successfully convened a group of Massachusetts OB-GYNs to work on this issue. This group has identified the Massachusetts Medicaid (MassHealth) reimbursement structure as the primary challenge to providing this service and is working with MassHealth to explore reimbursement options. This group is also planning to implement a survey of physicians practicing in Massachusetts academic hospitals on postpartum LARC provision.

SRHP collaborated with the Behavioral Risk Factor Surveillance System (BRFSS) Program to update a 2009 report that focused on contraceptive use and unintended pregnancy rates. The new report was published in FY14 and included 2008 and 2010 data and a section dedicated to assessing changes around health reform and access to care. The report noted significant increases in health insurance coverage using combined 2008-2010 data compared to before health care reform (combined 2004-2006 data) but did not note significant changes in contraceptive use or unintended pregnancy.

The SRHP funds a highly successful Access Program to reduce barriers to abortion care by providing pregnancy options counseling, triage, and case management services to women who are at least 18 weeks 6 days pregnant by ultrasound, or are experiencing serious/complex medical or social issues that make it difficult to be seen in a clinic setting. In FY14, the Access Program provided case management services to 336 women and has served over 4,500 women since the program's inception in 2003. Of the 11 participating hospitals, four doubled the number of clients served in FY14 compared to FY13. In FY15, the program was expanded to serve women survivors of rape in need of timely access to IUD insertion as a method of emergency contraception.

Family planning and rape crisis providers are continuing to partner on developing training curricula to expand screening for reproductive coercion in the family planning setting, based on research that has demonstrated lower contraceptive use and higher rates of unintended pregnancy among women experiencing reproductive coercion. In FY14, the training partners finalized the training curriculum and created new educational materials to be distributed to clients in clinical counseling sessions.

All SRHP funded agencies received Culturally and Linguistically Appropriate Services (CLAS) training and updates in FY15. SRHP increased the provision of culturally proficient care in other languages statewide by providing scholarships for 20 family planning staff to access language assessment and medical interpreter training.

Given the volume of translations that SRHP produces, keeping local materials updated as the availability of emergency and other contraceptive methods continuously change is an ongoing challenge. The conversion of MA's birth control brochure to a downloadable "Birth Control: The Choice is Yours" fact sheet series allows SRHP to implement updates efficiently. In FY15, the contraceptive content was reorganized to support tiered efficacy-based methods and enhance contraceptive counseling in accordance with the recent Quality Family Planning guidance, in

nine languages. The state-mandated emergency contraception (EC) sexual assault fact sheets (for survivors and providers) were revised to include the expanded Access Program and were translated into Spanish, Portuguese and Haitian Creole. Three EC pharmacy access program materials were updated to advertise two new continuing education programs developed to enroll additional pharmacists. Expanded content also highlighted women in need of contraceptive coverage that can benefit from pharmacy access to reduce health care costs.

Early Intervention Partnerships Program

In FY14, 78.2% of EIPP participants had a documented reproductive life plan that included family planning counseling and an identified method of contraception at two months postpartum. This rate is close to the EIPP performance measure goal of 80% and it has increased over the last several years. Furthermore, 54 women were referred to family planning services. Key challenges identified by EIPP communities include the multiple and complex needs experienced by EIPP participants, such as mental health issues and violence in the home, which take precedence in women's lives over accessing health care services. For example, in FY14 program participants identified the following needs which established their eligibility at enrollment:

- 59% had inadequate food or clothing
- 55% had a history of depression including postpartum depression
- 42% were homeless or experiencing housing instability
- 21% reported tobacco use
- 13% reported substance abuse in the home
- 6% reported violence in the home

As eligibility criteria are collected at enrollment, it is likely that the true rate of violence and substance use in the home is much higher than initially reported due to stigma and fear; anecdotal data from EIPP staff and medical records reviews support this. A growing body of research has identified reproductive coercion as a form of intimate partner violence and it offers one explanation for the high rates of unintended pregnancies. Supporting EIPP participants in accessing LARC has become a priority for EIPP sites. Training and strengthening community linkages to local family planning clinics are two strategies that support this effort.

WIC

WIC increased efforts to focus on interconception health of women through training, education, and referrals. Nutrition staff were trained on the importance of good interconception nutrition practices, and developed and distributed nutrition education materials for participants that promote the six week postpartum checkup and prepares women for the visit.

The efforts to focus on interconception health will continue, as staff work to improve resources for local agencies, to provide "exit counseling" to postpartum women upon their exit from the program. Efforts related to providing referrals to women for health care and social services will also continue.

MA Home Visiting Initiative

MHVI trains home visitors on integrating and supporting preconception and interconception care education with a focus on developing a reproductive life plan. Home visitors discuss family planning with participants and make

referrals to family planning or primary care when appropriate. In FY14, 70% of participants had at least one documented discussion with their home visitor about family planning within 12 months of enrollment, compared to 87% in FY13. This decrease is believed to have resulted primarily from a change in the way data were collected in the management information system used by the majority of MHVI programs (the Participant Data System [PDS]). Data on this measure were previously collected in PDS using a checkbox to indicate whether a discussion of family planning had occurred. However, in FY14 that was changed and data are now collected using a text box. The majority of programs using PDS experienced a decrease in this benchmark between FY13 and FY14, whereas programs using a different management information system experienced an increase in FY14 or maintenance of FY13 levels. Technical assistance is now provided to MHVI programs to improve the completeness and quality of data collection on this measure to better reflect the work that is being done by home visitors.

Welcome Family

Welcome Family nurses help to increase the percent of intended pregnancies among women age 18 years and over by assessing the mother's current and future plan for postpartum contraceptive use and connecting women to reproductive health services when indicated. More than half (58.8%) of mothers reported that they and their partner currently use or plan to use contraception.

Additional activities to improve Women's/Maternal Health

Early Intervention Partnerships Program

In FY14, EIPP examined postpartum visit (PPV) attendance among participants. During state fiscal years 2004-2013, 83% of EIPP participants reported attending their PPVs. EIPP PPV attendance was then compared to Healthcare Effectiveness Data and Information Set (HEDIS) postpartum care performance rates for women enrolled in MassHealth. Overall, 68.4% of EIPP participants receive insurance coverage through MassHealth, and among them, 87% reported having attended their PPV. In comparison, PPV participation for a random sample of women enrolled in a MassHealth managed care plan during HEDIS 2007, 2009, and 2011, showed MassHealth weighted means of 59.0%, 64.0%, and 68.7%, respectively, using medical records and claims data.

In FY14, 77.6% of EIPP participants had a PPV with their health care provider between 21 and 56 days after birth. This rate exceeds the EIPP performance measure goal of 60%. Vendors have implemented several successful strategies to support EIPP participants in attending their PPV, including scheduling the visit together, arranging for transportation for the participant, and providing reminder phone calls and text messages. In addition, 86 women were referred to a primary care provider who did not previously have one.

Establishing and strengthening the community-based EIPP Perinatal & Early Childhood Advisory Committees is a key strategy to support communication among providers to ensure a seamless system of maternal and infant health care in the EIPP communities. Members of these Advisory Committees include WIC, Early Intervention, Healthy Families, mental health providers, OB/GYNs, pediatricians, and other community-based agencies that serve pregnant and postpartum women and their families. Information related to needs, capacity, and priorities are collected during these meetings to better understand the characteristics of EIPP participants, the progress towards EIPP goals, and the effectiveness of the EIPP vendors.

Still, significant disparities persist in birth outcomes among different groups of the Commonwealth's residents, in

particular racial, ethnic, and geographic subpopulations that have traditionally been isolated from the larger health care system. Among the 576 pregnant and postpartum women enrolled in EIPP services in FY14, the self-identified racial and ethnic diversity of the women included 57% White, 39% Hispanic/Latino/Spanish, 16% Black and 12% Asian (mothers are encouraged to self-identify all categories they wish). To effectively engage high-risk pregnant and postpartum women, successful EIPP programs ensured their MCH team members reflected the cultural, linguistic, racial, and ethnic diversity of the population served in their respective communities. Annual cultural competence training and pay differentials for bi-lingual staff are two strategies that have been successfully implemented in several EIPP sites. However, staff burnout and turnover, particularly within the CHW position, have been challenges for those sites where the annual salary is low and where a pay differential for bi-lingual staff is not offered.

To maintain staff competencies, trainings offered through MHVI have been made available to all EIPP staff and have included topics such as motivational interviewing and reflective supervision. In addition, training on trauma-informed care and preventing staff burnout were planned during FY14 and implemented in early FY15. All EIPP staff were required to attend both trainings. The overall score of the training evaluations was 4.82 out of 5 (Excellent) and the comments demonstrated a sincere appreciation for the opportunity to participate. One participant wrote: “both presenters were excellent – I got so much out of the training that I know I will use every day at work and in my personal life.”

Domestic and Sexual Violence Integration Initiatives

MDPH staff, in coordination with the MA Governor’s Council to Address Sexual and Domestic Violence, worked to strengthen collaboration between healthcare systems and domestic/sexual violence community-based programs. A statewide summit was held for community-based programs that reviewed the significant impact and costs of domestic and sexual violence within society, and specifically in healthcare. Following the summit, a needs assessment was conducted, policy recommendations were developed, and a work plan was created. This culminated in a Circular Letter to all hospitals in the state on “Population Health Management for Survivors of Domestic and Sexual Violence.”

Community-based programs face challenges in working with healthcare organizations, such as lack of trauma-informed care within healthcare settings, and no mechanism to provide feedback to hospitals and healthcare facilities.

In FY16, MDPH will follow up on the guidance sent to hospitals on best practice responses to address sexual and domestic violence. All hospital policies and protocols will be reviewed and an accountability mechanism for community based sexual/domestic violence programs will be explored.

CDC MCH Epidemiology Workforce Development

MDPH participated in the year-long CDC MCH training program with web-based training provided by University of Chicago. Training focused on identifying increasing rates of severe maternal morbidity (SMM), such as hemorrhage and renal complications, which are occurring across the US and MA.

State Action Plan Table						
Perinatal/Infant Health						
State Priority Needs	**Objectives**	**Strategies**	**National Outcome Measures**	**National Performance Measures**	**ESMs**	**SPMs**
Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.	1. By 2020, increase by 5% from baseline (83.0% in 2013, NIS data) the percent of infants who are ever breastfed (to 87.0%). The HP2020 goal is 81.9%. 2. By 2020, increase to 75% from baseline [65.0% in 2013, Vermont Oxford Network (VON) data] the percentage of very low birth weight (VLBW) infants in the neonatal intensive care unit (NICU) receiving any breast milk at time of discharge or transfer. [Hospital specific data will also be collected.] 3. By 2020, increase by 10% from baseline	1a. Continue to provide breastfeeding promotion and support education and training to all WIC staff and home visitors. 1b. Improve data quality about reporting of breastfeeding on the birth certificate at time of discharge by sharing birth certificate data with all 47 birthing hospitals and conducting a root-cause analysis of challenges to accurate reporting. 1c. Collaborate with Mass. Breastfeeding Coalition (MBFC) to support hospital policies that promote breastfeeding.	Post neonatal mortality rate per 1,000 live births Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months		

	(20.6% in 2013, NIS data) the percentage of infants exclusively breastfed to 6 months (to 22.7%).	1d. Release updated WIC breastfeeding guidelines to all 47 birth hospitals to promote consistent messaging about breastfeeding. 1e. Engage hospitals to endorse MDPH's Breastfeeding guidelines. 2a. Establish baseline measures for the percentage of very low birth weight (VLBW) infants in the neonatal intensive care unit (NICU) receiving any breast milk at time of discharge or transfer. 2b. Review, share and promote existing toolkits developed by other Perinatal Quality Collaboratives to promote VLBW infants in NICU receiving any breast milk at time of					

		discharge or transfer. 2c. Build data systems to support rapid data collection of breast milk metrics. 3a. Continue to provide breastfeeding promotion, support, education and training to all WIC staff and home visitors to promote breastfeeding continuation. 3b. Increase the percentage of WIC nutrition staff who have advanced credentials for breastfeeding [International Board Certified Lactation Consultant (IBCLC) / Certified Lactation Consultant (CLC)] 3c. Increase availability of IBCLCs / CLCs available within WIC offices to support breastfeeding mothers.				

Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	1. By 2020, increase 5% above baseline (80.0% in 2012, PRAMS data), the percent of infants placed to sleep on their backs (supine). 2. By 2020, increase 5% above baseline the percent of infants who sleep in a safe space (crib, bassinette, pack n' play) among WIC participants (baseline and increase to be determined by PRAMS Phase 8 for WIC participants [PRAMS Phase 8, 2016-2018, will include this question]).	1a. Establish baseline measures for all NICU pilot sites for Safe Sleep initiatives. 1b. Train NICU staff and implement Safe Sleep practices in NICUs to replicate the model developed by South Shore Hospital. 1c. Train NICU staff about Safe Sleep practices: 1) develop curriculum with an emphasis on racial disparities 2) role model training 3) train-the-trainer 4) create webinar model with CME credits 1d. Increase the percentage of medically eligible preterm infants who engage in Safe Sleep practices in the NICU through increased staff training focusing on implementing Safe Sleep practices among medically eligible preterm infants (South	Infant mortality rate per 1,000 live births Post neonatal mortality rate per 1,000 live births Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births	Percent of infants placed to sleep on their backs		

		Shore Hospital's baseline=17%).				
		1e. Increase the percentage of medically eligible preterm infants who engage in Safe Sleep practices in the NICU among Black non-Hispanic infants, implementing existing toolkits and highlighting Safe Sleep practices among Black non-Hispanic infants.				
		1f. MDPH will develop a model Safe Sleep policy for the NICU and disseminate across Level III birthing hospitals.				
		1g. Increase the number of NICUs which have a Comprehensive Safe Sleep policy by sharing best practices.				
		1h. MDPH will develop a model Safe Sleep policy and disseminate across all 47 birthing hospitals				

		1i. Increase the number of birthing hospitals (47 total) that have a Safe Sleep policy. 2a. Establish baseline measures for Safe Sleep practices (supine position, in a safe sleep environment) for WIC participants. 2b. Disseminate and promote WIC's Safe Sleep brochures, translated into 8 languages, though WIC offices 2c. WIC staff will provide safe sleep education to mothers.				

Perinatal/Infant Health

Perinatal/Infant Health - Plan for the Application Year

Massachusetts has identified two priorities for Perinatal and Infant Health for the next five years.

1. Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.
2. Promote safe, stable, nurturing environments to reduce violence and the risk of injury.

Progress towards the first priority will be measured by a) the percent of infants who are ever breastfed and b) the percent of infants breastfed exclusively through six months. Key MDPH programs that have a plan for improving this measure include: WIC, Early Intervention Partnerships Program (EIPP), MA Home Visiting Initiative (MHVI), Welcome Family, MA Perinatal Neonatal Quality Collaborative, and Early Intervention (EI).

Progress towards the second priority will be measured by the percent of infants placed to sleep on their backs. Key

MDPH programs that have a plan for improving this measure include: the Collaborative Improvement and Innovation Network (CoIIN), EI, EIPP, Sudden Infant Death Center, Injury Prevention and Control Program, WIC, and Welcome Family.

NPM 4: A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months

Based on the 2014 NIS, the US reported a national ever-breastfeeding rate of 79.2%. Massachusetts exceeded this rate at 81.4%. This represents a decline from the 2013 MA NIS rate of 83.0%; however, as with the six-month breastfeeding duration rates discussed above, the NIS sampling frame changed, which likely affected the findings. The MA WIC breastfeeding initiation rate in FY14 was 79%, nearing the HP2020 goal of 81.9%. The NVSS breastfeeding initiation rate for Massachusetts births in 2013 was a record high 86.0%. However, 2014 NIS rates for exclusive breastfeeding were lower in MA than the national average (17.5% vs 18.8%).

WIC

Breastfeeding exclusivity and duration remain a part of the MA WIC Performance Management system. A priority for the coming year is to strengthen collaboration between birth hospitals and the MA WIC program. WIC will focus on breastfeeding education during the prenatal period as well as continue its postpartum education and support for breastfeeding. Of *The Pathway to Baby Friendly*, step 3 (inform all pregnant women about the benefits and management of breastfeeding) and step 10 (foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birth center) are ideal places for WIC to provide resources for women who are in greater need of services. WIC endeavors to build more breastfeeding clinical services into standard local agency service delivery in the development of the upcoming RFR for WIC services.

Additionally, training and resources gained through the MCH Block Grant technical assistance funding has prepared MDPH staff to offer greater support to hospitals on the *Baby Friendly* initiative. For birthing hospitals that have not yet begun the *Baby Friendly* pathway, MDPH will encourage them to endorse MDPH's *Breastfeeding Guidelines*. Opportunities to extend these principles into discussions about procedures for hospital licensure oversight will be explored. MDPH plans to continue its involvement with the MA Breastfeeding Coalition and the MA Baby Friendly Collaborative. MDPH will share data on breastfeeding at time of discharge with all 47 MA birthing facilities, to improve reporting on the birth certificate. Lastly, the opportunity to publicly release exclusive breastfeeding rates at hospital discharge (part of The Joint Commission core measure set) via MDPH's annual Birth Book will be explored in an effort to motivate birthing hospitals to pursue *Baby Friendly* designation.

Early Intervention Partnerships Program

EIPP is a high-risk maternal and newborn screening, assessment and service program. EIPP provides maternal and infant health assessment and monitoring, health education and guidance, screening and appropriate referrals to over 550 families, and linkage with WIC and other resources appropriate to their needs.

Breastfeeding can be especially challenging for mothers with complex environmental, mental health, and social concerns such as homelessness, interpersonal violence, food insecurity and postpartum depression. While improvements in ever-breastfeeding rates among EIPP participants are occurring, challenges to increasing rates at

six months remain. EIPP sites will continue to provide breastfeeding support, education and referral to appropriate services. Ongoing lactation training will be provided to EIPP staff in collaboration with the MA WIC Program. Potential targets for future work include continued promotion of community-based breastfeeding support resources, further engagement with workplaces and child care, and ongoing partnership with pediatric providers to ensure support and consistent messaging.

MA Home Visiting Initiative

MHVI, known at the federal level as MIECHV, monitors breastfeeding as part of federal benchmark reporting and provides training in breastfeeding as part of the core competency for home visitors. MHVI home visitors provide education, brief intervention, and referrals to improve breastfeeding initiation and duration rates. Through the efforts of MHVI home visitors, the percentage of postpartum mothers who enrolled in MHVI programs prenatally and were exclusively breastfeeding their infant at the time of infant discharge from the birth hospitalization increased from 45% in FY13 to 50% in FY14.

Welcome Family

Welcome Family is a universal one-time home visit available to mothers with newborns, funded through the Massachusetts Home Visiting Initiative. It currently serves families in four pilot communities. MDPH is actively pursuing fiscal sustainability of Welcome Family. Many third party payers are interested in initiatives that increase rates of breastfeeding. Currently the Welcome Family visit is conducted between two and eight weeks postpartum, and is more likely to provide effective breastfeeding support to participants who are seen earlier in the postpartum period. MDPH will consider revising the program model to provide earlier intervention – closer to two weeks postpartum – in order to have greater impact on breastfeeding rates and strengthen the case for program sustainability.

MA Perinatal Neonatal Quality Collaborative

In 2015 NeoQIC and MPQC collaborated to form the Massachusetts Perinatal and Neonatal Quality Collaborative (MPNQC). With a grant from the CDC, the MPNQC undertook six initiatives in clinical areas including use of breast milk among VLBW infants, EI enrollment among VLBW infants and implementing hospital-based safe sleep practices to address infant mortality due to unsafe sleep practices. Through these initiatives, MA aims to improve clinical outcomes, and also further the organizational capacity for NeoQIC and MPQC through improved data systems, increased hospital engagement and strengthening public-private partnerships.

Despite tremendous improvements in survival rates of VLBW and very preterm infants, these infants remain at high risk for mortality and long-term morbidities, and this population represents a substantial portion of the economic and social costs of pediatric disease in the U.S. Substantial evidence indicates that provision of breast milk to VLBW infants is associated with reduction in important short-term and long-term morbidities including necrotizing enterocolitis and sepsis. Although more limited, data suggest that maternal and neonatal care practices can increase rates of breast milk use in this population. Using VON data, the MPNQC examined breast milk usage among VLBW infants in NeoQIC. While overall, VON data suggest that MA units have higher rates of breast milk use than national comparisons, MA has significant variations in rates by site. In 2013, 65% of infants in MA NICUs in the VON VLBW database were receiving breast milk at the time of discharge home compared to 50.7% of such infants among all US NICUs in VON. However, MA NICUs showed variation in rates of breast milk at discharge between 40 and 80%. These variations will be addressed through sharing of best practices and through quality improvement

projects.

Strategies to achieve at least 75% of NICU infants receiving any breastmilk at time of discharge include: reviewing existing toolkits developed by other Perinatal Quality Collaboratives, and building data systems to support rapid data collection of breast milk metrics. A REDCap database will serve as central repository for data collected by participating teams, sharing best practices among all ten level III NICUs. In June 2015, NeoQIC will convene a human milk quality improvement collaborative summit to facilitate sharing best practices.

Compared to healthy term infants, VLBW infants are at increased risk for re-hospitalization following NICU discharge and in the first several years of life. In addition to the burden on the infant, family, and health care system, re-hospitalization can affect the overall health and development of the infant. It is likely that NICU care practices, particularly around discharge planning, can affect health following discharge and thus re-hospitalization.

Early Intervention

Because VLBW infants are at risk for developmental delay or may be born with an established disability, they are eligible for EI services as mandated under Part C of the Individuals with Disabilities Education Act of 1997. In Massachusetts, EI services can be analyzed through the Pregnancy to Early Life Longitudinal (PELL) data system. PELL is a population-based longitudinal reproductive data system with multiple linked datasets that can be used for both cross-sectional and longitudinal analyses. PELL links data from sources including birth certificates, hospital discharge summaries, and programs such as EI. Earlier analyses by MDPH showed that while overall rates of referral to and enrollment in EI for VLBW infants were high, nearly 10% were not referred, and referral rates were lower for infants of Black non-Hispanic mothers and mothers without private insurance.

NPM 5: Percent of infants placed to sleep on their backs

MA PRAMS data show a modest increase in the percent of infants who are placed supine to sleep. In 2012, 80.0% of infants were placed supine to sleep, up from 78.5% in 2009.

SUID is described by the American Academy of Pediatrics (AAP) as “any sudden and unexpected death, whether explained or unexplained, including sudden infant death syndrome (SIDS) that occurs during infancy” (Moon 2011). In 2012, in MA, SUID was the leading cause of infant death after the first month of life. Preterm birth is one of the risk factors associated with SIDS; the risk of SIDS is two to three times higher among infants less than 36 weeks gestation compared to infants born between 40-41 weeks. The AAP Task Force on SIDS recommends that preterm infants be placed supine (on the back) by 32 weeks gestational age if they are clinically stable. Despite these recommendations, preterm infants are less likely to be placed supine in the hospital as well as after discharge. A recent quality improvement initiative demonstrated that safe sleep (SS) practices can be integrated into the care of preterm infants.

As most SUID deaths are due to unsafe infant sleep environment/positioning, incorporating SS practices into the routine clinical care of preterm infants while in the NICU may increase awareness about SS practices and the risk of SUIDS among both providers and parents, and effectively engage parents in safe infant sleep practices prior to, and at the time of discharge. In 2013, MDPH surveyed all 47 birthing hospitals to collect information on 1) current

practices, 2) SS education given to new parents and 3) input on how MDPH can assist the birthing hospitals in their SS efforts. MDPH received 100% response from the hospitals and convened a SS forum for the birthing hospitals. MDPH will resurvey the 47 hospitals to assess changes made after the forum.

Collaborative Improvement and Innovation Network (CoIIN)

MDPH participates in the National Collaborative Improvement and Innovation Network (CoIIN) to reduce infant death through initiatives promoting Safe Sleep (SS), reducing preterm births, and identifying and ameliorating social determinants of health. Data from our SS initiatives described below will be shared in the CoIIN community. A pilot program at South Shore and UMass Memorial Health Care, modeled after a successful initiative at University of Texas, has begun to improve SS practices in the NICU for high-risk infants and to model SS for parents while their infant is still in the NICU. A preliminary audit found that only 17% of eligible South Shore NICU infants, and 29% of eligible UMass Memorial Health Care NICU infants were being managed with appropriate SS practices, and several interventions were tested and implemented to improve this care. Findings from this pilot are currently being analyzed. Using *Plan, Do, Study, Act* cycles, MDPH will refine its SS practices and will expand this initiative to all interested NICUs in the state; already, four Level III NICUs have expressed interest, and we are targeting having over 75% of the state's NICUs involved by the end of 2015. Compliance data on SS practices in the NICU, before and after the pilot initiative, will be collected using audit forms. Follow-up survey calls will be made to families after discharge to assess home sleep practices.

MDPH and the Department's SS Task Force will share best practices among all NICUs, develop a model SS Policy for NICUs, disseminate this policy to all the Level III birthing facilities, and provide assistance to facilitate adopting *Safe Sleep in the NICU*. MDPH will develop a *Safe Sleep Practices* curriculum to train NICU Staff through role model training, train-the-trainer and webinars which may be attended to earn CME credits. MDPH will also develop model SS Policies for Level I and II newborn nurseries in MA and will disseminate these model policies to all 47 birthing facilities, again providing assistance in adopting *Safe Sleep in the Newborn and Special Care Nurseries*. MDPH will help all birthing hospitals develop consistent public health messaging about SS practices.

Early Intervention

MDPH oversees the statewide system of EI services among 60 certified community-based programs which provide EI/Part C services to children who experience developmental delays and to children at risk for delay. Since 2000, MA EI has grown over 60%, with 17,542 children receiving services on October 1, 2013. The total number served, including assessments, increased 57% from 29,289 children in FY2000 to 46,102 in FY2014. The program's growth has both taxed program resources and made standardizing evidence-based approaches and practices ever more important. EI home visiting staff will also be trained in SS practices (see *Injury Prevention and Control Program* section below).

Early Intervention Partnerships Program

EIPP has recently added a SS training data element that will allow reporting percentage of EIPP participants receiving SS education. This will allow targeted educational interventions of those families who are at high risk of sleep-related infant injuries and deaths.

Sudden Infant Death Center

The Massachusetts Center for Sudden Infant Death (SID Center) provides culturally competent bereavement support to families and caregivers of infants and young children (0-3) who die suddenly and unexpectedly due to sleep related and other causes of death. The SID Center will continue as a member of state and local child fatality review teams and as a member of the MDPH Safe Sleep Task Force to ensure a systems approach to reducing the incidence of SIDS and other sleep-related infant deaths.

Injury Prevention and Control Program

The Injury Prevention and Control Program (IPCP) has partnered with EI on the *Infant Safe Sleep Initiative* to provide consistent public health messages on creating and supporting SS for all infants, including the importance of supine positioning in a safe sleeping environment, i.e., infant sleeping alone in a crib, bassinette or pack n' play, and with no bumpers, heavy blankets or items in crib. The program also provides strategies for parents to engage with their infant socially during awake times, and discourages co-bedding (sharing of the same bed). All of the more than 1,400 EI home visiting staff will be trained in SS practices, and will provide information and resources to over 30,000 families enrolled in EI to improve safety and prevention of infant fatalities. The IPCP has developed an evaluation of EI staff knowledge of the public health message and comfort level in broaching SS practices with families. In addition, the EI Training Center will be creating an online module to train new staff entering the field on the A, B, C's of SS. EI will continue to collaborate with IPCP to inform EI's SS efforts through ongoing support and professional development for staff.

WIC

WIC will continue to provide families with information on placing infants supine, in a safe sleeping environment to prevent SUID. All new WIC staff receive SS training as part of their orientation. Competency reviews of WIC staff's SS knowledge will verify staff knowledge and understanding of the material to successfully educate parents. The Coordination Unit collaborates with IPCP to share timely child safety messages and product recalls with local WIC programs and through WIC's social media channels.

Welcome Family

Home visitors play a key role in increasing parental knowledge about creating a safe home environment, including a safe infant sleep environment. In August 2014, Welcome Family began collecting data on the percent of participants who report placing their infant to sleep supine in a safe sleeping environment. These data elements were added to the assessment in response to an enhanced focus at MDPH on promoting SS practices as a primary strategy of the MA Infant Mortality CoIIN work. Welcome Family and other evidence-based MHVI programs will be considered as pilot sites for SS activities conducted as part of the CoIIN.

Additional activities to improve Perinatal/Infant Health

Universal Newborn Hearing Screening Program

Although newborn screening for hearing and follow-up for State-sponsored newborn screening are not among the NPMs for the new cycle, Massachusetts is committed to ensuring that universal newborn screening and follow-up occurs in all MA birthing facilities. The Universal Newborn Hearing Screening Program (UNHSP) oversees screening for hearing loss of all infants born in MA birthing facilities and at MDPH approved Audiological Diagnostic Centers. UNHSP continues to collect hearing screening and related demographic and medical data through the electronic

birth certificate. UNHSP also continues to provide technical assistance to providers who work closely with the EI Program to ensure that families with infants with hearing loss are enrolled in, and benefitting from, services. UNHSP continues to analyze data to identify disparities in care and will conduct quality improvement projects targeting groups at risk for not meeting EHDI milestones (e.g., homebirths, infants transferred at birth to another facility). UNHSP continues to track hearing screening results, and to provide culturally appropriate outreach and follow-up including parent to parent support. The program continues to identify and apply for grant/cooperative agreement funding to ensure sustainability of the screening initiative.

Early Intervention

MPNQC has begun improving EI referral practices by examining EI referral rates for high risk infants by hospital. A preliminary analysis of 2013-2014 data shows that referral rates within three days of discharge for infants with birth weight less than 1,200 grams by hospital range from less than 40% to over 98%, showing an even greater variation in time to referral than our previous analysis discussed above. To address this variation, as part of the MPNQC grant, MDPH has begun a collaborative effort with NeoQIC to improve timely referral to EI, with the goal of referring families before discharge. UMass Memorial Hospital and Beth Israel Deaconess Hospital have been identified as pilot sites for a study of EI referral practices. Strategies will include root-cause analysis at each NICU to examine reasons for delay in referral, and sharing best practices.

WIC

In addition to objectives that address the NPMs, MPDH supports programs that promote objectives related to our new state priorities to 1) Promote safe, stable, nurturing environments to reduce violence and injury, and 2) Improve environments, systems and policies to promote healthy weight, nutrition and active living. For both priorities, WIC plays a significant role. MDPH anticipates that the early prenatal WIC enrollment metric will remain part of the WIC program's Performance Management system. New outreach materials for clinicians will be released and will highlight a pregnant woman's ability to enroll in WIC prior to her first OB visit. Additionally, it is anticipated that a strengthened relationship between WIC and obstetric providers due to WIC's breastfeeding work will result in additional referrals.

WIC will continue to focus on interconceptional health, as staff work to improve resources for local agencies to provide "exit counseling" to postpartum women when they leave the WIC program. Efforts related to providing referrals for health care and social services will continue, and work will be done to ensure consistent messaging related to alcohol and drug use and addiction recovery resources.

Birth Defects Monitoring Program

The Birth Defects Monitoring Program (BDMP) ascertains major birth defects diagnosed in MA residents up to age three. Through quality improvement projects, BDMP will make ongoing improvements to the birth defects surveillance system. Prenatal reporting, which began with 2011 pregnancies, will be fully integrated into the BDMP database and other pregnancy losses (miscarriages and elective terminations) will be incorporated into surveillance reports. CCHD screening results for all birth defects cases will be collected by BDMP medical record abstractors as part of their routine abstraction of cases.

Furthermore, BDMP will work with the Perinatal Advisory Committee to determine related evaluation and quality

improvement initiatives. BDMP is currently responding to an RFA for four additional years of expanded activities related to Congenital Heart Defect (CHD) surveillance across the lifespan. If funded, in addition to surveillance, BDMP will build on its CHD surveillance system to add additional years of data for adolescents and adults with CHD, expand the system to include CHD cases of all ages, identify factors associated with optimal outcomes, delineate factors that hinder transition from pediatric to adult care, and develop a project to translate best practices into action. Participation in *BD-STEPS* will continue. Online surveys and medical record abstractions will be added as components. In March 2015, BDMP responded to a CDC-issued RFA (a supplement to *BD-STEPS* funding) to participate in the design, implementation and analyses of the *Stillbirth Risk Factor Pilot Project*. If funded, this three-year award would use *BD-STEPS* infrastructure to better understand the causes of stillbirths with and without birth defects.

In FY16, WIC anticipates a similar Folic Acid collaboration with BDMP, and will continue to use social media and WIC nutrition communication strategies to promote Folic Acid supplementation. WIC will continue to screen prenatal participants for multivitamin use and to promote interconception Folic Acid intake. WIC will also continue to assess immunization data for all participating infants and children.

Perinatal/Infant Health - Annual Report

NPM-4 A) Percent of infants who are ever breastfed

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	83.0	83.4	83.9	85.4	87.0

NPM-4 B) Percent of infants breastfed exclusively through 6 months

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	20.6	21.0	21.5	22.0	22.7

NPM 5 - Percent of infants placed to sleep on their backs

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	79.6	81.2	83.5	85	87.6

MDPH programs that impact the Perinatal and Infant domain include WIC, Early Intervention (EI), Early Intervention Partnerships Program (EIPP), Welcome Family, Universal Newborn Hearing Screening (UNHSP), Birth Defects Monitoring Program (BDMP), MA Home Visiting Initiative (MHVI), and partnerships with the Massachusetts Breastfeeding Coalition, the Massachusetts Baby Friendly Hospital Collaborative, the Neonatal Quality Improvement

Collaborative, and the Massachusetts Perinatal Quality Collaborative. These programs help achieve objectives related to breastfeeding, infant mortality and morbidity, healthy environments and healthy lifestyles.

NPM 11: Percent of mothers who breastfeed their infants at 6 months of age

Using the most recent National Immunization Survey (NIS) data, in MA, 53.7% of infants were breastfed at 6 months of age, exceeding the national prevalence of 49.4%. The 2014 MA rate represents a decline from the 2013 MA rate of 62.4%; however, the NIS sampling frame was changed to include cellphones in the most recent report which likely has affected the findings.

Exclusive breastfeeding in the early days of life is crucial to good breastfeeding outcomes at six months. In 2014 and 2015, MDPH was awarded funding from CDC and MCHB to help support the 47 MA birthing hospitals and two free-standing birth centers on the pathway to *Baby Friendly* designation and to present health care providers with continuing education opportunities. Ten hospitals thus far have received in-depth technical assistance, which focused on policy development and quality improvement. To date, 3,323 providers have completed the online tutorials, which are part of the *Baby Friendly* pathway. MDPH routinely collaborates with the MA Breastfeeding Coalition and the MA Baby Friendly Hospital Collaborative on projects to improve breastfeeding duration and exclusivity. In 2013, Massachusetts had just nine hospitals on the path to *Baby Friendly*. Currently, 23 hospitals and the Cambridge Birth Center are committed to becoming *Baby Friendly*.

<u>WIC</u>

The average rate of breastfeeding at 6 months among Massachusetts WIC participants in FY14 was 28%, level from 2013. These rates fall short of the Healthy People 2020 (HP2020) goal of 60.6%. The rates of breastfeeding duration and exclusivity among WIC participants are significantly lower in Massachusetts compared to non-WIC participants. MA PRAMS data allow examination of rates of ever breastfed, breastfed at four weeks, and breastfed at eight weeks. Using data from 2012 MA PRAMS, 86.8% of mothers reported ever breastfeeding, with 78.2% reporting breastfeeding at four weeks, and 70.4% reporting still breastfeeding at eight weeks. However, among WIC participants, only 70.0% breastfed for at least four weeks and 59.1% breastfed for at least eight weeks. Additional WIC data show that in 2014, 13% of WIC participants exclusively breastfed for three months and only 10% exclusively breastfed for six months.

Breastfeeding duration and exclusivity are key metrics for both state and local WIC agencies in the WIC performance management system. WIC offered breastfeeding education and support to all enrolled pregnant and breastfeeding women. Breastfeeding peer counselors were available in all 35 WIC Programs, with more than 100 peer counselors statewide. Phone, text, email, in-person consultation and group support were offered to women both pre- and post-partum to promote longer breastfeeding duration; approximately 13,000 contacts with mothers were made per month. WIC offered *Breastfeeding Basics* training and advanced breastfeeding in-services to WIC nutrition staff and staff of related and partner programs. *The Secrets of Baby Behavior* training was initiated to help parents understand infant communication and avoid unnecessary formula supplementation.

<u>Early Intervention Partnerships Program</u>

Exclusive breastfeeding is a key topic of discussion, education, support and referral. EIPP collects data on breastfeeding at birth, 2, 4, and 8 weeks, and at 6 months. In FY14, 72.4% of EIPP mothers breastfed their infant at

birth and 23.5% of EIPP mothers breastfed their infant at 6 months postpartum. In addition, 107 EIPP participants were referred to WIC services, 118 were referred to lactation support, and 127 were referred to breastfeeding support groups. Key barriers to exclusive breastfeeding include personal reasons (38%), medical reasons (24%) and the convenience of formula (8%).

EIPP vendors collaborated closely with community WIC programs, OB-GYNs, lactation consultants, and pediatricians to promote breastfeeding during the first 6 months after birth. Strategies implemented include support groups, individual lactation support and increased home visits during the first few weeks postpartum. For example, the EIPP site in Somerville has a nurse midwife and lactation specialist on staff who provide frequent home visits to newly lactating mothers. As a result, the Somerville EIPP site has exclusive breastfeeding rates of 70.5% at birth and 33.3% at 6 months postpartum. However, the Somerville EIPP was able to leverage additional resources to support the salary of a nurse midwife. Without additional resources, other EIPP sites may not be able to replicate this work.

Welcome Family

Welcome Family nurses provide breastfeeding support for all new mothers through education, brief interventions, and referrals for lactation support to improve duration rates. Among Welcome Family participants, 68.9% of infants are breastfed all or some of the time at the time of assessment, which occurs between two and eight weeks postpartum. For participants who reported that they breastfeed their infants ‘some of the time” or “none of the time,” the primary reasons for not exclusively breastfeeding included the mother’s belief that she does not have enough milk (36.2%) and other personal reasons (20.2%).

NPM 1: The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs

In 2014, in Massachusetts, 100% of the 141 infants who screened positive received timely follow up to definitive diagnosis and clinical management for conditions mandated by the MA newborn screening program.

During 2014, 99.3% of infants participated in newborn screening for 30 disorders and another 23 related conditions. Screening identified 141 cases for conditions including: Phenylketonuria (PKU), Congenital Hypothyroidism, Sickle Cell disease, hemoglobin S/C disease, Hb S/β-thalassemia, Cystic Fibrosis, Biotinidase deficiency, Citullinemia, Glutaric academia type 1, Long-chain L-3-OH acetylCoA dehydrogenase deficiency, Maple sugar Urine Disease, Medium-chain acyl-CoA dehydrogenase (MCAD), and Very long-chain acyl-CoA dehydrogenase (VLCAD). Since 2009, of the 99.5% of infants screened, Massachusetts has achieved timely follow-up annually for 100% of those infants who were identified as positive in screening. The New England Newborn Screening Program collaborates with the Universal Newborn Hearing Screening Program and the Children and Youth with Special Health Care Needs staff to ensure families and providers are educated about state resources and programs available to identified infants and their families.

NPM 12: the Percentage of newborns who have been screened for hearing before hospital discharge

In FY14, there were 72,406 births in Massachusetts (regardless of maternal residence), of which 71,653 (99.3%) were screened for hearing loss (excludes 258 deceased infants).

Universal Newborn Hearing Screening Program

The Universal Newborn Hearing Screening Program (UNHSP) oversees screening for hearing loss of all infants born in MA birthing facilities and at MDPH approved Audiological Diagnostic Centers. MA continues to have challenges ensuring hearing screening of homebirths and tracking hearing screening results of infants transferred at birth. Of those screened, 1,270 (1.8%) did not pass. Upon further evaluation, 146 infants were diagnosed with hearing loss, and 232 have no confirmed diagnosis to date (CY14 data has not been closed; infants are still being followed), and 53 moved, refused, or were deceased. Of the 146 infants diagnosed with hearing loss, 107 (73.8%) were enrolled in Early Intervention (EI). Outreach staff used screening results and demographic/medical data to ensure that diagnostic audiology follow-up and access to EI are within nationally established goals: screen by one month of age, diagnosis by three months of age, intervention by six months of age. During FY14, 2,948 follow-up calls were made and 1,274 letters were sent to families and providers. Outreach is available in Spanish and English, and staff use a language line to ensure appropriate communication with families who speak other languages. There were 2,027 audiological reports documenting follow-up, and all families diagnosed with hearing loss received Parent Information Kits. UNHSP convened its Advisory Committee, held three statewide audiological forums, held family support activities and participated in early childhood workgroups. The UNHSP Program Director received a 2013 MA Commonwealth Citation for Outstanding Performance for newborn hearing screening efforts carried out by the team and the program secured funding through a competitive HRSA grant cycle and entered year four of a CDC Cooperative Agreement for newborn hearing screening and related surveillance activities.

NPM 17: The percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates

In 2014, 71,814 infants were born in-state to MA resident mothers. Of these, 814 (1.1%) live birth infants were of very low birth weight (VLBW, <1,500 grams), compared to 1.2% in both 2013 and 2012. In 2014, 713 of these VLBW (87.6%) were born in a Level III facility, exceeding the HP2020 goal of 83.7%, but down slightly from 2013 values (88.8%).

Massachusetts has nine Level III birthing facilities and an additional neonatal intensive care unit (NICU) at Boston Children's Hospital. MA State Hospital Licensing Regulations (105 CMR 130.630) specify the requirements for Hospital Level designation and require Collaboration/ Transfer agreements between all Level 1 and Level II hospitals with at least one Level III hospital within geographic proximity. Regulations include requiring consultation and/or transfer of mother and/or newborn to Level II or Level III facilities for those mothers who are medically assessed as requiring such level of care or whose newborns are anticipated to require the services offered at such level. These regulations contribute substantially to Massachusetts's high rate of VLBW infants delivered at appropriate facilities.

MDPH collaborated with March of Dimes to support the 2014 Fall Summit of the Massachusetts Perinatal Quality Collaborative (MPQC). This summit continues to be well attended by perinatal health providers from all MA birthing facilities. Since 2006, MDPH has partnered with the Neonatal Quality Improvement Collaborative of Massachusetts (NeoQIC), a collaboration of the MA Level III NICUs, whose early work was supported by data from the Vermont Oxford Network (VON). VON is an international network of NICUs that includes detailed databases of measures on VLBW infants. Nine of the ten NICUs in MA are members of VON. These nine NICUs provide care to 87.6% of VLBW born in MA.

Additional activities to improve Perinatal/Infant Health

Birth Defects Monitoring Program

In the past year, BDMP initiated a quality improvement project focused on automating and improving efficiency of operations related to surveillance data. BDMP enhanced the timely review and classification of cases with critical congenital heart defects (CCHD) to assist in the evaluation of the CCHD newborn screening program. BDMP piloted the collection of CCHD screening results through medical record abstractions. BDMP data are currently available through 2012 and are integrated into other databases and systems to increase utility and public health value (e.g., Pregnancy to Early Life Longitudinal [PELL] database, MA Outcomes Study of Assisted Reproductive Technologies [MOSART], and Environmental Public Health Tracking [EPHT]).

Since March 2014, Massachusetts requires hospitals and birth centers to screen for CCHD in newborns prior to discharge. To meet these requirements, MDPH amended its regulations (105 CMR 130.000, 105 CMR 142.000) to stipulate that hospitals and birth centers use guidance issued by MDPH in the implementation of the required screening. A workgroup of external experts assisted with drafting this guidance, which will be issued later in 2015.

As one of six CDC-funded *Birth Defects Study to Evaluate Pregnancy Exposures* (*BD-STEPS*) sites, MA actively participates in the design and implementation of *BD-STEPS* protocol and related activities; provides advanced training and mentorship to prepare junior investigators for careers in birth defects research; and performs etiologic research studies into modifiable risk factors for specific birth defects.

In FY14, WIC collaborated with BDMP to promote birth defects awareness month in January, and to promote the importance of Folic Acid intake through blogs and Twitter feeds. Additionally, WIC designed materials which highlighted the importance of Folic Acid, for local WIC programs to distribute and post online. WIC also reviewed the multivitamin use status of every WIC prenatal participant and included Folic Acid/ Folate educational messages to postpartum women exiting WIC in anticipation of a subsequent pregnancy. WIC children also received an immunization assessment at each WIC appointment until the primary series of shots has been completed. Immunization rates remained a key metric for the WIC performance management system. In FY14, 68.8% of all children were verified to have the complete 4-3-1-3 vaccination series by 24 months of age. Collaboration with medical providers regarding immunization data and referrals for immunizations were priorities for WIC. Massachusetts has launched the MA Immunization Registry which allows centralization of immunization data, and improves the efficiency by which WIC can assess immunization status and provide appropriate referrals.

Sudden Infant Death Center

The SID Center participates in the MDPH Safe Sleep Task Force and the Child Fatality Review Team and responded to 64 families whose infants and young children died during FY14. Forty-five of these infants and young children died suddenly and unexpectedly. The SID Center also provided training and consultation to 40 licensed, community based health care professionals who provide bereavement counseling home visits; facilitated 12 monthly parent support groups; participated in 29 statewide and county based child fatality review team meetings, and two fetal and infant mortality review meetings. In addition, the SID Center responded to 280 calls to its 24 hour toll free line, conducted eight educational programs, and served as consultant to the NIH-funded study *Social Media and Risk-reduction Training for Infant Care Practices*.

The SID Center has documented the increased number of infants who die in compromised sleep environments with the majority of deaths occurring in an adult bed with either one or two parents and sometimes siblings. The SID Center also documented the increased number of infants who die in compromised environments who are African American or of Hispanic origin.

State Action Plan Table						
Child Health						
State Priority Needs	**Objectives**	**Strategies**	**National Outcome Measures**	**National Performance Measures**	**ESMs**	**SPMs**
Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	1. By 2020, decrease by 6% from baseline (144.6 per 100,000 in 2012) the rate of hospitalization for non-fatal injury per 100,000 children ages 0-9.	1a. Increase poisoning prevention program education sessions and collaborations with WIC, DCF, Early Intervention and Head Start Trainer staff. 1) Work with child serving agencies to promote injury prevention strategies in the home, community, and child care setting. 2) Provide education and outreach to parents and caregivers of children regarding poison prevention. 3) Actively pursue education efforts for families whose first language is not English. 1b. Support the MA / RI Regional	Child Mortality rate, ages 1 through 9 per 100,000 Adolescent mortality rate ages 10 through 19 per 100,000 Adolescent motor vehicle mortality rate, ages 15 through 19 per 100,000 Adolescent suicide rate, ages 15 through 19 per 100,000	Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9 and adolescents 10 through 19		

		Poison Control Call Center at Boston Children's Hospital. Use surveillance data to identify emerging threats. 1c. Work with child serving agencies (MHVI, EIPP, MPPTI) to promote injury prevention strategies in the home, community, and child care setting. 1d. Promote drowning prevention efforts such as pool safety regulations, public education on supervising swim and bath time, swim lessons, etc. 1e. Use injury surveillance data to reassess injury prevention priorities and related program and policy interventions.				
Reduce the impact and burden of environmental contaminants on children and	1. By 2020, increase 8% from baseline (80% in 2013, Childhood Lead Poisoning	1a. Use existing coalitions and collaborations to develop programs to target all				

their families.	Prevention database) the blood lead level screening rates in high-risk communities (as defined by low socioeconomic status, percent of old housing stock, and other factors) 2. By 2020, provide 5,000 multi-trigger multi-component home interventions for children with asthma to reduce the state Emergency Department rates for pediatric asthma among Black non-Hispanic and Hispanic children.	children less than 6 years of age. 1b. Reach out to Head Start program and others using new CDC guidance on reference values to convey renewed interest in education and screening. 1c. Work with clinicians and other health care providers to improve screening and provide culturally appropriate education about lead hazards to children, notably in high risk communities. 1d. Add questions about the presence of children under 5 at home in interviews with adults with elevated blood lead levels (reported to the Occupational Lead Poisoning Registry). Encourage adults with elevated levels to have their children screened.				

		1e. Work with CHWs who provide home visits for children with blood lead level>10µg / dL to provide resources about work exposures to lead for parents and the risk of take-home lead.				
		1f. Work with the Department of Labor Standards and OSHA to ensure workers with elevated lead levels received information about take-home lead.				
		2a. Increase demand and reimbursement for CHW-led asthma home visits.				
		2b. Provide tools, such as standardized visits protocols and educational materials, and technical assistance for successful implementation of asthma home visits.				
		2c. Develop environmental scoring system for sites				

		conducting home visits to allow comparison of environmental triggers for asthma across multiple environmental assessment tools.				

Child Health

Child Health - Plan for the Application Year

Massachusetts has identified two priorities for Child Health for the next five years.

1. Promote safe, stable, nurturing environments to reduce violence and the risk of injury.
2. Reduce the impact and burden of environmental contaminants on children and their families.

Progress towards the first priority will be measured by the rate of injury-related hospital admissions per population ages 0 through 9 years. Key MDPH programs that have a plan for improving this measure include: Injury Prevention and Control Program, WIC, Early Intervention Partnerships Program (EIPP), MA Home Visiting Initiative (MHVI), Pregnant and Parenting Teen Initiative, Child Fatality Review, and School Health Services.

Massachusetts will measure progress towards the environmental health priority through a state performance measure: the percent of blood lead level screenings in children aged 9-48 months. This SPM aligns with the Massachusetts State Health Improvement Plan (SHIP). Key MDPH programs that will impact this priority are the Childhood Lead Poisoning Prevention Program and the Asthma Prevention and Control Program.

NPM 7: Rate of injury-related hospital admissions per population ages 0-9 years

Addressing this National Performance Measure (NPM) is aligned with the priority: “Promote safe, stable, nurturing environments for families and enhance screening to reduce risk of injury and violence.” In 2012, the rate of non-fatal hospital discharges was 144.6 per 100,000 children ages 0-9 years, a decrease of 13% since 2003. The most common causes of hospitalization were falls (42%) and poisonings (15%). Under closer examination, the falls in this age group were very heterogeneous and MDPH decided a primary strategy around reducing unintentional poisonings in the next five years would be feasible and measureable. Other main strategies to reduce injury related hospitalization include home visiting programs to promote injury prevention strategies in the home, community, and child care settings. These strategies are in alignment with the MA State Health Improvement Plan (SHIP), the main strategic plan for MDPH.

Injury Prevention and Control Program

Poisoning/Overdoses:

Poisonings are a leading cause of hospitalization among children. In 2014, the most common poisoning agents for MA children aged 0-9 among cases referred to the Poison Control and Prevention Center were cosmetics and personal care products (15%), analgesics (9%), foreign bodies/toys/miscellaneous (9%), and household cleaning supplies (8%).

Poison prevention programming initiatives are the purview of the Regional Center for Poison Control and Prevention based at Boston Children's Hospital, and include the Community Outreach Educator and the Public Education Committee whose work focuses on reducing intentional and unintentional poisonings through prevention education and public awareness of the Center's services. MDPH provides funding and oversight of the Center and of the Community Outreach Educator. There are two main strategies to decrease the injury-related child hospitalization rate through the Poison Control and Prevention Center: 1) increase collaborations with WIC, MA Department of Children and Families (DCF), Early Intervention (EI) and Head Start Trainer staff, and 2) support the MA/RI Regional Poison Control Call Center, located at Boston Children's Hospital.

The first strategy is to increase poison prevention program education sessions and collaborations with WIC, DCF, EI and Head Start Trainer staff to reach more vulnerable populations. MDPH will focus its collaborative work with these agencies to increase their promotion of injury prevention strategies in homes, communities, and childcare settings. Additionally, MPDH will provide education and outreach to parents and caregivers specific to poison prevention, with a focus on collaborative agencies with the goal of increasing training sessions by 10% over the next five years. One focus area within these collaborations will be an active pursuit of educating MA families whose first language is not English. The Regional Center for Poison Control is investing in education materials in a variety of languages including Spanish, Mandarin and Vietnamese.

The second strategy to decrease child hospitalizations is through support of the MA/RI Regional Poison Control Call Center. Poison centers are a cost effective intervention reducing hospitalization; of incoming calls, 70% can be managed at site of exposures thus preventing hospitalizations. Staffed by toxicologists, a poison prevention educator, and pharmacists, the Center manages an average of 55,000 calls each year. Every $1 invested in poison centers saves $13.39 in unnecessary health care charges. Additionally, surveillance and identification of emerging threats will be prioritized through analysis of Poison Center data. The Poison Center collects and monitors data from its calls, allowing identification of emerging public health threats, such as food-borne illnesses or new trends of drug abuse. Centers will continue serve as a public health hotline and can be the first to raise alarm about toxic products, evidenced by recent threats of bath salts, laundry detergent pods, synthetic marijuana, and medication side effects.

Car Seat Safety:

In the coming year, MDPH will continue to do work that will indirectly reduce the hospitalization rate of this age group due to motor vehicle (MV) crashes. Although in MA car seat safety technician trainings and certifications fall under the purview of the Executive Office of Public Safety and Security (EOPSS), the recently created MA Traffic Safety Coalition (a new, improved version of the now-defunct Partnership for Passenger Safety) will reach out to CPS technicians across the state to encourage their participation. Additionally, MDPH will continue to participate in the Belts Ensure a Safer Tomorrow coalition (BEST), a group of advocates working to make seat belt use a primary law in MA, where staff regularly provide technical support and data. Work is under way to write a position paper on ignition interlock, advocating for all convicted DUI's to require installation of an ignition interlock. This effort, similar to the primary seat belt work, aims to decrease both the adult and child hospitalization rate due to MV crashes.

Referrals for child safety seats will continue to go to EOPSS.

WIC

The WIC Coordination Unit will continue to collaborate with the Injury Prevention and Control Program to share timely child safety messages and product recalls with local WIC programs and to ensure child safety messages in WIC's social media efforts. As in past years, the Coordination Unit will focus on topics such as window and shopping cart safety, lead and chemical poisoning prevention, water and sun safety, and smoking cessation and the dangers of secondhand smoke.

Early Intervention Partnerships Program

EIPP sites will continue to work with health plans (i.e., BMC HealthNet and Neighborhood Health Plan) and community based agencies (i.e., Safe Kids) to access free or low cost new car seats for EIPP participants. In addition, education materials and instructional aids will continue to be provided to EIPP participants in accordance with recommendations by the National Highway Traffic Administration and the Community Prevention Services Task Force.

MA Home Visiting Initiative

The percent of target children in MHVI programs who were reported as having received medical treatment as a result of injury has remained at 2% since FY13. To ensure the rate is maintained or decreased, MHVI will continue to encourage discussion of safety topics between the home visitor and participant and collect outcome data on all cause emergency department visits for infants and children and child medical visits as a result of injury. In addition, one of the MHVI programs will conduct a Plan-Do-Study-Act cycle to reduce the rate of child emergency department visits due to high rates of ED utilization in their community. The home visiting agency is developing a survey to better understand parents' knowledge and self-confidence regarding their child's health. The home visiting agency will use the survey results to improve the education provided during home visits.

Pregnant and Parenting Teen Initiative

The MA Pregnant and Parenting Teen Initiative (MPPTI) utilizes a multidisciplinary team approach that provides wraparound services through case management and home visits. Data to monitor injury prevention and child safety education is documented in the Environmental Health & Safety part of the Comprehensive Health Assessment. Further, MPPTI reports on a federal measure assessing whether any child was brought to the ER for an accidental injury or ingestion during the past 12 months.

Child Fatality Review Team

The Child Fatality Review teams (CFRT) conduct comprehensive, multi-disciplinary reviews of child deaths, to better understand how and why children die, and to use the findings to make recommendations to prevent other deaths and improve the health and safety of children. Local recommendations inform the statewide prevention efforts of the State Child Fatality Review Team.

The Local Teams will continue to 1) collect information on individual child deaths, 2) discuss case information in team

meetings and develop an understanding of the incidence and preventable causes of child deaths, 3) through the review process, promote collaboration among the agencies that respond to child deaths and provide services to family members, and 4) advise the State Team by making recommendations for changes in law, policy and practice that will prevent child deaths.

School Health Services

School Health Services is comprised of regional and central office professional staff who collaborate with MDPH and the Department of Elementary and Secondary Education to provide ongoing school health service systems development and technical assistance to the Commonwealth's 351 public school districts and approximately 600 nonpublic schools. This represents approximately 880,000 public school students and 120,000 nonpublic school students.

School health services will collect monthly data on the rate of injury-related hospital admissions in the school populations. School nurses are the first responders to any injuries or illnesses in schools. Through their assessment and interventions, the calls to 911 for these incidents are reduced, and students remain in school, ready to learn. In the coming years, these interventions will be collected by injury and/or illness in order to determine trends specifically related to injury-related hospital admissions.

Priority: Reduce the impact and burden of environmental contaminants on children and their families.

Childhood Lead Poisoning Prevention Program

Massachusetts has already selected a state performance measure to impact the Environmental Health priority over the next five years. The SPM will be "% blood lead level screenings in children aged 9-48 months." This measure aligns directly with the Massachusetts State Health Improvement Plan (SHIP). The objective for FY16 is to increase blood lead level screening rates in high-risk communities (as defined by low socioeconomic status, percent of old housing stock, and other factors) by 1.5%.

The MDPH Bureau of Environmental Health's Childhood Lead Poisoning Prevention Program (BEH/CLPPP) provides primary and secondary prevention of childhood lead poisoning, case management and environmental intervention, surveillance and evaluation, and successful collaborations with federal, state, and local partners to prevent and reduce lead poisoning. Due in large part to old housing stock, childhood lead poisoning continues to be an important public health problem in Massachusetts. Seventy-eight percent (78%) of homes in Massachusetts were built prior to 1978 and are likely to contain lead based paint. By comparison, 57.7% of all U.S. housing was built prior to 1978. Childhood lead poisoning has been established as a health disparity given that low income and/or minority populations are at greater risk. MCH Block Grant funds support culturally and linguistically appropriate community health workers who are contracted to provide direct services to families whose children have been identified as having elevated blood lead levels.

The Childhood Lead Poisoning Prevention Program (CLPPP) will use data from a new algorithm described in the FY14 Annual Report to prioritize services in high risk communities. The goals are to increase blood lead screening rates in these communities and reduce the incidence of childhood lead poisoning by promptly providing services to reduce and eliminate lead paint exposure. Strategies to improve screening rates will focus on revising MDPH regulations to address blood lead poisoning reference values in alignment with CDC recommendations, and building

partnerships with key stakeholders. CLPPP will work with clinicians and other health care providers in high risk communities to promote blood lead level screening and provide culturally appropriate education about lead hazards to children. CLPPP will also reach out to Head Start and other programs using the new CDC guidance on reference values to convey renewed interest in education and screening. In addition, CLPPP will explore partnerships with programs and initiatives such as Healthy Homes, Fair Housing, and Get the Lead Out Loan Program, to expand the number of properties inspected for lead.

Asthma Prevention and Control Program

In 2011, the rate of asthma emergency department (ED) visits among children aged 18 years and younger in Massachusetts was 77.3 per 10,000. In order to achieve a population level decrease in the state ED rates for pediatric asthma among non-Hispanic black and Hispanic children, the Asthma Prevention and Control Program (APCP) and its partners that perform Community Health Worker (CHW)-led asthma home visits across Massachusetts will provide 5,000 multi-trigger multi-component home interventions for children with asthma by 2020.

The APCP collaborates with several asthma stakeholders to ensure universal access to high-quality CHW-led asthma home visits for children in Massachusetts. The APCP has focused its efforts on increasing demand and reimbursement for these initiatives. The APCP is in the process of developing a provider-focused white paper to promote the use of global payments received by providers to implement asthma home visiting programs. In addition, the APCP is promoting increases in the voluntary coverage of asthma services, medications and equipment consistent with the national asthma guidelines (EPR3) by public and private insurers.

In addition, to increase the number of home interventions for asthma, the APCP will make available tools and technical assistance for successful implementation. For example, a stakeholder driven process is being used to design an Asthma Home Visit toolkit, which will be distributed to asthma partners across MA. This toolkit will provide standardized visit protocols and educational materials. The APCP has also developed an environmental scoring system for sites conducting home visiting services which allows comparison of environmental triggers for asthma across multiple environmental assessment tools.

To address the broader Title V Block Grant priority to “reduce disparities associated with the impact and burden of environmental contaminants on women of reproductive age, pregnant women and children,” APCP will assist school districts during the implementation of evidence-based programs aimed to improve asthma management and environmental policies. The APCP will continue to partner on the development of an e-referral system, a bi-directional health communication system between primary care and school nurses, which will improve asthma management in the clinic and school setting.

APCP will also continue to support the provision of guideline-based primary care to all Massachusetts children with asthma. This will be provided through the dissemination of the Physician Asthma Care Education training to PWTF grantees and the technical assistance and support to members of the Asthma Learning Collaborative as they implement asthma self-management education and high-risk case management in clinic settings.

Additional activities to improve Child Health

WIC

Immunization:

WIC will continue to collect and assess immunization data for all infants and children. WIC is awaiting the launch of the Massachusetts Immunization Registry which will centralize immunization data gathering and improve the efficiency by which WIC can assess immunization status and provide appropriate referrals to families.

BMI:

WIC nutrition assessment, counseling and education services will continue to promote healthy weight. Child BMI and pregnancy weight gain will continue to be monitored through the WIC Performance Management system. WIC will explore opportunities for staff continuing education related to obesity prevention, and will respond to survey findings related to staff competencies in obesity counseling. Filling the nutrition education specialist vacancy will allow more focus to be paid to FitWIC programming. The Good Food Project (GFP), designed to enhance and expand nutrition education and programming in WIC by providing fun, interactive education opportunities and resources, will be implemented in six pilot local WIC agencies. Analysis of WIC purchasing patterns using the new WIC Card data will begin to explore opportunities for targeted nutrition education and promotion of healthy food items offered by the Program.

Child Health - Annual Report

NPM 7 - Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9 and adolescents 10 through 19

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	142.9	141.1	139.4	137.6	135.9

NPM 7: Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenza, and Hepatitis B

WIC

All WIC children received an immunization assessment at each WIC appointment until the primary series of shots had been completed. Immunization rates remained a key metric for the WIC Performance Management System. In FY14, 70.4% of all children were verified to have the complete 4-3-1-3 series (4 DTP, 3 polio, 1 MMR and 3 Hib) by 24 months of age, up from 63.2% in FY13. Collaboration with medical providers to provide immunization data and referrals for immunization services to participants missing vaccinations were priorities for the WIC program. The WIC Program service standards require that staff visit area healthcare providers to share WIC and nutrition-related information, which includes a review of WIC's immunization requirements. One challenge is children falling off their immunization schedules due to appointment delays. In response, WIC staff has provided fact sheets and educated parents on the importance of adhering to the recommended schedule

NPM 10: Rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per

100,000 children

Many MDPH programs addressed motor vehicle education and safety for children in FY14, including the Injury Prevention and Control Program, WIC, Massachusetts Early Intervention Partnerships Program (EIPP), home visiting programs, and Child Fatality Review.

Injury Prevention and Control Program

Rates for unintentional motor vehicle-related deaths have decreased 54.8% between 2003 and 2012 among children aged 0-14 years. Data from the annual MA Safety Belt Usage Observation Study demonstrate that the percent of child passengers under age 12 years observed to be properly restrained increased from 88% in 2009 to 94% in 2014. Areas for improvement include increasing booster seat usage, proper installation of all CPS seats and increased training of minority technicians as a means of addressing inequity. In combined 2006-2010 MA data, non-Hispanic black and Hispanic children under age nine years were found to have significantly higher rates of emergency department visits and hospitalizations for motor vehicle occupant injuries than non-Hispanic white children. While not definitive, these higher rates may be related to lower seat belt use in these populations.

As part of the CDC funded Core Violence and Injury Prevention program, MDPH work continued on motor vehicle occupant injury prevention in FY14. Several changes in the past few years have limited the work MDPH does in this specific age group. The MDPH child safety car seat hotline was discontinued in 2013 because the MA Executive Office of Public Safety and Security (EOPSS) had been awarded federal funding to host a similar hotline. Aiming to reduce state agency redundancy, MDPH discontinued its phone line and referred callers to the EOPSS number and has prioritized a focus on preventing injuries among teen drivers.

WIC

The Coordination Unit collaborated with the Injury Prevention and Control Program to share timely child safety messages and product recalls with local WIC programs and to include child safety messages in WIC's social media efforts. In September 2014, WIC featured car seat recommendations on the *AskWIC Blog*. Recommendations were consistent with National Highway Safety Administration (NHTSA) guidelines. The blog also highlighted NHTSA's Child Passenger Safety (CPS) seat inspection program which is available in many communities across the nation.

Early Intervention Partnerships Program

Families served through EIPP receive health education, brief intervention and counseling appropriate to the families' needs and based on a Comprehensive Health Assessment completed by the end of the second face-to-face contact with the EIPP participant. Key educational topics included car seat safety. In state FY14, 149 EIPP participants were referred to car seat safety experts.

A key challenge identified by the EIPP programs was the inability of EIPP participants to afford the purchase of a new car seat. Many EIPP participants rely on public transportation and therefore, use baby carriages to transport their infants. Many EIPP participants receive car rides from family and friends. Securing a car seat in a different vehicle for each trip is time consuming and poses a risk that the car seat is not properly installed. In addition, EIPP participants may choose to borrow a car seat from a relative or friend and this also poses a risk that the car seat does not meet current safety requirements.

MA Home Visiting Initiative

MHVI programs include a focus on injury prevention and home safety for pregnant and parenting families. Home visitors provide information to parents on infant passenger safety and resources to obtain child safety seats with instructions for their proper use. MHVI collects and analyzes data on all-cause visits to emergency departments and medical visits as a result of injury (including, but not limited to emergency department visits) for children aged 0 to 5 years to assess efficacy of injury prevention education and support. The percent of MHVI target children who visited the emergency department for any reason decreased from 14% in FY13 to 12% in FY14 and medical treatment as a result of injury remained stable at 2%. Discussion of safety topics, including child passenger safety, increased from 44% to 56% during the same period.

Child Fatality Review Team

Broadly, the State and Local Teams continue to be aware of the need for cultural sensitivity and prevention activities. For example, the Norfolk local team recommended in 2014 that "training on culturally competent child mental health services" and "developing culturally-sensitive community programs to promote health and foster well-being in immigrant groups" are needed after reviewing youth suicides.

Specific to motor vehicle safety among children, in FY14 the Middlesex County CFRT distributed posters and brochures on car safety to various car dealerships, libraries, and recreation centers. The brochures were also distributed to police departments and placed in courts.

At both the state and local level, CFRT continues to be an unfunded mandate. Local team coordinators, based at the District Attorney's offices, have multiple work responsibilities and limited time available for coordinating local team meetings, gathering records for the review, and submitting data to the State Team. Provision of resources (in the form of staff resources, funding, materials, or other support) would allow local teams to conduct more effective and efficient reviews and provide the State team with improved data to inform prevention strategies. Although a part-time State CFRT coordinator has been hired through MDPH, a dedicated full-time position for this work would substantially improve the efficiency and effectiveness of the program's activities.

NPM 14: Percent of children, ages 2 to 5 years, receiving WIC services with a Body Mass Index (BMI) at or above the 85th percentile

WIC

WIC plays an important role in assisting families in achieving positive nutritional habits and healthy weights. All WIC participants receive anthropometric assessment as well as dietary assessment and counseling. Childhood obesity was a metric for the WIC Performance Management system. Each local agency set goals for reducing this rate and received quarterly data updates to track their progress. The state average for WIC children 2-5 years with a BMI at the 95th percentile or above was 14.2%, which unfortunately is higher than the 13.7% rate from FY13 but lower than the 14.7% seen in FY12 and the 16.4% seen in FY11. Prenatal weight gain, a variable believed to affect the weight status of infants and children, is also monitored through the Performance Management system.

The MA WIC program continued to offer the WIC food package containing whole grains, low-fat dairy, and fruits and

vegetables to children. The dollar value of fruits and vegetables available monthly was increased by 33%. The Farmers' Market Nutrition Program coupon program had another successful season, with more than 22,500 WIC participants receiving $20 in Farmers' Market coupons at local program distribution days. MA WIC offered cooking classes and shopping tours for WIC parents in several local programs across the state; this initiative was awarded a 2014 WIC Special Project Grant to implement the Good Food Project, aimed at increasing programming around healthy cooking and shopping in an effort to improve WIC food utilization and retain more preschool children in WIC.

MA WIC continued to implement programming designed to increase breastfeeding duration—a behavior linked to healthy weights in children. Many local agencies offered Happiest Baby on the Block services, providing classes to WIC families that teach parents methods to calm their fussy babies without overfeeding. The WIC Learning Center began to offer Baby Behavior training to help parents communicate better with their infants in an effort to improve breastfeeding rates and better interpret signs of hunger. Local WIC programs continued to implement Fit WIC which involves group education opportunities that include parents in being physically active with their children, strengthen the mind-body connection, and promote healthy nutrition choices. Three WIC programs continued to participate in the Mass in Motion Kids obesity prevention demonstration project. As part of this project, nutrition staff at all 35 WIC programs participated in a survey related to skills and confidence in providing effective nutrition counseling related to obesity. While the findings for this survey are pending, WIC can infer from previous work that there are some competencies that can be strengthened in the paraprofessional staff related to BMI assessment and among all staff in providing counseling in less traditional areas, such as promoting sufficient sleep and reducing screen time.

SPM 7: Rate (per 10,000) of hospitalizations due to asthma among Black, non-Hispanic, and Hispanic children aged 0-4

Asthma Prevention and Control Program

In 2011, the rate of asthma ER visits among children aged 18 and younger in Massachusetts was 77.3 per 10,000. To reduce the burden and impact of asthma among children, the Asthma Prevention and Control Program (APCP) worked extensively with the Massachusetts Asthma Action Partnership (MAAP) to develop the Strategic Plan for Asthma in Massachusetts 2015-2020. MAAP is the only statewide asthma partnership in MA whose mission is to reduce asthma health disparities and improve the quality of life for all people with asthma in the Commonwealth by coordinating statewide efforts.

The Strategic Plan identifies priorities, objectives, and activities for the APCP and partners across Massachusetts in a number of areas, including reducing environmental factors that cause or exacerbate asthma and working towards the primary prevention of asthma. Examples include 1) Reducing exposure to specific outdoor air pollutants linked to asthma development and worsening asthma symptoms; 2) Reducing exposures to factors that cause and/or exacerbate asthma in school, child care and child recreational settings; 3) Reducing exposures to factors that cause and/or exacerbate asthma in the home setting; and 4) Reducing exposures to factors that cause and/or exacerbate asthma in the work place. MDPH will continue to work with statewide partners on the implementation of the Strategic Plan in the coming years.

In September 2014, the APCP was awarded a five year Comprehensive Asthma Control grant by the CDC. The APCP will leverage this award to support the Prevention and Wellness Trust Fund (PWTF), a fund established by the MA legislature and administered by MDPH for local partnerships to reduce rates of chronic disease over three years. This work supports the APCP's three goals for the next five years which are:

- Ensure universal access to high-quality CHW-led asthma home visits for children in Massachusetts;
- Improve asthma management and environmental policies in Massachusetts schools;
- Ensure guidelines-based primary care is provided to all Massachusetts children with asthma.

School Health Services

The asthma prevalence in Essential School Health Service (ESHS)-affiliated school districts is high compared to national data. Of the 682,000 students enrolled in districts submitting ESHS data reports, 12.6% were reported to have asthma, compared to a 2013 national asthma prevalence of 8.3% for children less than 18 years. During FY14, school nurses administered 89,619 medications for asthma "as needed" (PRN). The PRN asthma prescription rate among students enrolled in ESHS-funded districts increased from 34.5 per 1,000 in 2009-2010 to 39.8 per 1,000 in 2011-2012, but has leveled off over the past three years (37.8 and 38.5 per 1,000 in 2012-2013 and 2013-2014, respectively). These high numbers suggests the need for school nurses and students with asthma and their families to more effectively address the needs of students with asthma. The preliminary data need further review to understand whether asthma management in schools are inappropriate, the medical directive treatment plans need amendment, or the treatment plans are misinterpreted. These are the issues that need to be addressed by school nurses in the coming years.

Additional activities to improve Child Health

MDPH's Division of Pregnancy, Infancy, and Early Childhood in the Bureau of Family Health and Nutrition is actively engaged in promoting early childhood social and emotional wellness. See the Crosscutting/Lifecourse domain for additional information on these efforts, including Project LAUNCH and Essentials for Childhood.

Childhood Lead Poisoning Prevention Program

In Calendar Year 2014, 76% of Massachusetts children 9-48 months of age were screened for lead poisoning. There were 4,967 children with a blood lead level, either a capillary or venous test, greater than or equal to 5 µg/dL. Data on income, age of housing, and blood lead levels show that the burden is particularly great for high-risk, low-income children. Massachusetts screening regulations, like CDC's recommendations, require mandatory screening between nine months and three years of age; however, Massachusetts regulations require additional screening at the age of four years for children living in high-risk communities. More than 240,000 blood lead test results were reported electronically in 2013.

The BEH's Environmental Epidemiology Program revised the algorithm for identifying communities where children are considered to be at a higher risk for lead exposure to allow for resources to be better directed at environmental, educational, and surveillance activities. The algorithm identifies high-risk communities based on screening and incidence rates, age of housing, and income status. While MA has a universal blood lead level screening requirement for children from nine months to three years of age, additional screening requirements are warranted for children living in high-risk communities or at higher risk for lead poisoning. The high risk community algorithm was expanded to include children with a blood lead level of 10 µg/dL (previously 20 µg/dL); to more accurately measure poverty; and to include housing stock built before 1978 (previously only housing built before 1950 was included). A high risk score is calculated and communities with a score that is statistically significantly higher than the state as a whole are designated as high risk. In the most recent application of the algorithm in 2015 for the period 2010-2014, 18 cities and towns were designated as high risk (up from 10 in previous periods). These communities accounted

for 60% of cases of 10 µg/dL or greater blood lead levels. Screening rates in these communities, including methods for targeting vulnerable populations within high risk communities such as immigrants whose screening rates may be particularly low, will be the focus of a Medical Review Panel composed of experts in pediatric environmental medicine. These and other data are also used to guide program services as well as to inform state and local partners.

FOR Families

FOR Families Program [Follow-up, Outreach and Referral] is a statewide home visiting program whose primary goal is to help families transition from homelessness to stable permanent housing. FOR Families is a joint program of the Massachusetts Department of Housing and Community Development and MDPH. This program is described in more detail in the Women's/Maternal Health domain.

FOR Families encourages parents to obtain regular preventive healthcare visits for children. The families served in the Emergency Assistance shelter system are living below the federal poverty level. Families have difficulty accessing healthcare due to the lack of public transportation in certain areas of the state and insufficient financial resources to use public transportation. Home visitors assist clients to access state subsidized healthcare transportation as well as provide bus passes when available from donations. The number of homeless children living in hotels increased from 2,136 in 2013 to 3,580 in 2014. The total number of homeless children living in hotels is decreasing in FY15 due to the increase in shelter capacity statewide. All pregnant women and children under the age of 5 are referred to WIC upon entry into the hotel. At this time FOR Families does not have a system to track measureable data; however, starting next year we will utilize a database to capture information on referrals to WIC.

Race to the Top Early Learning Challenge Grant

Under the Race to the Top Early Learning Challenge grant, MDPH hired an Early Childhood Health Specialist (ECHS) to partner with the Department of Early Education and Care (EEC) to develop a sustainable, consistent health infrastructure for early education settings that serve children birth to age five years. The ECHS, a Master's level nurse, created tiered health and safety standards for early learning programs as part of EEC's Quality Rating and Improving System (QRIS). To support programs in reaching these standards, the ECHS created a self-assessment tool and a series of online trainings which provide best practices on priority health areas including nutrition and food allergy management, emergency preparedness, health care policies and personal care routines/sanitation. To bolster the field of Child Care Health Consultants, who provide technical assistance to early education programs to improve health practices and meet QRIS standards, the ECHS has partnered with the UMass School of Nursing to develop a training to bring new health professionals into the field.

The ECHS also partners with other MDPH programs including EI and CYSHCN to enhance early education program supports for the inclusion of children with special health needs. The ECHS oversees a cohort of six part-time nurses who sit at EI Regional Consultation programs and provide training to early educators and administrators on management of the four most prevalent chronic health conditions in early childhood: asthma, allergies/anaphylaxis, diabetes and seizure disorders. By building relationships across DPH and other state agencies that provide services to young children, the ECHS is promoting the integration of health into the early education system.

State Action Plan Table						
Adolescent Health						
State Priority Needs	**Objectives**	**Strategies**	**National Outcome Measures**	**National Performance Measures**	**ESMs**	**SPMs**
Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	1. By 2020, decrease the rate of hospitalization for non-fatal injury per 100,000 children ages 10-19 by 12% from baseline (203.1 per 100,000 in 2012).	1a. Develop and implement two-hour online suicide prevention programming for licensed professions required by gun law. 1b. Promote suicide prevention in public policy, workplaces, school, state agencies and other organizations. 1c. Through GLBTQ Safe Spaces, promote innovative promising approaches to serve hard-to-reach populations. 1d. Promote trauma-informed model policies and practices for screening and universal education in varied health and public	Child Mortality rate, ages 1 through 9 per 100,000 Adolescent mortality rate ages 10 through 19 per 100,000 Adolescent motor vehicle mortality rate, ages 15 through 19 per 100,000 Adolescent suicide rate, ages 15 through 19 per 100,000	Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9 and adolescents 10 through 19		

		health settings for suicidality and all forms of violence. 1e. Promote strategies that address young drivers including improvements to the Graduated Driver's License program and social marketing campaigns on safe driving (speed, texting, seat belts) aimed at young drivers.				
Promote equitable access to preventive health care including sexual and reproductive health services.	1. By 2020, increase by 2% from baseline the percent of adolescents with a preventive medical visit in the last year (91% in 2011 / 12). 2. By 2020, increase by 10% from baseline the number of SBHC clients	1a. Increase provider self-efficacy with adolescent males within School-Based Health Centers (SHBCs). 1b. Implement Quality Family Planning Guidelines in all Sexual and Reproductive Health Program agencies.	Adolescent mortality rate ages 10 through 19 per 100,000 Adolescent motor vehicle mortality rate, ages 15 through 19 per 100,000 Adolescent suicide rate, ages 15 through 19 per 100,000 Percent of children with a	Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.		

	age 12-18 years seen by the medical provider who are assessed at least once during the school year for substance use using the CRAFFT tool. (2% increase per school year from 63% in 2014 to 73% in 2020).	1c. Implement surveillance of referrals to preventive care visits and follow-up from home-visiting programs serving adolescents. 2. Improve SBHC clinician self-efficacy to conduct the CRAFFT screen and respond to disclosures through Observed Structured Clinical Exams (OSCE) and Motivational Interviewing training.	mental/behavioral condition who receive treatment or counseling Percent of children in excellent or very good health Percent of children and adolescents who are overweight or obese (BMI at or above the 85th percentile) Percent of children 6 months through 17 years who are vaccinated annually against seasonal influenza Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate			

			vaccine			

Adolescent Health

Adolescent Health - Plan for the Application Year

Massachusetts has identified two priorities for Adolescent Health for the next five years.

- Promote safe, stable, nurturing environments to reduce violence and the risk of injury.
- Promote equitable access to preventive health care including sexual and reproductive health services.

The violence and injury priority will be primarily measured by the rate of injury-related hospital admission among youth aged 10-19 years and addressed through the Injury Prevention and Control and Youth Violence and Prevention Services (YVPS) programs.

The preventive care priority will be measured by the percent of adolescents aged 12-17 years with a preventive services visit in the last year and addressed through School-Based Health Centers, School Health Services, and the Sexual and Reproductive Health Program. Other MDPH programs continue to improve adolescent health that are not specific to the new NPMs or encompassed in a priority.

NPM 7: Rate of injury-related hospital admissions per population ages 10-19 years

Promoting safe, stable, nurturing environments to reduce violence and risk of injury is a priority for adolescents in MA. Injuries are the leading causes of morbidity and mortality for adolescents. Measuring hospitalizations is the NPM selected to assess reductions in injury among adolescents. The objective for the next five years is to decrease the non-fatal hospitalization rate among adolescents by 12% from baseline of 203.1 per 100,000 in 2012, a decrease that is based on a conservative continuation of the annual percentage change in this rate over the past ten years. Examining the causes of hospitalization, strategies to reducing this rate include programming and activities by the Suicide Prevention Program, Injury and Prevention and Control Program, and YVPS.

Suicide Prevention Program

The MA State Health Improvement Plan (SHIP) includes the measure to “prevent an increase in the age adjusted rate of suicide among MA residents, particularly those most at risk.” The Suicide Prevention Program is continuing to work to towards this goal.

A key strategy to accomplish this is to implement the MA General Laws, Chapter 284 of the Acts of 2014 titled, An Act Relative to the Reduction of Gun Violence signed by the Governor in August 2014. Different components of the Gun Law are the responsibility of different state agencies or Departments; the MDPH Suicide Prevention Program is assuming a coordinating role for all of the suicide prevention related components. The Suicide Prevention Program is developing its own online suicide prevention training for school personnel that will meet all the criteria of the law. The training will include evidence-based materials instructing school personnel on best methods in helping a suicidal student. Once completed, it will be made available to any school personnel in the state at no charge. This will be a main strategy for reducing injury-related hospitalization in this age group.

The Suicide Prevention Program is collaborating with the YVPS, which recently released an RFR for Safe Spaces for LGBT Youth. This RFR requires that awarded grantees provide suicide prevention protocols for all direct care and clinical staff. This has become a model RFR inclusion; starting with the Bureau of Community Health and Prevention and expanding to include other MDPH Bureaus, a suicide prevention component will become a standard requirement in all appropriate new RFRs. One long-term goal is be to include language in any relevant RFR released by MDPH. The Suicide Prevention Program will continue to collaborate with MDESE and the Department of Mental Health (DMH). The DMH liaison will continue to work directly with the Suicide Prevention Program on many projects specific to youth, including the Garrett Lee Smith Grant through SAMHSA and partnership with the MA National Guard.

Injury Prevention and Control Program

Motor Vehicle Safety:

The main motor vehicle strategy to reduce injury-related hospital admissions among adolescents will focus on the Junior Operating License (JOL) and emphasize the importance of parental involvement. The JOL law is a graduated license law where new, young drivers start out with restrictions that are removed as the driver advances from the "learner's permit" phase through the "junior operator license" phase into a "full license." Planned activities for the coming year will focus on MV injury prevention work among adolescents aged 16 and 17 years. Staff will continue to co-chair the young driver working groups as part of the MADOT Strategic Highway Safety Plan, sit on the statutorily-required JOL advisory board and co-chair the newly created MA Traffic Safety Coalition. Programmatic efforts will continue to focus collaborative work with the Registry of Motor Vehicles (RMV) to identify potential funding sources to re-write the parent JOL class. As a result of the evaluative audit of the statutorily-required parent JOL class, MDPH recommended that the RMV make provisions for parents who are non-English speaking. With the completion of the Parent JOL class evaluative audit, future efforts will focus on soliciting stakeholder thoughts on how to build upon this work.

Further efforts aim to indirectly decrease the hospitalization rate of this age group due to MV crashes through continued participation in the Belts Ensure a Safer Tomorrow coalition (BEST), a group of advocates working to make seat belt use a primary law in MA. MDPH regularly provides BEST with technical support and data. Efforts will continue to write an ignition interlock position paper, advocating for all those convicted of DUIs to require installation of an ignition interlock. This effort, similar to the primary seat belt work, will indirectly affect the 10-19 year old hospitalization rate due to MV crashes.

Sports Concussions:

In terms of traumatic brain injury prevention, the sports concussion regulations provide standardized procedures and guidance to schools grades 6-12 in the prevention and management of sports-related head injuries in all MA public schools and other schools that are members of MA Interscholastic Athletic Association. Ongoing training activities with schools, medical providers and stakeholders are designed to raise awareness of the importance of the regulations in preventing sports-related head injuries. In FY16, efforts will continue to raise awareness at schools and with medical providers to prevent sports-related head injuries. Submission of Year End Reports on concussions enables measurement at the school level of awareness and compliance regarding the regulations. Schools submit the Year End Data Report to MDPH by August 31. It is a standard report that is available on the MDPH website and is sent out to school principals and athletic directors every spring in advance of the due date. These forms also create opportunities to provide technical assistance and guidance to school staff when they call with questions. The

program aims to have an even higher rate of return in the upcoming years. The number of Year End Reports that have been received from schools since implementation in 2011 has increased by 190% from 203 in school year 2011-2012 to 588 in school year 2013-2014, suggesting more schools are compliant with the regulations.

Youth Violence and Prevention Services

The YVPS unit has initiatives that target youth at high risk of suicide and suicidal behaviors, including LGBTQ youth, homeless youth and LGBTQ homeless youth. The Safe Spaces for LGBTQ Youth grant will provide $2,688,400 over the entire grant cycle to eight community-based programs serving LGBTQ Youth. Starting with RFRs in 2015, all MDPH-funded LGBTQ programs will be required to integrate suicidal behavior prevention into their service provision. In addition to providing suicide prevention services to the youth served, all programs *applying* for funding as well as funded programs will be required to have policies and protocols in place for responding to situations in which a young person is identified as being at high risk for suicide or self-harm and when there has been an attempted or completed suicide by a member of the program. Additionally, program staff must attend at least one training to identify warning signs and learn how and where to refer young people in crisis. YVPS will continue to support behavioral health services integration in non-clinical settings (such as sports settings and community centers), an approach used in the Safe and Successful Youth Initiative and endorsed by EOHHS.

YVPS will research and provide training on effective police and community partnerships for all providers funded under all three grants (Primary Violence Prevention, Youth At Risk and Safe Spaces for LGBTQ Youth). This training will present how to establish a constructive and effective partnership with our local police departments and will give providers key information, training and best practices for establishing these important connections.

As self-inflicted injury is a leading cause of adolescent hospitalization, programming around suicide is also supported in the YVPS with a focus on vulnerable populations, such as LGBTQ youth. According to the 2013 MA YRBS studies, 24% of LGB youth attempted suicide in the past year compared to 4% of “other students.” Data from the 2013 MA YRBS further indicate LGB youth are significantly more likely than other students to skip school due to feeling unsafe (15% vs. 3%) and experience bullying (38% vs. 15%).

NPM 10: Percent of adolescents with a preventive services visit in the last year

Preventive care, including access to sexual and reproductive health services, is a priority for adolescents in MA. The objective for the next five years is to increase preventative care visits by 2% from a baseline of 91% in 2011/12. The strategy around increasing the percent of adolescents with a preventive services visit for the next five years is centered on School-Based Health Centers (SBHCs). MDPH funds 16 sponsoring agencies that operate 33 SBHCs to provide a consistent source of primary health care in the most accessible environment. These SBHCs have shown to be an important option for reducing both financial and non-financial barriers to health care: lack of insurance, lack of confidentiality, inconvenient office hours and locations, inability of working parents to leave their jobs to get children to care, lack of transportation, and apprehension and discomfort discussing personal problems affecting health. This priority is also aligned with the MA State Health Improvement Plan (SHIP), which includes strategies to link people to needed personal health services and health care through the support and expansion of school-based health clinics that provide preventive services visits. SBHCs also focus on substance use screening. Other strategies include promoting the *Quality Family Planning Services Recommendations* from the CDC in the Sexual and Reproductive Health Program (SRHP) and tracking referrals to preventive health care visits in Adolescent Health and Youth Development (AHYD) and School Health Services programs.

School-Based Health Centers

Currently, MDPH funds 16 sponsoring agencies (hospitals, community health centers and local health departments) that operate 33 SBHCs, which function as satellite outpatient clinics. School-based health centers (SBHC) are staffed by nurse practitioners or physician assistants who are authorized to prescribe medications and are supervised by a medical doctor.

Adolescent Male Health Promotion:

In examining barriers to preventive care visits, one striking difference documented in the literature is that adolescent males use health care services less than females. Bell and Ginsburg (2003) suggest in *Connecting the Adolescent Male with Health Care* that "the complexity of male psychology and social constructions of masculinity make it challenging to deliver effective and consistent care to adolescent males." In the 2013 Pediatrics article, *Adolescent and Young Male Health: A Review,* Bell et al. discuss the lack of attention to adolescent male health despite the potential for positive effects of quality and length of life and reduction of health disparities and social inequalities. In addition, the authors provide recommendations for the overall care of adolescent male health, including 1) engage male youth in care, assess and build upon strengths, and 2) provide time and a safe space for confidential conversations about sensitive topics. Anecdotally, it was reported that young adolescent males were using the SBHCs less frequently than females. In conversations with young males at SBHCs, they suggested that the clinics were perceived to be "for girls." While SBHCs did not monitor the percentage of adolescents with preventive care visits in FY14, they did monitor SBHC utilization and visit types. Data by gender will be available in FY16.

With this focus on adolescent male health engagement, SBHCs have already started to implement measures aimed at engaging young males in care and improving the delivery of clinical preventive services for adolescent males seen in SBHCs. Staff from the Adolescent and Young Adult (AYA) Male partnership provided training on their clinical toolkit and offered additional professional development on topics ranging from masculinity to sexual health concerns. SBHC clinicians were surveyed before and after the training to determine their 1) self-efficacy in terms of assessing and counseling adolescent males on health risk behaviors, and 2) priorities for professional development (aimed at increasing their clinical skills and comfort in serving adolescent males). In FY16, SBHCs plan to offer extensive professional development aimed at increasing the level of skill and self-efficacy of SBHC clinicians in responding to adolescent male concerns in the SBHC setting. Continued work with the AYA Partnership will also further address priority topics identified by clinicians.

Substance Use Screening:

Addressing substance use screening into the priority of preventive care is a key strategy for MDPH to improve adolescent health. In the 2015 MA Youth Health Priority Survey (n=228), substance use was the top priority listed by youth (31%), followed by mental health (19%), and injury and violence (14%). Within the broad category of substance use, youth ranked binge drinking, marijuana use, and other illegal drug use as the most important areas in their communities. These results were corroborated by findings in the 2013 Youth Risk and Behavior Survey (YRBS). Among MA 12th graders, 74% reported lifetime alcohol use, 49% reported current alcohol use, and 29% met the criteria for binge drinking. Marijuana was the most commonly reported drug by high school student report, with 41% high school youth reporting lifetime use, 25% having used in the past 30 days, and 7% having used before age 13 years. While trends in binge drinking have been decreasing among adolescents, trends in lifetime and current marijuana use have remained stagnant since 2003.

To fully address the priority of preventive care among adolescents, there will be increased efforts to promote behavioral health screening within SBHCs, reflected in the State Five Year Action Plan Strategies and Objectives. During the 2013-2014 school year, 63% of SBHC clients age 12 to 18 years seen by the medical provider were assessed at least once for substance use using the behavioral health screening tool, CRAFFT. The CRAFFT is for use with youth under 21 years and is recommended by the American Academy of Pediatrics' Committee of Substance Abuse. It is a series of six questions developed to screen adolescents for high risk alcohol and other drug disorders. Among these students, 96% received a brief intervention, which included the following four options: 1) Give praise/encouragement for making good decisions or revealing use; 2) Give copy of 'Contract For Life;' 3) Develop action plan for addressing risk; 4) Schedule follow up with SBHC medical provider. In the 2015-2016 school year, the SBHC Program aims to increase the percent of students screened for substance use using CRAFFT by 2%. In addition, the objective is that 100% of students screened will receive a brief intervention.

Sexual and Reproductive Health Program

Family planning providers will continue to be a source for many adolescents of primary care providing preventive health visits, blood pressure screening, BMI screening, testing for sexually transmitted diseases, physical exams, immunizations such as HPV, and referrals for care. The SRHP funds eight agencies statewide to provide clinical family planning services at over 90 sites. Agencies bill MDPH for clinical services by using Medicaid billing codes; six of these codes are for preventive medicine visits. Agencies determine which code is appropriate based on the age of the client and whether the client is new or returning. This billing information provides data for the MCH Block Grant. Of all preventive health visits MDPH funded in family planning services in FY14, 18.2% of those visits were made by those under age 19, and 95.2% of those visits were made by females. In FY16, family planning providers will continue to be a source of primary care for many women in providing preventive health visits.

The release of the 2014 *Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Population Affairs* will have a significant impact on the provision of preventive services. For the first time, there are national standards on family planning services for all providers. One recommendation is that providers offer preconception health services as a core family planning service. Preconception health services include screening for obesity, smoking, violence, mental health and reproductive life planning. Other preventive health services include breast and cervical cancer screening, immunizations, and others based on nationally recognized standards of care.

The SRHP has revised its standards to meet these new guidelines and is in the process of providing technical assistance to funded agencies to ensure that the new guidelines are being implemented. In the next year, the SRHP will continue to assess providers' implementation of the new guidelines through medical record monitoring at site visits, evaluation of agency self-assessments, and agency semi-annual and annual reports. Some providers will be challenged to meet the new guidelines but it is SRHP's role to assist them.

Adolescent Health and Youth Development

In FY14, whenever possible, AHYD programs provided preventive services referrals to youth served in MA Pregnant and Parenting Teen Initiative (MPPTI), Personal Responsibility Education Program (PREP), and Teen Pregnancy Prevention (TPP) programming. These efforts included referrals to community family planning programs, Planned Parenthood clinics, school based health centers and community health centers. Plans to track referrals to preventive

care in these programs will be in place in FY16.

School Health Services

School Health Services provides ongoing school health service systems development and technical assistance to the Commonwealth's 351 public school districts and approximately 600 nonpublic schools. School Health Services has the capacity to collect information in FY16 related to preventative services through school nurse practitioners referrals based on screenings for vision, hearing, posture, body mass index, and SBIRT. Students are referred to their primary care providers for further examination and intervention. Without these screenings completed by school nurses, many of these referrals would not occur.

Additional activities to improve Adolescent Health

School-Based Health Centers

In FY16, the SBHC Program will provide more refined clinical training using the Observed Structured Clinical Examination (OSCE) teaching method (using student case studies) to enhance the SBHC clinicians' comfort and skill in assessing for sexual behaviors that put them at risk. SBHCs will continue to require attendance at professional development sessions aimed at fostering a more sophisticated understanding of the interplay between various behavioral risk and protective factors, and in recognizing the risk profiles that render particular young women more vulnerable to pregnancy risk.

Adolescent Health and Youth Development

In the last year of funding, AHYD support will focus on supporting sustainability of programming beyond the federal grant cycle. In FY16 MDPH's Parenting and Pregnant Teen Initiative will continue the delivery of wraparound multidisciplinary services to young parents in the high teen birth rate communities. The cross-site evaluations of AHYD programming provided to youth will be conducted by MDPH evaluation staff.

To grow and strengthen young people's leadership capacity, the AHYD, in partnership with the Posse Foundation (an award-winning national organization dedicated to youth empowerment and success), is developing a youth leadership curriculum and practice system that enables youth to be equal partners in their success and contribute to the success of their local communities. The Posse Foundation staff will be available to provide ongoing support and technical assistance. Once developed, local providers will be trained to deliver the new Youth Leadership curriculum to their youth program participants to enhance young people's confidence and leadership capacity to successfully serve.

Adolescent Health - Annual Report

NPM 7 - Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9 and adolescents 10 through 19

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	142.9	141.1	139.4	137.6	135.9

NPM 10 - Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	91.4	91.7	92.1	92.4	92.8

In 2014, MDPH adolescent health activities focused on addressing national and state performance measures to decrease teen birth rates in high risk communities, prevent suicide, conduct violence screening, improve motor vehicle safety, and decrease substance use. Key programs leading these activities included the School-Based Health Center (SBHC) Program, Sexual and Reproductive Health Program (SRHP), Adolescent Health and Youth Development (AHYD), School Health Services, Suicide Prevention Program, Injury Prevention and Control, and Youth Violence and Prevention Services (YVPS).

NPM 8: Rate (per 1,000) of birth for teenagers aged 15 through 17 years.

The teen birth rate in 2014 was 4.9 births per 1,000 women aged 15-17 years. Since 2009, the rates for 15-17 years old have been declining by 13.4% per year. Health disparities in teen birth rates persist, as rates for non-Hispanic blacks and Hispanics continue to be three to seven times higher than the rates for Whites. Key MDPH programs working to reduce the rate of teen births include SBHC, SRHP and AHYD, which have continued to target high teen birth rate communities for intervention.

School-Based Health Centers

SBHC clinicians in high schools were required to assess students for sexual behaviors that would put them at risk for pregnancy. In FY14, there were 5,010 clients in the 15-17 years age range; among them, 1,493 were deemed to be at risk of pregnancy and/or STIs in the broad 'sexual behavior' category. When risks were identified, clinicians were required to provide interventions that ranged from education/counseling to developing a concrete action plan for addressing pregnancy risk. In one community with disparately high pregnancy rate, SBHC clinicians continued to work with the MA Alliance on Teen Pregnancy to implement protocols for clinic collaboratives to ensure that young women at imminent risk could be sent via warm referrals to partnering clinics to obtain long-acting reversible contraception (LARC) methods more expeditiously. The goal of this multi-pronged initiative, which includes culturally and linguistically appropriate pregnancy prevention education, is to reduce the teen birth rate in their city by 10% within five years.

In FY14, 487 female clients answered 'Yes' to a pregnancy risk question and within this group, 141 had a pregnancy test. In the context of birth control options visits, 5% (n=93) of adolescent girls said their partner does not support their use of birth control. In the context of Emergency Contraceptive visits, the tailored questions pertaining to pregnancy risk revealed the following: 29 girls had non-consensual sex and five were concerned that their partner was trying to get them pregnant. While this same methodology of clinical interviewing has continued into FY15, the SBHC Program has begun to provide more intensive training on brief interventions and further developing provider comfort level and skill in eliciting information and responding to risk behaviors/disclosures that exist along a continuum of severity. As a part of their core professional development, all SBHC primary care providers attended a training on "Increasing Access to the Most Highly Effective Methods of Emergency Contraception."

Sexual and Reproductive Health Program

In MA, 9% of female Title X clients aged 15–19 years were using LARC. There are many challenges to providing LARC to teens as many teens know very little about LARC and some teens mistakenly think they cannot use LARC because of their age. Clinics also report barriers such as high upfront costs for supplies, and providers may lack awareness about the safety and effectiveness of LARC for teens. Providers may also lack training on insertion and removal.

SRHP-funded agencies also provided education to adolescents. In FY14, the 12 MDPH agencies reached approximately 1,800 young people through peer education programs, 2,500 young people through school-based education programs and 5,700 individuals through community-based education, many of whom were adolescents. One of the challenges of providing these services is evaluating their success. There are no national measures or guidelines for sexual and reproductive health education. Local programs develop their own work plans and evaluation tools such as pre- and post-tests, and monitor the success of their efforts at the local level. The SRHP is considering adopting a uniform work plan with performance measures so all programs can be measured in the same way.

Adolescent Health and Youth Development

Teen Pregnancy Prevention (TPP):

In FY14, the state funded TPP programs served 4,061 youth with ongoing programming and 11,458 youth were served with one or two session programming in 15 high-need communities. In addition, 2,215 adults were served via one or two session programming. Preliminary results from the longitudinal evaluation found that 86% of youth reported having an adult to talk to about a problem and 98% reported that it is “very” or “somewhat” likely that they will achieve their future goals. Higher levels of self-efficacy are associated with less risky sexual behavior.

MA Pregnant and Parenting Teen Initiative (MPPTI):

In FY14, the MPPTI was refunded for four more years to continue the delivery of wraparound multidisciplinary services to young parents in the high teen birth rate communities. A total of 706 participants were served by MPPTI in FY14. During the first grant cycle, performance measures indicated 98% of program participants completed a Comprehensive Health Assessment (benchmark 90%), 81% of participants received culturally and linguistically appropriate health education and counseling based on identified family needs (benchmark 85%), and 58% of mothers had a postpartum visit with a health care provider between 21 and 56 days after birth (benchmark 60%). Additionally, 70% of participants reported use of a contraceptive method; 23% reported use of a LARC method.

Personal Responsibility Education Program (PREP):

During FY14, the PREP partnership with MA Department of Elementary and Secondary Education (MDESE) served a total of 2,584 youth; 919 youth were served in community-based MDPH funded programs and 1,665 youth were served in middle schools with MDESE programming. Seven AHYD funded community providers continued to reach older at- risk teens, ages 15-19 years, with an increase in implementation sites for community programs as inter-agency collaborations continue each year to be strengthened with youth-serving agencies.

Challenges faced by MPPTI, PREP and TPP include recruitment and retention of intended target youth populations for service. Pregnant and parenting, LGBTQ, homeless, minority, state-system involved and out of school youth demonstrate an increased level of transience and instability, thus requiring relentless outreach and frequent contact using a variety of means (phone, text, and social media) by community provider staff. Incentives such as assistance with transportation, graduation events and gift cards for program milestone completion also support program retention. In order to reach youth completer goals, staff over-recruit for planned program cohorts and strive to provide programming in settings easily accessible and often frequented by youth.

NPM 16: Rate (per 100,000) of suicide deaths among youths aged 15 through 19

According to the 2013 MA Youth Risk Behavior Survey (YRBS), 12% of students seriously considered suicide during the past year; 11% made a suicide plan; and 6% made an attempt. Although these are the lowest rates over the last five years in MA, statistically there has not been much of a change. The CDC lists suicide as the second leading cause of death for youth aged 15-24, making suicide a public health issue that must be addressed. MA data on completed suicide indicated there were 86 suicides among youth ages 15-24 out of a total of 624 suicide deaths in 2012. Main MDPH programs working to lowering the rate of teen suicides are the Suicide Prevention Program and Youth Violence and Prevention Services Unit.

Suicide Prevention Program

In FY14, the MDPH Suicide Prevention Program trained seven school districts in The Lifelines Curriculum for a total of 27 districts involved in this program reaching over 700,000 youth across the state. The Lifelines Curriculum is designed to help school districts develop policies and protocols around helping a suicidal student, how to instruct students on suicide prevention and what to do in the aftermath of a suicide of an individual in the school community. The Lifelines Curriculum is listed on the Best Practices Registry for Suicide Prevention with the Suicide Prevention Resource Center. In a recent survey, those who were trained earlier in the year commented they have already been able to make changes to policies regarding suicide prevention in their school districts.

MA General Laws, Chapter 284 of the Acts of 2014 titled, An Act Relative to the Reduction of Gun Violence, was signed by the Governor in August 2014. This comprehensive gun law includes seven components that relate to suicide prevention, one specifically for schools. It requires all school personnel receive two hours of suicide prevention training every three years. The Suicide Prevention Program is working with MDESE to help provide guidelines for schools to follow. In preparation to this law being signed, the Suicide Prevention Program ran a pilot of an online training specifically designed for school personnel. The Suicide Prevention Program provided an opportunity for 50 schools around the state to participate on a first-come-first-serve-basis. In order to participate, schools must be able to complete the training prior to the end of June 2015. To date, 30 schools have participated. Their greatest challenges are lack of time and resources within the schools. The mandated suicide prevention training will encourage schools to allocate time and resources.

Youth Violence and Prevention Services

Through Safe Spaces for LGBTQ Youth, YVPS supports community-based organizations working with LGBTQ youth, to provide services that are trauma-informed, founded in Positive Youth Development, are culturally appropriate and specific to LGBTQ youth. The Safe Spaces for LGBTQ Youth Grant funds eight programs across the state, with the

majority of programs located in areas with severe rates of community violence. Approximately 1,335 youth were directly served and another 3,665 were indirectly served in FY14.

SPM 5: Percent of School Based Health Center clients for whom an assessment for intimate partner/teen dating/sexual violence was done

School-Based Health Centers

In FY14, there were 7,740 clients aged 11 years or older served in SBHCs. Of these, 5,606 (72%) were screened for Adolescent Relationship Abuse (ARA) and 596 (11%) had a risk identified. Among these, 513 returned to the SBHC clinician for follow-up care, 49 had behavioral health services, 10 were referred to a domestic violence agency, and four to a rape crisis center. The SBHC Program required that 75% of adolescents aged 11 years and older seen in SBHCs be assessed for ARA and provided with universal education via a “safety card.” ARA screening with a brief intervention increased from 41% in FY13 to 54% in FY14.

School Health Services

The role of school nurses has expanded over the past several years to include mental health counseling and interventions across all age groups. School nurses began to collect data on student mental health and the multiple interventions they provided for the first time in FY14. The MDPH School Health Unit will continue to track this information for further analysis as interpretation is difficult in the first year of data collection. School nurses reported providing interventions for social skills support (n=24,982) and relationship guidance (n=6,482). In addition, school nurses provided 2,093 interventions related to anti-bullying policies in schools and 137,823 interventions for coping enhancement, reassurance check-ins, and self-calming strategies to assist students feeling unsafe in schools. Stress/anxiety reduction and de-escalation interventions were provided 56,519 times by school nurses in order to keep students safe.

SPM 8: Rate (per 100,000) of motor vehicle deaths among youth aged 15-24 years

Injury Prevention and Control Program

The age adjusted unintentional motor vehicle (MV) deaths rate per 100,000 youth aged 15-24 years in 2013 was 8.44, relatively unchanged from the 2012 rate of 8.54. Over the past 10 years, this rate has decreased 42%.

Injury Prevention and Control has been very active in MV injury prevention work in this age group, specifically 16 and 17 year olds. An MDPH staff person currently co-chairs the young driver working groups as part of the MADOT Strategic Highway Safety Plan, sits on the statutorily-required Junior Operator License (JOL) advisory board and co-chairs the newly created MA Traffic Safety Coalition. In FY14, efforts focused on a project that examined the efficacy of the statutorily-required parent education class for parents of teen drivers preparing to be licensed to drive. This evaluative audit of 18 driving schools across the state showed that many parents are not being taught the information they need to keep their novice drivers safe behind the wheel. This report was shared with the RMV leadership, who then approved, contingent on funding, improving the parent class curriculum. While efforts will continue to build on the evaluative audit of the JOL parents classes, MDPH is ultimately not the agency responsible for implementing recommendations. Areas for improvement include engaging parents more fully in training their teen drivers, training for all novice drivers (regardless of age), and education on drowsy and distracted driving. One challenge is the evidence base in addressing distracted driving is still being built and funders require evidence-based interventions.

SPM 9: Percent of high school students having missed a school day due to feeling unsafe at or on the way to school

Youth Violence and Prevention Services

Four percent of MA high school students skipped school at least once in the 30 days before the survey because they felt unsafe either at school or on their way to or from school, according the 2013 YRBS survey; this percentage has remained stable since 2005.

In order to address the magnitude of youth violence in the state, YVPS aligned two separate funding streams. In FY14, the Primary Violence Prevention Through Positive Youth Development component served 24 programs across the state; approximately 2,622 youth were served directly and 20,378 served indirectly. The other funding stream, Youth At Risk: Secondary Violence Prevention and Intervention Through Positive Youth Development, funded programs serving MA “hotspots” as identified by the Safe and Successful Youth Initiative. In FY14 approximately 2,224 youth were served directly and 16,420 were indirectly served by programs funded under this grant. These numbers have been consistent for the past three years.

There were some reductions in indicators for youth violence. According to the MA Fast Track for the National Violent Death Reporting System, homicides for MA youth of all demographics, aged 10-24 are down in all of the high incidence areas, some areas by as much as 50%. Over the last two years, MA hotspo” cities experienced 139 fewer violent crime victimizations on average per month compared to non-hotspot-identified municipalities. In 2013, these 11 cities saw a 31% reduction in aggravated assaults compared to 2009, as well as a 25% reduction in homicide victimizations. Youth in these cities who exhibited high risk characteristics but not engaged with youth violence prevention programming were 42% more likely to be currently incarcerated than engaged youth. Contributors to the overall reduction in youth violence in MA include the long term commitment to prevention services targeting youth at earlier ages and the collaborations between local police departments and MDPH-funded community based organizations (CBOs). YVPS has dedicated long term efforts to working with youth in these hotspot areas as early as 10 years of age. Youth learn skills such as conflict resolution, resiliency, self-esteem building, and other exercises revolving around the Positive Youth Development approach. Collaborations between police and CBOs occur in many areas. The Safe and Successful Youth Initiative and the Youth at Risk programs utilize a team approach to breaking down decade-old silos in services, and focus on providing trauma informed care towards youth in hotspot areas.

A remaining challenge is the need for more comprehensive data collection and analysis. The National Violent Death Reporting System does not include many MA towns. The YRBS only surveys in-school youth, which may miss more vulnerable youth and may not cover areas that may have acute outbreaks of violence through survey sampling. In response to this challenge, YVPS will examine its reporting tool to determine if programmatic data collection is possible that is not being collected elsewhere.

Youth employment opportunities and behavioral services are still inadequate to meet current needs. In response, we will continue to support programs for job readiness and youth employment. YVPS will also support programs that provide behavioral health services in non-traditional spaces.

SPM 10: Percent of adolescents reporting no current use in past 30 days of either alcohol or illicit drugs

Among MA high school students, 64% reported no current use of alcohol, a significant increase from 2011 of 60%, according to the 2013 MA YRBS. Three in four high school students reported no current marijuana use, which has remained stable since 2005.

School Health Services

The Screening, Brief Intervention and Referral to Treatment (SBIRT) in Schools program is collaboration with the MDPH School Health Unit and the MDPH Bureau of Substance Abuse Services. SBIRT is an evidence-based screening tool for prevention and early identification of substance use. The program is currently only collecting baseline data, and will then determine if this is an effective model by continuing this screening across grade levels. Through SBIRT in Schools, 1,372 students were screened.

State Action Plan Table						
Children with Special Health Care Needs						
State Priority Needs	**Objectives**	**Strategies**	**National Outcome Measures**	**National Performance Measures**	**ESMs**	**SPMs**
Increase connections to Medical Home for all children, including those with special health needs.	1. By 2020, increase the % of CYSHCN having a medical home from 47.1% (2009 / 10) to 56.5% by 2017* and to 58.2% by 2020. *to align with MCHB D70 Systems Integration Grant (SIG) objective.	1a. Align Title V strategies with to-be-determined strategies from the MA CYSHCN Systems Integration Project State Plan (D70 SIG). 1b. Work collaboratively with key partners and stakeholders to develop a plan for securing payment for comprehensive care coordination in the medical home for CYSHCN. 1c. Develop / enhance a "shared resource" that serves as a "one stop shop" for professionals and families of CYSHCN to access reliable resources and a variety of services	Percent of children with special health care needs (CSHCN) receiving care in a well-functioning system Percent of children in excellent or very good health Percent of children ages 19 through 35 months, who have received the 4:3:1:3(4):3:1:4 series of routine vaccinations Percent of children 6 months through 17 years who are vaccinated annually against seasonal influenza Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine	Percent of children with and without special health care needs having a medical home		

		supporting the social, emotional, mental, physical and education health of CYSHCN (This is a D70 SIG strategy – specifics to be determined).	Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine				
		1d. Collaborate with the MA Chapter American Academy of Pediatrics (MCAAP) to promote PCMH and educate and train providers on providing medical home approach to care.	Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine				
		1e. Engage with the MA Health Policy Commission (HPC) as it rolls out the MA PCMH Certification Program; provide support by offering resources and technical assistance to physicians on provision of medical home approach to care.					
		1f. Incorporate medical home					

		concepts in all trainings provided by Family TIES, Care Coordination, and Community Support Line staff. 1g. Provide training, technical assistance and resources related to medical home to providers. 1h. Provide resources and information related to medical home to families.				
Support effective health-related transition to adulthood for adolescents with special health care needs.	By 2020, increase the % of CYSHCN who received services necessary to transition to adult health care from 47% (2010 / 11 NS-CSHCN) to 52%.	1a. Provide information and resources to youth, families and providers via the MDPH transition website, including “A Bridge to Adult Health Coverage and Financial Benefits” brochure; tip sheets for families; links to resources; and training materials for providers. 1b. Seek	Percent of children with special health care needs (CSHCN) receiving care in a well-functioning system Percent of children in excellent or very good health	Percent of adolescents with and without special health care needs who received services necessary to make transitions to adult health care		

		opportunities to present health-related transition information, including information on public benefits, at conferences and other venues attended by youth and families. 1c. Use the Community Support Line and Family TIES to respond to phone inquiries about health-related transition. 1d. Collaborate with EOHHS sister agencies (MA Rehab Commission; MA Dept. of Developmental Services; MA Dept. of Mental Health, MA Commission for the Deaf and Hard of Hearing; MA Commission for the Blind) and community organizations (e.g. Arc, Institute for Community Inclusion) serving transition-age youth to share health related transition issues				

		and resources. 1e. Represent YSHCN on the Transitional Advisory Committee convened by the EOHHS Bureau of Transitional Planning. 1f. Expand use of the Care Coordination Program's "guardianship pathway" to selected schools in Worcester, Holyoke, Lawrence and New Bedford.				

Children with Special Health Care Needs

Children with Special Health Care Needs - Plan for the Application Year

Massachusetts has identified two priorities for CYSHCN for the next five years.

1. Increase awareness and connections to medical home for all children, including those with special health needs.
2. Support effective health-related transition to adulthood for adolescents with special health care needs.

Progress towards the first priority will be measured by the percent of children with and without special health needs having a medical home. Key MDPH programs with a plan for improving this measure include Family Initiatives, Community Support Line, Care Coordination (CC), SSI and Public Benefits Training and Policy, MassCARE, the HRSA D70 CYSHCN Systems Integration Project and the MA Home Visiting Initiative.

Progress towards the second priority will be measured by the percent of children with and without special health needs who received services necessary to make transitions to adult health care. Key MDPH programs with a plan for improving this measure include Youth Transition Initiatives, CC, SSI and Public Benefits Training and Policy and MassCARE.

NPM 11: Percent of children with and without special health care needs having a medical home.

Office of Family Initiatives

National Survey data and information from clinicians and families continue to indicate that families of CYSHCN from linguistic and cultural minority populations are less likely to receive care in a medical home. This results in disparities in access to care and care coordination. To raise awareness and promote spread of medical home, OFI staff will leverage existing relationships with CBOs serving these families by including information about medical home in all trainings and presentations. Callers to Family TIES will be given information about medical home, and staff will include the MDPH Medical Home Position Statement and Medical Home Fact Sheets (available in English and Spanish) with resource information sent out. BFHN parent programs will develop and distribute information to families about partnership opportunities and skills needed to partner with the medical home.

OFI will run another session of its Family Leadership Training Institute in FY16. Efforts will be made to include more culturally and linguistically diverse participants. In collaboration with the state EMSC program, OFI will also partner with two state EMS services to raise awareness of the specific emergency response needs of families who have children with complex medical needs.

DCYSHN will continue to collaborate with the Family-to-Family (F2F) Health Information Center to disseminate information to families and provide training and mentoring. In FY16 this collaboration will expand as the OFI Director and F2F Director (a FY15 AMCHP Family Scholar) identify new opportunities.

Community Support Line

The DCYSHN toll free statewide Community Support Line (CSL) provides information, TA and resources for families with CYSHCN and providers serving these families. Many families are either not aware of or do not understand the medical home concept, particularly Spanish-speaking families. The CSL will continue to help empower families, informing and educating individually and through groups, as well as continuing outreach with medical, school and community services organizations on accessing health insurance coverage, understanding the medical home concept, medical transition, the IEP process and guardianship decisions.

Care Coordination

Care coordinators help families obtain services, provide links to community-based resources and consultation to parents, educators and providers to promote continuity of care. In FY15, the CC program and its Medical Home Facilitator (MHF) developed a survey that was sent to the 43 CC Medical Home Initiative (CCMHI) practices where CCs had been co-located between 2002 and 2013. In FY16, the CC program will follow-up with the practices that responded and requested trainings and continuing TA to their emerging medical homes to support spread of the medical home. A CC and/or the MHF will collaborate with family partners in the practices to offer the trainings, which will include resources to address various disparities and the availability of TA and collaboration.

In FY16, the MHF will continue to send regular communications with information and resources to CCMHI practices to remind practices about the components of medical home and provide TA on family partnerships. As noted above, many Latino families do not understand the medical home concept. Contributing to this is a lack of providers with the necessary cultural competency to educate families. Some of the CC program's efforts are aimed at filling this gap through continued partnership with these providers.

In 2010, the CC program began a new medical home initiative offering services and enhanced connections in schools to support community-based care. Initially through the SBHCs, and now through the school administration in selected cities, CCs work with school staff to collaborate and address medical and non-medical needs of children with medically complex conditions. Goals include connecting families to CC and community services and establishing closer connections between schools and the medical community. Over the past five years, the program has expanded to six cities, and several "pathways" to obtaining services (such as insurance and locating a PCP) have been developed and shared with families, school health providers, teachers and administrators. The program offers in-service trainings to special education and nursing staff and has created important linkages to address existing disparities in medical home by working in the school districts with the most marginalized families in MA. Ninety five percent of those served by CC are children of color. Holyoke, Lawrence, Worcester, Boston, Brockton and New Bedford are school systems with impoverished, diverse student bodies, many of whose students are underperforming and whose families need support. The continued and expanded partnership in FY16 will address some of the unmet needs of these families.

SSI & Public Benefits Training and Policy

A key role in DCYSHN is keeping health care providers and consumers informed about the complex system that families rely on to finance health care for children with disabilities or chronic illnesses. The SSI Public Benefits Training and Policy Specialist (PBT&PS) will continue to remain updated and provide training and TA to providers and families on SSI, MassHealth, CommonHealth and the Kaileigh Mulligan Home Care Program, and be a source of information for BFHN staff on health care reform and issues related to benefits for CYSHCN. She will maintain partnerships with other state agencies, health care advocates, medical providers and CBOs through participating in various advisory groups and coalitions. The PBT&PS will incorporate a discussion of medical home into trainings and phone consultations.

MassCARE

MassCARE (funded under Ryan White Program Part D) serves women, infants, children and youth living with HIV and affected family members and is located at five federally-qualified community health centers. MassCARE requires an HIV Medical Home approach and quality assessment at all clinical sites. Through its recently implemented Project CAATCH (Consumer Access and Adherence to Care for HIV), a short-term intensive intervention will be provided to HIV infected clients who are at-risk of falling out of care, 95% of whom are minority women and youth.

Early Intervention Partnerships Program

Key challenges identified by EIPP communities include the multiple and complex needs experienced by EIPP participants such as mental health issues and food insecurity. When combined with lack of transportation, limited time, and lack of child care, many EIPP participants struggle to keep all their pediatric appointments. To address these challenges, EIPP sites have worked with MassHealth to access transportation for all medical appointments for those participants who are eligible. EIPP sites have also conducted "field trips" with participants where a group of mothers with their infants have an opportunity to learn to navigate the public transportation system in order to get to the local CHC. These strategies will continue in FY16.

CYSHCN Systems Integration Project

In FY15, MA received a D70 Systems Integration Grant from MCHB to enhance the system of services for CYSHCN and their families through systems integration. The objective is, by FY17, to increase the proportion of CYSHCN who receive integrated care through a patient-centered medical home (PCMH) by 20% over 2009/10 levels. DCYSHN has convened a Steering Committee (SC) comprised of key stakeholders – including families, health care providers, community organizations, state and local agencies and others – to serve as key collaborators and provide advice and guidance to the project. In FY16, staff and SC members will continue to participate in a cross-state Learning Community to develop common aims related to three common systems integration strategies: cross-systems care coordination, integration and a shared resource. By late 2015, DYSHCN will complete and begin to implement a State Plan for achieving the desired outcomes. Activities will include: beginning to work collaboratively with key partners to develop a plan for securing funding for comprehensive care coordination for CYSHCN in the medical home; developing or enhancing a "shared resource" for professionals and families of CYSHCN to access reliable resources and a variety of services; working with the MA Chapter of the American Academy of Pediatrics to promote, educate and train providers on medical home; and engaging with the MA Health Policy Commission as it rolls out the MA PCMH Certification Program. DCYSHN and partners will support the process by offering resources and TA to physicians on the provision of a medical home approach to care for CYSHCN.

MA Home Visiting Initiative

MDPH is receiving TA from the MCH Workforce Development Center to streamline state efforts that focus on improving access to medical home for all families. The TA will be used to leverage MHVI to enhance the early childhood system of care with an emphasis on integrating behavioral health into a pediatric medical home. The multi-pronged approach will build on the Healthy Steps home visiting program as an effective method within CHCs to promote medical home; apply lessons learned from Project LAUNCH regarding integrating early childhood mental health and family leadership into the pediatric medical home; engage with the MA Child Psychiatry Access Project, which supports a range of healthcare providers in delivering behavioral/mental health services to children and their families; and collaborate with MassHealth to ensure sustainability.

NPM 12: Percent of children with and without special health care needs who received services necessary to make transitions to adult health care.

National Survey data and clinician, family and youth reports indicate that transition from pediatric to adult health care and acquisition of self-management skills remain a major issue for many youth and youth adults with SHCN. One challenge is the need for families and youth to become and remain educated and informed on what benefits and services are available to them.

Youth Transition Initiatives

In FY16 DCYSHN will promote and enhance the transition materials added to its website in FY15, including tip sheets for families and youth, links to resources, and training materials for practitioners. The Program will continue to disseminate its new transition brochure to families and providers and additional resources will be created and disseminated. DCYSHN will work with the MCAAP to increase awareness of these resources among pediatricians. Community outreach will focus on providing information about transition to families of YSCHN. The DCYSHN Transition Coordinator will continue to collaborate with sister agencies and CBOs serving transition age youth (e.g. DDS, Department of Mental Health, MA Rehabilitation Commission, Institute for Community Inclusion, Arcs) to share health-related transition information and seek opportunities to present at conferences and other venues that youth and families attend.

Care Coordination

A trend identified in the past year was the critical need for improved transition services, specifically guardianship intervention. In the Worcester Public Schools, CCs primarily serve Latino families and educate parents about the service system. CCs have found that Latino families often wait over a year for the psychological evaluation needed to be granted guardianship as they often do not have access to trained psychologists due to language barriers. Over the past year, the CC Program developed a “pathway” (protocol in visual format) for parents, pediatricians and schools to use to complete the guardianship process in Worcester. Parents receive written information and informal coaching needed to complete the process with their child. The guardianship pathway will be piloted in Worcester in late FY15 and will be expanded in FY16 to other selected schools in MA. This pathway aims to close the gap in knowledge among both pediatric and adult medical providers about how best to transition youth in their care and how to partner with schools. This initiative benefits families by providing pertinent information to empower them to make connections in the court system, which is unfamiliar and intimidating territory to many families.

SSI and Public Benefits Training and Policy

The PBT&PS will continue to provide training and TA to providers and families of transition-age youth to assure young people get the benefits that they are entitled to and retain comprehensive medical coverage (often through MassHealth) in order to access quality adult health care services. Through ongoing participation in the Special Education Steering Committee, the PBT&PS will continue to address federal compliance issues in special education. The Committee monitors and addresses issues related to transition planning for students to post-secondary education or work.

MassCARE

MassCARE will continue to monitor and measure providers’ compliance with its transition standards, which include use of quality measurement and clinical tools to ensure youth and families are engaged in the process. The program has found that the transition period is a critical time when youth may fall out of care and is addressing this by the use of peer leaders and the newly funded (via Ryan White supplemental funding) clinical intervention, Project CAATCH, which includes trainings on patient self-managed chronic disease management.

Children with Special Health Care Needs - Annual Report

NPM 11 - Percent of children with and without special health care needs having a medical home

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	51.8	56.5	57.1	57.6	58.2

NPM 12 - Percent of adolescents with and without special health care needs who received services necessary to make transitions to adult health care

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	47.9	48.9	49.9	50.9	52

FY14 activities to improve the health of CYSHCN focused on the 2010 NPMs 2-6. Key programs at MDPH contributing to those efforts are within the Division for Children and Youth with Special Health Needs (DCYSHN), the state Title V CYSHCN Program: Community Support Line, Care Coordination, Office of Family Initiatives (including Family TIES of MA), MassCARE, MASSTART, Pediatric Palliative Care Network, Medical Review Team, Catastrophic Illness in Children Relief Fund, SSI and Public Benefits Training and Policy, Hearing Aid Program and Youth Transition Initiatives. Other MDPH programs contributing significantly to these efforts include Early Intervention Partnerships Program, MA Home Visiting Initiative, and the Nutrition Division.

NPM 2: Percent of CSHCN age 0 to 18 years whose families partner in decision making at all levels and are satisfied with the services they receive.

The most recent data (2009/10 NS-CSHCN) indicate that 74% of families in MA partner in decision making at all levels and are satisfied with the services they receive. There is an ongoing need to identify and support families of CYSHCN to take on partnership and decision making roles. Challenges for families include lack of awareness of opportunities to participate and engage meaningfully, lack of skills and confidence, cultural reluctance to take on more visible roles, and specific family issues related to their children's health and medical care.

DCYSHN seeks to address these challenges by finding opportunities for family involvement and making information and training available through multiple modalities to meet family circumstances. DCYSHN is committed to supporting families to participate actively as partners in decision-making in the care of their own children and in systems improvement activities that impact all CYSHCN and their families.

Office of Family Initiatives

Activities to engage families of CYSHCN include a robust leadership/partnership skills development program (Family Leadership Institute, 19 parents in FY14) and opportunities to serve in advisory capacities to Title V programs. Currently over 220 parents serve as Family Advisors and take part in RFR development and review, MCH Block Grant needs assessment activities, Chapter 171 information gathering, and materials review, among other activities. Family members receive stipends for their time. OFI staff, using a cultural brokering approach, work with CBOs to build trusting relationships that allow them to share information about Title V and other health-related resources as a strategy to address health disparities. This is particularly effective in populations where disability is not directly acknowledged. Some of the families engaged through this work are now taking part in Title V activities such as serving as advisors, helping to develop peer support groups, participating in Parent-to-Parent, and attending trainings and conferences.

OFI works across the Title V program to represent the needs of families of CYSHCN. Efforts include participation in development of the MDPH SHIP; serving on an Oral Health Task Force which generated best practice guidelines for practitioners working with CYSHCN; and serving on the Emergency Medical Services for Children (EMSC), Universal Newborn Hearing Screening (UNHS) and Birth Defects advisory committees. The OFI Director represents MDPH as part of the state Protection and Advocacy Network for Individuals with Disabilities and as a member of the Advisory Boards of the MA Developmental Disabilities Council and the two University Centers for Excellence in Developmental Disabilities Education, Research, and Service in MA. This offers a platform to share information about health-related issues and health disparities and share opportunities to support family involvement.

DCYSHN funds Family TIES, a project of the Federation for Children with Special Needs (FCSN), staffed by parents of CYSHCN. Regional Parent Coordinators are located in all MDPH offices and provide information and referral to families of CYSHCN and their providers, are familiar with local and regional resources, and provide training and TA to families as they navigate the system of care. Family TIES also serves as the statewide Parent-to-Parent (P2P) organization in MA. In FY14, Family TIES staff served 2,278 families and 832 professionals. Callers were given information about specific disabilities, support groups, community-based recreational opportunities, after-school options, respite and funding assistance. P2P matches were made for 94 families speaking over 10 languages. There are currently 315 trained mentor parents. Listen and Learn, the MA P2P curriculum, is available in Spanish, Portuguese, Vietnamese, Chinese and Haitian Creole. Parents who speak other languages, including various African dialects and ASL, can access individual training to allow them to become support parents.

The Early Intervention Parent Leadership Project (EIPLP), a project of OFI, is designed to reach families early in the EI journey. Staff, all of whom have received EI services for their own children, inform families about how they can actively participate in the EI system, either at their local program, within their region or at the statewide level. The EIPLP Director supports family members whose children have SHCN to serve on the Interagency Coordinating Council, a federally mandated body that advises the Part C agency.

Care Coordination (CC)

The Program provided support to 25 family partners in the practices in which MDPH CCs were located – including the 13 practices participating in the MA CHIPRA Quality Demonstration Project, two school-based health centers (SBHCs) and three additional practices. CCs recruited about 20 Spanish speaking parents to participate in the Mass Families Organizing for Change Family Leadership Series, where parents could connect with each other and learn new skills and leadership strategies. CCs also recruited families and supported 21 families from across the state to attend the FCSN annual conference.

MassCARE

The MassCARE Peer Advisory Council included five family members who helped with program planning, implementation and evaluation including participating in program's Quality Management Program.

NPM 3: Percent of CSHCN age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home.

NS-CSHCN 2009/10 data indicate that 47% of CYSHCN ages 0 to 18 years in MA receive coordinated, ongoing, comprehensive care within a medical home.

Community Support Line

CSL staff made 102 referrals to CC. Staff distributed 10 *Directions: Resources for Your Child's Care* books to providers and 25 *Caminos* (Spanish version) to parents of CYSHCN. The book provides resources and guidance to families on a variety of topics, including organizing their child's health information and working with their child's medical team.

Care Coordination

The CC Program provided education and materials on medical home to all newly enrolled families. Through December 2013 CC staff collaborated with the 13 CHIPRA Demonstration Project practices and supported them in their medical home improvement efforts. CCs were located in the practices, where they provided direct care coordination services, TA on medical home transformation, support for family partnerships, and participated in the national medical home learning collaborative. CCs were located in two SBHCs, where they provided services to 63 students. CCs helped students without PCPs get connected to a provider. For students who already had PCPs, CCs assisted in communication and coordination between the SBHC and the PCP.

The CC program actively participates in the Western MA Medical Home Work group, an initiative that began in 2002 as an outcome of the CC Medical Home Initiative. Meetings are held monthly to provide training, information and networking for 150 regional providers who work with families of CYSHCN. Membership includes state agencies, CBOs, primary and specialty medical providers, hospitals, parents, and parent leaders from throughout the region. Speakers present monthly and the group has a Facebook page, a Twitter presence and a blog. In FY14, 25 agencies provided presentations at the monthly meetings.

MassCARE

During FY14, 48 HIV-infected children and youth were served in an HIV medical home.

Early Intervention Partnerships Program

Through EIPP, families receive health education, brief intervention and counseling appropriate to the families' needs and based on a Comprehensive Health Assessment. Key educational topics included promotion of a medical home for all members of the family. In FY14, 135 EIPP participants were referred to a pediatrician for their infant.

MA Home Visiting Initiative

All new MHVI home visitors are trained on the family-centered medical home, including the benefit to families and ways to promote it. One of the four MHVI evidence-based models, Healthy Steps, is based in a pediatric clinic that functions as a medical home. In FY13 and FY14, approximately 93% of children birth to five years were connected to a medical home within six months of MHVI program enrollment.

NPM 4: Percent of CSHCN age 0 to 18 whose families have adequate private and/or public insurance to pay for the services they need.

NS-CSHCN 2009/10 data indicate that families of 62% of CYSHCN ages 0 to 18 in MA have adequate private and/or public insurance to pay for the services they need.

While most families are insured, 34% of families of CYSHCN report their insurance coverage is inadequate. Several DCYSHN programs are designed not only to help ensure families receive public benefits, but also to address gaps in insurance coverage.

SSI and Public Benefits Training and Policy

In FY14, the PBT&PS gave 13 training presentations to 218 family members, hospital clinical staff, EI programs, pediatricians, graduate students, state agencies, community organizations, schools and parent organizations, including a workshop at the MA Family Voices Joining Voices conference. Although a high percent of MA children have private health insurance, CYSHCN continued to require more comprehensive coverage than their employer-sponsored insurance provided. The public benefits trainings provided information on accessing MassHealth coverage (which can serve as a wraparound secondary payer) through programs like SSI, CommonHealth and the Kaileigh Mulligan Home Care Program. The PBT&PS also provided phone or e-mail technical consultations about public benefits, resources and services for CYSHCN to 117 people including 45 family members.

To ensure that DCYSHN has up to date information and that others are aware of issues related to CYSHCN, the PBT&PS continued to be an active participant in several advisory groups and coalitions. She attended quarterly statewide MassHealth Training Forums to get updates about ACA implementation, MassHealth, the Health Connector and Health Safety Net. She continued to track updates on the ACA and information on legislative, regulatory and budgetary issues regarding public benefits and shared updates with DCYSHN staff and providers.

Community Support Line

The CSL fields phone calls daily with questions on public benefits, services and resources for CYSHCN including private and public insurance issues. Community Resource Specialists provided information on public benefits to 25 providers and 30 parents through eight workshops in a variety of settings.

Hearing Aid Program

In FY14, the Hearing Aid Program for Infants and Children funded hearing aids for 17 children. The program primarily serves uninsured and underserved populations (ages 0 to 21) whose income makes it difficult and sometimes impossible to obtain hearing aids. This includes families that have MassHealth Limited, the Children's Medical Security Plan (CMSP), and self-insured or out-of-state private insurance plans that do not cover hearing aids.

Catastrophic Illness in Children Relief Fund (CICRF)

CICRF provided $1.63 million in financial assistance in FY14 to 163 families of CYSHCN with very high out-of-pocket medical or related expenses in relation to family income (expenses exceeded 10% of annual family income). CICRF assisted families who paid high insurance deductibles, copayments and coinsurance for necessary medical or related expenses. As a payor of last resort, CICRF helped families with payment for needed items and services not covered by insurance, including home and vehicle modifications and specialized equipment. CICRF provided

support for medical expenses for families on MassHealth Limited and CMSP, and for expenses incurred prior to a family becoming eligible for secondary MassHealth coverage. CICRF also negotiated with insurers and providers or located alternate resources for additional families, obviating the need for CICRF funding and assisting families who did not meet the Fund's eligibility criteria. FY14 marked the first year since FY09 that funding was not a major challenge for CICRF. In FY13, legislation was filed to eliminate the Medical Security Trust Fund, the source of CICRF funding. The CICRF Commission and staff worked closely with EOHHS to ensure that the legislation that was passed included an alternate funding mechanism. Transfers into CICRF resumed in FY14 after a five year hiatus ensuring sustainability of the Fund.

Pediatric Palliative Care Network (PPCN)

PPCN contracted with 10 hospice programs statewide to provide services not otherwise covered by insurance to children with life-limiting illnesses. Due to increased funding in FY14, PPCN increased the numbers served by approximately 60%, to 372 children. Services included consultations for symptom management, sibling and parental support and spiritual care. PPCN provided over 3,000 hours of respite, 2,300 hours of volunteer assistance, and 4,545 hours of music, art and massage therapy to children and siblings. PPCN provides coordination between other community-based services and with specialty care. Families often report that complementary therapies and sibling support – usually not covered by insurance – are most important in improving their child and family's quality of life. Visibility of PPCN has grown and referrals have increased, highlighting the unmet need. As of May 2015 there are 95 children on the waiting list.

Metabolic Food and Formula Program

MA law mandates private insurers to cover medically-prescribed formulas and special low-protein modified foods up to $5,000 annually for people with PKU and other related metabolic disorders. Self-insured plans are not subject to the mandate. The MDPH Metabolic Food and Formula Program fills the gap by providing coverage for the special foods and formula to uninsured or underinsured individuals, and for the special foods for MassHealth enrollees. In FY14, the program served 76 people.

NPM 5: Percent of CSHCN age 0 to 18 whose families report that community-based service systems are organized so they can use them easily.

NS-CSHCN 2009/10 data indicate that 68% of families with CYSHCN ages 0 to 18 in MA report that community-based service systems are organized so they can use them easily.

Office of Family Initiatives

Two barriers exist that make it challenging for CYSHCN and their families to use community-based services easily: availability of services and family, community, and provider awareness of services. To address these barriers, Family TIES participated in 107 outreach and/or training opportunities at the community level. Almost 4,700 people attended these opportunities and learned about navigating the system of care, support opportunities, community and statewide resources, organizing complex records and working with providers. Family TIES produced and disseminated 2,000 Resource Directories, 12,000 brochures in several languages and 5,300 topic-specific fact sheets. It also serves as the Central Directory/Child Find arm of EI. Over 400 families and providers were given information about EI and how to access the service in the community. The PLP worked with 58 community-based EI programs to introduce families to skills building and participation opportunities across the early childhood system of

care. Over 14,000 parents of children currently or previously enrolled in EI received the PLP newsletter, *The Parent Perspective*, which provides information about community services and events. The PLP website is also used by parents and community-based EI and health care professionals to access information. Family members are supported to take on roles at the local, state and national level where they share their life experience and work to make service systems more responsive.

DCYSHN co-sponsored the FCSN's annual Visions of Community Conference. Over 900 parents and professionals attended the conference, which provided workshops and information about specific special health needs, family engagement, youth transition and public benefits.

Community Support Line

The CSL identifies disparities and gaps in services to children and lack of knowledge among families and providers about the many supports and services they need. Resource Specialists guide, direct, educate and inform families and providers about culturally and linguistically competent community-based and other services.

Care Coordination

To address gaps and barriers to care, the CC program provided several Understanding Services for CYSHCN (US) trainings in FY14. In the western region (which includes rural communities), US trainings were provided to 13 school nurses and psychologists. Two additional US trainings were provided for 60 Special Education and nursing staff. CCs also offered a US training at the regional Department of Early Education and Care (EEC)/Regional Consultation Program (RCP) Communities of Practice trainings. Over 300 people attended these training in all regions of the state to share best practices and information on public benefits and programs that benefit CYSHCN. There were 11 additional US trainings offered around the state to EI and RCP programs; 210 participants received training, TA and resource information. The CC program participated in five meetings across the state for 193 School Nurse Leaders in the Essential School Health Services program. The trainings provided opportunities for networking, shared best practices, knowledge, TA and partnerships. In total, CCs trained 773 people (34% parents and 86% providers) during the year.

The CC program addresses the needs of recent immigrants and refugees and their children with SHCN, some of the poorest and most marginalized populations in the state. They are not citizens yet, and many are poor, do not speak English, have poor access to medical care, live in substandard housing, and have few long term supports to help them resettle in MA. The CC program provides resources and leadership to refugee service programs statewide. Staff attended Quarterly Refugee and Immigrant Coalition meetings across the state and provided consultation and trainings. The MDPH Refugee Health Assessment Program holds quarterly regional meetings focusing on improving the health of refugees and strengthening the delivery and coordination of care by designated community health centers serving refugee populations. In FY14, CC program staff were formally added to these meetings so they could offer support, training and TA and care coordination for refugee CYSHCN.

To help improve communication, coordination and collaboration between programs serving CYSHN, the CC program convened 20 regional networking meetings across the state in FY14. The goal of these regular meetings is to foster a collaborative approach to the care of children in that region who receive services from multiple agencies. Through information sharing and study of best practices, a team approach to the care of the most fragile children in

the state emerged in FY14. Active members of the group include DCYSHN programs and vendors as well as EI, RCPs, EEC, Department of Developmental Services (DDS), MA Commission for the Blind, MA Commission for the Deaf and Hard of Hearing, Department of Children and Families and the Children's Behavioral Health Initiative.

MASSTART

MASSTART supports children with complex medical conditions by providing consultation to schools and families on developing a safe plan of care for children's specialized health care needs while at school. MDPH contracts with three hospitals to provide this service. Children with complex health conditions often require some kind of medical treatment, medication or observation that requires skilled nursing intervention while at school. MASSTART providers assist in developing children's individualized health care plans and emergency plans; train school staff to understand and meet children's special needs; conduct educational and training programs; and provide information and referrals to community based services. By ensuring safety in school for children with complex needs, it supports the educational goal of placement in the least restrictive setting. In FY14, MASSTART had 95 new referrals, provided TA to 402 callers, did outreach to 1,898 community providers and planned 23 training programs that reached 1,077 people. MASSTART providers collaborate regularly within their regions by attending multi-agency collaboration meetings and work closely with MDPH School Health staff and Regional School Health Advisors.

NPM 6: Percent of YSHCN who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.

NS-CSHCN 2009/10 data indicate that 47% of YSHCN in MA receive the services necessary to make transitions to all aspects of adult life, including adult health care, work and independence.

Youth Transition Initiatives

In FY14 DCYSHN hired a full-time Youth Transition Coordinator to work on identifying needs, resources, gaps in information, and training and support for families and providers. To address family and provider requests for specific information about public benefits for transition age youth, DCYSHN produced *A Bridge to Adult Health Coverage and Financial Benefits*, a brochure that has been widely disseminated to family organizations and provider groups. The Coordinator works with internal MDPH programs including sexual and reproductive health, nutrition, and physical activity to ensure that the needs of YSHCN are included in planning and program development. She also participates with other state and community agencies serving youth to represent health and health related issues.

SSI & Public Benefits Training and Policy

Public benefits trainings were presented to providers who work with older youth transitioning into the adult health care service system. Information provided includes tips on changes in eligibility for SSI and/or MassHealth and the steps to ensure retention of MassHealth after turning 18. Individual TA was provided by phone or e-mail to family members and/or providers on public benefits changes for transition-age youth.

Community Support Line

Resource Specialists provided information regarding health transition to 15 providers and 37 parents through community based workshops.

MassCARE

MassCARE staff distributed 250 English and 165 Spanish copies of its transition guidebook. *Moving on Positively*. Through its Consumer Program for Youth, MassSTYLE, youth were surveyed to assess their level of comfort in different aspects of medical transition and 30% reported that they knew how to transition effectively and 40% had already transitioned or were in the process of transitioning their medical care.

Care Coordination

CCs provided materials, education and transition-related services for 50 enrolled families. Services included talking to families about needs, connecting families to adult-serving agencies, contacting families and cc'ing their primary care providers, assessing needs annually, working with PCPs to inform families about transition, and helping parents and youth to assess need for legal guardianship.

Additional activities to improve the system of care for CYSHCN

Medical Review Team (MRT)

The MRT reviews requests for CYSHCN ages 0-22 for placement in a pediatric nursing home or skilled nursing facility for long term care (LTC), short term care (STC/respite), short term post-hospital care or, in the case of young adults ages 18-22, placement in an adult facility following an acquired or traumatic brain injury requiring skilled nursing or rehabilitation care. Each program has specific eligibility criteria and requires review by a multidisciplinary team including medical professionals prior to admission. In FY14 there were 15 LTC reviews (12 approved), 90 STC reviews (84 approved), 16 post-hospital care reviews (all approved) and 9 young adult reviews (all approved). The MRT has seen an increase in referrals for STC of more medically complex children with specific care needs such as ventilators, feeding tubes and ostomy care. This has been challenging for the pediatric nursing homes due to the higher level of trained staff needed.

State Action Plan Table						
Cross-Cutting/Life Course						
State Priority Needs	**Objectives**	**Strategies**	**National Outcome Measures**	**National Performance Measures**	**ESMs**	**SPMs**
Promote equitable access to dental care and preventive measures for pregnant women and children.	1. By 2020, increase by 10% from baseline the percent of women who had a dental visit during pregnancy (2011 baseline = 49.9% MA PRAMS). 2. By 2020, increase by 10% from baseline the percent of children, ages 1 through 17, who had a dental visit in the past year (baseline= 83.3% NSCH 2011 / 12).	1a. Promote Implementation of Oral Health Guidelines in 3 pilot Community Health Centers (CHCs) for both NPM 13 A & B. 1b. Support CHCs to develop baseline measures for pilot sites (South Cove, Kennedy and Holyoke CHCs have baseline). 1c. Promote Oral Health Guidelines through professional organizations (OB, Dental, Pediatric) for both NPM 13 A & B. 2a. Promote Oral Health Guidelines through professional organizations (OB, Dental, Pediatric) for both NPM 13 A & B.	Percent of children ages 1 through 17 who have decayed teeth or cavities in the past 12 months Percent of children in excellent or very good health	A) Percent of women who had a dental visit during pregnancy and B) Percent of children, ages 1 through 17 who had a preventive dental visit in the past year		

		2b. Promote establishment of Dental Home for children at pilot and additional CHCs (if they receive grant).				
Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.	1a. By 2020, 100% of new MDPH hires will be trained in health and racial equity principles and approaches. 1b. By 2020, 100% of MDPH Title V leadership will be trained in health and racial equity principles and approaches.	a. Align Title V with MDPH Commissioner-level strategies to promote health and racial equity. b. Work with MDPH Training Director and the Office of Health Equity to incorporate the principles of health equity, racial justice, and the social determinants of health into staff orientation. c. Collaborate with the Office of Health Equity to hold trainings for BCHAP and BFHN staff to improve a) awareness and understanding of the factors behind health inequities, and b) use of data to inform programmatic strategies, interventions, and procedural				

		guidance to address inequities. d. Use internal team meetings, brown bags lunches, and expert speakers to hold ongoing discussions on health equity and racial justice. e. Improve consistency of collection and analysis of demographic data and identify data elements that should be integrated or updated within existing data collection methods. (E.g. race, ethnicity, primary language, disability status, sexual orientation, and gender identity).				
Promote emotional wellness and social connectedness across the lifespan.	1. By 2020, increase by 10% from baseline (82% in FY14) the number of expected screenings using the social connectedness tool that are completed in MA Home Visiting (MHVI).	1a. Train home visitors on the use of standardized and evidence-based screening tools to assess for social connectedness among pregnant and parenting women, including data				

	2. By 2020, increase by 5% from baseline (70% in 2014) the number of children aged 0-6 years on Medicaid who receive screening for social-emotional heath during pediatric / well child visits.	collection and documentation.					
	3. By 2020, increase by 0.40% from baseline (56.7% in FY14) the number of infants and toddlers enrolled in EI who demonstrate improved positive social-emotional skills.	1b. Increase the number of social connectedness support groups and resources within MHVI that are available to mothers with an identified need.					
	4a. By 2020, increase by 10% from baseline (63.9% in FY14) the number of SBHC clients age 11 years and older seen by the medical provider who are assessed at least once during the school year for the presence of a trusted adult.	1c. Expand Moving Beyond Depression to additional MHVI communities to serve more mothers experiencing postpartum depression.					
	4b. By 2020, increase by 10% from baseline	2a. With support from the MCH Workforce Development Center, leverage MHVI to promote integration of behavioral health into pediatric primary care.					
		2b. Develop multi-system capacity for implementing best practices for mitigating toxic stress in infancy and early childhood, including embedding a two-generational approach to					

	(59.7% in FY14) the number of SBHC clients age 11 years and older seen by the medical provider who are assessed at least once during the school year for school connectedness.	care. 2c. Improve MCH workforce capacity to effectively address social-emotional health in early childhood. 2d. Raise awareness among early childhood providers of the importance of emotional health and the link between physical and emotional health. 3a. Expand the infrastructure necessary to promote positive social-emotional skills for infants and toddlers enrolled in EI, such as sharing / implementing evidence-based best practices across programs, fidelity of administration of the BDI-2, supervision guidelines, consistent definitions of parent engagement, and data management					

		protocols.					
		3b. Continue universal screening of EI enrolled infants and toddlers (0-3 years of age) for early social-emotional delays using a validated tool (ASQ-3:SE or Greenspan) and provide interventions to promote social connectedness.					
		4a. Screen for resiliency, social, and school connectedness among students accessing care through one of MA's 33 School-Based Health Centers (SBHCs).					
		4b. Develop strategies and interventions across all SBHCs to improve school connectedness and link students to a trusted adult in instances where such resiliencies are not identified.					
		4c. Train SBHC clinical staff on the importance of school					

		connectedness and a trusted adult in a young person's life, as well as strategies to foster those resiliencies among students.				

Cross-Cutting/Life Course

Cross-Cutting/Life Course - Plan for the Application Year

Massachusetts has identified three priorities for the Crosscutting/Lifecourse domain for the next five years.

1. Promote equitable access to dental care and preventive measures for pregnant women and children.
2. Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.
3. Promote emotional wellness and social connectedness across the lifespan.

Progress towards the oral health priority will be measured by a) the percent of women who had a dental visit during pregnancy and b) the percent of infants and children, ages 1 to 6 years, who had a preventive dental visit in the last year. MDPH's Office of Oral Health, Office of Health Equity, WIC, Early Intervention, and Welcome Family have plans for improving this measure.

There are several efforts taking place across the Bureau of Family Health and Nutrition (BFHN) and the Bureau of Community Health and Prevention (BCHAP) to improve social connectedness and emotional wellness and health and racial equity. Over the next year, MDPH will set state performance measures for those priorities. Plans for FY16 are discussed as they relate to the priorities more broadly.

NPM 13: A) Percent of women who had a dental visit during pregnancy and B) Percent of infants and children, ages 1-6 years, who had a preventive dental visit in the last year

Office of Oral Health

Over the next five years, the objectives will be to: a) increase the proportion of women who receive oral health care during pregnancy by at least 10%, and b) increase the proportion of infants who have received oral health care by age one by at least 10% from each health center's baseline. To address these measures, during FY15 and FY16 the Oral Health Advisory Committee (AC) will finalize the MA Perinatal Oral Health Practice Guidelines described in the FY14 Annual Report, promote them through professional organizations, and pilot the Guidelines in three community health centers to reduce the prevalence of oral diseases in both pregnant women and infants most at risk through improved access to quality oral health care.

Implementing the pilots will allow prenatal and pediatric providers to establish a mechanism by which all pregnant

women and infants are referred for dental screening and treatments, and establish a dental home. The AC will also support the pilot sites in their efforts to conduct quality improvement and establish best practices that can be replicated statewide. Site specific data will be collected to monitor progress toward reducing the burden of oral health disease. In addition, MPDH will use the birth certificate data to monitor the prevalence of pregnant women receiving dental screenings to measure compliance with the Perinatal Care Recommendations. The AC will convene a follow up summit to define oral health metrics, establish baseline measures and develop best practices. The AC will continue to help integrate oral health into primary care, and to develop educational materials for patients about preconception and prenatal oral health.

Office of Health Equity

MDPH's Office of Health Equity has been awarded a State Partnership Initiative grant from the HHS Office of Minority Health to implement an Oral Health Equity Project. The project will address the Healthy People 2020 leading indicator for oral health: persons who visited the dentist in the past year. The project focuses on children up to age 14 in Worcester and Holyoke, two cities with disparities in oral health access and outcomes, and large proportions of racial and ethnic minority residents. MDPH has been awarded $200,000 per year for 5 years. Partnering organizations will include Edward M. Kennedy Health Center, Holyoke Health Center, ForsythKids School Oral Health Program, and the University of MA Medical School.

WIC, Early Intervention and Welcome Family

WIC, EI and Welcome Family will offer education and counseling about the importance of preventive oral health care services, including the importance of screening and dental cleaning. Welcome Family nurses ask about access to dental care and help mothers make connections to dental providers when needed. Oral Health referral information will be available through WIC offices and WIC staff will continue to participate in the Massachusetts Early Childhood Oral Health Consortium. Additionally, WIC staff will work to bring awareness to the Guidelines for dental care in pregnancy anticipated to be released by MPDH and to support local programs in providing education and referrals that align with the Oral Health Practice Guidelines.

Priority: Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities

Achieving health equity first begins with building knowledge, understanding and capacity within MDPH. Over the next five years, MDPH will focus on improving the capacity of Title V staff to promote health and racial equity. There will be a purposeful shift toward focusing on inequities, rather than just disparities. Strategies for addressing this priority will be centered on workforce development and training for Title V staff, data collection and continuous quality improvement among Title V programs, and alignment with other MDPH efforts. By 2020, MDPH aims to train 100% of new MDPH hires and 100% of MDPH Title V leadership in health and racial equity principles and approaches.

Leadership at MDPH will support trainings for staff to both improve awareness and understanding of the driving factors behind health inequities, as well as improve use of data to inform programmatic strategies and interventions to address inequities. In addition, leadership has committed to utilizing internal team meetings to hold ongoing discussions on health equality and racial justice. For example, a meeting might include viewing the film *Unnatural Causes*, discussing an article, or analyzing the impact of an individual program on health equity. There will be opportunities to hear from expert speakers and colleagues at brown bag lunches, such as implications of a policy

that is contributing to health disparities. Further, leadership will incorporate the principles of health equity, racial justice, and the social determinants of health into new staff orientation.

There will also be a focus on using a racial justice and health equity lens in data collection and analysis. MDPH will ensure all MCH programs and data sources consistently collect data including, but not limited to, race, ethnicity, primary language, disability status, and sexual identity. MDPH will increase the availability of data stratified by race and ethnicity to state and community programs to improve their ability to target interventions that reduce health disparities. Data will also be used for continuous quality improvement of programs and practices, including implementing Plan, Do, Study, Act cycles that improve program capacity to address health inequities. In addition, MDPH will update the tools used to evaluate MCH programs, for example the RFR criteria, to ensure they promote equity and social justice.

Further, Title V will align its focus on health and racial equity promotion with the MDPH Commissioner's priorities and national initiatives. Efforts at the Commissioner level will ensure institutional policies and practices are rooted in racial justice principles, using guidance from other states, including Minnesota and Oregon. In FY16, MDPH is participating in the National Infant Mortality CoIIN, and has chosen addressing Social Determinants of Health as one of three strategies to reduce racial and ethnic disparities in infant mortality. Specifically, the MA IM CoIIN plans to replicate a successful Boston program, Healthy Start in Housing (HSH), in Holyoke, a community in western MA with high rates of homeless families. HSH is a partnership between a city health department and the housing authority to prioritize subsidized housing vouchers for pregnant families. Family partners work closely with these families to improve their problem solving skills, and stabilize their family health and economics to ensure they maintain their housing. The MA IM CoIIN also plans to promote Earned Income Tax Credits (EITC) among eligible families as a strategy for reducing the tax burden on low and middle income families.

Priority: Promote emotional wellness and social connectedness across the lifespan

Emotional wellness is increasingly understood as a broad need affecting the development of individuals, especially children, during key times in their lives. It is a cumulative outcome of heredity, experiences, support, education, and environment. There are many initiatives underway and planned at MDPH to improve emotional wellness and social connectedness for all families; MHVI, EI, and SBHCs each have five-year objectives and strategies to promote emotional wellness and social connectedness across the life course.

Maternal and Infant

MA Home Visiting Initiative

Screening rates for substance use, depression, domestic violence, and social connectedness in MHVI programs have been steadily increasing since the program began. In FY14, 71% of expected screens were completed within the appropriate timeframe, up from 67% in FY13. The goal is to complete 90% of expected screens within the appropriate timeframe. Home visiting agencies are required to complete a minimum of one Plan-Do-Study-Act (PDSA) cycle every six months. Many agencies will focus their PDSA cycles on increasing screening rates. In addition, MHVI aims to increase by 10% by 2020 the number of expected screenings using the social connectedness tool that are completed. To achieve this, ongoing training will be provided to home visitors on collecting data using standardized and evidence-based screening tools to assess for social connectedness, as well as appropriate documentation of the data. MHVI will also increase the number of social connectedness support groups and resources within MHVI that are available to mothers with an identified need.

For example, MHVI will continue to offer Parents Together group services to reduce social isolation among parents. Evaluators from Tufts University conducted three focus groups with mothers who completed the group series to learn about their experiences, and to design a pre- and post-test tool to use in understanding how the group affects mothers. The tool will be ready for use beginning in the fall of 2015.

Massachusetts continues to face insufficient mental health services in the state. MHVI will continue to strengthen program capacity to support families facing mental health issues through Moving Beyond Depression. In FY16, MBD will maintain current service delivery levels and expand additional referral sources (home visiting and EI agencies). MHVI will also begin building an in-state MBD infrastructure for training, quality assurance, and quality improvement.

Early Childhood

MA Home Visiting Initiative

MDPH is receiving TA from the MCH Workforce Development Center to streamline state efforts that focus on improving access to medical home for all children. There will be a particular emphasis on integrating behavioral health into pediatric primary care. See the CYSHCN domain Plan for the Application Year for additional information.

Early Intervention

Massachusetts Part C will continue to implement its Theory of Action for the State Systemic Improvement Plan (SSIP) to ensure that children enrolled in EI demonstrate improved social-emotional outcomes before exiting EI services. The objective is to increase the number of infants and toddlers enrolled in EI who demonstrate improved positive social-emotional skills by 0.40% by 2020 (from 56.7% in FY14 to 57.1%). This is equivalent to 6,700 children showing improved social-emotional skills. A Developmental Quotient of 80 on the Battelle Developmental Inventory 2nd Edition (BDI-2) is considered typical to same age peers. Analysis of BDI-2 scores at EI entry and exit will demonstrate trends across the system as changes in practice are implemented. The SSIP State Leadership Team and stakeholders agreed that a substantial increase is not likely in the next year, as state strategies and data quality initiatives will require a startup period for implementation and adoption at programs.

To achieve this objective, EI will continue to develop infrastructure, support local EI programs in the implementation of evidence-based practices, and evaluate the impact of those practices. Examples of ways in which EI will expand infrastructure include:

- Expand training and technical assistance to improve fidelity of administration of the BDI-2 and the use of informed clinical opinion
- Develop culturally appropriate practices (e.g. the EI Training Center trainings will focus on reflective practices that support EI services that are respectful towards the individual needs of children and families)
- Support supervisors in developing reflective practice strategies
- Define levels of family engagement consistently across the system
- Develop process protocols for data management

Project LAUNCH

Massachusetts Project LAUNCH is a five year SAMHSA grant that was in its final year of implementation during FY14 and is operating in a no-cost extension period during FY15. Project LAUNCH aims to promote the wellness of young children, ages birth to eight years. Mass LAUNCH developed and implemented a model for integrating early childhood mental health promotion and prevention practices into pediatric medical home. At three pilot sites, a LAUNCH early childhood mental health clinician and a Family Partner with lived experience were embedded in the primary care clinic. This team works together to assess and support families with children who are identified by primary care providers as showing early signs of social and emotional difficulties or who are experiencing risk factors known to lead to poor social and emotional development outcomes.

In FY16, MDPH will continue working with state and community partners to support replication and address the challenge of sustainability for this model in the state. MDPH received a Project LAUNCH Expansion grant to replicate the model in three additional communities in MA (Springfield, Worcester, and Chelsea) with a special focus on serving Latino families. Mass LAUNCH will also partner with MHVI and the MCH Workforce Development Center on a project to enhance the early childhood system of care with a focus on pediatric medical home and behavioral health integration.

Essentials for Childhood

The goal of Essentials for Childhood is to reduce child maltreatment by promoting *Safe, Stable, Nurturing Relationships & Environments* using a collective impact approach. The strategies include:

- Raising awareness and commitment to promote safe, stable, nurturing relationships, and environments and prevent child maltreatment.
- Using data in a coordinated way to inform actions.
- Promoting norms change and programs that create the context for healthy children and families.
- Promoting policies that improve the health of children and families.

In FY16, Essentials for Childhood will develop a common agenda and shared measures to guide the initiative. Four Collective Impact (CI) Teams focused around the strategies are developing a set of mutually reinforcing activities. The Raising Awareness CI Team is developing messaging on supporting families by reducing the stress and isolation experienced by parents. They are also coordinating screenings of Raising of America, a documentary that examines policies and social factors that affect early childhood experiences. These screenings will trigger dialogue among policy makers within the business and academic communities and within high need communities. The Policy CI Team is focusing on supporting legislative policies that will benefit families such as paid parental leave. The Norms Change CI Team is considering how to survey the current norms around parenting to inform strategies for influencing policy and practice. Finally, the Data and Evaluation CI team is evaluating the program and working with each of the other teams to define and measure success.

Adolescents

School Based Health Centers

In FY16, the SBHC program will focus its efforts on increasing by 2% the number of SBHC clients age 11 years and older seen by the medical provider who are assessed at least once during the school year for the presence of a trusted adult and school connectedness. To achieve this, all SBHC clinical staff will be trained on the protective factor of these resiliencies and the importance of screening. In addition, MDPH will develop specific interventions to be

used across all SBHCs that will link students to a trusted adult and improve school connectedness in instances where such resiliencies are not identified. Beginning in FY17, SBHCs will be able to collect and report data on the interventions.

Cross-Cutting/Life Course - Annual Report

NPM-13 A) Percent of women who had a dental visit during pregnancy

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	49.9	49.9	51.9	53.2	54.9

NPM-13 B) Percent of children, ages 1 through 17 who had a preventive dental visit in the past year

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	83.3	84.0	85.5	88.0	91.6

FY14 Title V Block Grant activities to improve the health of populations across the life course focused on the 2010 national and state performance measures to improve oral health for women and children, promote social connectedness, promote healthy weight and physical activity, reduce smoking during pregnancy, and reduce hospitalizations due to asthma. The primary MDPH programs contributing to those efforts include the Office of Oral Health (OOH), School Health Services, School Based Health Centers (SBHCs), Early Intervention Partnerships Program (EIPP), MA Home Visiting Initiative (MHVI), Race to the Top, MA Early Childhood Comprehensive Systems (MECCS), Essentials for Childhood, Project LAUNCH, Early Intervention (EI) and the Women, Infants, and Children (WIC) Nutrition Program.

NPM 15: Percent of women who smoke in the last three months of pregnancy

MA Home Visiting Initiative

In 2013, a greater proportion of women living in MHVI communities smoked during pregnancy compared to the state average of 7%, with rates as high as 36% in North Adams, 24% in Pittsfield, and 17% in Fall River. MHVI and Welcome Family home visitors screen pregnant women for tobacco use with the SBIRT (Screening, Brief Intervention and Referral to Treatment), provide information to women on the risk of smoking in pregnancy, and refer women to smoking cessation resources.

Early Intervention Partnerships Program

Families in EIPP receive health education, brief intervention and counseling appropriate to the families' needs based on a Comprehensive Health Assessment. Tobacco cessation is a key topic of discussion, education, support and referral. In FY14, 21% of EIPP participants reported tobacco use at enrollment. Because this information is collected during the first in-person contact with EIPP staff, it is possible that the true rate of tobacco use is higher than initially reported due to stigma. Anecdotal data from EIPP staff and medical records reviews support this. Of the

121 women who reported tobacco use, 19.8% were supported in maintaining their connections with smoking cessations services they were already receiving while 76% of women were referred to smoking cessation services (4.1% of cases were missing data). Forty-five percent declined the referral. In addition, 21% of EIPP participants reported smoking during the last three months of pregnancy.

As stated in the Women's/Maternal Health domain, key challenges identified by the EIPP communities include the multiple and complex needs experienced by EIPP participants, such as mental health issues and housing instability, which take precedence in women's lives over reducing or quitting tobacco use. For example, EIPP participants' eligibility status indicated a very high need community of women being enrolled in FY14 and included:

- 59% with inadequate food or clothing
- 55% with a history of depression including postpartum depression
- 42% who were homeless or experiencing housing instability
- 13% who reported substance abuse in the home

In addition, many EIPP staff report that participants use tobacco to manage anxiety. Until the other more pressing issues are ameliorated in their lives such as the need for food, clothing, safety and housing, EIPP participants are unable to work on smoking reduction or cessation.

SPM 2: Development and implementation of Social Connectedness measures across the lifespan for three population groups

This SPM is a composite of six different social connectedness measures across three populations: Maternal and Infant, Early Childhood (0-6 years), and Youth and Young Adults (13-24 years). MDPH staff meet annually to score progress on each of the six measures. MA's progress and activities for promoting social connectedness are described below.

Maternal and Infant

MA Home Visiting Initiative

MHVI promotes emotional wellness and social connectedness among program participants in several ways. Home visitors collect data from all program participants to measure social connectedness and social supports, and implements enhancements to the evidence-based home visiting models that focus on promoting emotional wellness and social connectedness. In FY13, 79% of expected screenings using the social connectedness tool were completed. In FY14, 82% of expected social connectedness screens were completed. The percent of mothers who were referred to support groups or other resources to support social connectedness increased from 11.4% in FY13 to 21.5% in FY14.

In addition, MHVI implements Parents Together, an evidence-based intervention that improves social support networks, positively affects parent functioning, child safety, and help-seeking behaviors. The program has demonstrated increases in the ratio of positively-to-negatively perceived members in their social networks, reductions in perceived stress, greater access to necessary resources, and improvements in mothers' positive involvement with their children. By September 30, 2014, 15 programs had completed or were in the process of completing a total of 19 groups with 137 participants.

To address the dearth of mental health clinicians and services, long waiting lists, and little linguistic diversity among clinicians in MA, MHVI began implementing Moving Beyond Depression (MBD) In-Home Cognitive Behavioral Therapy (IH-CBT™) (Ammerman et al., 2007) in November 2013. MBD is an evidence-based intervention that provides 15 IH-CBT sessions by a masters-level clinical therapist to mothers with clinical depression. It was demonstrated in a clinical trial to be highly effective in reducing depressive symptoms and their associated clinical complications. MBD is uniquely and specifically adapted to meet the needs of pregnant women and mothers in home visiting programs, and addresses issues common to this population including trauma, relationship problems, and poverty. MBD allows MHVI programs to leverage home visitor-participant relationships to support mental health assessment, provide intensive mental health services to families who might not access services outside the home, and reduce depression in participants. In FY14, MHVI operated MBD at four mental health agencies serving 17 home visiting agencies. Three therapists speak Spanish. MBD also began a strategic partnership with EI, authorized through IDEA Part C, to improve comprehensive family services and increase access to resources for mothers experiencing depression who have children in EI. Between November 2013 and September 2014, MBD served 85 mothers.

Postpartum Depression Regulations

In FY14, MDPH continued to work with key stakeholders across the Commonwealth to finalize the regulations as required under the Postpartum Depression (PPD) legislation passed in 2010. Although the legislation does not require providers to screen for PPD, it does require a provider to report their data to MDPH on an annual basis if they do conduct a PPD screen during a clinical encounter with a postpartum woman. Two mechanisms for reporting PPD screening are included in the regulations, paper version by providers or by using claims codes by both providers and health plans.

The PPD regulations, promulgated on December 5, 2014, will allow MDPH to collect and analyze data specific to the frequency and scope of PPD screening among the more than 72,000 women who give birth in MA annually. System gaps, provider training needs, and disparities may be identified that will assist in future program planning activities and initiatives.

During FY16, MDPH will continue to provide training and technical assistance to providers and health plans as they implement these regulations.

Pregnancy Risk Assessment Monitoring System

MDPH sought to add the following question specific to social emotional connectedness to the MA Pregnancy Risk Assessment Monitoring System (PRAMS) Questionnaire.

1. Since your new baby was born, would you have the kinds of help listed below if you needed them? For each item, check No if you would not have it or Yes if you would.
    a. Someone to loan me $50
    b. Someone to help me if I were sick and needed to be in bed
    c. Someone to talk with about my problems
    d. Someone to help me if I were tired and feeling frustrated with my new baby
    e. Someone to take me and my baby to the doctor’s office if I had no other way of getting there

In FY14, MDPH received approval from the PRAMS Advisory Committee to add the question to the survey. MDPH anticipates it will begin administering the survey with the social connectedness question in FY16, and that data will be available in FY18.

Early Childhood

Early Intervention

The EI program screens and identifies early social-emotional delays in children (0-3 years old) and provides interventions to promote social connectedness. EI developed and implemented protocols for universal screening of EI-enrolled infants and toddlers using a validated tool (ASQ-3:SE or Greenspan Social-Emotional Growth Chart). Since FY13, universal social emotional screening has been fully implemented for all children enrolled in EI with an Individualized Family Service Plan (IFSP).

The Office of Special Education Programs (OSEP) at the U.S. Department of Education defines the State Performance Indicators that states must report on for Early Intervention (Part C), including three child outcome measures: positive social-emotional skills, acquisition and use of knowledge and skills, and use of appropriate behaviors. In designing its State Systemic Improvement Plan (SSIP), as established by OSEP, MA compared its performance from July 2012 to June 2013 in each of the outcome areas to the national average, and found that the percent of children who make greater than expected growth in social-emotional skills is the only area in which MA performed lower than the national average. Therefore, MDPH chose to focus the SSIP on improving positive social-emotional skills.

To improve social-emotional outcomes for infants and toddlers enrolled in EI, MDPH developed a Theory of Action for the SSIP that is centered on four areas of action: Practice Quality and Consistency, Collaboration, Professional Development and Data Quality. In collaboration and consultation with EI stakeholders, the SSIP State Leadership Team identified root causes, strategies, and expected outcomes in each of these areas. Most strategies require that the state enhance its infrastructure (e.g. evidence-based best practices, training capacity and curricula, data protocols) or make existing infrastructure more available to EI programs. With expanded state infrastructure, programs are expected to use the new information and resources to improve their practices in promoting positive social-emotional skills. The goal is that children and families will experience higher quality services which will result in improved outcomes in positive social-emotional skills development.

Project LAUNCH

Over the course of the five year grant, more than 800 children and their families were enrolled in LAUNCH and received direct services, while many more participated in wellness promotion activities. Evaluation results show statistically significant growth in children's social and emotional development and reduction in parent stress. Children aged less than one year to five years (n=183) showed a steady decline in social-emotional risk, and children six to eight years of age at greater risk for social-emotional problem behaviors saw improvements in their behavior during their participation in Mass LAUNCH. Using the Parenting Stress Index 3rd Edition (PSI), which assesses caregiver stress related to parent-child interactions and children's behavior, caregivers who were at significant levels of stress at baseline reported declines that brought them within the normal range for stress by 12 months. Additionally, according to the Patient Health Questionnaire depression scale (PHQ-9), caregivers (n=167) participating in Mass

LAUNCH with significant symptoms of depression at baseline reported declines that brought them within the normal range for clinical symptoms of depression by 12 months.

In partnership with the MA Executive Office of Health and Human Service's MYCHILD Early Childhood System of Care grant, and the local implementation partner, the Boston Public Health Commission, MDPH engaged in a Learning Collaborative and developed an Early Childhood Mental Health Toolkit: Integrating Mental Health Services into the Pediatric Medical Home for replication of the model.

Race to the Top Early Learning Challenge Grant

In FY14 and FY15, under the Race to the Top Early Learning Challenge Grant, MDPH partnered with the Department of Early Education and Care (EEC) to provide bi-annual training to EEC's 90+ Coordinated Family and Community Engagement Grantees (CFCEs) on the Ages and Stages Questionnaire (ASQ) and the Ages and Stages Questionnaire: Social- Emotional (ASQ-SE), developmental screening tools. CFCEs are agencies charged with engaging hard-to-reach families of young children in services that support optimal child development as well as strengthening the capacity of families to support their children's development. MDPH trained CFCE staff to use the ASQ:SE as a tool to help parents understand and nurture their child's social-emotional development. The training provided strategies for CFCEs to share with parents to support young children's emotional wellness and address challenging behavior. The training also addressed strategies for connecting parents with formal assessment and appropriate referrals, including the medical home and EI, if a concern is identified.

MA Early Childhood Comprehensive Systems

MA Early Childhood Comprehensive Systems (MECCS) takes a systems-level approach to promoting young children's emotional wellness. In two high-need communities, MECCS has convened cross-systems stakeholders in an 18-month Learning Collaborative to create and test strategies for improving the system of care for young children at risk for toxic stress. The strategy undertaken by one community is to develop a consistent, culturally-sensitive message about how to promote resilience in young children, targeting three audiences: families, community providers and policy makers. Messaging projects include a campaign about the impact of high-quality, nurturing relationships on emotional wellness as well as a proposal to fund an early childhood resilience convener and systems coordinator at the city health department or MCH commission.

Adolescents

School Based Health Centers

The SBHC Program developed a methodology for organizing a psychosocial history of the students being seen in school-located clinics. Realizing the protective impact of social connectedness, the screening questions for two items (Trusted Adult and School Connectedness) were embedded into the data system template.

The Trusted Adult assessment involves asking one of the following questions:

a. Do you feel comfortable asking a parent or other adult family member for help?
b. Are there any other adults in your life that you can talk to when you are having a hard time?

In FY14, 5,725 students 11 years and older were assessed for the presence of a trusted adult. A positive answer (i.e.

a resiliency) was given for 5,510 (96.2%) students.

The School Connectedness assessment involves asking one of the following questions:

a. Do you feel like your school is a caring place?
b. Are your teachers fair?
c. Do your teachers expect you to do well?

In FY14, 5,358 students 11 years and older were assessed for school connectedness. Of those, 5,090 students (95.0%) had a positive answer.

Because these are assessments of resiliency rather than risk, there is no list of specific interventions for SBHC clinical staff to use to promote social and school connectedness. In the coming year, the SBHC program will establish interventions and strategies to be used by all 33 SBHCs in Massachusetts.

School Health Services

School Health Services provide ongoing school health service systems development and technical assistance to the public school districts and nonpublic schools. MDPH funds a portion of school districts, covering 682,639 students. School nurses provide a variety of behavioral health interventions specific to the developmental and cognitive level of students based on their grade to support social connectedness to school and friends. Nurses conduct an assessment, brief intervention, and plan for further intervention or referral as needed. Behavioral health interventions fall into the following five categories:

1. Coping Enhancement/Reassurance Check-in/Self-Calming (e.g. allowing the student to rest in a quiet room and listen to music or play with stuffed animals)
2. Stress/Anxiety Reduction/De-escalation (e.g. teaching stress reduction activities)
3. Monitor for Self-Harm/Suicide Ideation (e.g. counseling depending on the type of harm)
4. Social Skills Support (this is the support provided to students with autism, e.g. teaching activities of daily living or assistance with self-advocacy)
5. Relationship Guidance (e.g. focusing on making and keeping friends in kindergarten and on dating relationships and dating violence concerns in high school)

In FY14, among the 682,639 public and private school-aged children for which data was collected and reported, there were 230,703 unique student encounters in which behavioral health interventions on these topics were provided. The most common was Coping Enhancement/ Reassurance Check-in/Self-Calming. FY14 is the first year that this data is being collected.

NPM 9: Percent of third grade children who have received protective sealants on at least one permanent molar tooth

In 2014 in Massachusetts, 64.5% of third grade children received protective sealants on at least one permanent molar tooth, compared to 64.0% in 2013.

Office of Oral Health

The Office of Oral Health (OOH) operated its school-based oral health prevention program in 16 high-need communities in 107 schools during academic year 2013-14. Approximately 77% of treated children participated in MassHealth. Direct reimbursement to the OOH by MassHealth for the sealants and fluoride sustains the program and its personnel. While OOH continues to target low-income children with limited access to care, it accepts all comers and is credentialed to accept private insurance. OOH provides leadership to improve oral health status with a focus on children and preventive services. OOH collaborates with the Essential School Health Services Program (ESHS) and school nurses on programs and services, and provides oral health training to school nurses in ESHS-funded districts; the revised school health manual includes an oral health chapter. School nurses reported that 22.2% of all third graders in the districts served by MDPH ESHS had a dental sealant applied in schools. OOH also collaborated with many community health center dental programs to develop sustainability within programs and access to restorative treatment. The School Health Unit continues to collaborate with OOH to increase the numbers of schools where sealants and/or fluoride rinse are available.

SPM 4: Percent of women with a recent live birth reporting that they had their teeth cleaned recently (within 1 year before, during, or after pregnancy)

In 2012 (the most recent year for PRAMS data), 76.9% of mothers in PRAMS reported having their teeth cleaned recently.

To address NPM 9 and SPM4 and their concomitant disparities, an Oral Health Advisory Committee (AC) was established in FY14 with the charge of developing the MA Perinatal Oral Health Practice Guidelines (Guidelines) for prenatal, dental and pediatric providers, making MA the seventh state in the nation to have specific perinatal and pediatric guidelines. In developing the Guidelines, AC members collaborated with staff from a variety of professional organizations, such as MDPH's Office of Oral Health, March of Dimes, American Academy of Pediatrics, American Academy of Family Physicians, American Association of Public Health Dentistry, American College of Nurse-Midwifery, Association of Women's Health, Healthy Start Coalition, Massachusetts Association of Community Health Workers, Massachusetts League of Community Health Centers, Massachusetts Medical Society, Massachusetts Perinatal Quality Collaborative (MPQC), Dental and Medical Schools, and health insurers.

AC members drafted the Guidelines to provide oral health care guidance for pregnant women and infants. Additionally, the Massachusetts Health Quality Partners (MHQP) organization, a broad-based coalition of physicians, hospitals, health plans, purchasers, patient and public representatives, academics, and government agencies working together to improve the quality of health care services, included oral health screening and treatment for pregnant women in its 2013 Perinatal Care Recommendations.

Office of Oral Health

In 2013, the percentage of mothers who had their teeth cleaned by a dentist or dental hygienist during their pregnancies was 47% according to NVSS data. The percentage of mothers receiving oral health care during pregnancy was lowest among Black mothers (33%) followed by Asian (37%), and Hispanic (37%) mothers compared with White mothers (53%). The dramatic disparity between White women and women of color in routine oral health care is paralleled by similarly large disparities between women under 100% of federal poverty level (FPL) and those over 100% of FPL; 2011 PRAMS data indicate that only 35% of poorer women had their teeth cleaned during pregnancy compared to 56% of women over 100% of FPL. The implementation of the Guidelines in the community health centers, where poorer women and minority populations receive the majority of their care, will

potentially help address these disparities.

WIC

WIC nutrition staff regularly screen participants for dental care, offer oral health nutrition education messages, and provide dental referrals as needed. Several WIC programs collaborate with community-based dental practices to offer screening and fluoride varnish in the WIC clinic setting. The WIC Program provided two trainings for local and state nutrition staff focused on new dental care recommendations for children and on increasing rates of dental care among WIC participants served by MassHealth. The first training was conducted in June by a dental public health resident from the Harvard School of Public Medicine and the second was provided by a team of experts from the Massachusetts Early Childhood Oral Health Consortium. WIC staff were actively involved with this Consortium throughout the year in an effort to develop and disseminate consistent oral health messages for families and to improve referrals and access to dental services for MassHealth recipients. Additionally, the WIC program distributed a variety of participant education materials and toothbrushes to WIC local programs during National Dental Health Month in February.

Other Programmatic Activities

No content was entered for Other Programmatic Activities in the State Action Plan Narrative section.

II.F.2 MCH Workforce Development and Capacity

The MDPH Health Care Workforce Center (HCWC) assesses the Commonwealth's health care workforce and oversees workforce development reports. One report, the HCWC Health Professions Data Series, provides information on current supply and projections of key health professions. Data on health professionals' language skills can be tracked and matched over time to identify gaps and project future trends. In response, programs such as loan repayment prioritize awards to meet community language needs. The ability to project health workforce supply informs policy and education.

As of 2014, 27,845 physicians possessed a full, active license and a business address in MA, with 55% reporting a MCH-related specialty. In addition, MA has a wealth of health professions education and training programs, with four medical schools, three dental schools, and numerous nursing schools. Future trend data will enable better assessment of the health care workforce and identify areas of unequal distribution for a range of health professionals.

Although the health care workforce in MA is well equipped to address the needs of its MCH population, there remain several workforce development and capacity needs identified by the Title V Program. Many professionals who come to MA to train do not remain to practice medicine. A Health Professional Shortage Area designation report reveals that current primary care practitioners only meet 64.2% of the state's need. Eighteen other states have better state coverage for primary care practitioners. Additionally, in a 2013 survey of approximately 91% of MA dentists (n=5,930), only 4% (n=236) reported having an ADA specialty in pedodontics, which translates to a rate of 16.8 dentists per 100,000 children under 18 years. Of these pediatric dentists, 28% reported not accepting MassHealth while 38% reported that MassHealth subscribers comprised at least one quarter of their entire patient population.

In a 2012 survey, the registered nurse (RN) workforce represented 997.5 nurses per 100,000 residents. Of those,

1.3% were in family practice, 4.4% in labor and delivery, 6.0% in primary care, 1.2% in public health, and 4.0% in school health. Approximately 10% of RNs employed in MA reported having at least one advance practice nurse certification specialty. This baseline data represents the first time MA has been able to assess nurses and their contribution to the health care workforce, including a breakdown of role, setting, and zip code of primary and secondary practice settings.

In the next edition of the health workforce data report, the availability of data that provide health workforce supply by geographic area will enable MA to appropriately focus resources for education, training and workforce retention. The HCWC is adding to the list of health professionals for which data are being collected, including substance use providers. HCWC will also be able to collect information on community health workers (CHW) when the certification process is established.

The Early Retirement Incentive Program, signed into law by Governor Baker in May 2015, poses a challenge to Title V workforce capacity. This legislation allowed up to 5,000 state employees to retire before fiscal year 2016, saving an estimated $170 million; however, fewer than 3,000 employees took advantage of the offer The state will be allowed to spend just 20% of the savings to backfill positions. While this is expected to save money quickly to address the deficit, there are concerns about an erosion of state services and a loss of institutional knowledge. The Title V program will work to deliver the same quality of services to the MCH population with fewer staff.

Another capacity-building focus for Title V is improving knowledge of health care financing. With the growing focus on obtaining third party reimbursement of public health services, Title V will greatly benefit from staff who are able to navigate the health care financing system. This will allow the agency to sustain key programs for MCH populations.

In the next five years there will also be a focus on improving the capacity of Title V staff to better understand driving factors behind health inequities, and improve the use of data to inform programmatic strategies and interventions to address inequities. There is a new Title V priority for 2015-2020 to *Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities*, and all of the strategies for achieving this priority will be focused on internal workforce development.

A more culturally diverse MCH workforce is needed. One of the keys ways in which MA provides linguistically and culturally appropriate services is through CHWs, a vital component of the state public health and health care workforce. CHWs contribute to maternal and child health in MA by improving access to and increasing utilization of primary health care, reducing costs of care, improving quality of care, and reducing health disparities. CHWs are distinguished from other health professionals because they are hired primarily for their special connection to and understanding of the populations and communities they serve, conduct community outreach, and have experience providing services in community settings. MDPH has been a strong supporter of CHWs and will continue to provide leadership within state government for CHW workforce development and utilization. MDPH has been the single largest funder of CHW services and training in MA for several decades. In addition to ongoing programmatic support of CHWs through its contracts, MDPH conducts a number of capacity-building initiatives to strengthen the CHW workforce in fundraising support and promotion of funding opportunities; policy development, including certification; training and curriculum development; research and publications; and national networking and promotion of CHW movement. MDPH's Office of Community Health Workers, established in 2009, coordinates these workforce development efforts.

Currently, there is no statewide infrastructure to support standardized training for CHWs. When CHW certification becomes operational, greater need for expanded training capacity is anticipated and training programs will need to be approved in order for students to qualify for state certification as CHWs. Currently there are six training programs in MA offering core competency trainings for CHWs. In addition, there are five colleges with programs offering courses for CHWs that are designed to complement core competency training.

Funding for CHW employment is insecure and typically allocated through grants related to specific populations, diseases and conditions. Funding priorities and amounts change from year to year, leaving CHWs and the people they serve vulnerable. In the next five years, there will be concerted efforts to ensure that CHWs become sustainable members of the public health and healthcare workforce. These efforts include expanding and evaluating the evidence base of CHW contributions to positive health outcomes and cost containment, and educating health payers and providers about the roles and impact of CHWs and how to integrate them into healthcare and other multidisciplinary teams. Several programs at MDPH are pursuing third party reimbursement for services provided by CHWs.

II.F.3. Family Consumer Partnership

The Massachusetts Department of Public Health Title V MCH and CYSHCN Programs have a long history of commitment to strong and effective partnerships with families. We believe that all programs and services are improved when consumers and professionals work to together to develop policy, design and implement programs, embed a culture of continuous quality improvement, and evaluate efficacy in a collaborative fashion.

Robust efforts are made to involve families from diverse linguistic, cultural, socioeconomic and geographic areas as partners across Title V activities including strategic and program planning, evaluation, needs assessments, advisory committees, and learning collaboratives.

The Title V program uses various strategies to accommodate families to ensure meaningful engagement and participation in MCH programs. These include holding meetings in the community on evening and weekends, using webinars and conference calling as an avenue for participation, sponsoring travel to meetings, and providing materials and mentoring prior to and after meetings.

Family and consumer partnership activities are a particular focus in programs for children and youth with special health care needs and their families. They are coordinated through the Office of Family Initiatives, which works across the Division for Children & Youth with Special Health Needs (DCYSHN) and the Bureau of Family Health and Nutrition at a senior management level. All DCYSHN programs find ways to engage families as partners. Some examples include:

- MassCARE, a Ryan White-funded program, maintains Family Advisory and Peer Leader Networks. MassCARE funds training and skill-building for parents and youth through community organizations and local health centers that provide services to individuals infected and affected by HIV/AIDS.
- The Universal Newborn Hearing Screening Program (UNHSP) has four parents of children and youth with hearing loss/deafness as members of its active Advisory Committee. The program employs the parent of a

young child with hearing loss as a Parent Outreach Specialist who connects with all families after diagnosis to share information, options and resources from the parent perspective and encourage families to access EI.

DCYSHN works in close collaboration with the Federation for Children with Special Needs (FCSN), which is the state's parent training and information center, the site of the MA Family Voices chapter, and home to the MCH-funded Family-to-Family Health Information Center.

MDPH funds Family TIES (Together in Enhancing Support), the statewide information, referral and Parent-to-Parent network for families and their providers at the FCSN. Family TIES coordinators, all parents of CYSHCN, are sited in MDPH regional offices to ensure their ability to identify local and community resources and build relationships with families of CYSHCN and the organizations serving them. Family TIES staff build trusting relationships with community-based organizations allowing them to share culturally appropriate information about Title V and other health related resources as a strategy to address health disparities.

MDPH/DCYSHN looks to the Family TIES program as a way to recruit interested family members as advisors to MDPH. These Advisors – there are currently over 220 - serve on Advisory Committees, as co-trainers, participate in policy and program development, and assist in funding announcement and materials design and review. Most recently, many of the Family Advisors participated in 2015 Block Grant Needs Assessment activities including focus groups, surveys, and town hall meetings. Families participating in these and other Title V activities are compensated for their time, and receive skill building, training and mentoring to assist them to feel confident in sharing their life experience and expertise in diverse settings.

The Title V program promotes family engagement at the national level by nominating an Association of Maternal and Child Health Programs (AMCHP) Family Scholar annually. Over the last 15 years, six Family Scholars have come from Massachusetts. MDPH remains in close contact with all of them, many of whom have gone on to leadership positions in family organizations and MCH/CYSHCN programs.

The Early Intervention Parent Leadership Project (EIPLP), a project of the Office of Family Initiatives, assists in developing and delivering training opportunities for families of CYSHCN that grow and enhance their skills to take on leadership/partnership roles. It connects with families at the community level, offering information, skill-building and access to opportunities to get involved as partners in systems improvement and change. Parents are supported to serve on the Massachusetts Interagency Coordinating Council (ICC) a federally mandated statewide interagency group that advises and assists MDPH as Lead Agency for Part C Early Intervention (EI). There are eight parent representatives, one of whom serves as co-chair of the ICC. EIPLP disseminates an annual newsletter to over 12,000 parents who are current and past recipients of EI services. The newsletter describes programs and services, shares information on opportunities for family involvement, and highlights the stories and journeys of active family leaders.

Examples of family and consumer partnership efforts for other MCH populations include:

- The Young Children's Council for Project Launch and MYCHILD includes both parents and youth. Although a SAMHSA grant supports much of this work, it is administered by the MCH program and informed by MCH values of consumer partnership. The grant supports clinicians and family partners at community health centers

to work on integrating behavioral and mental health into the medical home approach to care.

- A family representative from Project LAUNCH is serving on a state project to promote the integration of behavioral health into pediatric medical home, which MDPH is leading with support from the National MCH Workforce Development Center.
- Family members serve on the Perinatal Advisory Group and contribute to developing perinatal hospital guidelines.

Further details about how parents, families, and other consumers are involved in Title V activities can be found in two Needs Assessment Summary subsections (*II.B.2.b.iii.: MCH Workforce Development and Capacity* and *II.B.2.c.: Partnerships, Collaboration,* and *Coordination*) and are displayed graphically in Attachment 3. Over the next five years the MDPH Title V MCH and CYSHCN Programs will continue to build strong and effective partnerships with families to improve services for families, women, infants, children, adolescents, and children and youth with special health needs in Massachusetts.

II.F.4. Health Reform

Massachusetts health care reform has been successful in achieving almost universal health insurance coverage. In 2014, less than 4% of residents, and less than 2% of children, were uninsured. However, Massachusetts still faces challenges as a result of health care reform, in particular the rising cost of health care. In the absence of any intervention, the burden of high health care costs will worsen, as health care spending per capita in Massachusetts, already the highest in the country, is projected to nearly double between 2010 and 2020.

The increasing presence of Accountable Care Organizations (ACOs) and bundled payments is resulting from rising health care costs and has implications for services for the Title V population. ACOs and bundled payments have the potential to improve quality of care for children and families, including children with special health care needs, by encouraging providers to coordinate service delivery. In 2013, Massachusetts began implementing a pilot program that uses bundled payments to improve pediatric asthma care for MassHealth recipients. The first phase of the program offers a per member/per month payment to primary care providers for interventions to manage pediatric asthma that are not traditionally covered by MassHealth (e.g., care coordination by community health workers). The second phase of the program provides a more inclusive bundled payment that reimburses primary care providers for all outpatient care, including both traditional medical services and nontraditional interventions. This project will help evaluate the degree to which a bundled payment enhances the effects of delivery system transformation.

MDPH has made a coordinated effort to sustain maternal and child home visiting programs through public and private insurance reimbursement. Significant challenges exist in attempting to secure such reimbursement including, but not limited to medical necessity, eligibility criteria, use of non-clinical staff, reimbursement opportunities consistent with model fidelity, and the ability to demonstrate savings to the health plan. However, the Bureau of Family Health and Nutrition (BFHN) has a long and successful history accessing both Medicaid and Private Health Plans for Early Intervention (third party payers reimburse 80-85% of system costs) and Early Intervention Autism services (third party payers reimburse approximately 60% of system costs). Future efforts will be directed on the following: first, identifying any state or territory being reimbursed for something similar to our desired goal; second, developing a concept plan specific to Massachusetts; third, organizing stakeholders that support such cost expansion or shifting; and finally, having a clearly articulated business case and a shorter rationale or “elevator

speech" for unexpected opportunities. It has been BFHN's experience in such matters that they do not occur in a short time frame. Rather, as a state agency we have often seen such efforts taking three to five years before implementation.

One of the key ways in which the state Title V agency supports cost containment efforts is through the Massachusetts Prevention and Wellness Trust, an innovative approach to prevention as a component of health care reform. Passed in 2012, the Trust is a four-year, $60 million commitment to population-based health promotion efforts whose purpose is to reduce the occurrence of preventable health conditions in Massachusetts and provide evidence of the cost saving power of disease prevention. In July 2013, MDPH gained access to the funds to implement community-based programs focused on policy, systems and environmental changes at a local level as well as an electronic linkage between clinical sites and community resources. Pediatric asthma is one of the four priority health conditions for which Prevention and Wellness Trust grants are provided, which will support Massachusetts Title V efforts in environmental health for the next five years. The Trust emphasizes the sustainability of community plans. By working with communities that have formed relationships with partner organizations like insurers and ACOs, plans are developed that will transition the payment for community work from being funded by MDPH to other payers.

Efforts to assure cultural and linguistic competence and promote health equity through health care reform are reflected in the promotion of community health workers (CHWs) and implementation of Standards for Cultural & Linguistically Accessible Services (CLAS). A provision of the 2006 Massachusetts health reform law (Section 110) required MDPH to develop proposals for building a sustainable program to promote employment of CHWs, who help to improve access to and increase utilization of primary health care, reduce costs of care, improve quality of care, and reduce health disparities. A CHW Advisory Council produced a set of recommendations in four major categories – professional identity, workforce development, financing, and infrastructure development – upon which MDPH is acting to advance the utilization and impact of CHWs in the state. Additional discussion of the role of CHWs is provided in section II.F.2.: MCH Workforce Development and Capacity.

Health reform presents a unique and valuable opportunity for the nation's health care systems to incorporate the national standards for Culturally and Linguistically Appropriate Services (CLAS) at every point of contact. The MDPH Office of Health Equity (OHE) has been systematically implementing and monitoring efforts to meet the CLAS Standards since 2005. The provision of CLAS is highlighted in 12 sections of the health reform law. The standards, like health reform, seek to reduce health inequities – to eliminate barriers to access, improve the quality of care, and address the social determinants of health that drive disproportionate rates of disease among population groups. Examples of strategies for integrating CLAS across MDPH include collecting race, ethnicity, and language data, conducting periodic internal assessments, and integrating CLAS into contract conditions. OHE supports and monitors MDPH's efforts to ensure that state-funded health services providers use CLAS as a framework for continuous quality improvement.

Although health reform has supported Massachusetts in insuring a large number of its residents, the Title V program still provides services that advance implementation of the Affordable Care Act. Title V supports people who are uninsured or underinsured to access care that meets their needs and is culturally appropriate. Part of Title V's role is to connect people without employer-sponsored or public insurance with resources to help them apply for the most affordable health coverage. Resource Specialists keep updated with the appropriate resources to contact, such as the Health Connector (the state's Health Exchange), Customer Service line, the Health Care For All Health Helpline, Navigator Organizations, and the Certified Application Counselors are located at statewide community health

centers and hospitals. In addition, the Title V program has a toll-free statewide Community Support Telephone Line that providers and families can call with questions related to health care coverage and services. Family TIES regional coordinators refer families who have questions about coverage, premium assistance and public benefits to the Community Support Line and to the Family-2-Family Health Information Center at the Federation for Children with Special Needs.

A key role of the Division for Children and Youth with Special Health Needs is to keep health care providers and consumers informed about the complex system that families rely on to finance health care for children with disabilities or chronic illnesses. The Training and Policy Specialist tracks updates on federal health reform and shares updates with Division staff and providers on the implementation of the ACA in Massachusetts, and how it affects children and youth with special health needs. The Public Benefits Specialist provides up-to-date training and information on state and federal health reform and any changes affecting families with children with special health needs. The target population for training and technical assistance consists of state or private child-serving agencies, health care providers, hospital staff, school personnel, early intervention staff, parent groups or organizations that serve or engage in advocacy on behalf of disabled, chronically ill or blind children and parents or guardians of children with special health care needs.

In addition, the Director of Supplemental Security Income (SSI) and Public Benefits Training and Technical Assistance participates in collaborative meetings with health care organizations, health plans, and health care advocates through coalitions formed and led by Health Care For All, such as the Children's Health Access Coalition. These coalitions monitor the effect that the implementation of the ACA is having on children and families of the Commonwealth. These coalitions discuss the priorities of ensuring that families and children have access to high quality, continuous and coordinated health services.

The Title V program in Massachusetts does not provide gap-filling services with federal funds. Some state funds are used for gap-filling services targeting high-need families, such as School Based Health Centers, family planning clinics, and Early Intervention.

Massachusetts will continue to stay up to date on changes in the health care delivery system. This will allow MDPH to most effectively meet the needs of the MCH population and to position Title V in way that it can influence ongoing reform of the health care system.

II.F.5. Emerging Issues

Health and Well-being

As previously discussed, the dramatic increase of babies born to mothers using opiates is a critical and emerging issue in the state. In 2012, 17.2 infants/1000 live births developed NAS in Massachusetts, an incidence five times the national average. The increase in maternal use of opiates and subsequent NAS diagnoses is indicative of a larger trend in substance use among Massachusetts residents. Data from the MDPH Bureau of Substance Abuse Services indicates that a disproportionate percentage of opioid abuse is occurring among adults aged 35 years or younger, or young adults who are parenting. Since effective parenting and providing safe and nurturing environments

can be compromised by unhealthy use of substances, providing support and effective interventions to these parents is critical to ensuring their infants receive safe, stable and nurturing care. The increase in drug-exposed babies has MA hospitals overtaxed. Physicians report there are no federally approved medications or standard procedures to follow in hospitals, and even less information available for pediatric providers serving these families once they are discharged from birth hospitals. Meeting the needs of these infants, their mothers, and families will continue to be an issue if opiate use among women of reproductive age continues at its current rate.

Since the economic recession, homelessness has reemerged as a major area of concern for the MA MCH population. Massachusetts saw the fifth highest increase in homelessness among all states between 2012 and 2013. In 2014, of the 13,115 families applying for Emergency Assistance (EA), only 6,562 met the eligibility criteria and were placed in shelter. As of June 2015, approximately 4,300 pregnant and parent families were sheltered through EA with 1,296 of these families placed in motels. Housing costs remain a high burden for Massachusetts residents. A study in 2014 found that 25% of homeless adults in Boston are employed; yet, because of the high cost of living, many of these individuals cannot afford housing. Reaching these families to provide services remains a challenge for MDPH.

Maternal depression is another emergent public health issue in Massachusetts. Depression may compromise parenting skills and the relationship between a mother and her child, which may have adverse effects on child development. According to data from the 2011 MA PRAMS, 9.9% of new mothers reported often or always feeling down, depressed or sad (compared with 7.7% during 2007-2008). Hispanic (14.9%) and non-Hispanic black (13.3%) mothers were more likely to report feeling down, depressed and sad than their non-Hispanic white (8.0%) and Asian (7.0%) counterparts. However, there is a dearth of mental health clinicians and services, long waiting lists across the state, and little linguistic diversity among clinicians.

The rising rate of autism is an emerging concern both nationally and in Massachusetts. In 2010, the CDC estimated that 1 in 68 children, approximately 1.5% of the population, have an autism spectrum disorder (ASD), an increase from estimates of 1 in 150 (0.7%) in 2000. The most recent National Survey of Children with Special Health Care Needs, conducted in 2009/10, estimates 8.6% of MA children ages 2-17 years currently have autism, Asperger's disorder, Pervasive Development Disorder, or other ASD, compared to 7.9% nationwide. According to a 2009 research paper, ASD is 21% less likely to be documented among black children and 24% less likely to be documented among Hispanic children as compared to white children. The rapid increase in ASD has strained an already stressed system that does not have the capacity to serve the growing number of individuals living with autism in MA. While demand for services has increased, government programs designed to assist individuals with autism have not kept pace for a number of reasons, including lack of autism expertise among staff in government agencies and insufficient capacity to meet increased demand for services. For the past year, an Autism Work Group has been meeting biweekly to discuss expansion of payment responsibility by MassHealth for MassHealth-enrolled children and youth for payment of autism services. It is expected to be implemented in January 2016. The Work Group is led by senior staff from MassHealth. The MDPH Title V Director has been a regular participant.

Climate Change

Another issue being discussed at a national level is climate change. The MA Department of Energy and Environmental Affairs reports the state's climate is changing, with an increase in ambient temperature by 1.8°F since 1970 and a rise of 22cm in sea level from 1921-2006; with continued trends, it is predicted there will be more frequent days with temperatures over 90°F, increased sea levels, reduced snowpack, and earlier snow melt. With a

large portion of the state's population, development, and infrastructure situated along the coastline, the impact of climate change will be significant. Higher temperatures are associated with decreased air quality, and can lead to increased respiratory illnesses, exacerbation of allergies and asthma, increased vector borne diseases, and degraded water quality. MDPH services and programs will need to adapt to meet the changing environment and its impact on the health of the MCH population.

Systems Integration

With the introduction of the Massachusetts All Payer Claims Database (MA APCD), improved data sharing and access across agencies and bureaus will allow a more holistic approach to patient care and research in upcoming years. The APCD is the most comprehensive source of health claims data from public and private payers in MA. With information on the vast majority of MA residents, the MA APCD promotes transparency and affords a deep understanding of the MA health care system. It is used by health care providers, health plans, researchers, and others to address a wide variety of issues, including price variation, population health and quality measurement.

Throughout MDPH programs, there is an increased focus on the need to address the social determinants of health to improve population based health outcomes. Determinants of health fall under several broad categories: policymaking, social factors, health services, individual behavior, and biology and genetics. Social determinants of health reach beyond the boundaries of traditional health care and public health sectors; sectors such as education, housing, transportation, agriculture, and environment are important allies in improving population health. The relationships and collaboration among these sectors will strengthen the state's capacity to more effectively improve individual and population health.

Law and Policy

A proposal to legalize recreational marijuana in Massachusetts may appear on the November 2016 ballot, in which case MDPH may need to address its impact on public health. Adolescent public health research indicates that marijuana exposure during development can cause long-term or possible permanent adverse changes in the brain. Marijuana has been shown to be addictive, especially when use starts at a younger age, and also contains harmful carcinogens. MA MCH stakeholders express concern for the impact that potential legalization will have and cite the need for more research with an increased focus on adolescents and long-term impacts.

Demographic Shifts

According to a study from the University of Massachusetts, the aging population in MA is expected to grow in the state in the next 20 years. The study found that the population aged 65 and older will increase by over half a million, from 14% of the population in 2010 to 21% by 2030. The population aged 19 years and under is expected to decrease by 84,000 people, dropping from 25% in 2010 to 22% in 2030. Allocating funds and investing heavily in early childhood will likely be a challenge for MCH as demographics and resources shift towards caring for an aging population. Title V will continue to play a key role in building the evidence-base for the importance of investing in early childhood.

II.F.6. Public Input

The Massachusetts Title V program is committed to strong and effective engagement with the public in the statewide

needs assessment and Application/Annual Report. MCH programs and services are improved when consumers and professionals work to together to identify population health priorities and strategies for improving access to quality services and care. To engage the public in identifying Title V priorities for Massachusetts for the next five years, MDPH interviewed key professional stakeholders, conducted focus groups, held town hall meetings, and distributed an electronic survey.

Key Informant Interviews

Stakeholder interviews served as an early form of public engagement to inform the state's priorities. The Work Group conducted 15 interviews with bureau and division directors at MDPH. Interviewees were from diverse fields including early childhood, nutrition, environmental health, emergency preparedness, birth defects, and health equity, and had a high level perspective on issues facing the MCH population. As subject matter experts, the internal stakeholders also provided input during the development of objectives and strategies to address the priorities.

The Work Group also interviewed 52 professionals working with families, women, infants, children, adolescents, and children and youth with special health care needs across Massachusetts. Interviewees included clinicians, academics, program managers, and non-profit directors. They shared their expertise and experience working with each of the six MCH population domains, reflected on MA's progress on the previous Title V priorities, and identified potential new state priorities.

Focus Groups

MDPH conducted 14 focus groups which included a total of 142 people. The table below summarizes the focus groups conducted within each population domain and subgroup and lists the number of attendees. Focus group feedback informed the new state priorities and strategies for achieving the priorities.

Domain	Population group	Number of participants
Maternal/Women & Perinatal/Infant	Pregnant and parenting teens	11
	Low-income mothers	11
	Spanish-speaking mothers	12
Child & Adolescent	Teen girls	10
	Teen boys	15
	LGBTQ youth	7
CYSHCN	Youth with SHCN	7
	Spanish speaking parents of CYSHCN	8
	Vietnamese parents of CYSHCN	14
	Parents of children/youth with very complex medical needs	9
Crosscutting or Lifecourse	Fathers	15
	Military families	7
	Families facing housing insecurity	13
	Spanish-speaking Families facing housing insecurity	3
Total		**142**

Surveys

MDPH designed and administered two surveys targeting adolescents and families of children with special health needs. The surveys were distributed through social media, partner organizations, and key personnel at MDPH. The

Youth Health Survey (228 responses) sought to understand the most important health issues for youth. The results were used to brainstorm strategies for improving the health of adolescents. The CYSHCN Family Survey (590 responses) gathered information to improve services and supports for children and youth with special health care needs and their families.

Town Hall Meetings

In May 2015, after the Work Group and Steering Group finalized a list of 10 priorities, MDPH held two town hall meetings, open to the public, to share the Needs Assessment findings, solicit feedback on the priorities selected, and suggest strategies to address the priorities. The first town hall was held at Bridgewater State University in southeastern MA, and the second at Holyoke Community College in western MA. These locations were strategically chosen to solicit input on the priorities and strategies from regions and populations underrepresented within the focus groups. Both sessions were also available via webinar. In total, 72 members of the public attended the town halls. MDPH staff provided an introduction to Title V, an overview of the Needs Assessment process, and then led a discussion of the state's potential priorities and strategies to address the priorities.

The input from the town halls confirmed that MDPH and its partners selected priorities that resonated with the public. Participants provided suggestions for specific issues to focus on within each priority, which informed potential strategies for each priority. Participants in the town hall meetings noted the following:

- Mental health services are inadequate, difficult to find, inaccessible and unaffordable. Further, there is inadequate integration of behavioral health into primary care.
- Paid maternity leave would benefit a mothers' health and the health of her infant, such as encouraging breastfeeding.
- Sexual education in secondary schools is inadequate, and excludes LGBTQ youth.
- A more responsive system for women experiencing violence is needed; MDPH should collaborate with courts and police to address/prevent domestic violence.
- Unsafe and unhealthy housing persists for many people; MDPH could create a mechanism to report concerns anonymously.
- Providers should be more responsive to patients' wishes for contraception, and support the use of long-acting reversible contraceptives.
- Services are needed to improve after-treatment options for moms in recovery or transitioning out of recovery for substance use. Peer counselors are an effective, community-level method.
- Families need more access to nutritional food through WIC.
- Too few oral health practices accept Medicaid.
- Families with children and youth with special health needs need more comprehensive and better coordinated planning for adolescents' transition to adulthood, to include social, emotional and physical health.
- Gaps in culturally competent care persist—even beyond language barriers; more community health workers/case managers may alleviate gaps.
- Equity should be viewed through a social justice/civil rights lens.

One area of importance for the town hall attendees that MDPH did not address in its priorities was health insurance coverage. Participants were concerned that health insurance is prohibitively expensive, and often insufficient in the coverage it provides. Although Massachusetts has achieved almost universal coverage, the rising cost of health care is a burden for many families in the state. This is a salient issue for the MCH population, and one that Title V influences in its work. See section *II.F.4: Health Reform* for additional information on how MDPH, as the Title V

agency, is addressing the cost of health care and supporting families in accessing affordable and appropriate health insurance.

Title V Public Input Survey

Lastly, MDPH administered an online survey, which complemented the town hall dialogue. The Title V Public Input Survey asked respondents to rate the extent to which they agree that the proposed Title V priorities are important issues for each domain, as well as key priorities that were missing from the list. Respondents were also asked to suggest actions or strategies that MDPH could take to address the priorities. The survey was open for six weeks and had 115 completed responses. It was advertised through the Bureau of Family Health and Nutrition website, CYSHCN Facebook page, program listservs, partner organizations' websites, and at the town halls.

Among respondents to the survey, 82% identified as White, 15% Hispanic, 10% Black, and 7% Asian/Pacific. Approximately 86% were female, and 40% were 45 years or older, 32% were 26-34 years old, 17% were 35-44 years old, and 10% were 18-25 years old. About half of all respondents lived or worked in Boston (50% and 54%, respectively). Other respondents lived or worked primarily in western Massachusetts (20% and 19%), followed by equal distributions in northeastern and southeastern Massachusetts (9%), and metrowest and central Massachusetts (5%). Almost 40% of respondents were community service providers, 24% were a parent or guardian of a child, 16% were health care providers, 13% were academic researchers, 11% were local health department employees, and the rest listed another role connected to the MA Title V program.

Overall, respondents agreed with the Title V priorities. The table below presents the proportion of respondents who strongly agreed that each of the proposed priorities was important for a specific population domain.

Respondent Agreement with Proposed Title V Priorities (n=115)	
	Strongly Agree (%)
Women's/Maternal and Perinatal/Infant	
Health Equity	86%
Emotional Wellness and Social Connectedness	92%
Environmental Health	80%
Preventive Care	87%
Substance Use	87%
Oral Health	69%
Healthy Lifestyle	67%
Violence and Injury Prevention	67%
Children and Adolescents	
Health Equity	89%
Emotional Wellness and Social Connectedness	91%
Environmental Health	86%
Preventive Care	92%
Substance Use	
Oral Health	80%
Healthy Lifestyle	
Violence and Injury Prevention	90%
Children and Youth with Special Health Care Needs	
Health Equity	92%
Emotional Wellness and Social Connectedness	95%
Environmental Heath	89%
Oral Health	81%
Transitions	92%
Medical Home	88%

Respondents identified important issues that were not explicitly addressed in the 10 priorities, such as housing stability for women and families, access to child care, promoting economic self-sufficiency, working with immigrant and undocumented populations, availability of data, LGBT health, promoting doulas and midwifery, outreach to those without access to the internet, and promoting health literacy. The following are examples of comments related to gaps identified among MDPH's priorities.

"Work to pass, improve, or enforce policies that pave the way for economic independence for women: living wage, minimum wage, paid sick days, stopping wage theft, family leave, gender pay equity; child support enforcement; child care coverage, support increasing the Earned Income Tax Credit."

"Immigrant populations…may have difficulty with the printed word even in their own language and may also simply not have the means or the confidence to gain access to this type of information and the services that it identifies."

"Sex education does not include sufficient information on LGBT relationships and experiences. There are true health disparities – both physical and emotional – faced by LGBT individuals that could, in part, be prevented through education. If children and adolescents are provided with GLBT-related facts, then social isolation or bullying may decline as well as other health risks faced by marginalized groups."

The survey also solicited ideas for strategies MDPH could take to achieve its selected priorities. Below are examples of strategy recommendations by MCH population domain.

Maternal/Women's Health and Perinatal/Infant Health

"Provide funding to offer support to postpartum women to quit smoking/stay abstinent."

"Provide more resources for new families/parents in the form of home visits or support groups arranged by either the hospital or offered by pediatric offices."

"Promote breastfeeding at every contact with pregnant women and restructure the WIC nutrition program to allow a larger amount of organic and healthy choices."

"More community groups with parenting classes in the housing areas – not at a government building. More activities in the neighborhoods and parks with information presented in fun or collective ways."

Child and Adolescent Health

"Any healthcare group must have at least one clinician trained in area of caring for LGBQT children and adults."

"Activities for girls that build friendships and collegiality for girls around identities and activities not linked to sex, babies, boys, or parties."

"Provide funding for teen health clinics and youth centers in small towns."

Children and Youth with Special Health Needs

"Sufficient and wrap-around services and assistance for families and children with autism, specifically, and/or other developmental issues."

"Offer services in languages other than English."

"Ensure adequate screenings for developmental and Social Emotional health of all children well before age 3."

Gathering public input on Title V activities is a continuous process. MDPH is committed to ensuring a feedback loop with all families and stakeholders who contributed to the Needs Assessment and Annual Report/Application. MDPH will communicate the final priorities that were selected to key informant interviewees and agencies that hosted focus groups. Results of the Public Input Survey will be made available to the public via the mechanisms that were used to

advertise the survey. MDPH will solicit public comments during the development of future Applications/Annual Reports.

II.F.7. Technical Assistance

Our Title V program would benefit from Technical Assistance to address our priorities concerning substance use among women of reproductive age and health and racial equity, and to support efforts in youth leadership development.

Substance use

Substance use compromises maternal and child health and places significant burden on state health and human service systems. The recent opioid epidemic affects women and their families in multiple ways and requires innovative programs and policies from a broad range of departments who are not always used to working together across sectors. MDPH would benefit from guidance in reaching across divisions, bureaus, departments and agencies to provide a multi-faceted approach in addressing the myriad physical, psychological, social, emotional and financial needs of women using substances and their families. In FY16, MDPH will convene an advisory group of MDPH staff and community partners to identify data and programmatic needs, and develop and implement strategies to address maternal substance use including hospital screening guidelines. Technical Assistance for the advisory group, with guidance collaborating across agencies, and in opioid addictions specifically, would be beneficial.

Health and Racial Equity

Advancing health and racial equity in Massachusetts begins with building knowledge, understanding and capacity within MDPH. Over the next five years Title V staff will be trained to improve awareness and understanding of health equity, racial justice, and the social determinants of health. Technical assistance from HRSA would support learning opportunities to: a) ensure ongoing engagement with these principles, and b) identify strategies for building capacity to promote health equity. MDPH could learn from experts in the field, such as Abigail Ortiz of Southern Jamaica Plain Health Center, partner organizations in Massachusetts, such as the Boston Public Health Commission, and other states with similar goals, such as Oregon and Minnesota.

Youth Leadership Development

More than ever we understand the value and importance of partnering with the young people we serve to address the many public health challenges that threaten their health and undermine their potential. Adolescents' experience, perspective and ideas in the areas of suicide, bullying, violence, substance use, sex, teen pregnancy and mental health – to name a few – can enhance prevention and intervention programming and guide efforts to reach particularly hard to reach subpopulations (e.g., young men of color, LGBTQ youth and youth with disabilities). MDPH, in collaboration with the Posse Foundation, developed a Youth Leadership Curriculum to be used by funded adolescent-serving agencies to empower adolescents to develop the resilience and leadership skills needed to serve their local and statewide communities. Technical assistance from HRSA would support refining, evaluating, and expanding this pilot initiative.

III. Budget Narrative

	2012		2013	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$ 11,338,388	$ 8,156,233	$ 11,257,008	$ 7,957,267
Unobligated Balance	$ 611,612	$ 2,593,306	$ 502,992	$ 3,124,347
State Funds	$ 45,116,366	$ 44,642,709	$ 41,993,077	$ 41,120,433
Local Funds	$ 0	$ 0	$ 0	$ 0
Other Funds	$ 0	$ 0	$ 0	$ 0
Program Funds	$ 0	$ 0	$ 0	$ 0
SubTotal	$ 57,066,366	$ 55,392,248	$ 53,753,077	$ 52,202,047
Other Federal Funds	$ 137,658,526	$ 145,789,844	$ 157,004,436	$ 136,637,589
Total	$ 194,724,892	$ 201,182,092	$ 210,757,513	$ 188,839,636

	2014		2015	
	Budgeted	Expended	Budgeted	Expended
Federal Allocation	$ 10,407,911	$ 8,455,446	$ 10,705,723	$
Unobligated Balance	$ 1,427,356	$ 2,702,550	$ 844,422	$
State Funds	$ 45,733,007	$ 42,614,311	$ 45,098,945	$
Local Funds	$ 0	$ 0	$ 0	$
Other Funds	$ 0	$ 0	$ 0	$
Program Funds	$ 0	$ 0	$ 0	$
SubTotal	$ 57,568,274	$ 53,772,307	$ 56,649,090	$
Other Federal Funds	$ 137,772,971		$ 148,806,429	$
Total	$ 195,341,245	$ 53,772,307	$ 205,455,519	$

Due to limitations in TVIS this year, States are not able to report their FY14 Other Federal Funds Expended on Form 2, Line 9. States are encouraged to provide this information in a field note on Form 2.

	2016	
	Budgeted	Expended
Federal Allocation	$ 11,012,262	$
Unobligated Balance	$ 780,107	$
State Funds	$ 46,952,550	$
Local Funds	$ 0	$
Other Funds	$ 0	$
Program Funds	$ 0	$
SubTotal	$ 58,744,919	$
Other Federal Funds	$ 118,754,421	$
Total	$ 177,499,340	$

III.A. Expenditures

See the FY14 data in Form 2 (MCH Budget/Expenditure Details), Form 3a (Budget and Expenditure Details by Types of Individuals Served), and Form 3b (Budget and Expenditure Details by Types of Services). The Form and Field Notes for the Forms provide additional details and explanations about the amounts shown, including differences between budgeted and expended amounts, and the sources of other Federal funds. In general, both federal and state funding have remained stable over the last several years.

Due to the state budget cycle, which structures all of our purchase of service expenditures and readily accessible budget and expenditure accounting information, all amounts shown are for the relevant State Fiscal Year, which runs from July 1 to June 30. (FY14 = July 1, 2013 - June 30, 2014). Final expenditures matched to budgeted encumbrances can be obtained only at the end of the accounts payable period for a state fiscal year. This reporting is consistent with budgets presented in previous applications and annual reports. Contracted dollar amounts for purchased services, by program type and vender, are available upon request.

As in previous years, Massachusetts reports state match that is much higher than the required $3 for every $4 federal. The following state accounts or portions of state accounts make up the total "State Funds Expended" amount of $42,614,311. This total excludes those portions of our MCH Partnership state accounts that are being used for claiming or match for other federal programs, including DSHP, CHIP, and discretionary grants.

- Family Health Services account - $3,369,594
- Early Intervention account - $27,235,188
- School-Based Health Centers - $3,118,970

- School Health Services - $2,089,904
- Dental Health account (partial) - $248,472
- Newborn Hearing Screening - $73,492
- State Nutrition account - Growth & Nutrition Clinics -$355,601
- Catastrophic Illness in Children Relief Fund - $1,264,543
- Pediatric Palliative Care - $775,645
- Teen Pregnancy Prevention - $369,841
- Sexual Assault Prevention and Survivor Support (partial) - $3,206,536
- Suicide Prevention account (partial – for Poison Control Center) - $120,000
- Youth Violence Prevention account - $241,203
- Portions of other state shared administrative accounts (for some state payroll expenses and for office operations) - $145,322.

Based on FY14 total federal MCH expenditures of $11,157,996, this breaks out as FY14 State Match ($3 state for every $4 federal) expenditures of $8,368,497 and State Over Match expenditures of $34,245,814. In FY14, state partnership funds represented 79% of total Partnership expenditures.

Substantial amounts of our Partnership state funds are being claimed as match for other federal programs, especially Medicaid CHIP; the total amounts claimed have increased over the years. As Massachusetts has historically had a very large "over-match" for the MCH Block Grant, and the funds continue to be used for the MCH-related programs, this makes obvious sense for the Commonwealth in order to maximize federal funding. However, as funds are increasingly used for these other matching requirements, the result is a gradual reduction in the "over-match" amount and percent -- a trend that can also be exacerbated in years in which there are overall reductions in state funding. Because these types of claiming are made against expenditures, the changes will often appear as differences in reported expenditures vs. budgeted amounts, as the final claiming is negotiated and applied after our budgets have been submitted.

In FY14, a total of $12,694,149 from state Partnership accounts and programs was used for claiming or match for other federal programs and thus does not appear in the final expenditure totals. These other claiming amounts in FY14 included the following:

- $1,179,585 from Family Health Services account used for CHIP H.S.I. and as match for another federal grant
- $7,106,425 from School Health Services account used for CHIP H.S.I. and as match for another federal grant
- $671,682 from Pediatric Palliative Care account used for CMS DSHP match
- $355,601 from Nutrition account (Growth & Nutrition portion) for CMS DSHP match
- $1,247,925 from Youth Violence Prevention account used for CHIP match
- $2,132,931 from Teen Pregnancy Prevention account for TANF match

If these funds had been included in Partnership expenditures, state funds would have represented 83% of total expenditures instead of 79%.

On Forms 2 and 3, some significant variations between original FY14 budgeted amounts and FY14 expenditures are noted with explanatory notes. In all cases except one, the variations greater than 10% have to do with how federal unobligated funds (“carry-over”) are handled differently in the new TVIS as part of the revisions to account separately for the federal and non-federal components of budgets and expenditures. As noted with the forms, we budget the

newest expected federal award in full and use only that portion of our expected unobligated balance as needed to meet our full proposed budget. [This is in conformance with Form 2 and the SF-424, where the new funds are expected to be fully engaged. The resulting budget generally does not include all of the estimated unobligated balance.] However, as funds are expended throughout the year, the oldest funds (our unobligated balance) are used first, so as not to waste any funds in their second year of availability; only when those older funds are fully expended do we start paying out of the new grant. The result of this pattern is that in the end, fewer new award funds will be spent than budgeted and the total unobligated balance funds spent will be much higher.

Under the old TVIS system where all funds (new federal, unobligated balance, and state partnership) were all reported as a lump sum, this discrepancy required only one set of general notes. Under the new TVIS, any unobligated balance funds (from the FY13 award in this case) spent are to be reported under the new "Non-Federal Funds" category (with state partnership match funds), rather than in the "Federal Funds" category that only references the newer award (for FY14 in this case). In addition, there is added detail required for expenditures to be broken out for the required 30% / 30% / 10% subcategories (children, children and youth with special health needs, and administrative costs). Each of these categories now shows a significant difference between budgeted and expended amounts due entirely to all unobligated balance expenditures being reported in the Non-Federal category. A comparison of total expenditures does not reveal such significant differences from total budgeted levels – approximately 7% less overall, due both to savings in federal funds and increased removal of state match funds to be used for other match instead.

In the new TVIS Form 3b, "Direct Services" have been more carefully defined and limited. FY14 expenditures are therefore being reported using the new definitions on Form 3b, Section 4. Massachusetts has for a number of years been essentially out of the business of direct services (even using the earlier more vague definition). All of such services fall into the Children and Youth with Special Needs category. Federally-funded direct services come only in our small program to purchase hearing aids for eligible children without adequate insurance. We have categorized these costs as "Durable Medical Equipment." On the state side, only our Early Intervention Services program meets the new definition. Early Intervention services are provided through approved rates to approved vendors by MassHealth (Medicaid), third party insurers, and the state (as payer of last resort). We have categorized these costs as "Other." [Note that for expenditures, that portion of the Hearing Aid program costs paid from our federal unobligated balance are shown in the Non-Federal portion of Form 3b.]

III.B. Budget

See the FY16 data in Form 2 (MCH Budget/Expenditure Details), Form 3a (Budget and Expenditure Details by Types of Individuals Served), and Form 3b (Budget and Expenditure Details by Types of Services). The Form and Field Notes for the Forms provide additional details and explanations about the amounts shown, including differences between budgeted and expended amounts, and the sources of state Partnership funds and other Federal funds. In general, both federal and state funding have remained stable over the last several years. Federal Title V support is critical to complement and expand the effect of state-funded programs and activities. In particular, the ability to support program managers and directors, epidemiologists, and other expert staff with federal funds is essential, as most state funding streams do not allow for few or any personnel positions.

Federal MCH funds have increased slightly in the last year, although they remain lower than in FY2012. Cost-savings continue to be vigorously pursued in order to stay up with increasing staff costs (including fluctuations in fringe benefit and indirect costs outside our control) and to stretch them further programmatically if possible. The Bureau works closely with the MDPH Budget Office and our colleagues in other bureaus to plan for the various contingencies

necessary as the state budget is developed, passed, and revised each fiscal year.

The MCH BG pays for virtually no Direct Care Services in Massachusetts. The only Direct Care Services purchased with Title V funds are a small number of hearing aids for income-eligible children without adequate insurance. The only Title V State Partnership funds for Direct Care Services are those for Early Intervention Services, where our state account is payer of last resort after MassHealth and third party insurers.

Due to the state budget cycle, which structures all of our purchase of service expenditures and readily accessible budget and expenditure accounting information, all amounts shown are for the relevant State Fiscal Year, which runs from July 1 to June 30. (FY16 = July 1, 2015 - June 30, 2016). This reporting is consistent with budgets presented in previous applications and annual reports. Planned contracted dollar amounts for purchased services, by program type and vendor, are available upon request. All contracts are made on a state fiscal year basis.

The FY16 total Partnership budget is made up of $11,792,369 of MCH Block Grant funds (including unobligated balance carry-forward funds from our FY15 award) and $46,952,550 in state funds (down from $76,266,360 in FY09.) Massachusetts continues to budget at least 30% each of our federal MCH funds for Preventive and Primary Care for Children (30.4%) and for Children with Special Health Care Needs (36.8%). Massachusetts does not have any continuation funding for special projects under Section 505(a)(5)(C)(i) or special consolidated projects as noted in Section 501(b)(1)[Section 505(a)(5)(B)].

The proportion of federal funds used for Title V Administrative Costs is within the allowable 10% (9.1%). Massachusetts continues to commit funds well above our statutory maintenance of effort level from FY1989 of $23.5M and the state funding still includes Over Match of over $38M.

The following state accounts make up the "Total State Funds" amount of $46,952,550. This total excludes those portions of our MCH Partnership state accounts that are being used for claiming or match for other federal programs, including DSHP, CHIP, and discretionary grants. Our total state match remains much higher than $3 for every $4 federal and it is more valuable to the Commonwealth to use the funds to generate additional federal funds. Amounts for state accounts are subject to change as the final state FY16 budget has not been passed and signed by the Governor as this document is being finalized. Adjustments will be made in our final Application to be submitted in September, 2015.

- Family Health Services - $4,057,878. This now funds family planning services, with some funds for the MA Birth Defects Monitoring System and new CCHD surveillance implementation.
- Early Intervention Services - $27,600,167
- Universal Newborn Hearing Screening - $76,748
- School Health (including school health services & school-based health centers) - $4,756,555
- Dental Health (portion) - $268,872
- State Nutrition Account - $3,475,045 ($3,113,260 for WIC and $361,785 for Growth & Nutrition Services). Note that this is the first year that we have included state WIC funds as part of our state partnership total. They had previously been combined with federal WIC funds.

- Catastrophic Illness in Children Relief Fund - $2,753,121, estimated
- Pediatric Palliative Care - $835,277

- Domestic Violence & Sexual Assault Prev. & Treatment (portion) - $3,008,887, estimated
- Suicide Prevention (portion) - $120,000 (for Regional Poison Control Center)

Based on a total FY16 federal MCH budget of $11,792,369 (including our previous year unobligated balance), this breaks out as a budgeted FY16 State Match ($3 state for every $4 federal) of $8,844,277 and Over Match of $38,108,273.

Based on a total new FY16 federal MCH award of $11,012,262 (current estimate), this breaks out as a budgeted FY16 State Match ($3 state for every $4 new federal) of $8,259,197, and Over Match of $38,693,353.

The budget forms do not include substantial amounts of state funding for MCH programs that are used for match for other federal programs (Medicaid DSHP and CHIP H.S.I. in particular). In FY16, we have excluded an estimated $21,819,516 from state Partnership accounts and programs based on estimated claiming or match for other federal programs in FY16. These funds thus do not appear in the Federal-State Partnership total. The programmatic services and other activities supported by the funds continue to be fully described in our annual reports and state action plan. The specific claiming amounts are listed below by account:

- Family Health Services - The total of $5,024,931 has been reduced by $967,053 ($429,000 being used for CMS CHIP claiming match, by $243,053 for Title X match (new) and by $295,000 being used as match for another federal discretionary grant).
- Teen Pregnancy Prevention Challenge Fund - The total of $2,412,087 is being used in its entirety as federal CHIP match.
- School Health - The account total of $12,085,974 has been reduced by $7,244,419 now being used for CMS CHIP claiming match, and by $85,000 being used as match for a federal discretionary grant.
- State Nutrition Account – A total of $9,061,785 will be used for CMS CHIP and DSHP match.
- Pediatric Palliative Care. $714,723 of the estimated FY16 total of $1,550,000 will be used for Medicaid DSHP match.
- Youth Violence Prevention - The total of $1,334,449 is being used in its entirety as federal CHIP match.

If these funds had been included in Partnership expenditures, state funds would have represented 85% of the total partnership budget instead of 80%.

The $118,754,421 of Other Federal funds for FY16 comes from 22 different federal grants and an Interagency Service Agreements (ISA) with a sister agency. The Bureau continues to have good success in obtaining a wide range of federal categorical grants, although many award amounts have been reduced in the wake of sequestration and other federal funding decisions. Note that for FY16, this amount does not include an additional $2,455,898 from 3 federal grants that could not be captured in the drop-down options on Form 2, Part 9. These grants are as follows:

- Federal Department of Education funds for Race To The Top Early Learning Challenge grant, through ISA from state Dept of Early Education and Care - $620,084 (ends 12/30/2015)
- HHS/Office of Adolescent Health – Support for Pregnant and Parenting Teens - $1,500,000
- Department of Justice/Office on Violence Against Women - Rural Domestic Violence, Dating Violence, Sexual Assault and Stalking Assistance Program - $335,814.

Our state funding is essentially unchanged from FY15, although there may be some modest increases in the final state budget for FY16, which is still in conference at this writing. The Federal discretionary grant situation is stable, although we are concerned about the possible ending of the MIECHV formula and expansion funding after a six-month extension.

We remain concerned about the MCH Block Grant itself, which is still under some threat (although less than a couple of years ago), and is not providing adequate funding to sustain current efforts while offering any opportunities to address new areas identified through the new Needs Assessment and Priorities. Over the current year, we have continued a coordinated internal process to reduce the budget in conjunction with the Commissioner's Office and other bureaus and offices throughout the department in order to spread the impact of lower funding over two to three years, in order to get to an equilibrium budget. This process has resulted in a lower proposed budget for FY15 than we proposed for FY14. Further reductions are still needed and are under discussion at this time.

IV. Title V-Medicaid IAA/MOU

The Title V-Medicaid IAA/MOU is uploaded as a PDF file to this section - Massachusetts Signed IAA.pdf

V. Supporting Documents

The following supporting documents have been provided to supplement the narrative discussion.

Supporting Document #01 - Attachment 1_Key Staff Bios.pdf

Supporting Document #02 - Attachment 2_Programs and Services.pdf

Supporting Document #03 - Attachment 3_Family Involvement Graphic.pdf

Supporting Document #04 - II.B.2.c. Partnerships, Collaboration, and Coordination Table_Final Attachment.pdf

Supporting Document #05 - Attachment 5_Glossary.pdf

VI. Appendix

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Form 2
MCH Budget/Expenditure Details

State: Massachusetts

	FY16 Application Budgeted	FY14 Annual Report Expended
1. FEDERAL ALLOCATION	$ 11,012,262	$ 8,455,446
(Referenced items on the Application Face Sheet [SF-424] apply only to the Application Year)		
A. Preventive and Primary Care for Children	$ 3,349,299 (30.4%)	$ 2,546,780 (30.1%)
B. Children with Special Health Care Needs	$ 4,054,766 (36.8%)	$ 2,967,324 (35.1%)
C. Title V Administrative Costs	$ 1,005,602 (9.1%)	$ 783,502 (9.3%)
2. UNOBLIGATED BALANCE	$ 780,107	$ 2,702,550
(Item 18b of SF-424)		
3. STATE MCH FUNDS	$ 46,952,550	$ 42,614,311
(Item 18c of SF-424)		
4. LOCAL MCH FUNDS	$ 0	$ 0
(Item 18d of SF-424)		
5. OTHER FUNDS	$ 0	$ 0
(Item 18e of SF-424)		
6. PROGRAM INCOME	$ 0	$ 0
(Item 18f of SF-424)		
7. TOTAL STATE MATCH	$ 46,952,550	$ 42,614,311
(Lines 3 through 6)		
A. Your State's FY 1989 Maintenance of Effort Amount	$ 23,499,343	
8. FEDERAL-STATE TITLE V BLOCK GRANT PARTNERSHIP SUBTOTAL	$ 58,744,919	$ 53,772,307
(Same as item 18g of SF-424)		
9. OTHER FEDERAL FUNDS		
Please refer to the next page to view the list of Other Federal Programs provided by the State on Form 2.		
10. OTHER FEDERAL FUNDS	$ 118,754,421	
(Subtotal of all funds under item 9)		
11. STATE MCH BUDGET/EXPENDITURE GRAND TOTAL	$ 177,499,340	$ 53,772,307
(Partnership Subtotal + Other Federal MCH Funds Subtotal)		

	FY14 Annual Report Budgeted
1. FEDERAL ALLOCATION	$ 10,407,911
A. Preventive and Primary Care for Children	$ 3,192,696
B. Children with Special Health Care Needs	$ 3,759,974
C. Title V Administrative Costs	$ 989,615
2. UNOBLIGATED BALANCE	$ 1,427,356
3. STATE MCH FUNDS	$ 45,733,007
4. LOCAL MCH FUNDS	$ 0
5. OTHER FUNDS	$ 0
6. PROGRAM INCOME	$ 0
7. TOTAL STATE MATCH	$ 45,733,007

	FY16 Application Budgeted
9. OTHER FEDERAL FUNDS	
Department of Health and Human Services (DHHS) > Administration for Children & Families (ACF) > State Personal Responsibility Education Program (PREP);	$ 1,049,905
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Injury Prevention and Control;	$ 427,388
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Pregnancy Risk Assessment Monitoring System (PRAMS);	$ 141,194
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > ACA Maternal, Infant and Early Childhood Home Visiting Program;	$ 10,538,354
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Early Childhood Comprehensive Systems (ECCS): Building Health Through Integration;	$ 170,792
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Ryan White;	$ 567,238
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > State Systems	$ 95,374

Development Initiative (SSDI);	
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Universal Newborn Hearing Screening and Intervention;	$ 259,000
Department of Health and Human Services (DHHS) > Substance Abuse and Mental Health Services Administration > Project LAUNCH;	$ 488,678
US Department of Agriculture (USDA) > Food and Nutrition Services > Women, Infants and Children (WIC);	$ 89,838,006
US Department of Education > Office of Special Education Programs > Early Identification and Intervention Infants/Toddlers;	$ 10,443,691
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Early Hearing Detection and Intervention (EHDI) State Programs;	$ 172,087
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Birth Defects and Developmental Disabilities;	$ 1,189,144
Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > Community-Based Integrated Service Systems (CISS);	$ 300,000
Department of Health and Human Services (DHHS) > Substance Abuse and Mental Health Services Administration > Youth Suicide Prevention;	$ 40,000
Department of Health and Human Services (DHHS) > Office of Population Affairs (OPA) > Title X Family Planning;	$ 1,300,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Compr Asthma Control;	$ 650,000
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Childhood Obesity;	$ 572,550
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Essen. for Childhood;	$ 176,600
Department of Health and Human Services (DHHS) > Centers for Disease Control and Prevention (CDC) > Peri. Quality Collab;	$ 200,000
Department of Health and Human Services (DHHS) > Health Resources and Services	$ 134,420

Administration (HRSA) > EMS-C;

Form Notes For Form 2:

The listing of Other Federal Funds does not include the following $2,455,898 in additional grants that could not be entered through the drop-down options provided: Federal Department of Education funds for Race To The Top Early Learning Challenge grant, through ISA from state Dept of Early Education and Care ($620,084; ends 12/30/2015) HHS/Office of Adolescent Health – Support for Pregnant and Parenting Teens ($1,500,000) Department of Justice/Office on Violence Against Women - Rural Domestic Violence, Dating Violence, Sexual Assault and Stalking Assistance Program ($335,814) Although the amount does not display in TVIS, Total Other Federal Funds Expended in 2014 were $131,789,921, making our Total 2014 Expenditures $185,562,228.

Field Level Notes for Form 2:

1.	**Field Name:**	**1. FEDERAL ALLOCATION**
	Fiscal Year:	**2016**
	Column Name:	**Application Budgeted**
	Field Note: Based on continued funding at final FY15 award level.	
2.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs**
	Fiscal Year:	**2016**
	Column Name:	**Application Budgeted**
	Field Note: The Department uses the same definitions and procedures for determining "administrative costs" for the MCH Block Grant as it originally applied to the Alcohol and Drug Abuse and Mental Health Services (ADAMHA, now SAMHSA) Block Grant. Using this definition, no more than 10% of the Commonwealth's federal MCH funds (including both the FY16 estimated allotment and estimated carry-over FY15 federal funds) are budgeted for administrative costs for FY16. This definition has not changed from previous years. It includes funds expended for the Department's Central Administration (e.g. accounting, regional office operations and infrastructure, and other administrative support needs) and personnel in BCHAP working entirely on fiscal management and operations. The amount shown is the percentage of the FY16 award budgeted for administrative costs. The amount excluded from the total on Form 3a for FY16 Budgeted includes both FY16 funds and FY15 carry-over funds.	
3.	**Field Name:**	**3. STATE MCH FUNDS**
	Fiscal Year:	**2016**
	Column Name:	**Application Budgeted**
	Field Note: See Our Budget Narrative in Section III for more details about the state funding streams that comprise the "State MCH Funds" amount of $46,952,550. This total excludes those portions of our MCH Partnership state accounts that are being used for claiming or match for other federal programs, including DSHP, CHIP, and discretionary grants. Our total state match remains much higher than $3 for every $4 federal; the ratio is actually $4 state for every $1 federal. Amounts for state accounts are subject to change as the final state FY16 budget has not been passed and signed by the Governor as this document is being finalized. Adjustments will be made in our final Application to be submitted in September, 2015.	

4.	**Field Name:**	**Federal Allocation, A. Preventive and Primary Care for Children:**
	Fiscal Year:	**2014**
	Column Name:	**Annual Report Expended**

Field Note:
The allocation amount shown in the Expended Column of $2,546,780 is less than the original budgeted amount of $3,192,696 because, as noted above, we fully budget the expected new award and only enough from our estimated carry-over (unobligated balance) to complete the planned annual budget. However, for expenditures all unobligated balance funds are spent first. (They are reflected in the total for line 2.)

5.	**Field Name:**	**Federal Allocation, B. Children with Special Health Care Needs:**
	Fiscal Year:	**2014**
	Column Name:	**Annual Report Expended**

Field Note:
The allocation amount shown in the Expended Column of $2,967,324 is less than the original budgeted amount of $3,759,974 because, as noted above, we fully budget the expected new award and only enough from our estimated carry-over (unobligated balance) to complete the planned annual budget. However, for expenditures all unobligated balance funds are spent first. (They are reflected in the total for line 2.)

6.	**Field Name:**	**Federal Allocation, C. Title V Administrative Costs:**
	Fiscal Year:	**2014**
	Column Name:	**Annual Report Expended**

Field Note:
The allocation amount shown in the Expended Column of $783,502 is less than the original budgeted amount of $989,615 because, as noted above, we fully budget the expected new award and only enough from our estimated carry-over (unobligated balance) to complete the planned annual budget. However, for expenditures all unobligated balance funds are spent first. (They are reflected in the total for line 2.)

7.	**Field Name:**	**2. UNOBLIGATED BALANCE**
	Fiscal Year:	**2014**
	Column Name:	**Annual Report Expended**

Field Note:
The FY14 Unobligated Balance expended is higher than the amount originally budgeted. We generally do not fully budget the sum of the new award and expected carryover from the previous year; therefore the sum for “Budgeted” is not the same as "Total Funds Available." The precise amount of carryover cannot be calculated at the time the new budget is prepared, as accounts payable extends for 2 months after the close of the state fiscal year. Another systematic difference between the Federal Budgeted and Expended Columns is that for the budget, the new federal award is shown in full (per instructions) and only the amount of the unobligated balance necessary to meet our expected program needs is budgeted. However, expenditures are always paid first with the "oldest" federal funds. Therefore, only the amount of the new grant needed to make all budgeted payments is actually expended. The final federal balance forward for FY14 was $2,702,550; only $1,427,356 had been budgeted originally.

8.	**Field Name:**	**3. STATE MCH FUNDS**
	Fiscal Year:	**2014**
	Column Name:	**Annual Report Expended**

Field Note:
See Our Expenditures Narrative in Section III for more details about the state funding streams that comprise the "State MCH Funds Expended" amount of $42,614,311. This total excludes those portions of our MCH Partnership state accounts that are being used for claiming or match for other federal programs, including DSHP, CHIP, and discretionary grants. Our total state match remains much higher than $3 for every $4 federal; the ratio is actually $4 state for every $1 federal.

9.	**Field Name:**	**1.FEDERAL ALLOCATION**
	Fiscal Year:	**2014**
	Column Name:	**Annual Report Expended**

Field Note:
The allocation amount shown in the Expended Column of $8,455,446 represents the difference between the total federal funds expended ($11,157,996) and the amount of carry-forward funds (exclusive of the final FY13 quarterly allotment) available; "older" federal funds are expended before new allocations.

10.	**Field Name:**	**Other Federal Funds, Department of Health and Human Services (DHHS) > Health Resources and Services Administration (HRSA) > ACA Maternal, Infant and Early Childhood Home Visiting Program**
	Fiscal Year:	**2016**
	Column Name:	**Application Budgeted**

Field Note:
The ACA Maternal, Infant and Early Childhood Home Visiting total includes both a Formula Grant ($1,367,539, estimated) and an Expansion Grant ($9,170,815).

Data Alerts: None

Form 3a

Budget and Expenditure Details by Types of Individuals Served

State: Massachusetts

	FY16 Application Budgeted	FY14 Annual Report Expended
I. TYPES OF INDIVIDUALS SERVED		
IA. Federal MCH Block Grant		
1. Pregnant Women	$ 1,577,258	$ 1,349,909
2. Infants < 1 year	$ 828,376	$ 659,663
3. Children 1-22 years	$ 3,349,299	$ 2,546,780
4. CSHCN	$ 4,054,766	$ 2,967,324
5. All Others	$ 196,960	$ 148,267
Federal Total of Individuals Served	$ 10,006,659	$ 7,671,943
IB. Non Federal MCH Block Grant		
1. Pregnant Women	$ 397,028	$ 557,132
2. Infants < 1 year	$ 610,392	$ 252,734
3. Children 1-22 years	$ 8,829,750	$ 7,695,230
4. CSHCN	$ 32,214,038	$ 30,923,232
5. All Others	$ 5,605,846	$ 5,548,575
Non Federal Total of Individuals Served	$ 47,657,054	$ 44,976,903
Federal State MCH Block Grant Partnership Total	$ 57,663,713	$ 52,648,846

Form Notes For Form 3a:

None

Field Level Notes for Form 3a:

None

Data Alerts: None

Form 3b
Budget and Expenditure Details by Types of Services

State: Massachusetts

	FY16 Application Budgeted	FY14 Annual Report Expended
II. TYPES OF SERVICES		
IIA. Federal MCH Block Grant		
1. Direct Services	$ 63,502	$ 11,681
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 0	$ 0
B. Preventive and Primary Care Services for Children	$ 0	$ 0
C. Services for CSHCN	$ 63,502	$ 11,681
2. Enabling Services	$ 2,835,298	$ 2,498,303
3. Public Health Services and Systems	$ 8,113,462	$ 5,945,462
4. Select the types of Federally-supported "Direct Services", as reported in II.A.1. Provide the total amount of Federal MCH Block Grant funds expended for each type of reported service		
Pharmacy		
Physician/Office Services		
Hospital Charges (Includes Inpatient and Outpatient Services)		
Dental Care (Does Not Include Orthodontic Services)		
Durable Medical Equipment and Supplies		$ 11,681
Laboratory Services		
Direct Services Total		$ 11,681
Federal Total	$ 11,012,262	$ 8,455,446

IIB. Non-Federal MCH Block Grant

1. Direct Services	$ 25,987,654	$ 25,410,800
A. Preventive and Primary Care Services for all Pregnant Women, Mothers, and Infants up to Age One	$ 0	$ 0
B. Preventive and Primary Care Services for Children	$ 0	$ 0
C. Services for CSHCN	$ 25,987,654	$ 25,410,800
2. Enabling Services	$ 18,320,918	$ 13,772,151
3. Public Health Services and Systems	$ 2,643,978	$ 3,431,360
4. Select the types of Federally-supported "Direct Services", as reported in II.A.1. Provide the total amount of Federal MCH Block Grant funds expended for each type of reported service		
Pharmacy		
Physician/Office Services		
Hospital Charges (Includes Inpatient and Outpatient Services)		
Dental Care (Does Not Include Orthodontic Services)		
Durable Medical Equipment and Supplies		$ 3,734
Laboratory Services		
Other		
Early Intervention Services		$ 25,407,066
Direct Services Total		$ 25,410,800
Non-Federal Total	$ 46,952,550	$ 42,614,311

Form Notes For Form 3b:

None

Field Level Notes for Form 3b:

None

Form 4

Number and Percentage of Newborns and Others Screened Cases Confirmed and Treated

State: Massachusetts

Total Births by Occurrence 72,406

1a. Core RUSP Conditions

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
Propionic acidemia	72,138 (99.6%)	42	1	1 (100.0%)
Methylmalonic acidemia (methylmalonyl-CoA mutase)	72,138 (99.6%)	42	1	1 (100.0%)
Methylmalonic acidemia (cobalamin disorders)	72,138 (99.6%)	42	0	0 (0%)
Isovaleric acidemia	72,138 (99.6%)	15	0	0 (0%)
3-Methylcrotonyl-CoA carboxylase deficiency	72,138 (99.6%)	15	5	5 (100.0%)
3-Hydroxy-3-methyglutaric aciduria	72,138 (99.6%)	1	0	0 (0%)
Holocarboxylase synthase deficiency	72,138 (99.6%)	0	0	0 (0%)
ß-Ketothiolase deficiency	72,138 (99.6%)	3	0	0 (0%)
Glutaric acidemia type I	72,138 (99.6%)	5	0	0 (0%)
Carnitine uptake defect/carnitine transport defect	72,138 (99.6%)	16	3	3 (100.0%)
Medium-chain acyl-CoA dehydrogenase deficiency	72,138 (99.6%)	32	3	3 (100.0%)
Very long-chain acyl-CoA dehydrogenase deficiency	72,138 (99.6%)	46	2	2 (100.0%)
Long-chain L-3 hydroxyacyl-CoA dehydrogenase deficiency	72,138 (99.6%)	2	0	0 (0%)

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
Trifunctional protein deficiency	72,138 (99.6%)	2	0	0 (0%)
Argininosuccinic aciduria	72,138 (99.6%)	0	0	0 (0%)
Citrullinemia, type I	72,138 (99.6%)	3	1	1 (100.0%)
Maple syrup urine disease	72,138 (99.6%)	185	0	0 (0%)
Homocystinuria	72,138 (99.6%)	306	0	0 (0%)
Classic phenylketonuria	72,138 (99.6%)	213	7	7 (100.0%)
Tyrosinemia, type I	72,138 (99.6%)	0	0	0 (0%)
Primary congenital hypothyroidism	72,138 (99.6%)	924	71	71 (100.0%)
Congenital adrenal hyperplasia	72,138 (99.6%)	398	6	6 (100.0%)
S,S disease (Sickle cell anemia)	72,138 (99.6%)	21	21	21 (100.0%)
S, βeta-thalassemia	72,138 (99.6%)	1	0	0 (0%)
S,C disease	72,138 (99.6%)	9	9	9 (100.0%)
Biotinidase deficiency	72,138 (99.6%)	19	1	1 (100.0%)
Cystic fibrosis	72,138 (99.6%)	239	8	8 (100.0%)
Severe combined immunodeficiences	71,799 (99.2%)	148	1	1 (100.0%)
Classic galactosemia	72,138 (99.6%)	27	0	0 (0%)

1b. Secondary RUSP Conditions

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
Argininemia	72,138 (99.6%)	102	1	1 (100.0%)
Methylmalonic acidemia with homocystinuria	72,138 (99.6%)	42	1	1 (100.0%)
Isobutyrylglycinuria	72,138 (99.6%)	41	0	0 (0%)
2-Methylbutyrylglycinuria	72,138 (99.6%)	15	0	0 (0%)
3-Methylglutaconic aciduria	72,138 (99.6%)	15	0	0 (0%)
2-Methyl-3-hydroxybutyric aciduria	72,138 (99.6%)	15	0	0 (0%)
Short-chain acyl-CoA dehydrogenase deficiency	72,138 (99.6%)	41	20	20 (100.0%)
Glutaric acidemia type II	72,138 (99.6%)	0	0	0 (0%)
Medium-chain ketoacyl-CoA thiolase deficiency	72,138 (99.6%)	0	0	0 (0%)
Carnitine palmitoyltransferase type I deficiency	72,138 (99.6%)	0	0	0 (0%)
Citrullinemia, type II	72,138 (99.6%)	3	0	0 (0%)
Hypermethioninemia	72,138 (99.6%)	306	0	0 (0%)
Benign hyperphenylalaninemia	72,138 (99.6%)	213	6	6 (100.0%)
Biopterin defect in cofactor biosynthesis	72,138 (99.6%)	213	0	0 (0%)
Biopterin defect in cofactor regeneration	72,138 (99.6%)	213	0	0 (0%)
Tyrosinemia, type II	72,138 (99.6%)	0	0	0 (0%)

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
Tyrosinemia, type III	72,138 (99.6%)	0	0	0 (0%)
Various other hemoglobinopathies	72,138 (99.6%)	15	15	15 (100.0%)
Galactoepimerase deficiency	72,138 (99.6%)	12	0	0 (0%)
Galactokinase deficiency	72,138 (99.6%)	12	0	0 (0%)
T-cell related lymphocyte deficiencies	71,799 (99.2%)	148	21	21 (100.0%)
Carnitine acylcarnitine translocase deficiency	71,804 (99.2%)	23	0	0 (0%)
Carnitine palmitoyltransferase type II deficiency	71,804 (99.2%)	0	0	0 (0%)
2,4 Dienoyl-CoA reductase deficiency	71,804 (99.2%)	23	0	0 (0%)
Malonic acidemia	71,804 (99.2%)	1	0	0 (0%)
Medium/short-chain L-3-hydroxyacl-CoA dehydrogenase deficiency	71,804 (99.2%)	3	1	1 (100.0%)

2. Other Newborn Screening Tests

Program Name	(A) Number Receiving at Least One Screen	(B) Number Presumptive Positive Screens	(C) Number Confirmed Cases	(D) Number Referred for Treatment
Newborn Hearing	71,653 (99.0%)	1,270	146	146 (100.0%)

3. Screening Programs for Older Children & Women

None

4. Long-Term Follow-Up

Massachusetts requires at least annual review of all ongoing pilots, to review whether additional information or evidence has been gathered to move a condition from the pilot state to mandate (or remove from piloting altogether). For this reason, long term follow-up is conducted on all pilot conditions, so that the Program may review for the Advisory Committee how babies detected through the pilot programs are doing clinically. This includes whatever can be gathered from specialists and primary care, on whether the baby is living, still being followed by specialists, whether the baby is meeting milestones, and other available developmental notes.\r\n\r\nIn addition, if there is a specific interest in further examining outcome information on babies screened for a mandated disorder (for example, for a long term outcome publication), selected mandated disorders are also the subject of similar long term follow-up studies.\r\n

Form Notes For Form 4:

Data are from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. Data are for the calendar year 2014. In addition to the 30 mandatory tests, two optional Pilot Studies are currently active: MET (Metabolic Pilot) and SCID (Severe Combined Immunodeficiency). In 2014, more than 99.5% of parents participated in the voluntary testing. Massachusetts includes mandated screens for three Secondary RUSP conditions that do not appear in the dropdown lists. They are listed here, with the presumptive positives, confirmed cases and receiving treatment for each: Carbamoylphosate synthetase deficiency (4 / 1/ 1), Congenital toxoplasmosis (10 / 3/ 3), and Ornithine transcarbamylase deficiency (4 / 1 /1).

Field Level Notes for Form 4:

1.	**Field Name:**	**Total Births by Occurrence**
	Fiscal Year:	**2014**
	Column Name:	
	Field Note: Vital Records data on 2014 births are not yet final. There are slight differences between the total number of screens that were recorded as being for “Occurrence Births” and the preliminary number of such births in 2014.	
2.	**Field Name:**	**3-Methylcrotonyl-CoA carboxylase deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: This CORE RUSP condition is considered to be a by-product of a Mandated Screen by Massachusetts.	
3.	**Field Name:**	**Holocarboxylase synthase deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: This CORE RUSP condition is considered to be a by-product of a Mandated Screen by Massachusetts.	
4.	**Field Name:**	**Trifunctional protein deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: This CORE RUSP condition is considered to be a by-product of a Mandated Screen by Massachusetts.	
5.	**Field Name:**	**S,S disease (Sickle cell anemia) - Positive Screen**
	Fiscal Year:	**2014**

	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: The number of presumptive positive screens is the same as the number of confirmed positives for sickle cell anemia. This may appear to be an error, but the numbers are correct. Unlike most other tests, a presumptive positive test generally confirms.	
6.	**Field Name:**	**S,C disease - Positive Screen**
	Fiscal Year:	**2014**
	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: The number of presumptive positive screens is the same as the number of confirmed positives for this hemoglobinopathy disorder. This may appear to be an error, but the numbers are correct. Unlike most other tests, a presumptive positive test generally confirms.	
7.	**Field Name:**	**Severe combined immunodeficiences - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: This CORE RUSP condition is considered an optional SCID Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	
8.	**Field Name:**	**Severe combined immunodeficiences - Confirmed Cases**
	Fiscal Year:	**2014**
	Column Name:	**Core RUSP Conditions - Newborn**
	Field Note: One (1) Leaky SCID was found.	
9.	**Field Name:**	**Various other hemoglobinopathies - Positive Screen**
	Fiscal Year:	**2014**
	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: The number of presumptive positive screens is the same as the number of confirmed positives for hemoglobinopathy disorders. This may appear to be an error, but the numbers are correct. Unlike most other tests, a presumptive positive test generally confirms.	
10.	**Field Name:**	**T-cell related lymphocyte deficiencies - Receiving At Lease One Screen**
	Fiscal Year:	**2014**

	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: This Secondary RUSP condition is considered to be a by-product of the SCID Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	
11.	**Field Name:**	**T-cell related lymphocyte deficiencies - Confirmed Cases**
	Fiscal Year:	**2014**
	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: There were 21 non-SCID T-Cell lymphopenias detected through the SCID screen. We are including among these one (1) complete DeGeorge (which is SCID-like but not typlically counted as SCID).	
12.	**Field Name:**	**Carnitine acylcarnitine translocase deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: This Secondary RUSP condition is considered to be a by-product of the Metabolic Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	
13.	**Field Name:**	**Carnitine palmitoyltransferase type II deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: This Secondary RUSP condition is part of the Metabolic Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	
14.	**Field Name:**	**2,4 Dienoyl-CoA reductase deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: This Secondary RUSP condition is part of the Metabolic Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	
15.	**Field Name:**	**Malonic acidemia - Receiving At Lease One Screen**
	Fiscal Year:	**2014**

	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: This Secondary RUSP condition is part of the Metabolic Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	
16.	**Field Name:**	**Medium/short-chain L-3-hydroxyacl-CoA dehydrogenase deficiency - Receiving At Lease One Screen**
	Fiscal Year:	**2014**
	Column Name:	**Secondary RUSP Conditions - Newborn**
	Field Note: This Secondary RUSP condition is part of the Metabolic Pilot by Massachusetts. Because screening is optional for parents, the number screened is slightly less than for the mandated screens.	

Form 5a
Unduplicated Count of Individuals Served under Title V

State: Massachusetts

Reporting Year 2014

		Primary Source of Coverage				
Types Of Individuals Served	(A) Title V Total Served	(B) Title XIX %	(C) Title XXI %	(D) Private / Other %	(E) None %	(F) Unknown %
1. Pregnant Women	15,404	79.0	0.0	12.6	2.1	6.3
2. Infants < 1 Year of Age	56,392	12.3	0.0	86.2	0.5	1.0
3. Children 1 to 22 Years of Age	564,475	34.5	0.0	35.7	2.2	27.6
4. Children with Special Health Care Needs	282,642	26.5	0.0	42.2	2.0	29.3
5. Others	58,993	73.0	0.0	10.2	3.7	13.1
Total	977,906					

Form Notes For Form 5a:

See also in Attachment 2 a Table entitled “Massachusetts Program Service Numbers by MCH Categories, FY14.” The table summarizes the numbers of persons served by MCH population groups, for each MCH-related program. It has more detail by program and includes public health services and systems and indirect services activities (e.g. training, technical assistance, outreach) that are not included in Forms 5a or 5b. The table also includes service numbers for numerous MCH-related programs that are funded by other federal discretionary grants; these services are NOT included in Form 5a or 5b. Where the services are included in Forms 5a and/or 5b, the totals of persons served are identical. The MA SCHIP program has been implemented in large part through expanded MassHealth (Medicaid) eligibility. At the service delivery end (where our insurance data come from), the distinction between Title XIX and Title XXI cannot be made. All of these clients are included in the Title XIX column.

Field Level Notes for Form 5a:

1.	**Field Name:**	**Pregnant Women Total Served**
	Fiscal Year:	**2014**
	Field Note: This category includes pregnant women served by the Massachusetts WIC Program (15,404) and the EI Partnership Programs (343). Because close to 99% of EIPP clients also receive WIC services, the total has been adjusted to eliminate duplication.	
2.	**Field Name:**	**Infants Less Than One YearTotal Served**
	Fiscal Year:	**2014**
	Field Note: This category includes Infants (without special health needs services) served by Newborn Hearing Screening / no hearing loss was found (71,507) and WIC (37,608). The total is adjusted for estimated substantial duplication of infants both screened and served by WIC. The total has also been reduced to eliminate the estimated number of infants screened as normal hearing but with other special health care needs. The number of infants served is lower than the number shown in Form 6. In Form 5, all children with special health care needs, regardless of age, are put into the CSHCN population group, and only other infants served are included in the "Infants" population group. However, a minimum of 15,115 infants with special health needs were served in such programs as Early Intervention, Care Coordination, Newborn Hearing Positive Findings Follow-up, and Growth and Nutrition. On Form 6 the infants with special health care needs have been added to the total infants served.	
3.	**Field Name:**	**Children 1 to 22 Years of Age**
	Fiscal Year:	**2014**
	Field Note: This category includes children served by the following programs: WIC (118,460); School-Based Health Centers (SBHC) (8,513), Essential School Health Services (ESHS) (439,943); Family Planning (under age 23) (8,498); and Teen Pregnancy Prevention projects (3,643). The total has been reduced to account for duplication between the ESHS and SBHC subtotals. An additional estimated adjustment has been made to account for duplication between ESHS and the other programs that serve children over 6. The % estimated to have Unknown Coverage is high because the category includes a high proportion of students in the large ESHS database (34%) with missing insurance information. Most of these students have some form of insurance, but we do not have that information. It also includes 82% of the adolescents who received family planning services. These services are confidential for adolescents and obtaining insurance information is not required to provide them; thus insurance data are incomplete.	

4.	**Field Name:**	**Children with Special Health Care Needs**
	Fiscal Year:	**2014**

Field Note:
This category includes CYSHCN served by the following programs: Early Intervention (38,299); Care Coordination (443); Growth and Nutrition Clinics (428); Newborn Hearing Positive Findings Follow-up (39); CLPPP (medical case management) (662); SBHCs (w long-term health problem) (1,728); Teen Pregnancy Prevention services (418); children with IHCPs in Enhanced School Health Services schools (242,243); MASSTART (95); Catastrophic Illness Trust Fund (163); PKU Special Foods (39); Pediatric Palliative Care (373); and Hearing Aids (14). The EI total includes at least 1,463 children also receiving other services; these duplicates have been removed from the totals; 3,765 school-age estimated duplicates have also been removed. The % of Unknown Coverage is high because the category includes a high % of special needs students in the large ESHS database (34%) with missing insurance information. Most of these students have some form of insurance, but we do not have that information.

5.	**Field Name:**	**Others**
	Fiscal Year:	**2014**

Field Note:
This category includes persons served by the following programs: Family Planning (age 23 or over) (9,441); WIC (postpartum and breastfeeding women) (49,488) EIPP (postpartum women) (623); and SIDS counseling (64 individuals). The total has been adjusted to eliminate duplication between WIC and EIPP clients. The high percent of clients with "Unknown Coverage" for the population group "Others" is explained by who is served. Many of those served are adult women who have received family planning services paid for with state Partnership funds. The program only provides services that are not covered by insurance but they do not record accurate information about the other insurance coverage that the women have. Most of their clients have some form of insurance, but we do not have that information.

Form 5b
Total Recipient Count of Individuals Served by Title V

State: Massachusetts

Reporting Year 2014

Types Of Individuals Served	Total Served
1. Pregnant Women	15,404
2. Infants < 1 Year of Age	56,538
3. Children 1 to 22 Years of Age	663,553
4. Children with Special Health Care Needs	282,642
5. Others	85,389
Total	1,103,526

Form Notes For Form 5b:

Explain large number of infants

Field Level Notes for Form 5b:

1.	**Field Name:**	**Pregnant Women**
	Fiscal Year:	**2014**
	Field Note: This category includes pregnant women served by the Massachusetts WIC Program (15,404) and the EI Partnership Programs (343). Because close to 99% of EIPP clients also receive WIC services, the total has been adjusted to eliminate duplication.	
2.	**Field Name:**	**Infants Less Than One Year**
	Fiscal Year:	**2014**
	Field Note: This category includes Infants (without special health needs) served by the following: Newborn Hearing Screening / no hearing loss found (71,507), WIC (37,608), and Poison Control Center calls (1,680). The total is adjusted for estimated duplication of infants both screened and served by WIC and has also been reduced to eliminate the estimated number of infants screened as normal hearing but with other special health care needs. The number of infants served is lower than the number shown in Form 6. In Form 5, all children with special health care needs are put into the CSHCN population group, and only other infants served are included in the "Infants" population group. However, a minimum (unduplicated count) of 15,115 with special health needs were served in such programs as Early Intervention, Care Coordination, Newborn Hearing Positive Findings Follow-up, and Growth and Nutrition. On Form 6 the infants with special health care needs have been added to the totals for infants served.	
3.	**Field Name:**	**Children 1 to 22 Year of Age**
	Fiscal Year:	**2014**
	Field Note: This category includes children (not counted elsewhere) served by the following programs: WIC (118,460); School-Based Health Centers (SBHC) (8,513), Essential School Health Services (439,943); Family Planning (under age 23) (8,498); Teen Pregnancy Prevention projects (on-going services) (3,643); Poison Control Center calls (21,319); CLPPP (children screened by MCH programs) (176,835). The total has been reduced to account for duplication between the Essential School Health Services (ESHS) and School-Based Health Center subtotals. Additional duplication also exists between Essential School Health Services and the other programs that serve children over 6; an additional estimated adjustment has been made to account for that duplication. Finally, the ESHS total has been reduced by the estimated number of children identified in the next category as having special health care needs.	
4.	**Field Name:**	**Children With Special Health Care Needs**
	Fiscal Year:	**2014**

	Field Note: This category includes children with special health care needs served by the following programs: Early Intervention (38,299); Care Coordination (with and without Family Support; not in EI) (443); Growth and Nutrition Clinics, not also in EI (428); Newborn Hearing Positive Findings Follow-up, not also in EI (39); CLPPP (medical case management) (662); SBHCs (w long-term health problem) (1,728); Teen Pregnancy Prevention services (418); children with SHCNs in Enhanced School Health Services schools with IHCP (242,243); MASSTART (95); Catastrophic Illness Trust Fund (163); PKU Special Foods (39); Pediatric Palliative Care program (373); and Hearing Aids (14). The EI total includes at least 1,463 children also receiving EIPP, Growth and Nutrition, Newborn Hearing Follow-up, or Care Coordination services; these duplicates have been removed from the total shown. An additional 3,765 school-age estimated duplicates have also been removed.	
5.	**Field Name:**	**Others**
	Fiscal Year:	**2014**
	Field Note: This category includes persons served by the following programs: Family Planning (age 23 or over) (9,441); WIC (postpartum and breastfeeding women) (49,488) EIPP (postpartum women) (623); SIDS counseling (64 individuals); Poison Control Center calls (adults and unknown age) (12,393); and Rape Crisis Center clients (all ages) (13,380). The total has been adjusted to eliminate duplication between WIC and EIPP clients.	

Form 6

Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX

State: Massachusetts

Reporting Year 2014

I. Unduplicated Count by Race

	(A) Total All Races	(B) White	(C) Black or African American	(D) American Indian or Native Alaskan	(E) Asian	(F) Native Hawaiian or Other Pacific Islander	(G) More than One Race Reported	(H) Other & Unknown
1. Total Deliveries in State	72,593	53,654	8,402	96	6,321	4	1,089	3,027
Title V Served	15,404	5,853	2,599	37	885	38	116	5,876
Eligible for Title XIX	23,661	15,391	4,941	43	1,519	1	459	1,307
2. Total Infants in State	72,188	53,771	8,388	99	6,060	6	846	3,018
Title V Served	71,653	44,770	7,023	254	6,222	80	47	13,257
Eligible for Title XIX	23,639	15,298	4,843	59	1,536	4	366	1,533

II. Unduplicated Count by Ethnicity

	(A) Total Not Hispanic or Latino	(B) Total Hispanic or Latino	(C) Ethnicity Not Reported	(D) Total All Ethnicities
1. Total Deliveries in State	59,005	13,496	92	72,593
Title V Served	9,528	5,869	7	15,404
Eligible for Title XIX	15,403	8,230	28	23,661
2. Total Infants in State	59,038	13,038	112	72,188
Title V Served	58,396	11,560	1,697	71,653
Eligible for Title XIX	15,235	8,372	32	23,639

Form Notes For Form 6:

Sources: MDPH 2014 and 2013 Birth Files for deliveries, estimated number of infants, and deliveries eligible for Medicaid (from Birth File source of prenatal care data). Bureau of Family and Community Health, FY14 Program databases for Title V Served estimates (see Form 5b). Because the birth files and the program service delivery data systems differ in how they collect and code race/ethnicity data, there are discrepancies in the rows. Title V serves a substantially greater proportion of all minority pregnant women and infants than it does of the total population.

Field Level Notes for Form 6:

1.	**Field Name:**	**1. Total Deliveries in State**
	Fiscal Year:	**2014**
	Column Name:	**Total All Races**
	Field Note: Defined as all deliveries in 2014. "Other & Unknown Race" race category has a large number of women who selected Hispanic ethnicities as their race; totals may differ from some published state data which assign them to "White" group.	
2.	**Field Name:**	**1. Title V Served**
	Fiscal Year:	**2014**
	Column Name:	**Total All Races**
	Field Note: Estimates of deliveries and infants served by Title V can only be reported by combined race/ethnicity categories, as this is how most programs report data to BFCH. Although our categories of American Indian and Asian can reasonably be assumed to be accurate under either categorization, the columns labeled "White" and "Black/African American" generally include only "White, non-Hispanic" and "Black, non-Hispanic" persons respectively. In this section, Hispanic persons are included in Column H with "Other" and "Unknown." Some service program data include any Pacific Islander / Native Hawaiian persons in the "Asian" category. Not all service programs report data for the category of "more than one race."	
3.	**Field Name:**	**1. Eligible for Title XIX**
	Fiscal Year:	**2014**
	Column Name:	**Total All Races**
	Field Note: Defined as having Medicaid coverage, as measured by data from Birth Certificate on payment source for prenatal care. Excludes births for which source of payment data was missing. Data are for 2014.	
4.	**Field Name:**	**2. Total Infants in State**
	Fiscal Year:	**2014**
	Column Name:	**Total All Races**

	Field Note: Number of infants is estimated based on 2013 resident births. "Other & Unknown Race" includes all Hispanics who did not report a race; totals may differ from some published state data which assign them to "White" group.	
5.	**Field Name:**	**2. Title V Served**
	Fiscal Year:	**2014**
	Column Name:	**Total All Races**
	Field Note: The total number of infants served shown here differs from the total shown on Forms 5a and 5b. In Form 5, all children with special health care needs, regardless of age, are put into the CSHCN population group, and only other infants served are included in the "Infants" population group. However, an unduplicated count of at least 15,115 infants with special health needs were served in Early Intervention, Care Coordination/Family Support, EIPP, Newborn Hearing Positives Follow-up, and Growth and Nutrition. On Form 6, these infants have been added to the totals for infants served. Estimates of deliveries and infants served by Title V can only be reported by combined race/ethnicity categories, as this is how most programs report data. Hispanic persons are included in Column H with "Other & Unknown." Not all service programs report data for the category of "more than one race.”	
6.	**Field Name:**	**2. Eligible for Title XIX**
	Fiscal Year:	**2014**
	Column Name:	**Total All Races**
	Field Note: Estimated based on source of payment for deliveries in 2013, including any births covered by other state insurance, as most of these infants are then eligible for Medicaid at birth. Using this data source enables us to report race/ethnicity detail that is comparable to that used for estimating the total number of infants in the state, although it may underestimate the number of infants eligible for Medicaid to some degree.	

Form 7

State MCH Toll-Free Telephone Line and Other Appropriate Methods Data

State: Massachusetts

	Application Year 2016	Reporting Year 2014
A. State MCH Toll-Free Telephone Lines		
1. State MCH Toll-Free "Hotline" Telephone Number	(800) 882-2143	(800) 882-2143
2. State MCH Toll-Free "Hotline" Name	Community Support Line	Community Support Line
3. Name of Contact Person for State MCH "Hotline"	Ana Sanchez	Ana Sanchez
4. Contact Person's Telephone Number	(617) 624-5955	(617) 624-5955
5. Number of Calls Received on the State MCH "Hotline"		1,252
B. Other Appropriate Methods		
1. Other Toll-Free "Hotline" Names	Family TIES (Together in Enhancing Support)	Family TIES (Together in Enhancing Support)
2. Number of Calls on Other Toll-Free "Hotlines"		4,988
3. State Title V Program Website Address	http://www.mass.gov/eohhs/gov/departments/dph/programs/family-health/mch-block-grant/massachusetts-mch-block-grant-information-and.html	http://www.mass.gov/eohhs/gov/departments/dph/programs/family-health/mch-block-grant/massachusetts-mch-block-grant-information-and.html
4. Number of Hits to the State Title V Program Website		1,353
5. State Title V Social Media Websites	https://www.facebook.com/MDPH.CYSHCN.Program, https://www.facebook.com/MA.HomeVisiting?ref=hl, https://twitter.com/MA_HomeVisiting, http://www.pinterest.com/mahomevisiting/, https://www.facebook.com/MassNewbornHearingScreening, https://twitter.com/#!	https://www.facebook.com/MDPH.CYSHCN.Program, https://www.facebook.com/MA.HomeVisiting?ref=hl, https://twitter.com/MA_HomeVisiting, http://www.pinterest.com/mahomevisiting/, https://www.facebook.com/MassNewbornHearingScreening, https://twitter.com/#!

6. Number of Hits to the State Title V Program Social Media Websites	2,939

Form Notes For Form 7:

The Community Support Line is the entry point and general resource for families for MCH needs and programs, especially for CYSHCN; it is staffed by Community Resource Specialists (including bilingual staff). In FY14, calls were recorded from parents (619), providers (462), and others (171). The other toll-free hotline, Family TIES, is managed through the Federation for Children with Special Needs and support staff. The line continues also serves as the Central Directory for Early Intervention services and information. In addition to the MCH Block Grant website, the Bureau has a number of program-specific websites that received approximately 40,000 hits in FY14 (with over half to our Early Intervention Services webpage). Re: Social media "hits:" Social media sites do not record "hits' but rather "Likes" (Facebook) and "Followers" (Twitter and Pinterest). We report a total of likes and followers for FY14.

Form 8
State MCH and CSHCN Directors Contact Information

State: Massachusetts

Application Year 2016

1. Title V Maternal and Child Health (MCH) Director

Name	Ron Benham
Title	Director, Bureau of Family Health and Nutrition
Address 1	Massachusetts Department of Public Health
Address 2	250 Washington St.
City / State / Zip Code	Boston / MA / 02108
Telephone	(617) 624-5901
Email	ron.benham@state.ma.us

2. Title V Children with Special Health Care Needs (CSHCN) Director

Name	Ron Benham
Title	Director, Bureau of Family Health and Nutrition
Address 1	Massachusetts Department of Public Health
Address 2	250 Washington St.
City / State / Zip Code	Boston / MA / 02108
Telephone	(617) 624-5901
Email	ron.benham@state.ma.us

3. State Family or Youth Leader (Optional)

Name	Suzanne Gottlieb
Title	Director of Family Initiatives, BFHN
Address 1	Massachusetts Department of Public Health
Address 2	250 Washington St.
City / State / Zip Code	Boston / MA / 02108
Telephone	(617) 624-5979
Email	suzanne.gottlieb@state.ma.us

Form Notes For Form 8:

None

Form 9
List of MCH Priority Needs

State: Massachusetts

Application Year 2016

No.	Priority Need	Priority Need Type (New, Replaced or Continued Priority Need for this five-year reporting period)	Rationale if priority need does not have a corresponding State or National Performance/Outcome Measure
1.	Promote health and racial equity across all MCH domains by addressing racial justice and reducing disparities.	New	
2.	Promote equitable access to preventive health care including sexual and reproductive health services.	Continued	
3.	Address substance use among women of reproductive age to improve individual and family functioning.	New	
4.	Improve environments, systems, and policies to promote healthy weight, nutrition, and active living.	Continued	
5.	Promote safe, stable, nurturing environments to reduce violence and the risk of injury.	Continued	
6.	Reduce the impact and burden of environmental contaminants on children and their families.	New	
7.	Increase connections to Medical Home for all children, including those with special health needs.	Continued	
8.	Support effective health-related transition to adulthood for adolescents with special health care needs.	Continued	
9.	Promote equitable access to dental care and preventive measures for pregnant women and children.	Continued	

No.	Priority Need	Priority Need Type (New, Replaced or Continued Priority Need for this five-year reporting period)	Rationale if priority need does not have a corresponding State or National Performance/Outcome Measure
10.	Promote emotional wellness and social connectedness across the lifespan.	Continued	

Form Notes For Form 9:

None

Field Level Notes for Form 9:

None

Form 10a
National Outcome Measures (NOMs)

State: Massachusetts

Form Notes for Form 10a NPMs and NOMs:

Massachusetts is planning to track new NPM #7 under both the Child and Adolescent domains. It is our only NPM under the Child domain but is an additional one for the Adolescent domain. Although there are separate Federally Available Data (FAD) for the two age groups (0-9 and 10-19) there is only one data entry option for the annual projections for 2016 – 2020. Because this is our only Child domain measure, the projected rates per 100,000 shown for NPM 7 are for the 0-9 age group. They represent a 6% decrease in the rate from the baseline of 144.6 per 100,000 in 2012. For the Adolescent domain, we will be tracking the 10-19 age group and our projected rates are as follows: 2016 – 198.2; 2017 – 193.3; 2018 – 188.5; 2019 – 183.6; and 2020 – 178.7. This represents a 12% decrease in the rate from the baseline of 203.1 per 100,000 in 2012.

NOM-1 Percent of pregnant women who receive prenatal care beginning in the first trimester

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	82.9 %	0.2 %	55,568	67,059
2012	82.2 %	0.1 %	57,334	69,794

Legends:
Indicator has a numerator <10 and is not reportable
Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-1 Notes:

This would add a note with the most current FAD benchmark indicated

Data Alerts: None

NOM-2 Rate of severe maternal morbidity per 10,000 delivery hospitalizations

Data Source: State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2012	160.3	4.8 %	1,107	69,071
2011	155.9	4.7 %	1,089	69,874
2010	153.8	4.7 %	1,058	68,775
2009	138.8	4.4 %	988	71,180
2008	134.3	4.3 %	1,000	74,462

Legends:

Indicator has a numerator ≤10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-2 Notes:

None

Data Alerts: None

NOM-3 Maternal mortality rate per 100,000 live births

FAD Not Available for this measure.

State Provided Data	
	2014
Annual Indicator	9.6
Numerator	7
Denominator	72,828
Data Source	Massachusetts Vital Statistics
Data Source Year	2012

NOM-3 Notes:

The data are from 2012. The denominator is occurrence births. The resulting rate has already surpassed the HP 2020 goal of 11.4 per 100,000.

Data Alerts: None

NOM-4.1 Percent of low birth weight deliveries (<2,500 grams)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	7.7 %	0.1 %	5,505	71,539
2012	7.6 %	0.1 %	5,478	72,265
2011	7.6 %	0.1 %	5,481	71,932
2010	7.7 %	0.1 %	5,634	72,786
2009	7.8 %	0.1 %	5,802	74,577

Legends:
Indicator has a numerator <10 and is not reportable
Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-4.1 Notes:

None

Data Alerts: None

NOM-4.2 Percent of very low birth weight deliveries (<1,500 grams)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	1.3 %	0.0 %	944	71,539
2012	1.2 %	0.0 %	866	72,265
2011	1.3 %	0.0 %	960	71,932
2010	1.3 %	0.0 %	949	72,786
2009	1.4 %	0.0 %	1,006	74,577

Legends:
🚩 Indicator has a numerator <10 and is not reportable
ϟ Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-4.2 Notes:

None

Data Alerts: None

NOM-4.3 Percent of moderately low birth weight deliveries (1,500-2,499 grams)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	6.4 %	0.1 %	4,561	71,539
2012	6.4 %	0.1 %	4,612	72,265
2011	6.3 %	0.1 %	4,521	71,932
2010	6.4 %	0.1 %	4,685	72,786
2009	6.4 %	0.1 %	4,796	74,577

Legends:
🚩 Indicator has a numerator <10 and is not reportable
ϟ Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-4.3 Notes:

None

Data Alerts: None

NOM-5.1 Percent of preterm births (<37 weeks)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	8.8 %	0.1 %	6,315	71,455
2012	8.7 %	0.1 %	6,269	72,239
2011	8.6 %	0.1 %	6,141	71,779
2010	8.6 %	0.1 %	6,237	72,794
2009	8.8 %	0.1 %	6,529	74,605

Legends:
Indicator has a numerator <10 and is not reportable
Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-5.1 Notes:

None

Data Alerts: None

NOM-5.2 Percent of early preterm births (<34 weeks)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	2.5 %	0.1 %	1,793	71,455
2012	2.4 %	0.1 %	1,748	72,239
2011	2.6 %	0.1 %	1,843	71,779
2010	2.6 %	0.1 %	1,871	72,794
2009	2.6 %	0.1 %	1,917	74,605

Legends:
🚩 Indicator has a numerator <10 and is not reportable
ϟ Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-5.2 Notes:

None

Data Alerts: None

NOM-5.3 Percent of late preterm births (34-36 weeks)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	6.3 %	0.1 %	4,522	71,455
2012	6.3 %	0.1 %	4,521	72,239
2011	6.0 %	0.1 %	4,298	71,779
2010	6.0 %	0.1 %	4,366	72,794
2009	6.2 %	0.1 %	4,612	74,605

Legends:
🚩 Indicator has a numerator <10 and is not reportable
ϟ Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-5.3 Notes:

None

Data Alerts: None

NOM-6 Percent of early term births (37, 38 weeks)

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	21.0 %	0.2 %	15,035	71,455
2012	21.5 %	0.2 %	15,549	72,239
2011	21.8 %	0.2 %	15,636	71,779
2010	21.1 %	0.2 %	15,365	72,794
2009	20.8 %	0.2 %	15,531	74,605

Legends:
🚩 Indicator has a numerator <10 and is not reportable
ϟ Indicator has a numerator <20, a confidence interval width >20%, or >10% missing data and should be interpreted with caution

NOM-6 Notes:

None

Data Alerts: None

NOM-7 Percent of non-medically indicated early elective deliveries

Data Source: CMS Hospital Compare

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013/Q2-2014/Q1	2.0 %			

Legends:

Indicator results were based on a shorter time period than required for reporting

NOM-7 Notes:

None

Data Alerts: None

NOM-8 Perinatal mortality rate per 1,000 live births plus fetal deaths

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	5.1	0.3 %	365	71,964
2012	4.6	0.3 %	333	72,601
2011	5.6	0.3 %	408	73,376
2010	5.1	0.3 %	372	73,033
2009	6.1	0.3 %	459	75,229

Legends:

🚩 Indicator has a numerator <10 and is not reportable

ϟ Indicator has a numerator <20 and should be interpreted with caution

NOM-8 Notes:

None

Data Alerts: None

NOM-9.1 Infant mortality rate per 1,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	4.2	0.2 %	300	71,788
2012	4.2	0.2 %	305	72,439
2011	4.3	0.2 %	311	73,166
2010	4.4	0.3 %	320	72,865
2009	5.1	0.3 %	382	75,016

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-9.1 Notes:

None

Data Alerts: None

NOM-9.2 Neonatal mortality rate per 1,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	3.1	0.2 %	222	71,788
2012	3.0	0.2 %	214	72,439
2011	3.2	0.2 %	231	73,166
2010	3.3	0.2 %	241	72,865
2009	3.9	0.2 %	292	75,016

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-9.2 Notes:

None

Data Alerts: None

NOM-9.3 Post neonatal mortality rate per 1,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	1.1	0.1 %	78	71,788
2012	1.3	0.1 %	91	72,439
2011	1.1	0.1 %	80	73,166
2010	1.1	0.1 %	79	72,865
2009	1.2	0.1 %	90	75,016

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-9.3 Notes:

None

Data Alerts: None

NOM-9.4 Preterm-related mortality rate per 100,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	189.5	16.3 %	136	71,788
2012	173.9	15.5 %	126	72,439
2011	166.7	15.1 %	122	73,166
2010	215.5	17.2 %	157	72,865
2009	226.6	17.4 %	170	75,016

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-9.4 Notes:

None

Data Alerts: None

NOM-9.5 Sleep-related Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	50.2	8.4 %	36	71,788
2012	69.0	9.8 %	50	72,439
2011	50.6	8.3 %	37	73,166
2010	57.6	8.9 %	42	72,865
2009	80.0	10.3 %	60	75,016

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-9.5 Notes:

None

Data Alerts: None

NOM-10 The percent of infants born with fetal alcohol exposure in the last 3 months of pregnancy

Data Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011	10.9 %	1.1 %	7,529	69,099
2010	10.8 %	1.2 %	7,402	68,712
2009	8.9 %	1.1 %	6,269	70,362
2008	11.0 %	1.1 %	8,014	72,615
2007	11.6 %	1.2 %	8,386	72,621

Legends:

🚩 Indicator has an unweighted denominator <30 and is not reportable

ϟ Indicator has an unweighted denominator between 30 and 59 or a confidence interval width >20% and should be interpreted with caution

NOM-10 Notes:

None

Data Alerts: None

NOM-11 The rate of infants born with neonatal abstinence syndrome per 1,000 delivery hospitalizations

Data Source: State Inpatient Databases (SID)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2012	17.3	0.5 %	1,192	69,071
2011	15.2	0.5 %	1,063	69,874
2010	13.6	0.5 %	935	68,776
2009	11.7	0.4 %	836	71,180
2008	9.6	0.4 %	716	74,463

Legends:

🚩 Indicator has a numerator ≤10 and is not reportable

ϟ Indicator has a numerator <20 and should be interpreted with caution

NOM-11 Notes:

None

Data Alerts: None

NOM-12 Percent of eligible newborns screened for heritable disorders with on time physician notification for out of range screens who are followed up in a timely manner. (DEVELOPMENTAL)

FAD Not Available for this measure.

NOM-12 Notes:

None

Data Alerts: None

NOM-13 Percent of children meeting the criteria developed for school readiness (DEVELOPMENTAL)

FAD Not Available for this measure.

NOM-13 Notes:

None

Data Alerts: None

NOM-14 Percent of children ages 1 through 17 who have decayed teeth or cavities in the past 12 months

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	13.6 %	1.1 %	180,104	1,323,408

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

NOM-14 Notes:

None

Data Alerts: None

NOM-15 Child Mortality rate, ages 1 through 9 per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	11.2	1.3 %	75	672,151
2012	10.5	1.3 %	71	676,072
2011	11.9	1.3 %	80	674,304
2010	11.5	1.3 %	78	681,340
2009	10.9	1.3 %	74	680,643

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-15 Notes:

None

Data Alerts: None

NOM-16.1 Adolescent mortality rate ages 10 through 19 per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	19.6	1.5 %	168	855,542
2012	19.4	1.5 %	167	862,720
2011	20.3	1.5 %	175	861,449
2010	20.7	1.6 %	180	868,369
2009	21.7	1.6 %	190	874,688

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-16.1 Notes:

None

Data Alerts: None

NOM-16.2 Adolescent motor vehicle mortality rate, ages 15 through 19 per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2013	6.0	0.7 %	83	1,379,819
2010_2012	6.3	5.0 %	87	1,385,396
2009_2011	6.4	5.1 %	89	1,389,616
2008_2010	6.7	5.4 %	94	1,399,541
2007_2009	9.4	7.8 %	132	1,405,763

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-16.2 Notes:

None

Data Alerts: None

NOM-16.3 Adolescent suicide rate, ages 15 through 19 per 100,000

Data Source: National Vital Statistics System (NVSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2013	6.4	5.1 %	88	1,379,819
2010_2012	6.0	4.8 %	83	1,385,396
2009_2011	5.4	4.3 %	75	1,389,616
2008_2010	4.8	3.7 %	67	1,399,541
2007_2009	4.1	3.1 %	57	1,405,763

Legends:

Indicator has a numerator <10 and is not reportable

Indicator has a numerator <20 and should be interpreted with caution

NOM-16.3 Notes:

None

Data Alerts: None

NOM-17.1 Percent of children with special health care needs

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	22.3 %	1.3 %	312,406	1,399,869
2007	22.8 %	1.4 %	326,038	1,431,554
2003	22.2 %	1.1 %	328,996	1,481,121

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

NOM-17.1 Notes:

None

Data Alerts: None

NOM-17.2 Percent of children with special health care needs (CSHCN) receiving care in a well-functioning system

Data Source: National Survey of Children with Special Health Care Needs (NS-CSHCN)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2009_2010	22.1 %	1.9 %	53,187	240,230

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

NOM-17.2 Notes:

None

Data Alerts: None

NOM-17.3 Percent of children diagnosed with an autism spectrum disorder

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	2.3 %	0.6 %	27,488	1,187,076
2007	1.7 %	0.5 %	19,881	1,202,409

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width that is inestimable or >20% and should be interpreted with caution

NOM-17.3 Notes:

None

Data Alerts: None

NOM-17.4 Percent of children diagnosed with Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	9.0 %	1.0 %	106,024	1,184,913
2007	7.5 %	1.0 %	90,008	1,196,144

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width that is inestimable or >20% and should be interpreted with caution

NOM-17.4 Notes:

None

Data Alerts: None

NOM-18 Percent of children with a mental/behavioral condition who receive treatment or counseling

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	65.6 %	5.0 %	92,712	141,433
2007	68.4 %	5.7 %	84,832	123,976
2003	71.3 %	4.5 %	84,802	118,900

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

NOM-18 Notes:

None

Data Alerts: None

NOM-19 Percent of children in excellent or very good health

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	88.7 %	1.1 %	1,239,090	1,397,174
2007	88.3 %	1.2 %	1,264,383	1,431,554
2003	88.7 %	0.9 %	1,313,987	1,480,745

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width that is inestimable or >20% and should be interpreted with caution

NOM-19 Notes:

None

Data Alerts: None

NOM-20 Percent of children and adolescents who are overweight or obese (BMI at or above the 85th percentile)

Data Source: National Survey of Children's Health (NSCH)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2011_2012	30.6 %	2.2 %	200,874	657,618
2007	30.0 %	2.3 %	199,115	663,078
2003	28.9 %	1.8 %	190,902	660,296

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

Data Source: WIC

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2012	33.1 %	0.2 %	14,123	42,680

Legends:

Indicator has a denominator <50 or a relative standard error ≥30% and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

Data Source: Youth Risk Behavior Surveillance System (YRBSS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	23.1 %	1.4 %	61,642	267,383
2011	24.5 %	1.2 %	67,976	277,821
2009	24.8 %	1.5 %	68,315	275,318
2007	25.3 %	1.3 %	71,824	283,752
2005	26.5 %	1.5 %	71,729	270,348

Legends:

Indicator has an unweighted denominator <100 and is not reportable

Indicator has a confidence interval width >20% and should be interpreted with caution

NOM-20 Notes:

None

Data Alerts: None

NOM-21 Percent of children without health insurance

Data Source: American Community Survey (ACS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	1.5 %	0.2 %	20,502	1,389,956
2012	1.4 %	0.2 %	18,870	1,401,515
2011	1.6 %	0.2 %	22,053	1,403,102
2010	1.4 %	0.1 %	19,758	1,416,775
2009	1.7 %	0.2 %	24,006	1,432,754

Legends:

Indicator has an unweighted denominator <30 and is not reportable

Indicator has a confidence interval width that is inestimable or >20% and should be interpreted with caution

NOM-21 Notes:

None

Data Alerts: None

NOM-22.1 Percent of children ages 19 through 35 months, who have received the 4:3:1:3(4):3:1:4 series of routine vaccinations

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	78.5 %	3.3 %	81,750	104,130
2012	73.5 %	3.2 %	77,675	105,629
2011	70.7 %	4.2 %	77,156	109,138
2010	61.6 %	3.6 %	68,357	111,052
2009	32.7 %	3.3 %	37,716	115,448

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM-22.1 Notes:

None

Data Alerts: None

NOM-22.2 Percent of children 6 months through 17 years who are vaccinated annually against seasonal influenza

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013_2014	71.9 %	1.7 %	944,113	1,312,436
2012_2013	75.3 %	1.7 %	995,266	1,321,138
2011_2012	63.4 %	2.3 %	853,775	1,346,433
2010_2011	64.9 %	2.4 %	149,670	258,944
2009_2010	57.6 %	3.2 %	170,971	270,097

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM-22.2 Notes:

None

Data Alerts: None

NOM-22.3 Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine

Data Source: National Immunization Survey (NIS) - Female

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	62.3 %	4.3 %	125,863	202,003
2012	69.3 %	4.1 %	140,121	202,132
2011	61.1 %	4.5 %	124,911	204,390
2010	65.9 %	4.5 %	132,740	201,492
2009	69.0 %	4.1 %	141,635	205,152

Legends:
Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6
Estimates with 95% confidence interval half-widths > 10 might not be reliable

Data Source: National Immunization Survey (NIS) - Male

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	52.8 %	4.2 %	111,833	211,840
2012	25.5 %	4.0 %	54,020	212,022
2011	NR	NR	NR	NR

Legends:
Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6
Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM-22.3 Notes:

None

Data Alerts: None

NOM-22.4 Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	94.9 %	1.3 %	392,557	413,843
2012	95.7 %	1.2 %	396,484	414,154
2011	91.6 %	1.8 %	383,866	419,096
2010	82.4 %	2.7 %	340,420	413,313
2009	62.7 %	2.9 %	263,891	420,968

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM-22.4 Notes:

None

Data Alerts: None

NOM-22.5 Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine

Data Source: National Immunization Survey (NIS)

Multi-Year Trend

Year	Annual Indicator	Standard Error	Numerator	Denominator
2013	89.6 %	1.9 %	370,929	413,843
2012	89.2 %	1.9 %	369,249	414,154
2011	84.4 %	2.7 %	353,564	419,096
2010	82.9 %	2.7 %	342,604	413,313
2009	74.0 %	2.6 %	311,571	420,968

Legends:

Estimate not reported because unweighted sample size for the denominator < 30 or 95% confidence interval half-width/estimate > 0.6

Estimates with 95% confidence interval half-widths > 10 might not be reliable

NOM-22.5 Notes:

None

Data Alerts: None

Form 10a
National Performance Measures (NPMs)

State: Massachusetts

NPM-1 Percent of women with a past year preventive medical visit

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	74.3	75.0	76.0	77.0	78.0

NPM-4 A) Percent of infants who are ever breastfed

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	83.0	83.4	83.9	85.4	87.0

NPM-4 B) Percent of infants breastfed exclusively through 6 months

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	20.6	21.0	21.5	22.0	22.7

NPM-5 Percent of infants placed to sleep on their backs

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	79.6	81.2	83.5	85.0	87.6

NPM-7 Rate of hospitalization for non-fatal injury per 100,000 children ages 0 through 9 and adolescents 10 through 19

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	142.9	141.1	139.4	137.6	135.9

NPM-10 Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year.

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	91.4	91.7	92.1	92.4	92.8

NPM-11 Percent of children with and without special health care needs having a medical home

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	51.8	56.5	57.1	57.6	58.2

NPM-12 Percent of adolescents with and without special health care needs who received services necessary to make transitions to adult health care

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	47.9	48.9	49.9	50.9	52.0

NPM-13 A) Percent of women who had a dental visit during pregnancy

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	49.9	49.9	51.9	53.2	54.9

NPM-13 B) Percent of children, ages 1 through 17 who had a preventive dental visit in the past year

Annual Objectives					
	2016	2017	2018	2019	2020
Annual Objective	83.3	84.0	85.5	88.0	91.6

Form 10b

State Performance/Outcome Measure Detail Sheet

State: Massachusetts

States are not required to create SOMs/SPMs until the FY 2017 Application/FY 2015 Annual Report.

Form 10c

Evidence-Based or Informed Strategy Measure Detail Sheet

State: Massachusetts

States are not required to create ESMs until the FY 2017 Application/FY 2015 Annual Report.

Form 10d
National Performance Measures (NPMs) (Reporting Year 2014 & 2015)

State: Massachusetts

Form Notes for Form 10d NPMs and SPMs

None

NPM 01 - The percent of screen positive newborns who received timely follow up to definitive diagnosis and clinical management for condition(s) mandated by their State-sponsored newborn screening programs.

	2011	2012	2013	2014	2015
Annual Objective	100.0	100.0	100.0	100.0	100.0
Annual Indicator	100.0	100.0	100.0	100.0	
Numerator	155	168	122	141	
Denominator	155	168	122	141	
Data Source	New Eng Regional Newborn Screening Program	New Eng Regional Newborn Screening Program	New Eng Regional Newborn Screening Program	New Eng Regional Newborn Screening Program	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2014. The NENSP provides all these newborn screening services and furnishes these data. See Form 4 and its Notes also for details on the confirmed cases found from the mandated screens, by-products of the mandated screens and from the two pilot screening studies being conducted. Massachusetts screens every newborn for 30 disorders; these screens may show information about 23 additional disorders/conditions (by-products of mandatory screening).

2. **Field Name:** **2013**

Field Note:
Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2013. The NENSP provides all these newborn screening services and furnishes these data. See Form 06 and its Notes also. Effective February 2009, Massachusetts screened every newborn for 30 disorders (listed below); these screens may show information about 23 additional disorders/conditions (by-products of mandatory screening). (1) Argininemia (ARG) (2) Argininosuccinic acidemia (ASA) (3) ß-Ketothiolase deficiency (BKT) (4) Biotinidase deficiency (BIOT) (5) Carbamoylphosphate synthetase deficiency (CPS) (6) Carnitine uptake defect (CUD) (7) Citrullinemia (CIT) (8) Congenital adrenal hyperplasia (CAH) (9) Congenital hypothyroidism (CH) (10) Congenital toxoplasmosis (TOXO) (11) Cystic fibrosis (CF) (12) Galactosemia (GALT) (13) Glutaric acidemia type I (GAI) (14) Homocystinuria (HCY) (15) 3-hydroxy-3-methyl glutaric aciduria (HMG) (16) Isovaleric acidemia (IVA) (17) Long-chain L-3-OH acyl-CoA dehydrogenase deficiency (LCHAD) (18) Maple syrup disease (MSUD) (19) Ornithine transcarbamylase deficiency (OTC) (20) Phenylketonuria (PKU) (21) Sickle cell anemia (Hb SS) (22) Hb S/C disease (Hb SC) (23) Hb S/ß-thalassemia (Hb S/ßTh) (24) Medium-chain acyl-CoA dehydrogenase deficiency (MCAD) (25) Methylmalonic acidemia: mutase deficiency (MUT) (26) Methylmalonic acidemia: cobalamin A, B (Cbl A,B) (27) Methylmalonic acidemia: cobalamin C, D (Cbl C,D) (28) Propionic acidemia (PROP) (29) Tyrosinemia type I (TYR I) (30) Very long-chain acyl-CoA dehydrogenase deficiency (VLCAD) Every newborn with abnormal results is tracked to a normal result or appropriate clinical care. In 2013, the total of 122 confirmed cases from mandated screening receiving treatment included 6 with PKU, 56 with Congenital Hypothyroidism, 25 with Sickle cell disease (Hb SS), 10 with Hemoglobin S/C disease (Hb SC), 1 Hb S/ß-thalassemia (Hb S/ßTh), 14 with Cystic Fibrosis, 1 with Biotinidase deficiency (BIOT), 1 with Citrullinemia, 1 with glutaric acidemia type I, 1 with Maple sugar urine disease, 1 with MCAD, 1 with LCHAD, and 1 with VLCAD. Of these newborns with abnormal results, 44 were also identified with by-products of the mandatory screens and received appropriate treatment (7 Hyperphenylalanemia, 1 3MCC, 1 SCAD, and 22 non-sickling forms of hemoglobinopathies).

3. **Field Name:** **2012**

Field Note:
Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2012. The NENSP provides all these newborn screening services and furnishes these data. See Form 06 and its Notes also.

Every newborn with abnormal results is tracked to a normal result or appropriate clinical care. In 2012, the total of 168 confirmed cases from mandated screening receiving treatment included 8 with PKU, 62 with Congenital Hypothyroidism, 40 with Sickle cell disease (Hb SS), 18 with Hemoglobin S/C disease (Hb SC), 3 Hb S/ß-thalassemia (Hb S/ßTh), 8 with Cystic Fibrosis, , 5 with Congenital Adrenal Hyperplasia, 3 with Argininosuccinic acidemia (ASA), 7 with Biotinidase deficiency (BIOT), 3 with MCAD, 4 with VLCAD, 4 with congenital Toxoplasmosis (TOXO), and 1 with methylmalonic acidemia: cobalamin C,D (CBL C,D). Of these newborns with abnormal results, 34 were also identified with by-products of the mandatory screens and received appropriate treatment (2 GAII, 1 Hypermethionemia, 6 Hyperphenylalanemia, 1 3-MCC, 6 SCAD, and 18 non-sickling forms of hemoglobinopathies) .

4. **Field Name:** **2011**

Field Note:
Data on Newborn Screening from the New England Newborn Screening Program (NENSP) at the University of Massachusetts Medical School. The data are for Calendar Year 2011. The NENSP provides all these newborn screening services and furnishes these data. See Form 06 and its Notes also. Massachusetts screened every newborn for 30 disorders; these screens may show information about 23 additional disorders/conditions (by-products of mandatory screening). Every newborn with abnormal results is tracked to a normal result or appropriate clinical care.
In 2011, the total of 155 confirmed cases from mandated screening receiving treatment included 1 with PKU (plus 4 additional with “Atypical PKU), 73 with Congenital Hypothyroidism, 23 with Sickle cell disease (Hb SS), 11 with Hemoglobin S/C disease (Hb SC), 2 Hb S/ß-thalassemia (Hb S/ßTh), 16 with Cystic Fibrosis, , 9 with Congenital Adrenal Hyperplasia, 2 with Argininosuccinic acidemia (ASA), 9 with Biotinidase deficiency (BIOT), 1 with Maple syrup disease (MSUD), 2 with MCAD, 1 with VLCAD, 3 with Carnitine uptake defect (CUD), 1 with glutaric acidemia type I (GAI1), and 1 with isovaleric acidemia (IVA). Of these newborns with abnormal results, 39 were also identified with by-products of the mandatory screens and received appropriate treatment (2 3MCC, 11 SCAD, and 26 non-sickling forms of hemoglobinopathies) .

Data Alerts: None

NPM 02 - The percent of children with special health care needs age 0 to 18 years whose families partner in decision making at all levels and are satisfied with the services they receive. (CSHCN survey)

	2011	2012	2013	2014	2015
Annual Objective	63.0	74.1	76.0	77.0	78.0
Annual Indicator	74.1	74.1	76.0	76.0	
Numerator					
Denominator					
Data Source	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2015**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate this indicator for both the 2001 and the 2005-06 CSHCN survey. However, in 2009-2010 there were wording changes and additions to the questions used to generate this indicator. The data for 2009-2010 are NOT comparable to earlier versions of the survey. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

2. **Field Name:** **2014**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate this indicator for both the 2001 and the 2005-06 CSHCN survey. However, in 2009-2010 there were wording changes and additions to the questions used to generate this indicator. The data for 2009-2010 are NOT comparable to earlier versions of the survey. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

3. **Field Name:** **2013**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate this indicator for both the 2001 and the 2005-06 CSHCN survey. However, in 2009-2010 there were wording changes and additions to the questions used to generate this indicator. The data for 2009-2010 are NOT comparable to earlier versions of the survey.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

4. **Field Name:** **2012**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate this indicator for both the 2001 and the 2005-06 CSHCN survey. However, in 2009-2010 there were wording changes and additions to the questions used to generate this indicator. The data for 2009-2010 are NOT comparable to earlier versions of the survey.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

5. **Field Name:** **2011**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate this indicator for both the 2001 and the 2005-06 CSHCN survey. However, in 2009-2010 there were wording changes and additions to the questions used to generate this indicator. The data for 2009-2010 are NOT comparable to earlier versions of the survey.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

Massachusetts has adjusted our projections using the latest survey data as a baseline. The Massachusetts rate is higher than the U.S. rate of 70.3% but not significantly so.

Data Alerts: None

NPM 03 - The percent of children with special health care needs age 0 to 18 who receive coordinated, ongoing, comprehensive care within a medical home. (CSHCN Survey)

	2011	2012	2013	2014	2015
Annual Objective	53.0	47.1	50.0	50.0	54.0
Annual Indicator	47.1	47.1	50.0	50.0	
Numerator					
Denominator					
Data Source	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2015**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. The data for the 2001 and 2005-2006 surveys are not comparable for NPM 3. However, the same questions were used to generate the NPM 3 indicator for both the 2005-2006 and 2009-2010, therefore these two surveys are comparable. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

2. **Field Name:** **2014**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. The data for the 2001 and 2005-2006 surveys are not comparable for NPM 3. However, the same questions were used to generate the NPM 3 indicator for both the 2005-2006 and 2009-2010, therefore these two surveys are comparable. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

3. **Field Name:** **2013**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. The data for the 2001 and 2005-2006 surveys are not comparable for NPM 3. However, the same questions were used to generate the NPM 3 indicator for both the 2005-2006 and 2009-2010, therefore these two surveys are comparable.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

4. **Field Name:** **2012**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. The data for the 2001 and 2005-2006 surveys are not comparable for NPM 3. However, the same questions were used to generate the NPM 3 indicator for both the 2005-2006 and 2009-2010, therefore these two surveys are comparable.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

5. **Field Name:** **2011**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. The data for the 2001 and 2005-2006 surveys are not comparable for NPM 3. However, the same questions were used to generate the NPM 3 indicator for both the 2005-2006 and 2009-2010, therefore these two surveys are comparable.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

Massachusetts has not improved as much as we had hoped since 2006. We have adjusted our projections using the latest survey data as a new baseline. The Massachusetts rate is higher than the U.S. rate of 43.0% but not significantly so.

Data Alerts: None

NPM 04 - The percent of children with special health care needs age 0 to 18 whose families have adequate private and/or public insurance to pay for the services they need. (CSHCN Survey)

	2011	2012	2013	2014	2015
Annual Objective	75.0	62.2	63.0	65.0	65.0
Annual Indicator	62.2	62.2	63.0	63.0	
Numerator					
Denominator					
Data Source	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2015**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate the NPM 4 indicator for the 2001, 2005-06, and 2009-2010 CSHCN surveys. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

2. **Field Name:** **2014**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate the NPM 4 indicator for the 2001, 2005-06, and 2009-2010 CSHCN surveys. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

3. **Field Name:** **2013**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate the NPM 4 indicator for the 2001, 2005-06, and 2009-2010 CSHCN surveys.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

4.	**Field Name:**	**2012**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate the NPM 4 indicator for the 2001, 2005-06, and 2009-2010 CSHCN surveys.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

5.	**Field Name:**	**2011**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. This survey was first conducted in 2001. The same questions were used to generate the NPM 4 indicator for the 2001, 2005-06, and 2009-2010 CSHCN surveys.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

Massachusetts has not improved as much as we had hoped since 2006, despite the implementation of universal health care reform in Massachusetts. This measure captures a number of items beyond health insurance coverage (which is over 98% for children), including the adequacy of insurance coverage and costs that are not met by insurance. The survey definition of "adequate" coverage sets more stringent criteria than what is measured in NPM # 13. Given this weighting, we have adjusted our projections using the latest survey data as a new baseline. The Massachusetts rate is higher than the U.S. rate of 60.2% but not significantly so. Like the rest of the country, there has been no improvement in this measure in the last decade.

Data Alerts: None

NPM 05 - Percent of children with special health care needs age 0 to 18 whose families report the community-based service systems are organized so they can use them easily. (CSHCN Survey)

	2011	2012	2013	2014	2015
Annual Objective	90.0	68.2	69.0	69.0	70.0
Annual Indicator	68.2	68.2	69.0	69.0	
Numerator					
Denominator					
Data Source	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2015**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were revisions to the wording, order, and number of questions used to generate this indicator for the 2005-06 CSHCN survey. The questions were also revised extensively for the 2009-2010 CSHCN survey. Therefore, none of the three rounds of the surveys are comparable. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

2. **Field Name:** **2014**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were revisions to the wording, order, and number of questions used to generate this indicator for the 2005-06 CSHCN survey. The questions were also revised extensively for the 2009-2010 CSHCN survey. Therefore, none of the three rounds of the surveys are comparable. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

3. **Field Name:** **2013**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were revisions to the wording, order, and number of questions used to generate this indicator for the 2005-06 CSHCN survey. The questions were also revised extensively for the 2009-2010 CSHCN survey. Therefore, none of the three rounds of the surveys are comparable.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

4. **Field Name:** **2012**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were revisions to the wording, order, and number of questions used to generate this indicator for the 2005-06 CSHCN survey. The questions were also revised extensively for the 2009-2010 CSHCN survey. Therefore, none of the three rounds of the surveys are comparable.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

5. **Field Name:** **2011**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were revisions to the wording, order, and number of questions used to generate this indicator for the 2005-06 CSHCN survey. The questions were also revised extensively for the 2009-2010 CSHCN survey. Therefore, none of the three rounds of the surveys are comparable.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

Massachusetts has adjusted our projections using the latest survey data as a baseline. The Massachusetts rate is higher than the U.S. rate of 65.1% but not significantly so.

Data Alerts: None

NPM 06 - The percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence.

	2011	2012	2013	2014	2015
Annual Objective	49.0	46.6	47.0	47.0	48.0
Annual Indicator	46.6	46.6	47.0	47.0	
Numerator					
Denominator					
Data Source	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	NS-CSHCN, 2009-2010 (part of NCHS/SLAITS)	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2015**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. There were also issues around the reliability of the 2001 data because of the sample size. The data for the 2 surveys are not comparable for NPM 6, and findings from the 2005-06 survey may be considered baseline data. However, the same questions were used to generate the NPM 6 indicator for the 2009-2010 survey. Therefore, the 2005-2006 and 2009-2010 surveys can be compared. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistak

2. **Field Name:** **2014**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. There were also issues around the reliability of the 2001 data because of the sample size. The data for the 2 surveys are not comparable for NPM 6, and findings from the 2005-06 survey may be considered baseline data. However, the same questions were used to generate the NPM 6 indicator for the 2009-2010 survey. Therefore, the 2005-2006 and 2009-2010 surveys can be compared. All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

3. **Field Name:** **2013**

Field Note:
For 2011-2015, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. There were also issues around the reliability of the 2001 data because of the sample size. The data for the 2 surveys are not comparable for NPM 6, and findings from the 2005-06 survey may be considered baseline data. However, the same questions were used to generate the NPM 6 indicator for the 2009-2010 survey. Therefore, the 2005-2006 and 2009-2010 surveys can be compared.
All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

4. **Field Name:** **2012**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. There were also issues around the reliability of the 2001 data because of the sample size. The data for the 2 surveys are not comparable for NPM 6, and findings from the 2005-06 survey may be considered baseline data. However, the same questions were used to generate the NPM 6 indicator for the 2009-2010 survey. Therefore, the 2005-2006 and 2009-2010 surveys can be compared.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

5. **Field Name:** **2011**

Field Note:
For 2011-2014, indicator data come from the National Survey of Children with Special Health Care Needs (CSHCN), conducted by the U.S. Health Resources and Services Administration and the U.S. Centers for Disease Control and Prevention in 2009-2010. Compared to the 2001 CSHCN survey, there were wording changes, skip pattern revisions, and additions to the questions used to generate this indicator for the 2005-06 CSHCN survey. There were also issues around the reliability of the 2001 data because of the sample size. The data for the 2 surveys are not comparable for NPM 6, and findings from the 2005-06 survey may be considered baseline data. However, the same questions were used to generate the NPM 6 indicator for the 2009-2010 survey. Therefore, the 2005-2006 and 2009-2010 surveys can be compared.

All estimates from the National Survey of CSHCN are subject to sampling variability, as well as survey design flaws, respondent classification and reporting errors, and data processing mistakes.

Massachusetts has not improved as we had hoped since 2006. We have adjusted our projections using the latest survey data as a new baseline. The Massachusetts rate is higher than the U.S. rate of 40.0% but not significantly so. Like the rest of the country, there has been no improvement in this measure in the five years. Improving transitions to adulthood - and the adult health care system – especially for CYSHCN remains both a challenge and a priority for MDPH.

Data Alerts: None

NPM 07 - Percent of 19 to 35 month olds who have received full schedule of age appropriate immunizations against Measles, Mumps, Rubella, Polio, Diphtheria, Tetanus, Pertussis, Haemophilus Influenza, and Hepatitis B.

	2011	2012	2013	2014	2015
Annual Objective	80.0	85.4	75.0	75.0	79.0
Annual Indicator	70.7	73.5	78.5	78.5	
Numerator					
Denominator					
Data Source	CDC, NIS	CDC, NIS	CDC, NIS	CDC, NIS	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1.	**Field Name:**	**2014**
	Field Note: CY 2014 immunization data are not yet available from CDC. We have estimated the same rate as 2013. (See also NOM # 22.1)	
2.	**Field Name:**	**2013**
	Field Note: Fully immunized now corresponds to the CDC definition of 4:3:1:3(4):3:1:4 (4 or more doses of DTaP, 3 or more of poliovirus, 1 or more of any MMR, full 3 series of Hib, 3 or more of HepB, 1 or more of varicella, and 4 or more of PCV) by age 19-35 months (age 3) and is the same as the new NOM # 22.1. Our fully immunized rate continued to improve over previous years. Data are from the National Immunization Survey (NIS), as provided by MCHB as the Federally Available Data for NOM # 22.1 for 2013. Because the percentage rates are generated by the NIP from surveys, no numerators and denominators are presented in Form 10d.	
3.	**Field Name:**	**2012**

Field Note:
Fully immunized now corresponds to the CDC definition of 4:3:1:3:3:1:4 (4 or more doses of DTaP, 3 or more of poliovirus, 1 or more of any MMR, full 3 series of Hib, 3 or more of HepB, 1 or more of varicella, and 4 or more of PCV) by age 19-35 months (age 3). [Note that definition of measure in Detail Sheet differs from the label on the measure which suggests immunization status among children 19-35 months of age. That age range is what we report here.] Our fully immunized rate improved in 2012.

Data are from the National Immunization Survey, as reported by the CDC at http://www.cdc.gov/vaccines/stats-surv/nis/data/tables_1112.htm for the period Q1/2012-Q4/2012. Because the percentage rates are generated by the NIP from surveys, no numerators and denominators are presented in Form 11.

Special data reports from the NIS on the previous combination of 4:3:1:3:3 without the varicella were also provided the states this year, although CDC no longer reports in their regular published reports on that combination. For the 4:3:1:3:3 sequence, the 2012 Massachusetts rates were 79.9% (3 or more doses of Hib of any type) and 81.2.% (full series of Hib – 3 or 4 doses depending on product type). This was a rank of fifth nationally for both sequences.

4. **Field Name:** **2011**

Field Note:
Fully immunized now corresponds to the CDC definition of 4:3:1:3:3:1:4 (4 or more doses of DTaP, 3 or more of poliovirus, 1 or more of any MMR, full series of Hib, 3 or more of HepB, 1 or more of varicella and 4 or more of PCV) by age 19-35 months (age 3). [Note that definition of measure in Detail Sheet differs from the label on the measure which suggests immunization status among children 19-35 months of age. That age range is what we report here.] We have revised the 2011 data to use this definition of 4:3:1:3:3:1:4, as the one we originally used (4 or more doses of DTaP, 3 or more of poliovirus, 1 or more of any MMR, 3 or more of any type of Hib, 3 or more of HepB, and 1 or more of varicella) was not reported in the table published by CDC.

Note that because a different (and more extensive0 definition of “fully immunized” is being used, data prior to 2011 is not comparable.

Special data reports from the NIS on the previous combination of 4:3:1:3:3 without the varicella were also provided the states this year, although CDC no longer reports in their regular published reports on that combination. For the 4:3:1:3:3 sequence, the 2010 Massachusetts rates were 85.4% (3 or more doses of Hib of any type) and 68.1.% (full series of Hib – 3 or 4 doses depending on product type. which were a rank of third and fourth nationally.

Data are from the National Immunization Survey, as reported by the CDC at http://www.cdc.gov/vaccines/stats-surv/nis/data/tables_2011 for the period Q1/2011 - Q4/2011. Because the percentage rates are generated by the NIP from surveys, no numerators and denominators are presented in Form 11.

Data Alerts: None

NPM 08 - The rate of birth (per 1,000) for teenagers aged 15 through 17 years.

	2011	2012	2013	2014	2015
Annual Objective	9.5	8.3	7.3	6.8	6.0
Annual Indicator	7.3	6.8	6.0	4.9	
Numerator	992	836	737	601	
Denominator	135,823	123,362	121,864	122,406	
Data Source	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1.	**Field Name:**	**2014**
	Field Note: Birth data are from MDPH, Vital Records for calendar year 2014. 2014 Massachusetts Population Estimates: U.S. Census Bureau, Population Division. American Factfinder. Because the denominator is an estimate, we consider the rate to still be "provisional."	
2.	**Field Name:**	**2013**
	Field Note: Birth data are from MDPH, Vital Records for calendar year 2013. 2013 Massachusetts Population Estimates: U.S. Census Bureau, Population Division. American Factfinder. Because the denominator is an estimate, we consider the rate to still be "provisional."	
3.	**Field Name:**	**2012**
	Field Note: Birth data are from MDPH, Vital Records for calendar year 2012. This is the most recent year of data available. 2012 Massachusetts Population Estimates. From: Missouri Census Data Center. Population Estimates by age, sex, race and Hispanic origin for U.S. states and counties. Version 2, Rev. October 27, 2012. (http://mcdc.missouri.edu/websas/estimates_by_age.shtml)Because the denominator is an estimate, we consider the rate to still be "provisional." Outyear Performance Objectives have been adjusted again, to reflect a leveling off at the rate, which reached another low in 2012.	
4.	**Field Name:**	**2011**

Field Note:
Birth data are from MDPH, Vital Records for calendar year 2011. The 2011 denominator has been updated from the most current 2011 population estimates for Massachusetts, as provided by the Missouri Census Data Center. Population Estimates by age, sex, race and Hispanic origin for U.S. states and counties. Version 2, Rev. October 27, 2012. Because the denominator is an estimate, we consider the rate to still be "provisional."

Data Alerts: None

NPM 09 - Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

	2011	2012	2013	2014	2015
Annual Objective	63.0	67.0	65.0	65.0	65.0
Annual Indicator	66.6	61.5	64.0	64.5	
Numerator					
Denominator					
Data Source	Mass. BRFSS	Mass. BRFSS	Mass. BRFSS	Mass. BRFSS	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
The data for 2014 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, is carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 17. The estimated percentage is only slightly higher than it was in 2013, with a 95% Confidence Interval of 56.9% to 72.2%, indicating that the rate may not be statistically different from 2013 and that it is not statistically lower than our projected rate.

2. **Field Name:** **2013**

Field Note:
The data for 2013 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, is carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 17. The estimated percentage is higher than it was in 2012, with a 95% Confidence Interval of 57.0% to 71.0%, indicating that the rate may not be statistically different from 2012 and that it is not statistically lower than our projected rate.

3. **Field Name:** **2012**

Field Note:
The updated data for 2012 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, is carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 17. The estimated percentage is lower than it was in 2011, with a 95% Confidence Interval of 56.9% to 66.2%, indicating that the rate may not be statistically different from 2011 and that it is not statistically lower than our projected rate. However, projections through 2017 have been adjusted.

4. **Field Name:** **2011**

Field Note:
The data for 2011 are taken from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). A children's dental health module, containing this and other questions, is carried out every year. The data are not specific for the narrow age range specified in the measure, but capture data for children ages 6 - 17. The estimated percentage improved in the 2011 survey, with a 95% Confidence Interval of 60.4% to 72.8%, indicating that the rate may not be statistically different from 2010.

Data Alerts: None

NPM 10 - The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children.

	2011	2012	2013	2014	2015
Annual Objective	0.7	0.5	0.4	0.4	0.7
Annual Indicator	0.4	0.3	0.5	0.6	
Numerator	5	4	6	7	
Denominator	1,161,455	1,151,962	1,119,147	1,112,176	
Data Source	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
2014 death data are not available. See 2013 for the most recent data and see the Note for 2013 for data sources and other comments. We have estimated a three-year average rate in line with the 2013 rate.

2. **Field Name:** **2013**

Field Note:
Data on deaths are taken from MDPH Vital Records for calendar years 2011 - 2013. This includes the most recent years of data available. 2013 data are still preliminary and subject to change in the final file. Rates are calculated as rolling 3-year averages. (I.e. the 2013 numerator is the rounded average of the sum of the 2011, 2012, and 2013 numbers of deaths (2, 7, and 8) respectively and the denominator is the average of the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by U.S. Census Bureau, American FactFinder. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

3. **Field Name:** **2012**

Field Note:
Data on deaths are taken from MDPH Vital Records for calendar years 2010 - 2012. This includes the most recent years of data available. 2012 data are still preliminary and subject to change in the final file. Rates are calculated as rolling 3-year averages. (I.e. the 2012 numerator is the sum of the 2010, 2011, and 2012 numbers of deaths (4, 2, and 2) respectively and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

4. **Field Name:** **2011**

Field Note:
Data on deaths are taken from MDPH Vital Records for calendar years 2009 - 2011. 2011 data are now final; there was no change from the preliminary file. Rates are calculated as rolling 3-year averages. (I.e. the 2011 numerator is the sum of the 2009, 2010, and 2011 numbers of deaths (8, 4, and 2) respectively and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

Data Alerts: None

NPM 11 - The percent of mothers who breastfeed their infants at 6 months of age.

	2011	2012	2013	2014	2015
Annual Objective	50.5	56.8	57.0	58.0	54.0
Annual Indicator	56.8	56.8	53.7	53.7	
Numerator					
Denominator					
Data Source	CDC, NIS	CDC, NIS	CDC, NIS	CDC, NIS	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
Data Source: CDC National Immunization Survey (NIS) data for the 2012 birth cohort and beyond have not been released. We have estimated a similar rate to that of the 2011 birth cohort. Massachusetts WIC data for October – December 2014 shows a statewide breastfeeding initiation rate of 79%, a 3 month duration rate of 41% and a 6 month duration rate of 30%. Rates for exclusive breastfeeding were 13% at 3 months and 10% at 6 months. 2012 Massachusetts PRAMS data (the most recent available) showed that 86.8% of respondents reported any breastfeeding (comparable to the birth certificate data), and above the HP 2020 Target of 81.9%. 78.2% reported any breastfeeding (exclusive or with complementary foods) for at least 4 weeks and 70.4% for at least 8 weeks. All of these rates are improvements from the previous PRAMS report. Exclusive breastfeeding rates were not collected on the 2012 PRAMS.

2. **Field Name:** **2013**

Field Note:
Data Source: CDC National Immunization Survey (NIS) data for the 2011 birth cohort (http://www.cdc.gov/breastfeeding/pdf/2014breastfeedingreportcard.pdf) The 2011 cohort rates are the first based on combined landline and cellular telephone samples (“dual-frame sample”). The Massachusetts rate for the 2010 cohort was 62.4%, with a margin of erroe of +/- 8.4 % points based on a 95% confidence interval. The 2011 rate is within that margin of error and further data from dual-frame surveys will be needed to re-establish trend lines. Massachusetts WIC data for October – December 2013 shows a statewide breastfeeding initiation rate of 78%, a 3 month duration rate of 39% and a 6 month duration rate of 28%, unchanged from the previous year.

3. **Field Name:** **2012**

Field Note:
Data Source: The CDC National Immunization Survey data for the 2011 birth cohort have not been released. We have estimated a similar rate to that of the 2009 birth cohort.

Massachusetts WIC data for October – December 2012 shows a statewide breastfeeding initiation rate of 77%, a 3 month duration rate of 40% and a 6 month duration rate of 27%.

4.	**Field Name:**	**2011**

Field Note:
Data Source: The CDC National Immunization Survey data for the 2010 birth cohort have not been released. We have estimated a similar rate to that of the 2009 birth cohort (see 2010 data and Note). We have modified our outyear projections as well.

The 2011 PedNSS report will be the last produced by the CDC, as both the PedNSS and PNSS data systems are being discontinued. In the 2011 PedNSS report, breastfeeding at 6 months for WIC clients was 27.6%, a slight improvement from the 2010 PedNSS data.

Massachusetts WIC data for October – December 2011 shows a statewide breastfeeding initiation rate of 76%, a 3 month duration rate of 40% and a 6 month duration rate of 30%.

Data Alerts: None

NPM 12 - Percentage of newborns who have been screened for hearing before hospital discharge.

	2011	2012	2013	2014	2015
Annual Objective	99.2	99.4	99.2	99.2	99.3
Annual Indicator	99.2	99.1	99.1	99.3	
Numerator	72,914	72,343	71,573	71,653	
Denominator	73,513	72,976	72,201	72,148	
Data Source	Vital Records &. Child Hearing Data System	Vital Records &. Child Hearing Data System	Vital Records &. Child Hearing Data System	Vital Records &. Child Hearing Data System	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
Pre-discharge screening rates as tracked by the Childhood Hearing Data System (CHDS). The numerator and denominator are subject to further adjustment based on the final, closed 2014 birth file. The denominator of live births has been reduced by the 258 infants who died prior to screening. The screening rate slightly less than 100% reflects the small number of parents who refuse the screening and unknown/missed screens. The majority of those not screened are unknown or missed screens, including those missed due to transfers.

2. **Field Name:** **2012**

Field Note:
Pre-discharge screening rates as tracked by the Childhood Hearing Data System (CHDS). The numerator and denominator are subject to further adjustment based on the final, closed 2012 birth file, which is not yet available. Screening rates are slightly less than 100% and will remain so due to a small number of parents who refuse the screening, infants who died prior to screening (228 in 2012), and unknown/missed screens. The majority of those not screened are unknown or missed screens, including those missed due to transfers.
Our goal – which is reflected in our performance objectives through 2018 -- is to continue to reduce the unknown/missed number to close to zero, leaving only refusals and deaths prior to screening as unscreened.

3. **Field Name:** **2011**

Field Note:
Pre-discharge screening rates as tracked by the Childhood Hearing Data System (CHDS). The numerator and denominator are now based on the final, closed 2011 birth file.
Screening rates are slightly less than 100% and will remain so due to a small number of parents who refuse the screening, infants who died prior to screening (244 in 2011), and unknown/missed screens. The majority of those not screened are unknown or missed screens, including those missed due to transfers.

Data Alerts: None

NPM 13 - Percent of children without health insurance.

	2011	2012	2013	2014	2015
Annual Objective	0.5	0.2	1.5	1.0	1.5
Annual Indicator	1.9	0.1	0.8	1.5	
Numerator					
Denominator					
Data Source	MA Ctr for Hlth Inform. & Analysis	Mass. BRFSS	Mass. BRFSS	Mass. BRFSS	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
Data Source: Annual data from the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS). The 98.5% insured rate has a confidence interval of 96.2% to 100%. This is consistent with the 2012/2013 National Survey of Children's Health (NSCH) which found that 98.5% of children (C.I. of 98.2% – 98.8%) had health insurance of some kind at the time of the survey. The impact of the Massachusetts Health Care Reform Law is clearly demonstrated in the virtual elimination of uninsured children in the Commonwealth, even prior to the full implementation of the Affordable Care Act.

2. **Field Name:** **2013**

Field Note:
Data Source: Annual data from the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS). The 99.2% insured rate (uninsured rate of 0.8%) has a confidence interval of 98.5% to 99.8%. This is consistent with the 2011/2012 National Survey of Children's Health (NSCH) which found that 99.0% of children (C.I. of 98.3% – 99.6%) had health insurance of some kind at the time of the survey.

3. **Field Name:** **2012**

Field Note:
Data Source: Data from an annual Massachusetts Center for Health Information and Analysis (CHIA) household survey are no longer available. Instead, we again are using annual data from the Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS) as our primary source for this measure. The 99.2% insured rate (uninsured rate of 0.8%) has a confidence interval of 98.5% to 99.8%. This is consistent with the 2011/2012 National Survey of Children's Health (NSCH) which found that 99.0% of children (C.I. of 98.3% – 99.6%) had health insurance of some kind at the time of the survey.

4. **Field Name:** **2011**

Field Note:
Data source: Massachusetts Center for Health Information and Analysis (CHIA) (formerly the Division of Health Care Finance and Policy (HCFP)). “Massachusetts Household and employer Insurance Surveys: Results form 2011.” January 2013. (www.mass.gov/chia). The 2011 estimated uninsured rate for children (under age 19) rose to 1.9% from 0.2% in the 2010 survey, back to the level found in the 2009 survey. This estimate is significantly different from the prior year at the 5% level, two-tailed test. However the 2011 rate is more in line with earlier years, so we believe that the just under 2% uninsured is the more accurate finding and have adjusted our projections.
In comparison, BRFSS survey results for calendar year 2012 found only 0.8% of children without any kind of health coverage.

The impact of the Massachusetts Health Care Reform Law is clearly demonstrated in the virtual elimination of uninsured children in the Commonwealth, even prior to the implementation of the Affordable Care Act.

Data Alerts: None

NPM 14 - Percentage of children, ages 2 to 5 years, receiving WIC services with a Body Mass Index (BMI) at or above the 85th percentile.

	2011	2012	2013	2014	2015
Annual Objective	32.0	33.0	32.0	27.0	27.0
Annual Indicator	27.5	32.9	27.5	28.2	
Numerator	14,431	13,814	14,339	13,907	
Denominator	52,468	41,989	52,147	49,276	
Data Source	Mass. WIC Program data	Mass. WIC Program data	Mass. WIC Program data	Mass. WIC Program data	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d NPMs:

1.	**Field Name:**	**2014**
	Field Note: Data Source: The rate is calculated from automatic BMI assessments done by the WIC Eos data system, April – June 2014.	
2.	**Field Name:**	**2013**
	Field Note: Data Source: The rate is calculated from automatic BMI assessments done by the WIC Eos data system, April – June 2013.	
3.	**Field Name:**	**2012**
	Field Note: Data Source and Issues: There was a change in the risk definition as of June 1, 2013. At that time, only obesity (=95%ile) data for 2-5 year olds was available from the MA WIC Eos data system. A system is being developed to analyze the data extract previously sent to CDC for PedNSS. We are also awaiting USDA PC 2012 data. Our 13.9% average obesity rate for the time period of July 2012 – March 2013 is an improvement over the 16.4% reported in 2011. We are reporting one month of WIC data of children 2-5 years old with BMI greater than the 85th percentile.	
4.	**Field Name:**	**2011**
	Field Note: Data Source: Calendar year 2011 Massachusetts WIC Program PedNSS data. This is the final year for PedNSS data. The rate has not improved. For WIC children, 16.6% were overweight (>= 85th percentile and < 95th percentile) and another 16.4% were obese (>= 95th percentile).	

Data Alerts: None

NPM 15 - Percentage of women who smoke in the last three months of pregnancy.

	2011	2012	2013	2014	2015
Annual Objective	11.5	9.1	9.0	9.0	8.5
Annual Indicator	9.1	9.1	8.3	8.3	
Numerator					
Denominator					
Data Source	Mass. PRAMS	Mass. PRAMS	Mass. PRAMS	Mass. PRAMS	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

   Field Note:
   Data Source: Massachusetts PRAMS. 2014 PRAMS data are not yet available. We estimate the same rate as for 2012. Although the 2012 data cannot be changed in TVIS, the 2012 rate was 8.3%.

2. **Field Name:** **2013**

   Field Note:
   Data Source: Massachusetts PRAMS. 2013 PRAMS data are not yet available. We estimate the same rate as for 2012. Although the 2012 data cannot be changed in TVIS, the 2012 rate was 8.3%.

3. **Field Name:** **2012**

   Field Note:
   Data Source: Massachusetts PRAMS. 2012 PRAMS data are not yet available. We estimate the same rate as for 2011.

4. **Field Name:** **2011**

   Field Note:
   Data Source: Massachusetts PRAMS. 2011 PRAMS data are not yet available. We estimated a rate based on the average of 2009 and 2010 data. Third trimester smoking appeared to have gone down in 2010. Since the wording of the questions in 2010 was similar to that of 2009, we believe that the 2010 drop may due to a yearly variation. Additional years of data are needed to understand the direction of the trend.

Data Alerts: None

NPM 16 - The rate (per 100,000) of suicide deaths among youths aged 15 through 19.

	2011	2012	2013	2014	2015
Annual Objective	4.0	5.0	5.4	5.8	6.5
Annual Indicator	5.4	6.1	5.9	6.5	
Numerator	25	28	27		
Denominator	461,879	461,799	459,940		
Data Source	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
2014 death data are not available. See 2013 for the most recent preliminary data and see the Note for 2013 for data sources and other comments. We have estimated a rate in line with 2013 data and further adjusted our 2015 projection.

2. **Field Name:** **2013**

Field Note:
2013 death data are taken from MDPH Vital Records for calendar years 2011 - 2013. The 2013 data are still preliminary and subject to change in the final file. Rates are calculated as rolling 3-year averages. (I.e. the 2013 numerator is the average of the sum of the 2011, 2012, and 2013 numbers of deaths (27, 27, and 32 respectively) and the denominator is the average of the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the U.S. Census Bureau, Population Division, American FactFinder. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

3. **Field Name:** **2012**

Field Note:
2012 death data are taken from MDPH Vital Records for calendar years 2010 - 2012. The 2012 data are still preliminary and subject to change in the final file. Rates are calculated as rolling 3-year averages. (I.e. the 2012 numerator is the sum of the 2010, 2011, and 2012 numbers of deaths (30, 27, and 27 respectively) and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

As the annual number of suicide deaths rose sharply in 2010 and has remained higher than the numbers in 2007-2009, the 3-year rolling average rose this year, as compared with years prior to 2011. Because of the continued higher number of deaths, and their continuing effect on the next two years, we have modified our projections and are predicting only slight improvement from the current rate through 2018.

4.	**Field Name:**	**2011**

Field Note:
2011 death data are taken from MDPH Vital Records for calendar years 2009 - 2011. The 2011 data are still preliminary and subject to change in the final file. Rates are calculated as rolling 3-year averages. (I.e. the 2011 numerator is the sum of the 2009, 2010, and 2011 numbers of deaths (19, 30, and 27 respectively) and the denominator is the sum of the most recent Massachusetts population estimates for the age group for the same years, as provided by the MDPH Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

Data Alerts: None

NPM 17 - Percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.

	2011	2012	2013	2014	2015
Annual Objective	87.5	87.6	87.0	89.0	88.0
Annual Indicator	79.1	88.9	89.4	87.8	
Numerator	769	726	781	715	
Denominator	972	817	874	814	
Data Source	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
Data on VLBW, birth hospitals, and resident births are from MDPH Vital Records for calendar year 2014. The nine Level III units are Baystate Medical Center, Beth Israel Deaconess, Boston Medical Center, Brigham and Women's, Massachusetts General Hospital, Medical Center of Central Massachusetts, New South Shore Hospital, Tufts Medical Center and Caritas/St. Elizabeth's Medical Center. Data include only those resident births that occurred in-state at Massachusetts hospitals, as the birth file used for analysis does not contain the necessary information (specific hospital of birth) for births to residents at out-of-state facilities to be categorized by Level III facility. In one region of the state enough births occur out-of-state (in Rhode Island) to distort the statistic otherwise.

2. **Field Name:** **2013**

Field Note:
Data on VLBW, birth hospitals, and resident births are from MDPH Vital Records for calendar year 2013. The nine Level III units are Baystate Medical Center, Beth Israel Deaconess, Boston Medical Center, Brigham and Women's, Massachusetts General Hospital, Medical Center of Central Massachusetts, New South Shore Hospital, Tufts Medical Center and Caritas/St. Elizabeth's Medical Center. Data include only those resident births that occurred in-state at Massachusetts hospitals, as the birth file used for analysis does not contain the necessary information (specific hospital of birth) for births to residents at out-of-state facilities to be categorized by Level III facility. In one region of the state enough births occur out-of-state (in Rhode Island) to distort the statistic otherwise.

3. **Field Name:** **2012**

Field Note:
Data on VLBW, birth hospitals, and resident births are from MDPH Vital Records for calendar year 2012, the most recent data available. The nine Level III units are Baystate Medical Center, Beth Israel Deaconess, Boston Medical Center, Brigham and Women's, Massachusetts General Hospital, Medical Center of Central Massachusetts, New South Shore Hospital, Tufts Medical Center and Caritas/St. Elizabeth's Medical Center. Data include only those resident births that occurred in-state at Massachusetts hospitals, as the birth file used for analysis does not contain the necessary information (specific hospital of birth) for births to residents at out-of-state facilities to be categorized by Level III facility. In one region of the state enough births occur out-of-state (in Rhode Island) to distort the statistic otherwise.

The rate in 2012 returned to the 2010 level and we are again well above the HP 2020 target of 83.7%. This suggests that the dip in the rate for 2011 was in fact due at least in part to coding issues and missing data.

4.	**Field Name:**	**2011**

Field Note:
Data on VLBW, birth hospitals, and resident births are from MDPH Vital Records for calendar year 2011, the most recent data available. The nine Level III units are Baystate Medical Center, Beth Israel Deaconess, Boston Medical Center, Brigham and Women's, Massachusetts General Hospital, Medical Center of Central Massachusetts, New South Shore Hospital, Tufts Medical Center and Caritas/St. Elizabeth's Medical Center. Data include only those resident births that occurred in-state at Massachusetts hospitals, as the birth file used for analysis does not contain the necessary information (specific hospital of birth) for births to residents at out-of-state facilities to be categorized by Level III facility. In one region of the state enough births occur out-of-state (in Rhode Island) to distort the statistic otherwise.
The rate apparently dropped significantly in 2011 and now puts us below the HP 2020 target of 83.7%.

However, the preliminary 2011 birth file just became available and is comprised of data from both the old electronic birth certificate (EBC) system and the new VIP system (2003 revision). We believe the apparent drop is due to the substantially increased percent of files with missing data in 2011; this is bringing down the calculated rate. We are investigating whether the drop is due to missing data or other coding issues. If the new rate is accurate, further analysis will be done as to where the reduction of Level III deliveries occurred and why.

Data Alerts: None

NPM 18 - Percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.

	2011	2012	2013	2014	2015
Annual Objective	80.0	82.5	82.0	81.0	75.0
Annual Indicator	76.3	80.4	78.7	70.2	
Numerator	55,968	58,572	56,399	50,562	
Denominator	73,326	72,828	71,618	71,999	
Data Source	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d NPMs:

1. **Field Name:** **2014**

Field Note:
Data are from MDPH Vital Records for calendar year 2014. The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

2. **Field Name:** **2013**

Field Note:
Data are from MDPH Vital Records for calendar year 2013. The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

3. **Field Name:** **2012**

Field Note:
Data are from MDPH Vital Records for preliminary calendar year 2012. This is the most recent year of data available.
The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.
The improvement in the rate from 2011 suggests that at least some of the drop was due to the level of missing data, which have since been reduced. Massachusetts is again above the HP 2020 target of 77.9%.

4. **Field Name:** **2011**

Field Note:
Data are from MDPH Vital Records for preliminary calendar year 2011. This is the most recent year of data available.
The percentages shown differ from those published elsewhere, due to how missing data are handled. The MCHB definition of the denominator is specified as all resident births during the referenced year. In MassCHIP and most Massachusetts publications (such as Massachusetts Births), percentages are reported only for cases where information is known (i.e. the denominator excludes births for which data on the variable are missing). Using the MCHB definition reduces the calculated percentage slightly.

The percentage of births receiving first trimester care fell unexpectedly in 2011 and was below the HP 2020 target of 77.9%. However, the 2011 birth file just became available and is comprised of data from both the old electronic birth certificate (EBC) system and the new VIP system (2003 revision). In the new VIP data, 9.3% of the records are missing the date that prenatal care began; the old EBC had missing data for only about 1% of the records. The increase in missing data has artificially lowered the calculated rate, as the denominator remains the same. As the data are analyzed further, we will be able to determine if there was an actual drop in early prenatal care and if so, where the lack of first trimester care is occurring and what factors it is associated with.

Data Alerts: None

Form 10d
State Performance Measures (SPMs) (Reporting Year 2014 & 2015)

State: Massachusetts

SPM 1 - The percentage of pregnancies among women age 18 and over that are intended.

	2011	2012	2013	2014	2015
Annual Objective	83.4	83.5	75.3	78.0	80.9
Annual Indicator	83.4	74.7	74.7	80.9	
Numerator					
Denominator					
Data Source	Mass. BRFSS bi-annual survey	Mass. BRFSS bi-annual survey	Mass. BRFSS	Mass. BRFSS	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d SPMs:

1.	**Field Name:**	**2014**
	Field Note: The data for this measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). The 2014 estimate is from the most recent BRFSS in 2014.	
2.	**Field Name:**	**2013**
	Field Note: There are no updated data for 2013. The data for this measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). The 2013 estimate is from the 2012 survey data.	
3.	**Field Name:**	**2012**

Field Note:
The data for this measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). The 2012 estimate is from the most recent BRFSS in 2012. See the Detail Sheet (in Form 16) for this measure for definitions, data source and issues, and a discussion of its significance. There may be two reasons for the decrease in the percentage of pregnancies that are planned rate for unplanned pregnancy compared to the previous survey in 2010. The sample size is slightly smaller in 2012 than in 2010 (264 vs. 305 for women 18-44); this affects the precision: in 2010 18.6% unplanned (Confidence Interval 13.1%--24.0%) and in 2012 24.7% (Confidence Interval 15.1%-34.3%). With the overlapping CI's, the rates are not statistically significantly different. More importantly a new weighting methodology was implemented in 2011 and 2012. The new methodology adjusts the sample to income, education, marital status, race, race by age, while the old weighting method adjusted to sex, age, and race only. We believe that better weighting (e.g. proportionality to population determinants) is the main cause of the apparent change and means that the 2010 and 2012 are not comparable. Based on the new methodology, we have adjusted our projected target rates through 2017.

4.	**Field Name:**	**2011**

Field Note:
There are no updated data for 2011. The data for this measure are available every other year from the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). The 2011 estimate is from the 2010 survey data. See the Detail Sheet (in Form 16) for this measure for definitions, data source and issues, and a discussion of its significance.

Data Alerts: None

SPM 2 - Development and Implementation of Social Connectedness Measures across the Lifespan for Three Population Groups.

	2011	2012	2013	2014	2015
Annual Objective	1.0	2.0	10.0	17.0	20.0
Annual Indicator					
Numerator	2	2	10	23	
Denominator	20	20	20	20	
Data Source	Title V program assessment	Title V prog	Title V prog	Title V prog	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

Field Note:
This measure is a Checklist with a maximum possible score of 45. The scored checklist is available upon request. The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY14. Because the TVIS software cannot support a total scale score of more than 20, the display of the 2014 denominator is not accurate and should be 45; the numerator is correct. The Annual Indicator for 2015 is 26, not 20.

2. **Field Name:** **2013**

Field Note:
This measure is a Checklist with a maximum possible score of 45. The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY13. Because the TVIS software cannot support a total scale score of more than 20, the display of the 2013 denominator is not accurate and should be 45; the numerator is correct.

3. **Field Name:** **2012**

Field Note:
This measure, adopted last year, is a Checklist with a maximum possible score of 45, is shown as an attachment to the “Last Year’s Accomplishments” subsection of the narrative for this Measure.

The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY13. Scoring projections for FY13-FY17 were also established or modified. See Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for the measure for definitions and discussions of its significance and development. The language of some of the components was revised this year for clarity on how improvements are to be scored each year.

Because the TVIS software cannot support a total scale score of more than 20, the display of the 2012 denominator is not accurate and should be 45; the numerator is correct.

4.	**Field Name:**	**2011**

Field Note:
This is a new measure – one which replaces a previous temporary one whose purpose was to develop a permanent MCH State Performance Measure related to social connectediness across the lifespan. That goal was accomplished during FY11. The new measure, which is a Checklist with a maximum possible score of 45, is shown as an attachment to the “Last Year’s Accomplishments” subsection of the narrative for this Measure.

The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY11 and FY12. Scoring projections for FY12-FY16 were also developed. See Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for the measure for definitions and discussions of its significance and development.

Because we cannot change the Annual Performance Objective for FY11 in TVIS, the value shown (1) refers to the initial measure scoring; it should read as “2.” Because the TVIS software also cannot support a total scale score of more than 20, the display of the 2011 denominator is not accurate and should be 45; the numerator is correct.

Data Alerts: None

SPM 4 - The percentage of women with a recent live birth reporting that they had their teeth cleaned recently (within 1 year before, during, or after pregnancy).

	2011	2012	2013	2014	2015
Annual Objective	73.1	75.0	75.5	75.5	77.0
Annual Indicator	75.0	75.0	76.9	76.9	
Numerator					
Denominator					
Data Source	Mass. PRAMS	Mass. PRAMS	Mass PRAMS	Mass PRAMS	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

   Field Note:
   Data Source: Massachusetts PRAMS. 2014 PRAMS data are not yet available. We estimated a rate based on 2012 data. Because PRAMS results are reported as estimates based on weighted survey data, only the percent is reported, without numerators and denominators. Although the 2012 data cannot be changed in TVIS, the correct 2012 rate was 76.9%.

2. **Field Name:** **2013**

   Field Note:
   Data Source: Massachusetts PRAMS. 2013 PRAMS data are not yet available. We estimated a rate based on 2012 data. Because PRAMS results are reported as estimates based on weighted survey data, only the percent is reported, without numerators and denominators. Although the 2012 data cannot be changed in TVIS, the correct 2012 rate was 76.9%.

3. **Field Name:** **2012**

   Field Note:
   Data Source: Massachusetts PRAMS. 2012 PRAMS data are not yet available. We estimated a rate based on 2009 and 2010 data.

4. **Field Name:** **2011**

   Field Note:
   Data Source: Massachusetts PRAMS. 2011 PRAMS data are not yet available. We estimated a rate based on 2009 and 2010 data. Because PRAMS results are reported as estimates based on weighted survey data, only the percent is reported, without numerators and denominators.

Data Alerts: None

SPM 5 - The percentage of School Based Health Center clients for whom an assessment for intimate partner/teen dating/sexual violence was done.

	2011	2012	2013	2014	2015
Annual Objective	32.0	30.0	35.0	60.0	73.0
Annual Indicator	28.9	25.8	51.4	72.4	
Numerator	2,769	2,123	4,982	5,606	
Denominator	9,592	8,229	9,693	7,740	
Data Source	MA SBHC database	MA SBHC database	MA SBHC database	MA SBHC database	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

Field Note:
Data Source: Massachusetts School Based Health Center database. The data reflect only those enrolled SBHC clients age 11 and above. Beginning in FY13, one of the contract performance measures for the newly procured SBHC contracts requires that “75% of SBHC clients age 11 years or older seen by the medical provider (physician, nurse practitioner, physician’s assistant) will be assessed at least once during the school year for healthy relationships and receive an intervention.” These assessment data are reported to MDPH on a bi-annual basis and will be instrumental in determining contract compliance/performance. In FY14, the indicator substantially surpassed our objective target of 60% and suggests that virtually all program sites are meeting this standard.

2. **Field Name:** **2013**

Field Note:
Data Source: Massachusetts School Based Health Center database. The data reflect only those enrolled SBHC clients age 11 and above.

3. **Field Name:** **2012**

Field Note:
Data Source: Massachusetts School Based Health Center database. The data reflect only those enrolled SBHC clients age 13 and above.
We are not clear why the percent of students receiving assessments fell in FY2012, despite extensive training and support activities.
Beginning in FY13, one of the contract performance measures for the newly procured SBHC contracts requires that “75% of SBHC clients age 11 years or older seen by the medical provider (physician, nurse practitioner, physician’s assistant) will be assessed at least once during the school year for healthy relationships and receive an intervention”. These assessment data will be reported to MDPH on a bi-annual basis and will be instrumental in determining contract compliance/performance. Therefore future reporting will be against different criteria.

4. **Field Name:** **2011**

Field Note:
Data Source: Massachusetts School Based Health Center database. The data reflect only those enrolled SBHC clients age 13 and above.

Data Alerts: None

SPM 6 - Data-driven promotion of healthy weight, physical activity and nutrition for 3 populations: children ages 0-5, children and youth ages 6-17, and women of reproductive age.

	2011	2012	2013	2014	2015
Annual Objective	15.0	20.0	20.0	20.0	20.0
Annual Indicator					
Numerator	25	31	36	41	
Denominator	20	20	20	20	
Data Source	Title V prog	Title V prog	Title V prog	Title V prog	
Provisional Or Final ?				Final	

Field Level Notes for Form 10d SPMs:

1.	**Field Name:**	**2014**
	Field Note: This measure is a Checklist with a maximum possible score of 45. The scored checklist is available upon request. The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY14. Because the TVIS software cannot support a total scale score of more than 20, the 2014 display is not fully accurate; the numerator is correct but the denominator should be 45. The correct target for 2015 is 42, not 20.	
2.	**Field Name:**	**2013**
	Field Note: This measure is a Checklist with a maximum possible score of 45. The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY13. Because the TVIS software cannot support scale scores of more than 20, the 2013 display is not accurate. The numerator should be 36 and the denominator should be 45.	
3.	**Field Name:**	**2012**

Field Note:
This measure was revised again for 2012. While the overall measure did not change, some of the details of scoring checklist and the scoring system were modified. Upon review of the scoring checklist, the Title V program staff who convened to score this measure felt that the “Implementation of Strategic Plan” section should be combined with the “Research Sharing and Strategic Planning” section and that a strategic plan ready for implementation should be the final step in the overall process. As such, the “Implementation of Strategic Plan” section was eliminated from the scoring for each of the three population groups. The new maximum score / denominator for this measure was thus been reduced and is now 45.

The measure was again scored by Title V program staff assessments of activities and the progress of a working group during FY12. See Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for the measure for definitions and discussions of its significance and development.

Note that the FY12 denominator for the old measure (20) was already entered into TVIS, along with the FY12 Objective for it (20); please ignore those numbers. The denominator for FY12 should be 45 and the Annual Performance Objective should be 31.

4.	**Field Name:**	**2011**

Field Note:
This is a revised measure – one which replaces a previous temporary one whose purpose was to develop a permanent MCH State Performance Measure related to healthy weight. That goal was accomplished during FY11. The new measure, which is also a Checklist with a maximum possible score of 60, is shown as an attachment to the “Last Year’s Accomplishments” subsection of the narrative for this Measure.

The measure was scored by Title V program staff assessments of activities and the progress of a working group during FY11 and FY12. Scoring projections for FY12-FY16 were also developed. See Notes to Form 16 (Detail Sheet) for details on components and scoring. See the Detail Sheet (in Form 16) for the measure for definitions and discussions of its significance and development.

Note that the FY11 denominator for the old measure (20) was already entered into TVIS, along with the FY11 Objective for it (15); please ignore those numbers. The denominator for FY11 should be 60 and the Annual Performance Objective should be 25.

Note that the FY11 denominator for the old measure (20) was already entered into TVIS, along with the FY11 Objective for it (15); please ignore those numbers. The denominator for FY11 should be 60 and the Annual Performance Objective should be 25.

Data Alerts: None

SPM 7 - The rate (per 10,000) of hospitalizations due to asthma among Black, non-Hispanic and Hispanic children aged 0-4 years.

	2011	2012	2013	2014	2015
Annual Objective	71.0	70.0	65.0	60.0	40.0
Annual Indicator	65.3	58.5	39.9	40.7	
Numerator	639	575	415		
Denominator	97,784	98,293	104,075		
Data Source	MA UHDDS	MA UHDDS	MA UHDDS	MA UHDDS	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

   Field Note:
   Data Source: 2014 Uniform Hospital Discharge Data System data are not available. We have estimated a similar rate to that for 2013. See 2013 for the most recent actual data and see the Note for 2013 for data sources and other comments. The hospitalization rate for these high risk populations remained unchanged in 2013 and substantially lower than in 2012. We have adjusted our projection for 2015 accordingly.

2. **Field Name:** **2013**

   Field Note:
   Data Source: Massachusetts Uniform Hospital Discharge Data System (UHDDS), 2013, the most recent available. The 2013 denominator is from population estimates for Massachusetts, as provided by the U.S. Census Bureau, Population Division. American FactFinder. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

3. **Field Name:** **2012**

   Field Note:
   Data Source: Massachusetts Uniform Hospital Discharge Data System (UHDDS), 2012, the most recent available. The 2012 denominator is from population estimates for Massachusetts, as provided by the Bureau of Health Information, Statistics, Research and Evaluation. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

4. **Field Name:** **2011**

   Field Note:
   Data Source: Massachusetts Uniform Hospital Discharge Data System (UHDDS), 2011. The resulting denominators and age-specific rates may differ from those previously reported or published elsewhere.

Data Alerts: None

SPM 8 - The rate (per 100,000) of unintentional motor vehicle traffic occupant deaths among youth aged 15-19 years.

	2011	2012	2013	2014	2015
Annual Objective	9.3	4.5	5.6	4.5	3.5
Annual Indicator	5.7	4.5	3.3	3.3	
Numerator	26	21	15		
Denominator	459,623	463,017	457,179		
Data Source	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	Mass. Vital Records	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

   Field Note:
   Data Source: 2014 death data are not available. See 2013 for the most recent data and see the Note for 2013 for data sources and other comments.

2. **Field Name:** **2013**

   Field Note:
   Data Source: 2013 death data are taken from MDPH Vital Records for the calendar year 2013. The numerator is all MV-traffic deaths to occupants or unspecified persons. The denominator is the 2013 Massachusetts population estimate for the age group for the same year. The resulting denominator and age-specific rates may differ from those previously reported or published elsewhere. Note that this State Performance Measure only measures OCCUPANT deaths, not all motor-vehicle related ones.

3. **Field Name:** **2012**

   Field Note:
   Data Source: 2012 death data are taken from MDPH Vital Records for the calendar year 2012. The 2012 data are still preliminary and subject to change in the final file. The numerator is all MV-traffic deaths to occupants or unspecified persons in the specified age group. The denominator is the 2012 Massachusetts population estimate for the age group for the same year. The resulting denominator and age-specific rates may differ from those previously reported or published elsewhere.

4. **Field Name:** **2011**

Field Note:
Data Source: 2011 death data are taken from MDPH Vital Records for the calendar year 2011. The final 2011 data file added one death to the preliminary number. This did not change the rate. The numerator is all MV-traffic deaths to occupants or unspecified persons in the specified age group. The denominator is the 2011 Massachusetts population estimate for the age group for the same year. The resulting denominator and age-specific rates may differ from those previously reported or published elsewhere.

Note that this State Performance Measure is not the same as Health Status Indicator #03C, and it has been modified from our original one proposed in 2008. Unlike H.S.I. #03C, it only measures OCCUPANT deaths, not all motor-vehicle related ones. And we have changed our original age range from 15-24 to 15-19, to focus on adolescent drivers and occupants. For interpretation of any trend, the rate for 2007 was 14.2 per 100,000 persons.

Data Alerts: None

SPM 9 - The percentage of high school students having missed a school day due to feeling unsafe at or on the way to school.

	2011	2012	2013	2014	2015
Annual Objective	3.8	4.8	4.6	3.6	3.5
Annual Indicator	4.8	4.8	3.6	3.6	
Numerator					
Denominator					
Data Source	Mass. YRBS Bi-annual Survey	Mass. YRBS Bi-annual Survey	Mass. YRBS Bi-annual Survey	Mass. YRBS Bi-annual Survey	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

Field Note:
This measure is based on information from the Massachusetts Youth Risk Behavioral Survey (MYRBS). Because the MYRBS results are reported as population-based estimates based on weighted survey data, only the percent will be reported, without numerators and denominators. Because the survey is conducted every other year, there are no new data for FY14 and the results of the 2013 survey are reported.

2. **Field Name:** **2013**

Field Note:
This measure is based on information from the Massachusetts Youth Risk Behavioral Survey (MYRBS). Because the MYRBS results are reported as population-based estimates based on weighted survey data, only the percent will be reported, without numerators and denominators. The survey is conducted every other year and the 2013 survey results are reported. The percent reporting missing school due to feeling unsafe at or on the way to school decreased from the previous survey. The 95% Confidence Interval for the new data is 2.8% - 4.5%, suggesting that this is a significant improvement from the 2011 rate. We have adjusted our projections accordingly.

3. **Field Name:** **2012**

Field Note:
This measure is based on information from the Massachusetts Youth Risk Behavioral Survey (MYRBS). Because the MYRBS results are reported as population-based estimates based on weighted survey data, only the percent will be reported, without numerators and denominators. Because the survey is conducted every other year, there are no new data for FY12 and the results of the 2011 survey are reported.

4. **Field Name:** **2011**

Field Note:
This measure is based on information from the Massachusetts Youth Risk Behavioral Survey (MYRBS). Because the MYRBS results are reported as population-based estimates based on weighted survey data, only the percent will be reported, without numerators and denominators. The survey is conducted every other year and the 2011 survey results are reported.

Data Alerts: None

SPM 10 - The percentage of adolescents reporting no current use (in past 30 days) of either alcohol or illicit drugs.

	2011	2012	2013	2014	2015
Annual Objective	70.0	69.0	71.0	73.0	73.0
Annual Indicator	68.6	68.6	73.3	73.3	
Numerator					
Denominator					
Data Source	MA bi-annual Youth Hlth Survey	MA bi-annual Youth Hlth Survey	MA bi-annual Youth Hlth Survey	MA bi-annual Youth Hlth Survey	
Provisional Or Final ?				Provisional	

Field Level Notes for Form 10d SPMs:

1. **Field Name:** **2014**

Field Note:
This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the survey is conducted every other year, there are no new data for FY14 and the results of the 2013 survey are reported.

2. **Field Name:** **2013**

Field Note:
This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the MYHS results are reported as population-based estimates based on weighted survey data, only the percent is reported, without numerators and denominators. The survey is conducted every other year and the 2013 survey results are reported. There were some minor changes to the drug use section on YHS; the Confidence Interval is 71.1% - 75.4%. Illicit drug use asked about includes those in the HP 2010 definition (with the exception that hashish is not asked), plus specific questions about "club drugs," over-the-counter drugs to get high; use without a prescription of steroids, Ritalin or Oxycontin; and drugs from prescriptions that weren't his/her own. In 2004 on MYHS, over half (59%) of Massachusetts middle and high school students reported no alcohol or drug use. This became the baseline for this state measure.

3. **Field Name:** **2012**

Field Note:
This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the MYHS results are reported as population-based estimates based on weighted survey data, only the percent is reported, without numerators and denominators. Because the survey is conducted every other year, there are no new data for FY12 and the results of the 2011 survey are reported.

4. **Field Name:** **2011**

Field Note:
This measure is based on information from the Massachusetts Youth Health Survey (MYHS). Because the MYHS results are reported as population-based estimates based on weighted survey data, only the percent is reported, without numerators and denominators. The survey is conducted every other year and the 2011 survey results are reported.

Data Alerts: None

Form 11
Other State Data

State: Massachusetts

While the Maternal and Child Health Bureau (MCHB) will populate the data elements on this form for the States, the data are not available for the FY 2016 application and FY 2014 annual report.

State Action Plan Table

State: Massachusetts

Please click the link below to download a PDF of the State Action Plan Table.
State Action Plan Table