

TITLE V MATERNAL AND CHILD HEALTH SERVICES BLOCK GRANT TO STATES PROGRAM

TECHNICAL ASSISTANCE RESOURCES

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APPENDIX A: HISTORY AND ADMINISTRATIVE BACKGROUND

As one of the largest Federal block grant programs, Title V is a key source of support for promoting and improving the health of all the nation's mothers and children. When Congress passed the Social Security Act in 1935, it contained the initial key landmark legislation which established Title V. This legislation is the origin of the federal government's pledge of support to states and their efforts to extend and improve health and welfare services for mothers and children throughout the nation. To date, the Title V federal-state partnership continues to provide a dynamic program to improve the health of all mothers and children, including children with special health care needs (CSHCN).

I. The Maternal and Child Health Bureau

The Maternal and Child Health Bureau (MCHB) is the principal focus within the Health Resources and Services Administration (HRSA) for all Maternal and Child Health (MCH) activities within the Department of Health and Human Services (HHS). MCHB's mission is to improve the health and well-being of America's mothers, children, and families. We envision an America where all mothers, children, and families thrive and reach their full potential. To achieve its mission, MCHB directs resources towards a combination of integrated public health services and coordinated systems of care for the MCH population.

Within the MCHB, the Division of State and Community Health (DSCH) has the administrative responsibility for the *Title V MCH Services Block Grant to States Program* (hereafter referred to as the MCH Block Grant). DSCH is committed to being the Bureau's main line of communication with states and communities, in order to consult and work closely with both of these groups and others who have an interest in and contribute to the provision of a wide range of MCH programs and community-based service systems.

A. Maternal and Child Health Services Block Grant (Title V)

Under Title V, MCHB administers a Block Grant and competitive Discretionary Grants. The purpose of the MCH Block Grant is to create federal/state partnerships in 59 states and jurisdictions for developing service systems that address MCH challenges, such as:

- Reducing infant mortality;
- Providing comprehensive care for all women before, during, and after pregnancy and childbirth;
- Providing preventive and primary care services for infants, children, and adolescents;
- Providing comprehensive care for children and adolescents with special health care needs;
- Increasing immunization for all children;
- Assuring access to care for all mothers and children; and
- Providing and promoting family-centered, community-based, coordinated care (including care coordination services for children with special health care needs) and facilitating the development of community-based systems of services for such children and their families.

Under Title V, MCHB also administers two types of Federal Discretionary Grants, Special Projects of Regional and National Significance (SPRANS) and Community Integrated Service Systems (CISS) grants. SPRANS funds projects (through grants, contracts, and other mechanisms) in research, training, genetic services and newborn screening/follow-up, sickle cell disease, hemophilia, and MCH improvement. CISS projects (through grants, contracts, and other mechanisms) seek to increase the capacity for service delivery at the local level and to foster formation of comprehensive, integrated, community level service systems for mothers and children.

In addition to SPRANS and CISS grants, MCHB administers the following categorical programs:

- Emergency Medical Services for Children;
- Sickle Cell Disease Treatment Demonstration Program;
- Healthy Start Initiative;
- Universal Newborn Hearing Screening;
- Heritable Disorder Program;
- Autism;
- Maternal, Infant, and Early Childhood Home Visiting Program;
- Poison Control Program;
- Pediatric Mental Health Care Access Program;
- Screening and Treatment for Maternal Depression and Related Behavioral Disorders Program;
- Family to Family Health Information Centers;
- Innovation for Maternal Health Program; and
- Integrated Services for Pregnant and Postpartum Women Program.

In recent years, some state Title V programs have begun to utilize the life course model as an organizing framework for addressing identified MCH needs. The life course approach points to broad social, economic, and environmental factors as underlying contributors to health and social outcomes. This approach also focuses on persistent inequalities in the health and well-being of individuals and how the interplay of risk and protective factors at critical points of time can influence an individual's health across his/her lifespan and potentially across generations.

B. Maternal and Child Health Block Grant (State Formula Grants)

Since its original authorization in 1935, Title V of the Social Security Act has been amended several times to reflect the increasing national interest in maternal and child health and well-being. One of the first changes occurred when Title V was converted to a block grant program as part of the Omnibus Budget Reconciliation Act (OBRA) of 1981. This change resulted in the consolidation of seven categorical programs into a single block grant. These programs included:

- Maternal and Child Health and Services for Children with Special Health Care Needs;
- Supplemental Security Income for children with disabilities;

- Lead-based paint poisoning prevention programs;
- Genetic disease programs;
- Sudden infant death syndrome programs;
- Hemophilia treatment centers; and
- Adolescent pregnancy grants.

Another significant change in the Title V MCH Block Grant came as a result of the Omnibus Budget Reconciliation Act (OBRA) of 1989, which specified new requirements for accountability. The amendments enacted under OBRA introduced stricter requirements for the use of federal funds and for state planning and reporting. Congress sought to balance the flexibility of the block grant with greater accountability, by requiring State Title V programs to report their progress on key MCH indicators and other program information. Thus, the block grant legislation emphasizes accountability while providing states with appropriate flexibility to respond to state-specific MCH needs and to develop targeted interventions and solutions for addressing them. This theme of assisting states in the design and implementation of MCH programs to meet state and local needs, while at the same time asking them to account for the use of federal/state Title V funds, was embodied in the requirements contained in the Guidance documents for the state MCH Block Grant Applications/Annual Reports.

In 1993 the Government Performance and Results Act (GPRA), Public Law 103-62, required federal agencies to establish measurable goals that could be reported as part of the budgetary process. For the first time, funding decisions were linked directly with performance. Among its purposes, GPRA is intended to "...improve Federal program effectiveness and public accountability by promoting a new focus on results, service quality, and customer satisfaction." GPRA requires each federal agency to develop comprehensive strategic plans, annual performance plans with measurable goals and objectives, and annual reports on actual performance compared to performance goals. The MCHB effort to respond to GPRA requirements coincided with other planned improvements to the MCH Block Grant Guidance. As a result, the MCH Block Grant Application/Annual Report and forms contained in the 1997 edition of the *Maternal and Child Health Services Title V Block Grant Program - Guidance and Forms for the Title V Application/Annual Report* served to ensure that the states and jurisdictions could clearly, concisely, and accurately tell their MCH "stories." This Application/Annual Report became the basis by which MCHB met its GPRA reporting requirements for the MCH Block Grant to States Program.

In 1996, the MCHB began a process of programmatic assessments and planning activities aimed at improving the Title V MCH Block Grant Application/Annual Report Guidance document for states. Since that time, the *Maternal and Child Health Services Title V Block Grant Program - Guidance and Forms for the Title V Application/Annual Report* (Guidance) has been revised nine times. Updated Guidance documents are submitted to and approved by the Office of Management and Budget (OMB) prior to their release. Revisions to each subsequent edition of the Guidance have considered changes in MCH priorities, availability of new national data sources and opportunities for refining and streamlining the Application/Annual Report preparation and submission process for states. The reduced burden that resulted from this latter commitment was largely achieved through

efficiencies that were created by the electronic reporting vehicle for the state MCH Block Grant Applications/Annual Reports, specifically the Title V Information System (TVIS.)

1. Title V Information System

The development of an electronic reporting package in 1996 was a significant milestone for the State MCH Block Grants. Advances in technology allowed for the development of a web-based Title V Information System (TVIS). The TVIS is designed to capture the performance data and other program and financial information contained in the state Applications/Annual Reports. While descriptive information is available on state Title V-supported efforts, state MCH partnership efforts and other program-specific initiatives of the state in meeting its MCH needs, TVIS primarily serves as an online, Web-accessible interface for the submission of the 59 state and jurisdictional Title V MCH Block Grant Applications/Annual Reports each year. Developed in conjunction with the program requirements outlined in the Title V MCH Block Grant Application/Annual Report Guidance, the TVIS is available to the public on the World Wide Web at: <https://mchb.tvisdata.hrsa.gov/>. Over the years, the TVIS has increasingly become recognized as a powerful and useful tool for a number of audiences. The “transformation” of the State MCH Block Grant program in 2015 mandated the development of a new data collection and web report system for the TVIS. HRSA continues to provide funding support for a contract to develop, maintain and enhance the TVIS annually.

Integrated with HRSA’s grants management system (i.e., the HRSA Electronic Handbooks (EHB)), the TVIS makes available to the public through its web reports the key financial, program, performance, and health indicator data reported by states in their yearly MCH Block Grant Applications/Annual Reports. Examples of the data that are collected include: information on populations served; budget and expenditure breakdowns by source of funding, service and program; program data, such as individuals served and breakdowns of MCH populations; other state data (OSD); and performance and outcome measure data for the national and state measures. Reporting on performance relative to the national measures is used to assess national progress in key MCH priority areas and to facilitate the Bureau’s annual GPRA reporting.

APPENDIX B: PERFORMANCE MEASURE FRAMEWORK AND IMPLEMENTATION

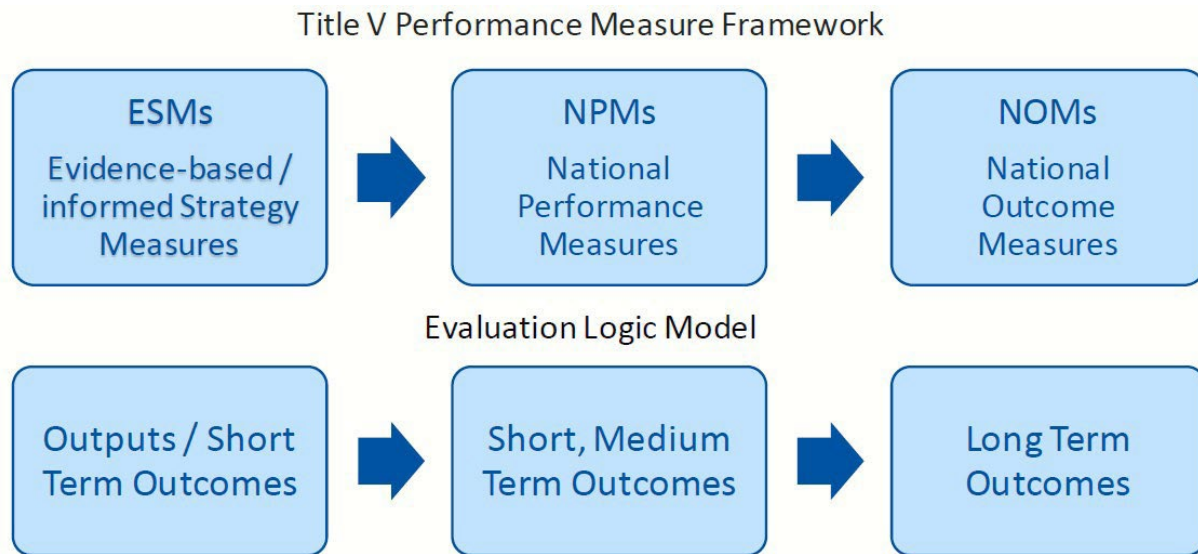
Table 1: Summary of changes in this guidance

Current Guidance	Benefit to states
<p>Two Universal NPMs</p> <ul style="list-style-type: none"> • Required reporting of Postpartum visit (Women/Maternal Health domain) and Medical Home (Child Health and CSHCN domains) • States must report a minimum of five NPMs, which includes the two Universal NPMs 	<ul style="list-style-type: none"> • Support national impact on maternal health outcomes and systems of care • Additional resources and technical assistance to support state efforts
<p>Revised set of National Outcome Measures</p> <ul style="list-style-type: none"> • Removed measures that were not true outcome measures (moved either to Standardized Measure set or Form 11) • Added sub-measure for women’s overall health status • Added mental health status measures for children and adolescents • Added Flourishing and Adverse Childhood Experiences 	<ul style="list-style-type: none"> • Consistent definition of NOMs • Enhances application of Lifecourse Approach • Addresses emerging health priorities
<p>Revised set of National Performance Measures</p> <ul style="list-style-type: none"> • Organized NPMs by measure domain of action (clinical health systems, health behaviors, and social determinants of health) within MCH Population Domain • Added measures related to social determinants of health, mental health, and reproductive health • Moved less frequently selected measures to Standardized Measure set 	<ul style="list-style-type: none"> • Targets upstream and downstream factors associated with MCH outcomes with less emphasis solely on clinical care • Addresses emerging health priorities
<p>Selection of Priority Populations</p> <ul style="list-style-type: none"> • Created option to pick a Priority Population for each selected NPM and set annual objectives for Priority Population • Pre-populated stratified data used for annual reporting • All stratified data for NPMs and NOMs still available for state use 	<ul style="list-style-type: none"> • Supports states’ capacity to address health equity
<p>Created Standardized Measure set for SPM creation</p> <ul style="list-style-type: none"> • Option to select Standardized Measure as SPM with existing detail sheet and pre-population of annual data. SPMs can also be developed by state as in previous Guidance. • Consists of former NOMs and NPMs 	<ul style="list-style-type: none"> • Reduces burden to create SPMs that align with state priority needs • Allows states to continue working on previous measures as needed
<p>Developing ESMs for SPMs</p> <ul style="list-style-type: none"> • Option to develop one or more ESMs for SPMs developed by the state or using a Standardized Measure 	<ul style="list-style-type: none"> • Increases flexibility to utilize 3-tiered performance measure framework

I. Overview of the Framework

The national performance measure framework is based on a three-tiered performance measure system: National Outcome Measures (NOMs), National Performance Measures (NPMs), and Evidence-based or -informed Strategy Measures (ESMs). In brief, NOMs are the ultimate health outcomes that Title V is attempting to improve. The NPMs are considered to be more directly modifiable by state Title V program efforts and influence NOMs. ESMs are developed by states to capture their evidence-based or -informed programmatic efforts to affect NPMs and in turn NOMs. The framework is intended to highlight the

impact of Title V investments and provides states with flexibility in selecting NPMs and developing state performance measures (SPMs) and ESMs to address the state’s priority needs.



In the above figure, which compares the Title V performance measure framework to an evaluation logic model, measures that are designated as NOMs primarily reflect longer- term indicators of health for the maternal and child population including measures of health status, quality of life, preventable morbidity, and mortality. There are 21 NOMs, of which 7 have additional sub-measures.

The measures that are designated as NPMs reflect short- or medium-term indicators of clinical health systems, health behaviors, and social determinants of health and represent measure domains of actions to improve the NOMs. NPMs represent at least one measure domain and meet the following criteria: the measure addresses current priority areas for the states; it is considered modifiable through Title V activities; a state could delineate measurable activities to address the performance measure; significant disparities exist among population groups; and research indicates that the promotion of certain behaviors, practices or policies had improved outcomes. There also must be evidence that an NPM is associated with at least one of the NOMs (see Table 3 in this Appendix for evidence-based or -informed linkages between NPMs and NOMs). However, it is important to recognize that NOMs are multifactorial and improvement in each NPM may not necessarily result in improvement of the associated NOM.

The 20 NPMs address key national MCH priority areas in five MCH population health domains: 1) Women/Maternal Health; 2) Perinatal/Infant Health; 3) Child Health; 4) Adolescent Health; and 5) CSHCN. The five MCH population health domains are contained within the three legislatively defined MCH populations [Section 505(a)(1)]. The first two domains are included under “preventive and primary care services for pregnant women, mothers and infants up to age one,” which is the first of the three defined MCH populations. The third and fourth domains, child and adolescent health, are included in the second defined MCH population, specifically “preventive and primary care services for children.” Services for

CSHCN is the third legislatively defined MCH population. Within each MCH population domain, there is at least one NPM for each measure domain. The exception is for CSHCN where there is a greater focus on the need to improve clinical health systems. Presented in the table below are the 20 NPMs and the corresponding MCH Population domain(s) and measure domains.

Table 2. NPMs, MCH Population Domains, and Measure Domains

National Performance Measures	MCH Population Domains	Measure Domain
Postpartum Visit	Women/Maternal Health	Clinical Health Systems
Postpartum Mental Health Screening	Women/Maternal Health	Clinical Health Systems
Postpartum Contraceptive Use	Women/Maternal Health	Health Behavior
Perinatal Care Discrimination	Women/Maternal Health and/or Perinatal/Infant Health	Social Determinants of Health
Risk-Appropriate Perinatal Care	Perinatal/Infant Health	Clinical Health Systems
Breastfeeding	Perinatal/Infant Health	Health Behavior
Safe Sleep	Perinatal/Infant Health	Health Behavior
Housing Instability – Pregnancy Housing Instability – Child	Perinatal/Infant Health, Women/Maternal Health, and/or Child Health	Social Determinants of Health
Developmental Screening	Child Health	Clinical Health Systems
Childhood Vaccination	Child Health	Clinical Health Systems
Preventive Dental Visit – Pregnancy Preventive Dental Visit – Child	Women/Maternal Health, Child Health, and/or Adolescent Health	Clinical Health Systems
Physical Activity	Child Health	Health Behavior
Food Sufficiency	Child Health	Social Determinants of Health
Adolescent Well-Visit	Adolescent Health	Clinical Health Systems
Mental Health Treatment	Adolescent Health	Clinical Health Systems
Tobacco Use	Adolescent Health	Health Behavior
Adult Mentor	Adolescent Health	Social Determinants of Health
Medical Home – Overall ¹ Medical Home – Personal Doctor Medical Home – Usual Source of Sick Care Medical Home – Family Centered Care Medical Home – Referrals Medical Home – Care Coordination	Children with Special Health Care Needs (CSHCN), Child Health, and Adolescent Health	Clinical Health Systems
Transition	Children with Special Health Care Needs (CSHCN) and/or Adolescent Health	Clinical Health Systems
Bullying	Children with Special Health Care Needs (CSHCN) and/or Adolescent Health	Social Determinants of Health

¹Required reporting for Child Health and CSHCN domains, it but will only count towards one domain for minimum of 5 unique NPMs, one in each domain. Reporting in Adolescent Health Domain is optional.

The NPMs incorporate two significant concepts: first, Title V is responsible for promoting the health of all mothers and children, which includes an emphasis on CSHCN and their families; and second, the development of life course theory has indicated that there are critical stages, beginning before a child is

born and continuing throughout life, which can influence lifelong health and wellbeing (see Table 4 in this Appendix for a crosswalk of NPM/NOMs and AMCHP Lifecourse Indicators).

A sixth domain, Cross-Cutting/Systems Building, allows states to focus on public health system issues that impact all MCH population groups. This domain does not contain any NPMs but allows states to develop unique SPMs to address priority areas that cut across all population health domains. Example SPM topics may include but are not limited to:

- Family partnership activities across all population health domains;
- Other social determinants of health;
- Health equity;
- Organizational change;
- Workforce development; and
- Enhancement of data infrastructure.

The ESMs are the key to understanding how a state Title V program tracks programmatic investments or inputs designed to impact the NPMs. In the framework, states select evidence-based or evidence-informed strategies and activities designed to impact the NPMs; states then create ESMs to track progress on state Title V strategies contained in the State Action Plan. The development of ESMs is guided through an examination of evidenced-based or -informed strategies, and determining what components are practical, meaningful, measurable, and moveable. The main criteria for ESMs are: 1) ESMs should be meaningfully related to the selected NPM through scientific evidence or theory, 2) ESMs should be measurable by the state and 3) improvement should be achievable within the five-year reporting cycle. (The Guidance for Implementation of Performance Measurement Framework section below provides more detailed information on ESMs.)

II. Implementation of Measurement

A. National Outcome Measures

NOMs are longer-term indicators, many of which may be influenced by NPMs (see Table 3) and are important to monitor and assess as a core function of public health that may stimulate program and policy action. Thus, NOMs should be tracked to understand the MCH population's health and are important for the development of the needs assessment and selection of NPMs. Changes in NOM indicators, which may result from improvement in NPMs, can be discussed in the appropriate population domain section of the narrative, but there is not a reporting requirement for this discussion. Data for NOMs will be prepopulated, where possible. States do not provide performance objectives for NOMs. If a state would like to provide performance objectives, they may select an NOM to create as a State Outcome Measure.

B. National Performance Measures

Two NPMs are identified as Universal NPMs that every state is required to address and report on in their MCH Block Grant Application/Annual Report. The Universal NPMs serve to accelerate progress on priority areas. Given the legislatively defined purpose [Sec 501(a)(1)(A)] to “provide and to assure mothers and children (in particular those with low income or with limited availability of health services) access to quality maternal and child health services,” the Universal NPMs in this Guidance were selected for their focus on access and quality of primary and preventive care.

Addressing the maternal health crisis is currently a federal and state-level priority, therefore for this Guidance, Postpartum Visit is the first Universal NPM. The universal reporting of Postpartum Visit is intended to drive improvement in the Maternal Mortality Rate NOM. Untreated chronic conditions and pregnancy-related complications increase the risk of adverse health outcomes in the weeks and months following delivery. A comprehensive postpartum visit is an opportunity to improve maternal health by providing recommended clinical services, including screening, counseling, and management of health issues. These services can lead to identification, treatment, and prevention of adverse outcomes to optimize maternal health following pregnancy.

The second Universal NPM is Medical Home, selected in the CSHCN and Child population health domains, which is intended to drive improvement in the core CSHCN NOM, Well-functioning system of care, as well as access to quality health care for all children and adolescents. The American Academy of Pediatrics (AAP) specifies seven qualities essential to medical home care, which include accessible, family-centered, continuous, comprehensive, coordinated, compassionate and culturally effective. Providing comprehensive and coordinated care to children in a medical home is the standard of pediatric practice. Research indicates that children with a stable and continuous source of health care are more likely to receive appropriate preventive care, are less likely to be hospitalized for preventable conditions, and are more likely to be diagnosed early for chronic or disabling conditions.

In implementing this framework, states must report on a minimum of five (5) NPMs, which includes the two Universal NPMs, with at least one NPM for each of the five MCH population domains. When selecting NPMs, it is important that the alignment of the NPMs to the state identified priorities is clear. If the

priority does not align with a NPM, the state should develop a state performance measure (SPM). To promote flexibility, each MCH population domain contains at least three NPM options, with at least one NPM for each measure domain, except for the CSHCN domain. There is no maximum for the number of NPMs that a state can select. For reporting Postpartum Visit, Breastfeeding, or Safe Sleep, all sub-measures are included as part of the NPM and individual sub-measures cannot be selected as the NPM in TVIS. For a subset of NPMs, the same measure can be selected in multiple domains (Perinatal Care Discrimination, Housing Instability, Preventive Dental Visit, Transition, and Bullying), but will only count once toward the minimum of five. For example, if a state selects Housing Instability for both Perinatal/Infant and Child Health, it would only count once towards the minimum of five NPMs, and another measure would need to be selected in either Perinatal/Infant or Child Health to satisfy the requirement of one measure in each population domain. Medical Home must be reported on for Child Health and CSHCN domains, but it will only count once towards the minimum of five NPMs. The state can choose which domain it counts in to fulfill the requirement of one NPM per population domain. Discussion within the Child Health and CSHCN domains should cover infants, children, and adolescents per the measure definition of children ages 0 through 17 years. States may optionally report on Medical Home in the Adolescent Health domain in addition to the required domains.

Medical Home has sub-measures for the overall composite measure as well as each individual sub-component. For this Universal NPM, states additionally have the option to select one or more of the sub-components to focus on for the 5-year cycle. Either option will count only once toward the minimum of five (5) reported NPMs.

States also have the opportunity to develop SPMs that will specifically impact infrastructure through the Cross-cutting/Systems Building domain to improve the areas impacting multiple population domains like family partnership and data infrastructure.

Once NPMs are selected, a state will track the minimum of five NPMs throughout the five-year reporting cycle. States are encouraged not to change the NPMs during the five-year reporting cycle. The three-year period covered by this Guidance will include two interim years, and one Five-Year Needs Assessment year, as outlined below:

(1) FY 25 Application/FY 23 Annual Report—Interim--Year 05 (submitted Calendar Year 2024)

(2) FY 26 Application/FY 24 Annual Report --Five-Year Needs Assessment—Year 01 (submitted Calendar Year 2025)


(3) FY 27 Application/FY 25 Annual Report-- Interim--Year 02 (submitted Calendar Year 2026)

States are encouraged to continue using measures selected in the FY 21 Application/FY 19 Annual Report (year 1 of the five-year reporting cycle) until the FY 26 Application/FY 24 Annual Report, when the new Five-Year Needs Assessment is completed and new priority needs are identified.

To reduce state burden, annual performance data (indicator/numerator/ denominator) for the NOMs and the NPMs will be prepopulated by MCHB from national data sources, as available, and provided to the states for their use in preparing the yearly Title V MCH Services Block Grant Applications/Annual Reports. Data will be provided overall by year to facilitate objective-setting and performance monitoring, as well as by various demographic stratifiers (e.g., age, race/ethnicity, education, urban/rural residence) to identify priority populations for targeting strategies and programmatic interventions. Performance objectives for future years can be changed for individual NPMs based on ongoing needs assessment efforts and performance monitoring.

1. Addressing Health Equity by Selecting Priority Populations

New in this Guidance, states can also select a priority population to track progress in addressing health equity. For each NPM, states have the option to additionally select a demographic stratifier and priority population within the stratifier (i.e., stratifier sub-group) to track over the course of the 5-year cycle. If states choose to identify a priority population, they will set performance objectives for the priority population indicator and annual performance data for the priority population indicators will be pre-populated using the available stratified data for the NPM. Identifying a priority population and setting performance objectives for an NPM is *in addition to* selecting and setting objectives for the NPM overall.



- States selected a minimum of five NPMs to complete in the new five-year needs assessment cycle (2021-2025).
- In CY 2025 and CY 2026, states will continue to report 2024 and 2025 indicator data for NPMs from the previous needs assessment cycle (2021-2025) that they chose to not continue into the new cycle.

When selecting new measures, it is important that the following checklist items have been satisfied.

Measure Checklist	Check if Answer is Yes
There is a minimum of 5 NPMs	<input type="checkbox"/>
There is at least one NPM selected for each population health domain <i>*Perinatal Care Discrimination, Housing Instability, Preventive Dental Visit, Medical Home, Transition, and Bullying selected in multiple domains count once toward the minimum of five</i>	<input type="checkbox"/>
There is an NPM or SPM for each state priority	<input type="checkbox"/>
All selected NPMs/SPMs have clear alignment with the state priorities	<input type="checkbox"/>

Additional guidance on use of provisional data for NPMs and lack of a national data source for NPMs:

Use of Provisional Data: States may, but are not required to, include more timely provisional data if they choose. Providing this data will not replace the prepopulated final data provided for the measures.

Lacking a National Data Source: States can choose a measure if they do not have the data source noted on the detail sheet, ***as long as*** they provide the indicator, numerator and denominator data as defined on the detail sheet (Appendix C). For Pregnancy Risk Assessment Monitoring System (PRAMS), states will be able to submit their PRAMS or PRAMS-like data to TVIS following the same definition for a given measure if CDC cannot furnish it. The same situation may apply to other data sources. If a state provides its own data from a different source, this should be annotated in a field note. **If a state cannot provide data for a given measure with the same definition as listed on the detail sheet, the state will need to create a SPM.**

C. Evidence-based or -informed Strategy Measures

For each NPM, states must develop at least one ESM to quantify and assess the outputs and/or short-term outcomes of the identified State Title V strategies that are linked to each selected NPM. The main steps for developing ESMs include 1) review the evidence base for effective strategies, 2) operationalize outputs of strategy as a measure and, 3) set improvement objectives that are achievable over multiple years or throughout the five-year reporting cycle.

States are only required to have at least one active ESM for each of the NPMs reported. Most issues in MCH are multifactorial, therefore, states are encouraged to develop multiple strategies, each with a related ESM, to impact an NPM. Given that ESMs capture state programmatic efforts, it is recommended that states develop corresponding ESMs for strategies in which they are investing the most activity and/or funding. For Medical Home, only one ESM is required even though it is reported in the Child Health and CSHCN domain, and it may be specific to a Medical Home sub-component or the overall composite measure.



When developing ESMs, remember to:

- 1) **Review the evidence base** – Your state should start by choosing evidence-based or –informed strategies that are known to impact your state’s selected NPMs.
- 2) **Operationalize outputs or short-term outcomes of your chosen strategies** – Quantifying outputs (e.g., number, percent and rate) will allow your state will show measurable improvement over time.
- 3) **Set objectives for improvement** – This provides an important check to make sure improvement is possible and attainable.

1. Steps for Developing ESMs:

1) **Review the evidence base for effective strategies:** This step requires a review of the evidence to select strategies that are meaningfully related to the NPMs through scientific evidence or theory. The key for selecting an effective strategy to impact an NPM is identifying evidence-based or – informed practices. Evidence-based strategies are those that have either moderate evidence or are scientifically rigorous, while evidence-informed are those that have emerging evidence or are based on expert opinion. “Evidence-informed” is meant to convey that there is information suggesting that a certain strategy could be effective in addressing an NPM. These are strategies that have not yet been rigorously tested or evaluated but that incorporate a theoretical model from other effective public health practices or apply a novel approach grounded in scientific theory. For more information on this continuum and its rationale, review the Evidence Ratings model, adapted from the Robert Wood Johnson *What Works for Health* project (<https://www.mchevidence.org/tools/>).

Beyond scientific evidence of effectiveness, additional considerations of reach, feasibility, sustainability, and transferability should be considered in terms of likely impact. It is important to note that there may be a need for states to adapt strategies based on differences in populations and settings, available resources and other considerations. A given strategy should be based on, or informed by, evidence of effective practice in direct relation to improving the NPM rather than a strategy that has an indirect relationship. For example, efforts to improve the content or quality of well-woman or adolescent visits may indirectly promote utilization but do not directly resolve barriers to care and well-visit receipt. States/jurisdictions are encouraged to select at least one ESM that directly corresponds to the NPM. The strategy should be relevant to state priorities and tailored or adapted for contextual settings and population groups where applicable. It is critical for the strategy to be feasible for the state to implement within the five-year cycle and involve stakeholder input or buy-in from partners who may be instrumental in successfully executing the strategy or tracking output. The strategy should also have potential for improvement (i.e., not already or nearly accomplished).

2) Operationalize the outputs of the strategy as a measure: Once the state identifies a strategy it intends to use, the state will develop and operationalize the outputs or short-term outcomes of this strategy as a measure or ESM. Given that ESMs are intended to measure progress over time, they should be quantifiable (e.g., number, percent, rate, count), well-defined and specific (i.e., specifically defined indicator, numerator, and denominator), and there should be data available to measure and track the ESM with incremental change over time.

3) Set improvement objectives that are achievable: The setting of improvement objectives offers an important check that improvement in the ESM is expected and attainable within the five-year reporting cycle. In parallel to incremental improvement objectives for NPMs, ESM objectives should reflect an improvement goal over multiple years of the five-year reporting cycle rather than a static objective over time. This can ensure that strategies are appropriately scaled and measured to track overall improvement instead of smaller short-term activity components.

The checklist below may be helpful in identifying a meaningful strategy and operationalizing the output as a measure.

ESM Checklist	Check if Answer is Yes
1: The strategy is meaningful	
The strategy is evidence-based/informed in direct relation to the NPM	<input type="checkbox"/>
The strategy is relevant to state priorities and context	<input type="checkbox"/>
The strategy is feasible and involved stakeholder input or buy-in	<input type="checkbox"/>
The strategy has potential for improvement	<input type="checkbox"/>
2: The strategy output is measurable as an ESM	
The ESM is a number, %, rate, count, yes/no*	<input type="checkbox"/>
The ESM is well-defined and specific	<input type="checkbox"/>
Data are available to measure and track the ESM over time with multiple assessments	<input type="checkbox"/>
3: The ESM is moveable	
Improvement in the ESM is attainable within the 5-year needs assessment and reporting cycle	<input type="checkbox"/>
The ESM can show incremental change over time	<input type="checkbox"/>

*Quantitative measures are recommended over qualitative yes/no measures to quantify strategy outputs and show incremental improvement over time in relation to the NPM.

States should work closely with family partnerships as they revise and develop the ESMs for their NPMs. For the Title V MCH Services Block Grant, family partnership is defined as patients, families, their representatives, and health professionals working in active partnership at various levels across the health care system - direct care, organizational design, governance and policy making - to improve health and

health care.¹ This partnership is accomplished through the intentional practice of working with families for the ultimate goal of positive outcomes in all areas through the life course.

2. Development of Detail Sheets for ESMs

As new ESMs are introduced, a state will develop a detail sheet for each ESM, which it will submit as part of its Application/Annual Report. On the detail sheet, the state will define the: (1) measure; (2) linkage to broader framework; (3) description of evidence-based/informed strategy; (4) goal; (5) significance of the measure to track progress; (6) indicator, numerator, denominator; and (7) data source and data issues.



A Note on Count Measures – Adding a denominator

Count measures (e.g., # providers trained) are not bad in and of themselves and are preferable to qualitative yes/no measures to capture the impact of a strategy. For example, it is important to know that 200 providers received training. A count alone will not measure the full coverage or reach of a strategy within a state. If there are 200 providers in the state, then 100% were reached. If there are 20,000 providers, only 1% were reached. By adding a denominator and making the count a percentage, it is possible to track progress relative to the actual need within a state and understand when the strategy objective has been achieved.

3. Tracking of ESMs

States will track performance for the ESMs that were established for this five-year needs assessment cycle. States will determine performance objectives for each of the ESMs in the application year. These objectives can be revised, as needed, for future reporting years. Data for the ESMs (i.e., numerator/denominator) will be entered annually by the state. During the five-year reporting cycle, ESMs may be added, modified, replaced, or retired, as new strategies or measurement methods emerge, objectives are achieved without further room for improvement, or the strategy did not produce intended results.

¹ Carman K., Dardess, P., Maurer, M., Sofaer, S., Adams, K., Bechtel, C., Sweeney, J. "Patient and Family Engagement: A framework for understanding the elements and developing interventions and policies." *Health Affairs*. 2013; 32:223-231.



The Importance of Measuring Reach and Effectiveness of Strategies

Consideration should be made to how well the ESM will inform program monitoring and improvement of the NPM, which is a state-level measure. If an ESM measures a short-term outcome similar to the NPM, but only among a small population within the state, then despite an improvement in the ESM showing that the strategy is effective as implemented by the state, it is unlikely to contribute much to improving the population based NPM. Conversely, an ESM that demonstrates broad reach across the state does not necessarily suggest that the NPM will improve, unless the strategy is known to be effective as implemented by the state. Therefore, ESMs may capture either reach or effectiveness as both are important to track progress to improve NPMs.

D. State Performance and Outcome Measures

To address state priorities not met by the National Performance Measures, the State Performance Measures (SPMs) can be developed or selected among standardized pre-populated measures that were formerly NPMs or NOMs. The combination of NPMs with state-developed SPMs allows the state flexibility to reflect its priority needs from the most recent Five-Year Needs Assessment. With this guidance, a new set of Standardized Measures are available to select as SPMs. Similar to NOMs and NPMs, annual performance data (indicator/numerator/denominator) for these SPMs that were created using a Standardized Measure will be prepopulated by MCHB from national data sources, as available, and provided to the states for their use in preparing the yearly Title V MCH Services Block Grant Applications/Annual Reports. The Standardized Measures set contains measures that were NPMs in the previous Guidance as well as former NOMs that function better as performance measures. There is no requirement to create an SPM using a Standardized Measure. States have the option to develop an ESM for these SPMs created using a Standardized Measure as well as link it to either an NOM or SOM.

The development of the SPMs coincides with the selection of NPMs and the development of the state ESMs. A state will develop a detail sheet for each of these measures, which will define the: (1) measure; (2) goal; (3) indicator, numerator, and denominator; (4) data source; and (5) significance. States will track their developed SPMs throughout the five-year reporting cycle. States will develop annual objectives for the five-year reporting cycle that may be revised in interim years' Applications/Annual Reports. Data for the SPMs (i.e., indicator/numerator/denominator) will be entered annually by the state. A state can retire an SPM during the five-year reporting cycle and replace it with another SPM based on its MCH priority needs. Similar to SPMs created using a Standardized Measure, a state is not required to develop ESMs for SPMs, but with this Guidance, they will have the option to develop an ESM for their SPM as well as link it to either a NOM or State Outcome Measure (SOM).

A state may also develop, if it chooses, one or more State Outcome Measures (SOMs) based on its MCH priorities, as determined by the findings of the Five-Year Needs Assessment, provided that none of the

NOMs address the same priority area for the state. An SOM can be linked with a performance measure to show the impact of performance on the intended outcome. States will track the SOMs during the five-year reporting cycle and the SOM can be retired if the state chooses. Data for the SOMs (i.e., indicator/numerator/ denominator) will be entered annually by the state.

1. Available Resources MCH Library

<https://www.mchlibrary.org/>

The Maternal and Child Health (MCH) Digital Library provides access to current evidence to support State Title V programs, community agencies, educators, students, researchers, policymakers, and families. The library also provides access to seminal and historic materials from federal, state, and local programs. The overarching goal of the library is to serve the MCH community with accurate, reliable, and timely information and resources.

2. Strengthening the Evidence Base for Maternal and Child Health Programs

<https://www.mchevidence.org/>

This is a consortium-based project bringing multiple partners together including the National Center for Education in Maternal and Child Health, National Maternal and Child Workforce Development Center, CityMatCH, AMCHP, and the Georgetown University Center for Child and Human Development. The purpose of the project is to provide expert consultation, technical assistance (TA), and resources to assist state Title V MCH Block Grant programs in developing evidence based-/informed State Action Plans and strategies that advance National Performance Measures (NPMs). In addition to individual TA-requests, the MCH Evidence website provides a variety of resources to help states review evidence-based or -informed strategies and develop evidence-based or –informed strategy measures (ESMs) for each National Performance Measure.

Table 3. Evidence-based/informed National Performance and Outcome Measure Linkages*

National Outcome Measures	National Performance Measures																			
	Postpartum Visit	Postpartum Mental Health Screening	Postpartum Contraceptive Use	Perinatal Care Discrimination Risk Appropriate Perinatal Care	Breastfeeding	Safe Sleep	Housing Instability	Developmental Screening	Childhood Vaccination	Preventive Dental Visit	Physical Activity	Food Sufficiency	Adolescent Well-Visit	Mental Health Treatment	Tobacco Use	Adult Mentor	Medical Home	Transition	Bullying	
Severe Maternal Morbidity			X	X																
Maternal Mortality	X	X	X	X																
Teen Births													X							
Low Birth Weight			X	X																
Preterm Birth			X	X																
Stillbirth				X	X															
Perinatal Mortality				X	X															
Infant Mortality		X	X	X	X	X	X		X											
Neonatal Mortality				X	X															
Postneonatal Mortality					X	X	X		X											
Preterm-Related Mortality				X	X															
SUID Mortality		X				X	X	X	X											
Neonatal Abstinence Syndrome																				
School Readiness								X	X			X								
Tooth Decay/Cavities										X										
Child Mortality								X	X											
Adolescent Mortality													X	X						X
Adolescent Motor Vehicle Death													X							
Adolescent Suicide													X	X						X
Adolescent Firearm Death													X	X						X
Child Injury Hospitalization		X						X												
Adolescent Injury Hospitalization													X	X						X
Women's Health Status	X	X								X										
Children's Health Status								X	X	X	X	X	X	X	X		X			
Child Obesity											X		X							
Postpartum Depression	X	X		X				X												
Postpartum Anxiety	X	X		X				X												
Behavioral/Conduct Disorders								X				X								
Adolescent Depression/Anxiety													X	X		X				X
CSHCN Systems of Care										X			X	X			X	X		
Flourishing								X			X	X	X	X		X	X			
Adverse Childhood Experiences								X				X								X

* Includes linkages based on expert opinion or theory in the absence of empirical scientific evidence. Associations with available empirical scientific evidence that is mixed or inconclusive are not included. This table is subject to revision as new scientific evidence becomes available. By definition, NPMs must be linked to at least one NOM.

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Table 4. Title V Measure Crosswalk to AMCHP Life Course Indicators

Title V Measure	AMCHP Life Course Indicator			
	Short Title	Identifier	Thematic Category	Indicator Name
National Performance Measure				
Postpartum Contraceptive Use	LC-52*	Reproductive Life Experiences	Postpartum Contraception	Proportion of women using birth control postpartum
Perinatal Healthcare Discrimination	LC-13**	Discrimination and Segregation	Experiences of Race-Based Discrimination or Racism among Women	Percent of women who experienced discrimination right before or during pregnancy.
Breastfeeding	LC-27*	Family Wellbeing	Exclusive Breastfeeding at 3 Months	Percent of children exclusively breastfed through 3 months
Housing Instability	LC-7B**	Community Wellbeing	Homelessness	Prevalence of homelessness among families
Developmental Screening	LC-19**	Early Life Services	Early Childhood Health Screening - EPSDT	Percent of Medicaid-enrolled children who received at least one initial or periodic screen in past calendar year
Childhood Vaccination	LC-35	Health Care Access and Quality	Children Receiving Age-Appropriate Immunizations	Percent of children ages 19- 35 receiving age-appropriate immunizations according to the Advisory Committee for Immunization Practices (ACIP) guidelines and HP 2020 Goal.
Preventive Dental Visit-Child	LC-41	Health Care Access and Quality	Oral Health Preventive Visit for Children	Percent of children who have received a preventive dental visit in the past 12 months

Title V Measure	AMCHP Life Course Indicator			
Short Title	Identifier	Thematic Category	Indicator Name	Brief Description
Physical Activity	LC-33*	Family Wellbeing	Physical Activity Among High School Students	Proportion of high school students who are physically active for at least 60 minutes per day on five or more of the past seven days.
Food Sufficiency	LC-9**	Community Wellbeing	Household Food Insecurity	Number of households experiencing food insecurity (household reports being unable to afford balanced meals, having to cut the size of meals because of too little money for food, or being hungry because of too little money for food.)
Tobacco Use	LC-23*	Family Wellbeing	Adolescent Smoking	Percent of adolescents who smoked cigarettes in the past 30 days
Medical Home	LC-37	Health Care Access and Quality	Medical Home for Children	Proportion of families who report their child received services in a medical home
Bullying	LC-12*	Discrimination and Segregation	Bullying	Percent of 9-12th graders who reported being bullied on school property or electronically bullied
National Outcome Measure				
Teen Births	LC-54*	Reproductive Life Experiences	Teen Births	Number of live births born to women aged 10-19 years per 1,000 women aged 10-19 years
Preterm Birth	LC-55	Reproductive Life Experiences	Preterm Birth	Percent of live births born < 37 weeks gestation
Adolescent Suicide	LC-45*	Mental Health	Suicide	Suicides per 100,000 population
Child Obesity	LC-32A*	Family Wellbeing	Obesity	Percent of children who are currently overweight or obese
Postpartum Depression	LC-44	Mental Health	Postpartum Depression	Percent of women who have recently given birth who reported experiencing postpartum depression following a live birth
Adolescent Depression/Anxiety	LC-42*	Mental Health	Depression Among Youth	Percent 9th -12th graders who felt sad or hopeless almost every day for more than 2 weeks during the previous 12 months
Adverse Childhood Experiences	LC-2	Childhood Experiences	Prevalence of Adverse Childhood Experiences Among Children	Prevalence of adverse childhood experiences among children
Standardized Measure				
Smoking	LC-28	Family Wellbeing	Exposure to Second Hand Smoke in the Home	Percent of children living in a household where smoking occurs inside home
HPV Vaccination	LC-36A*	Health Care Access and Quality	Human Papillomavirus (HPV) Immunization	The proportion of adolescents ages 13-17 who receive the evidence-based clinical preventive service HPV vaccine

*NPM or NOM similar to AMCHP indicator (different age range or definition)

**NPM or NOM conceptually related to AMCHP indicator

Source: <http://www.amchp.org/programsandtopics/data-assessment/Pages/LifeCourseIndicators.aspx>

Table 5. Title V Measure Crosswalk to Medicaid and CHIP Health Care Quality Measures¹

Title V Measure	Medicaid and CHIP Health Care Quality Measure	
Short Title	Measure Name	Core Set
National Performance Measure		
Postpartum Visit	Prenatal and Postpartum Care: Postpartum Care (PPC-AD)	Adult: Maternal and Perinatal Health
Postpartum Contraception Use	Contraceptive Care – Postpartum Women Ages 21 to 44 (CCP-AD)	Adult: Maternal and Perinatal Health
Developmental Screening	Developmental Screening in the First Three Years of Life (DEV-CH)	Child: Primary Care Access and Preventive Care
Childhood Vaccination	Childhood Immunization Status (CIS-CH)	Child: Primary Care Access and Preventive Care
Preventive Dental Visit-Child	Oral Evaluation, Dental Services (OEV-CH)	Child: Dental and Oral Health Services
Adolescent Well-Visit	Child and Adolescent Well-Care Visits (WCV-CH)	Child: Primary Care Access and Preventive Care
National Outcome Measure		
Low Birth Weight	Live Births Weighing Less than 2,500 Grams (LBW-CH)	Child: Maternal and Perinatal Health
Standardized Measure		
Early prenatal care	Prenatal and Postpartum Care: Timeliness of Prenatal Care (PPC-CH)	Child: Maternal and Perinatal Health
Low-Risk Cesarean Delivery	Low-Risk Cesarean Delivery (LRCD-CH)	Child: Maternal and Perinatal Health

¹2023 and 2024 Measure Set

APPENDIX C: DETAIL SHEETS FOR THE NATIONAL OUTCOME MEASURES AND NATIONAL PERFORMANCE MEASURES

I. National Outcome Measures

Short Title	Full Title
Severe Maternal Morbidity	Rate of severe maternal morbidity per 10,000 delivery hospitalizations
Maternal Mortality	Maternal mortality rate per 100,000 live births
Teen Births	Teen birth rate, ages 15 through 19, per 1,000 females
Low Birth Weight	Percent of low birth weight deliveries (<2,500 grams)
Preterm Birth	Percent of preterm births (<37 weeks gestation)
Stillbirth	Stillbirth rate per 1,000 live births plus fetal deaths
Perinatal Mortality	Perinatal mortality rate per 1,000 live births plus fetal deaths
Infant Mortality	Infant mortality rate per 1,000 live births
Neonatal Mortality	Neonatal mortality rate per 1,000 live births
Postneonatal Mortality	Postneonatal mortality rate per 1,000 live births
Preterm-Related Mortality	Preterm-related mortality rate per 100,000 live births
SUID Mortality	Sudden Unexpected Infant Death (SUID) rate per 100,000 live births
Neonatal Abstinence Syndrome	Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations
School Readiness	Percent of children meeting the criteria developed for school readiness
Tooth Decay/Cavities	Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year
Child Mortality	Child mortality rate, ages 1 through 9, per 100,000
Adolescent Mortality	Adolescent mortality rate, ages 10 through 19, per 100,000
Adolescent Motor Vehicle Death	Adolescent motor vehicle mortality rate, ages 15 through 19 per 100,000
Adolescent Suicide	Adolescent suicide rate, ages 10 through 19 per 100,000
Adolescent Firearm Death	Adolescent firearm mortality rate, ages 10 through 19 per 100,000
Child Injury Hospitalization	Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9
Adolescent Injury Hospitalization	Rate of hospitalization for non-fatal injury per 100,000 adolescents, ages 10 through 19
Women's Health Status	Percent of women, ages 18 through 44, in excellent or very good health
Children's Health Status	Percent of children, ages 0 through 17, in excellent or very good health
Child Obesity	Percent of children, ages 2 through 4, and adolescents, ages 6 through 17, who are obese (BMI at or above the 95th percentile)
Postpartum Depression	Percent of women who experience postpartum depressive symptoms
Postpartum Anxiety	Percent of women who experience postpartum anxiety symptoms
Behavioral/ Conduct Disorders	Percent of children, ages 6 through 11, who have a behavioral or conduct disorder
Adolescent Depression/ Anxiety	Percent of adolescents, ages 12 through 17, who have depression or anxiety
CSHCN Systems of Care	Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system
Flourishing – Young Child	Percent of children, ages 6 months through 5, who are flourishing
Flourishing – Child Adolescent	Percent of children with and without special health care needs, ages 6 through 17, who are flourishing
Adverse Childhood Experiences	Percent of children, ages 0 through 17, who have experienced 2 or more Adverse Childhood Experiences

OUTCOME MEASURE
Severe Maternal Morbidity

**Rate of severe maternal morbidity per 10,000
delivery hospitalizations**

GOAL

To reduce life-threatening maternal illness and complications.

DEFINITION

Numerator: Number of delivery hospitalizations with an indication of severe morbidity from diagnosis or procedure codes (e.g. heart or kidney failure, stroke, embolism, hemorrhage).

Denominator: Number of delivery hospitalizations

Units: 10,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) 05 Objective: Reduce severe maternal complications identified during delivery hospitalizations. (Baseline: 68.7 per 10,000 delivery hospitalizations in 2017, Target: 61.8 per 10,000 delivery hospitalizations)

DATA SOURCES

Healthcare Cost and Utilization Project (HCUP) - State Inpatient Database (SID)

SIGNIFICANCE

Over 30,000 women experience severe maternal morbidity during delivery hospitalizations every year.¹ This includes significant life-threatening complications, such as hemorrhage, infection, and cardiac events, that may require lengthy hospital stays with long-term health consequences.^{2,3} Many more women require blood transfusions but there is significant under-reporting with the transition to ICD-10 coding and it may not reflect severe morbidity in the absence of other indicators. Rises in chronic conditions, including obesity, diabetes, hypertension, and cardiovascular disease, are likely to have contributed to rises in severe maternal morbidity.² Minority women and particularly non-Hispanic black women have higher rates of severe maternal morbidity.³

- (1) Agency for Healthcare Research and Quality. Healthcare Cost and Utilization Project (HCUP) FastStats. https://dataviz.ahrq.gov/views/HCUP_FastStats_SMM_AHRQ_DTPDM_v2_1/Trend
- (2) Centers for Disease Control and Prevention. Reproductive Health: Severe Maternal Morbidity in the United States. 2021 February 2. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html>
- (3) Fingar KR, Hambrick MM, Heslin KC, Moore JE. Trends and Disparities in Delivery Hospitalizations Involving Severe Maternal Morbidity, 2006–2015. In: Healthcare Cost and Utilization Project (HCUP) Statistical Briefs. Rockville (MD): Agency for Healthcare Research and Quality (US); September 4, 2018. <https://hcup-us.ahrq.gov/reports/statbriefs/sb243-Severe-Maternal-Morbidity-Delivery-Trends-Disparities.jsp>

OUTCOME MEASURE
Maternal Mortality

Maternal mortality rate per 100,000 live births

GOAL

To reduce the maternal mortality rate.

DEFINITION

Numerator: Number of deaths related to or aggravated by pregnancy, but not due to accidental or incidental causes, and occurring within 42 days of the end of a pregnancy (follows WHO definition)

Denominator: Number of live births

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) 04 Objective: Reduce maternal deaths (Baseline: 17.4 maternal deaths per 100,000 live births in 2018, Target: 15.7 maternal deaths per 100,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS) for states and territories

United Nations Maternal Mortality Estimation Interagency Group for the Freely Associated States in the Pacific Basin

SIGNIFICANCE

Maternal mortality is a sentinel indicator of health and health care quality worldwide. Each year, more than 800 women die of maternal causes. Maternal mortality rates increased during the COVID-19 pandemic. In 2021, the U.S. maternal mortality rate was 32.9 per 100,000 live births compared to 23.8 in 2020 and 20.1 in 2019. There are also significant racial disparities with non-Hispanic Black women (56.1) and American Indian/Alaska Native women (71.3) being more than 2 and 3 times as likely to die from maternal causes, respectively, than White women (21.2) from 2019-2021. Maternal deaths can be prevented or reduced both by improving underlying maternal health as well as health care quality for leading causes of maternal death, such as hemorrhage and preeclampsia.

- (1) Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2021 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 2018-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10-expanded.html>
- (2) Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database. Data are from the Natality Records 2016-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/natality-expanded-current.html>
- (3) Hoyert DL. Maternal mortality rates in the United States, 2020. NCHS Health E-Stats. 2022. DOI: <https://dx.doi.org/10.15620/cdc:113967>

OUTCOME MEASURE
Teen Births

Teen birth rate, ages 15 through 19, per 1,000 females

GOAL

To reduce pregnancies to teenagers.

DEFINITION

Numerator: Number of births to adolescents, ages 15 through 19 years

Denominator: Number of adolescent females, ages 15 through 19 years

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Family Planning (FP) 03: Reduce pregnancies among adolescent females. (Baseline: 43.4 pregnancies per 1,000 females aged 15 to 19 years occurred in 2013, Target 31.4 pregnancies per 1,000 females)

DATA SOURCES

National Vital Statistics System (NVSS) for states and territories

Population estimates come from the U.S. Census Bureau

United Nations Population Division for the Freely Associated States in the Pacific Basin

SIGNIFICANCE

Teen pregnancy and childbearing have substantial social and economic costs for both teens and their children. Teen mothers are less likely to complete high school and further education which may reduce earning potential and contribute to intergenerational poverty. Although teen pregnancy and birth rates have declined substantially over the past two decades, rates are still higher than in many other industrialized countries and large racial/ethnic disparities persist. Birth rates for American Indian/Alaska Native, non-Hispanic Black, Native Hawaiian/Other Pacific Islander, and Hispanic teens are approximately double that of non-Hispanic White teens.

- (1) Centers for Disease Control and Prevention. Reproductive Health: Teen Pregnancy. 2019 March 1. <https://www.cdc.gov/teenpregnancy/about/index.htm>

OUTCOME MEASURE
Low Birth Weight

Percent of low birth weight deliveries (<2,500 grams)

GOAL

To reduce the percent of low birth weight deliveries.

DEFINITION

Numerator: Number of live births weighing less than 2,500 grams

Denominator: Number of live births

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) 07 Objective: Reduce preterm births. (Baseline: 10% of live births were preterm in 2018, Target: 9.4%)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Low birth weight infants include pre-term infants and infants with intrauterine growth retardation¹. Some risk factors for low birth weight babies include: chronic health conditions, inadequate weight gain, both young and old maternal age, poverty, smoking, substance abuse, and multiple births.¹ Low birth weight infants are more likely than normal weight infants to die in the first year of life and to experience long-range physical and developmental health problems.¹ Infants born to non-Hispanic Black women have the highest rates of low birth weight, particularly very low birth weight, with levels that are about two or more times greater than for infants born to women of other race and ethnic groups.² Low Birth Weight is part of the Core Set of Maternal and Perinatal Health Measures for Medicaid and CHIP.

- (1) March of Dimes. Low Birthweight. 2021 June. <https://www.marchofdimes.org/find-support/topics/birth/low-birthweight#:~:text=is%20low%20birth%20weight%3F,Low%20birthweight%20is%20when%20a%20baby%20is%20born,than%205%20pounds%2C%208%20ounces> 21 June
- (2) Osterman M, Hamilton B, Martin JA, Driscoll AK, Valenzuela CP. Births: Final Data for 2020. Natl Vital Stat Rep. 2021;70(17):1-50. <https://stacks.cdc.gov/view/cdc/112078>

OUTCOME MEASURE
Preterm Birth

Percent of preterm births (<37 weeks gestation)

GOAL

To reduce the percent of all preterm, early term, and early elective deliveries.

DEFINITION

Numerator: Number of live births before 37 completed weeks of gestation

Denominator: Number of live births

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) 07 Objective: Reduce preterm births. (Baseline: 10% of live births were preterm in 2018, Target: 9.4%)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Babies born preterm, before 37 completed weeks of gestation, are at greater risk of immediate life-threatening health problems, as well as long-term complications and developmental delays.¹ Currently, about 1 in every 10 infants are born prematurely.¹ Preterm birth is a leading cause of infant death and childhood disability, accounting for at least a third of all infant deaths.¹ Infants born to non-Hispanic Black women have the highest rates of preterm birth, particularly early preterm birth, with levels that are at least 1.5 times those for infants born to women of other race and ethnic groups.² Risk factors include medical and pregnancy conditions, behavioral factors, and social, personal, and economic characteristics.¹

- (1) Centers for Disease Control and Prevention. Preterm birth. 2022 November. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm>
- (2) Osterman M, Hamilton B, Martin JA, Driscoll AK, Valenzuela CP. Births: Final Data for 2020. Natl Vital Stat Rep. 2021;70(17):1-50. <https://stacks.cdc.gov/view/cdc/112078>

OUTCOME MEASURE
Stillbirth

Stillbirth rate per 1,000 live births plus fetal deaths

GOAL

To reduce the rate of stillbirths.

DEFINITION

Numerator: Number of fetal deaths 20 weeks or more gestation

Denominator: Number of live births plus fetal deaths at 20 weeks or more gestation

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) 01 Objective: Reduce the rate of fetal deaths at 20 or more weeks of gestation. (Baseline: 5.9 fetal deaths at 20 or more weeks of gestation per 1,000 live births and fetal deaths in 2017, Target: 5.7 fetal deaths at 20 or more weeks of gestation per 1,000 live births and fetal deaths)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Fetal death at any gestational age is a significant public health problem. There are as many stillbirths, fetal deaths occurring at 20 weeks or more gestation, as infant deaths each year. Risk factors for stillbirth include older maternal age, smoking during pregnancy, maternal obesity, uncontrolled hypertension or diabetes, multiple pregnancies such as triplets and quadruplets, and previous poor pregnancy outcome.¹ The rate is particularly high for non-Hispanic Black women, being more than twice the rate for non-Hispanic white women.²

(1) Centers for Disease Control and Prevention (CDC). What is Stillbirth?. September 29, 2023. <https://www.cdc.gov/ncbddd/stillbirth/facts.html>

(2) Gregory EC, Valenzuela CP, Hoyert DL. Fetal Mortality: United States, 2020. Natl Vital Stat Rep. 2022;71(4):1-20. <https://www.cdc.gov/nchs/data/nvsr/nvsr71/nvsr71-04.pdf>

OUTCOME MEASURE
Perinatal Mortality

Perinatal mortality rate per 1,000 live births plus fetal deaths

GOAL

To reduce the rate of perinatal deaths.

DEFINITION

Numerator: Number of fetal deaths 28 weeks or more gestation plus early neonatal deaths occurring under 7 days

Denominator: Number of live births plus fetal deaths at 28 weeks or more gestation

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) 01 Objective: Reduce the rate of fetal deaths at 20 or more weeks of gestation. (Baseline: 5.9 fetal deaths at 20 or more weeks of gestation per 1,000 live births and fetal deaths in 2017, Target: 5.7 fetal deaths at 20 or more weeks of gestation per 1,000 live births and fetal deaths)

Related to Maternal, Infant, and Child Health (MICH) Objective 02: Reduce the rate of infant deaths within 1 year of age. (Baseline: 5.8 infant deaths per 1,000 live births within the first year of life in 2017, Target: 5.0 infant deaths per 1,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Perinatal mortality is a reflection of the health of the pregnant woman and newborn as well as the quality of perinatal care. Risk factors for perinatal mortality include smoking during pregnancy, maternal obesity, uncontrolled hypertension or diabetes, infections and previous poor pregnancy outcome.¹ Late fetal deaths are just as common as early neonatal deaths with a rate similar to overall infant mortality.¹ The perinatal mortality rate is particularly high for non-Hispanic Black women, being more than twice the rate for non-Hispanic white women.²

(1) MacDorman MF, Gregory EC. Fetal and Perinatal Mortality: United States, 2013. Natl Vital Stat Rep. 2015;64(8):1-24. https://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_08.pdf

(2) Gregory ECW, Drake P, Martin JA. Lack of Change in Perinatal Mortality in the United States, 2014-2016. NCHS Data Brief. 2018;(316):1-8. <https://www.cdc.gov/nchs/data/databriefs/db316.pdf>

OUTCOME MEASURE
Infant Mortality

Infant mortality rate per 1,000 live births

GOAL

To reduce the rate of infant death.

DEFINITION

Numerator: Number of deaths to infants from birth up to 1 year of age

Denominator: Number of live births

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) Objective 02: Reduce the rate of infant deaths within 1 year of age. (Baseline: 5.8 infant deaths per 1,000 live births within the first year of life in 2017, Target: 5.0 infant deaths per 1,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS) for states and territories

United Nations Interagency Group for Child Mortality Estimation for the Freely Associated States in the Pacific Basin

SIGNIFICANCE

Infant mortality, or the death of a child within the first year of life, is a sentinel measure of population health that reflects the underlying well-being of mothers and families, as well as the broader community and social environment that cultivate health and access to health-promoting resources.¹ After a period of stagnation from 2000 to 2005, the U.S. infant mortality rate has continued to decline to record low levels below 6 per 1,000 live births.² However, significant disparities continue to persist between racial groups, especially for infants born to non-Hispanic Black, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Puerto Rican women.² The mortality rate among non-Hispanic Black infants is more than twice that of non-Hispanic White infants.² Leading causes of infant mortality include prematurity, birth defects, and sudden unexpected infant deaths. Infant mortality continues to be an extremely complex health issue with many medical, social, and economic determinants.

- (1) Reno R, Hyder A. The Evidence Base for Social Determinants of Health as Risk Factors for Infant Mortality: A Systematic Scoping Review. *J Health Care Poor Underserved*. 2018;29(4):1188-1208. doi:10.1353/hpu.2018.0091. <https://muse.jhu.edu/article/708237>
- (2) Ely DM, Driscoll AK. Infant Mortality in the United States, 2019: Data From the Period Linked Birth/Infant Death File. *Natl Vital Stat Rep*. 2021;70(14):1-18. <https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-14.pdf>

OUTCOME MEASURE
Neonatal Mortality

Neonatal mortality rate per 1,000 live births

GOAL

To reduce the rate of neonatal deaths.

DEFINITION

Numerator: Number of deaths to infants under 28 days

Denominator: Number of live births

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 02: Reduce the rate of infant deaths within 1 year of age. (Baseline: 5.8 infant deaths per 1,000 live births within the first year of life in 2017, Target: 5.0 infant deaths per 1,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS) for states and territories

United Nations Interagency Group for Child Mortality Estimation for the Freely Associated States in the Pacific Basin

SIGNIFICANCE

Neonatal deaths, within the first month of life, account for approximately two-thirds of all infant deaths in the U.S.¹ Neonatal mortality is related to gestational age, low birth weight, congenital malformations and health problems originating in the perinatal period, such as infections or birth trauma.² A significant disparity exists in neonatal deaths between racial groups, especially for infants born to Black women. Infants born to non-Hispanic black women have the highest neonatal mortality rate, more than twice that for non-Hispanic white women.¹ Neonatal mortality rates are also higher for infants born to Puerto Rican, American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander and Mexican women compared to non-Hispanic white women.¹

- (1) Ely DM, Driscoll AK. Infant Mortality in the United States, 2019:Data From the Period Linked Birth/Infant Death File. Natl Vital Stat Rep. 2021;70(14):1-18. <https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-14.pdf>
- (2) Ely DM, Driscoll AK, Matthews TJ. Infant Mortality by Age at Death in the United States, 2016. NCHS Data Brief. 2018;(326):1-8. <https://www.cdc.gov/nchs/products/databriefs/db326.htm>

OUTCOME MEASURE
Postneonatal Mortality

Postneonatal mortality rate per 1,000 live births

GOAL

To reduce the rate of postneonatal deaths.

DEFINITION

Numerator: Number of deaths to infants from 28 days up to 1 year of age

Denominator: Number of live births

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 02: Reduce the rate of infant deaths within 1 year of age. (Baseline: 5.8 infant deaths per 1,000 live births within the first year of life in 2017, Target: 5.0 infant deaths per 1,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Postneonatal deaths, which occur from one month up to one year after birth, account for approximately one-third of all infant deaths in the U.S.¹ Postneonatal mortality is generally related to Sudden Unexpected Infant Death (SUID)/Sudden Infant Death Syndrome (SIDS), unintentional injuries and congenital malformations.² Similar to overall infant mortality, infants of non-Hispanic black and American Indian/Alaska Native women have the highest postneonatal mortality rates of any group—more than twice those for non-Hispanic white women.¹

- (1) Ely DM, Driscoll AK. Infant Mortality in the United States, 2019:Data From the Period Linked Birth/Infant Death File. Natl Vital Stat Rep. 2021;70(14):1-18. <https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-14.pdf>
- (2) Ely DM, Driscoll AK, Matthews TJ. Infant Mortality by Age at Death in the United States, 2016. NCHS Data Brief. 2018;(326):1-8. <https://www.cdc.gov/nchs/products/databriefs/db326.htm>

OUTCOME MEASURE
Preterm-Related Mortality

Preterm-related mortality rate per 100,000 live births

GOAL

To reduce the rate of preterm-related death.

DEFINITION

Numerator: Number of deaths due to preterm-related causes, following the CDC definition of underlying causes where 75% or more of total infant deaths attributed to that cause were deaths of infants born preterm (<37 weeks of gestation) and the cause of death was a direct consequence of preterm birth based on a clinical evaluation and review of the literature

Denominator: Number of live births

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 02: Reduce the rate of infant deaths within 1 year of age. (Baseline: 5.8 infant deaths per 1,000 live births within the first year of life in 2017, Target: 5.0 infant deaths per 1,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Preterm birth is a leading cause of infant mortality, accounting for approximately one-third of all infant deaths.¹ Preterm-related mortality can be prevented both by reducing preterm birth as well as improving access to risk-appropriate perinatal care for infants born prematurely.² Similar to preterm birth and overall infant mortality, there are significant racial/ethnic disparities in preterm-related mortality. Preterm-related mortality rates are highest for infants born to non-Hispanic black and Puerto Rican women, with rates that are approximately 3 and 2 times higher than non-Hispanic white women, respectively.¹ Preterm-related deaths account for the majority of the overall infant mortality gap for both non-Hispanic black and Puerto Ricans compared with non-Hispanic whites.¹

(1) Infant Mortality in the United States, 2019: Data From the Period Linked Birth/Infant Death File. Natl Vital Stat Rep. 2021;70(14):1-18. <https://www.cdc.gov/nchs/products/databriefs/db326.htm>

(2) American Academy of Pediatrics Committee on Fetus And Newborn. Levels of neonatal care. Pediatrics. 2012;130(3):587-597. doi:10.1542/peds.2012-1999 <https://publications.aap.org/pediatrics/article/130/3/587/30212/Levels-of-Neonatal-Care?autologincheck=redirected>

OUTCOME MEASURE
SUID Mortality

**Sudden Unexpected Infant Death (SUID) rate per
100,000 live births**

GOAL

To reduce the rate sleep-related infant deaths.

DEFINITION

Numerator: Number of SUID deaths, including SIDS (R95), unknown cause (R99), and accidental suffocation and strangulation in bed (W75)

Denominator: Number of live births

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 02: Reduce the rate of infant deaths within 1 year of age. (Baseline: 5.8 infant deaths per 1,000 live births within the first year of life in 2017, Target: 5.0 infant deaths per 1,000 live births)

DATA SOURCES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Sleep-related infant deaths, also called Sudden Unexpected Infant Deaths (SUID) account for the largest share of infant deaths from one month up to one year (postneonatal deaths).¹ Similar to overall infant mortality, SUID rates vary greatly by race and ethnicity, with infants born to American Indian/Alaska Native and non-Hispanic Black mothers having more than twice the rate among infants born to non-Hispanic whites.^{1,2} To reduce SUIDs, the American Academy of Pediatrics recommends safe sleep practices, such as placing babies to sleep on their backs on a separate firm sleep surface without soft objects or loose bedding, as well as other protective practices such as breastfeeding and smoking cessation.¹

- (1) Moon RY, Carlin RF, Hand I; Task Force on Sudden Infant Death Syndrome and the Committee on Fetus And Newborn. Sleep-Related Infant Deaths: Updated 2022 Recommendations for Reducing Infant Deaths in the Sleep Environment. *Pediatrics*. 2022;150(1):e2022057990. doi:10.1542/peds.2022-057990. <https://publications.aap.org/pediatrics/article/150/1/e2022057990/188304/Sleep-Related-Infant-Deaths-Updated-2022>
- (2) Centers for Disease Control and Prevention. Sudden Unexpected Infant Deaths and Sudden Infant Death Syndrome: Data and Statistics. <https://www.cdc.gov/sids/data.htm>

OUTCOME MEASURE
Neonatal Abstinence Syndrome

**Rate of neonatal abstinence syndrome per
1,000 birth hospitalizations**

GOAL

To reduce the rate of infants born with drug dependency.

DEFINITION

Numerator: Number of birth hospitalizations with a diagnosis code of neonatal abstinence syndrome

Denominator: Number of birth hospitalizations

Units: 1,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health Objective 11: Increase abstinence from illicit drugs among pregnant women. (Baseline: 93.0% in 2017-18; Target: 95.3%)

DATA SOURCES

Healthcare Cost and Utilization Project (HCUP) - State Inpatient Database (SID)

SIGNIFICANCE

Neonatal drug dependency or withdrawal symptoms, known as neonatal abstinence syndrome (NAS), predominantly occur from maternal use of opiates such as heroin, methadone, and prescription pain medications. Symptoms of NAS include fever, gastrointestinal dysfunction, high-pitched continuous crying, tremors, and feeding difficulties.¹ From 2000 to 2017, the incidence of NAS increased more than five-fold, from 1.2 to 7.3 per 1,000 birth hospitalizations, with the largest increases among rural and Medicaid-financed births.^{2,3} Prevention strategies exist along the continuum from preconception, prenatal, postpartum, and infant/childhood stages to help avert substance-exposed pregnancies and improve outcomes for infants born with NAS.¹

- (1) Ko JY, Wolicki S, Barfield WD, et al. CDC Grand Rounds: Public Health Strategies to Prevent Neonatal Abstinence Syndrome. *MMWR Morb Mortal Wkly Rep.* 2017;66(9):242-245. Published 2017 Mar 10. doi:10.15585/mmwr.mm6609a2 <https://www.cdc.gov/mmwr/volumes/66/wr/mm6609a2.htm>
- (2) Patrick SW, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. Neonatal abstinence syndrome and associated health care expenditures: United States, 2000-2009. *JAMA.* 2012 May 9;307(18):1934-40. doi: 10.1001/jama.2012.3951. <https://jamanetwork.com/journals/jama/fullarticle/1151530>
- (3) Hirai AH, Ko JY, Owens PL, Stocks C, Patrick SW. Neonatal Abstinence Syndrome and Maternal Opioid-Related Diagnoses in the US, 2010-2017. *JAMA.* 2021 Jan 12;325(2):146-155. doi: 10.1001/jama.2020.24991. <https://jamanetwork.com/journals/jama/fullarticle/2774834>

OUTCOME MEASURE
School Readiness

**Percent of children meeting the criteria
developed for school readiness**

GOAL

To increase the percent of children who are developmentally on track and ready for school.

DEFINITION

Numerator: Number of children, ages 3 through 5, who are reported by a parent to meet age-appropriate developmental expectations in 4 of 5 domains (early learning skills, social-emotional development, self-regulation, motor development, health) without needing support in any domain

Denominator: Number of children, ages 3 through 5

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Early and Middle Childhood (EMC) Objective D01: Increase the proportion of children who are developmentally on track and ready for school. (Developmental)

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Early childhood is a critical period where experiences impact the structural development of the brain and neurobiological pathways for functional development. Studies have shown that children's early learning skills, self-regulation, social emotional development and motor skills at school entry are good predictors of later academic achievement, high levels of education and secure employment. Social gradients in language and literacy, communication and socioemotional functioning emerge early for children across socioeconomic backgrounds, and these differences persist into the school years. Interventions such as home visiting or high-quality preschool may help reduce these disparities, and act as a protective factor against the future onset of adult disease and disability. However, disparities persist in children's access to supportive, nurturing environments and experiences that can optimize development and mitigate risk factors. Efforts to expand and ensure equitable receipt of high-quality early childhood programs may increase development of school readiness skills among young children, setting the stage for optimal learning later in life.

(1) Centers for Disease Control and Prevention. Early Care and Education Portal. 2022 September 21.
<https://www.cdc.gov/earlycare/index.html>

OUTCOME MEASURE
Tooth Decay/Cavities

Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year

GOAL

To reduce the percent of children and adolescents who have dental caries or decayed teeth.

DEFINITION

Numerator: Number of children, ages 1 through 17, who are reported by a parent to have frequent or chronic difficulty with decayed teeth or cavities in the past year

Denominator: Number of children, ages 1 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Oral Health of Children and Adolescents (OH) Objective 01: Reduce the proportion of children and adolescents with lifetime tooth decay experience in their primary or permanent teeth. (Baseline: 48.4% in 2013-16, Target: 42.9%)

Related to Oral Health of Children and Adolescents (OH) Objective 02: Reduce the proportion of children and adolescents with active and currently untreated tooth decay in their primary or permanent teeth. (Baseline 13.4% in 2013-16, Target: 10.2%)

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Tooth decay (cavities) is among the most common chronic conditions of childhood. Untreated tooth decay can lead to pain and infections which may result in problems with eating, speaking, learning and playing. Children with poor oral health tend to miss more school and get lower grades than those who do not. Tooth decay can be prevented through recommended preventive dental care, including fluoride varnish and dental sealants, community water fluoridation, and oral hygiene practices, including brushing and flossing.

- (1) Centers for Disease Control and Prevention. Children's Oral Health. 2022 April 66.
<https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html>

OUTCOME MEASURE
Child Mortality

Child mortality rate, ages 1 through 9, per 100,000

GOAL

To reduce the death rate of children, ages 1 through 9.

DEFINITION

Numerator: Number of deaths among children, ages 1 through 9 years

Denominator: Number of children, ages 1 through 9 years

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 03: Reduce the rate of deaths among children and adolescents aged 1 to 19 years. (Baseline: 25.2 deaths among children and adolescents aged 1 to 19 years per 100,000 population occurred in 2018, Target: 18.4 deaths per 100,000 population)

DATA SOURCES

National Vital Statistics System (NVSS)

Population estimates come from the U.S. Census Bureau

SIGNIFICANCE

Although the risk of death for children declines sharply beyond infancy, there were still over 6,000 deaths among U.S. children ages 1 through 9 in 2021. The child mortality rate significantly increased from 2020 to 2021 by 9% after decreasing steadily for the past 4 years. Over a quarter of the increase was due to COVID-19. Unintentional injury continues to be the leading cause of death in children 1 to 9 years. Other leading causes include congenital malformations, malignant neoplasms, and homicide. COVID-19 was the sixth leading cause of death in 2021.

- (1) Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2021 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 2018-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10-expanded.html> on Feb 3, 2023 11:12:19 AM

OUTCOME MEASURE
Adolescent Mortality

**Adolescent mortality rate, ages 10 through 19,
per 100,000**

GOAL

To reduce the death rate of adolescents, ages 10 through 19.

DEFINITION

Numerator: Number of deaths among adolescents, ages 10 through 19 years

Denominator: Number of adolescents, ages 10 through 19 years

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 03: Reduce the rate of deaths among children and adolescents aged 1 to 19 years. (Baseline: 25.2 deaths among children and adolescents aged 1 to 19 years per 100,000 population occurred in 2018, Target: 18.4 deaths per 100,000 population)

DATA SOURCES

National Vital Statistics System (NVSS)

Population estimates come from the U.S. Census Bureau

SIGNIFICANCE

Although the risk of death declines sharply in early childhood, mortality rates begin to increase again in adolescence. Over 13,000 deaths occurred among U.S. children ages 10 through 19 in 2019. The leading causes of illness and death among adolescents and young adults are largely preventable. Unintentional injury continues to be the leading cause of death in adolescents 10 to 19 years, followed by suicide, homicide, and malignant neoplasms.

- (1) Heron M. Deaths: Leading Causes for 2019. Natl Vital Stat Rep. 2021;70(9):1-114.
<https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-09-508.pdf>

OUTCOME MEASURE
Adolescent Motor Vehicle
Death

Adolescent motor vehicle mortality rate, ages 15
through 19, per 100,000

GOAL

To reduce the death rate of adolescents, ages 15 through 19, from motor vehicle crashes.

DEFINITION

Numerator: Number of deaths to adolescents, ages 15 through 19 years, caused by motor vehicle crashes. This includes all occupant, pedestrian, motorcycle, bicycle, etc. deaths caused by motor vehicles.

Denominator: Number of adolescents, ages 15 through 19 years

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Objective Injury and Violence Prevention (IVP) 06: Reduce motor vehicle crash-related deaths. (Baseline: 11.2 motor vehicle traffic-related deaths per 100,000 population occurred in 2018 (age adjusted to the year 2000 standard population), Target: 10.1 per 100,000 population)

DATA SOURCES

National Vital Statistics System (NVSS)

Population estimates come from the U.S. Census Bureau

SIGNIFICANCE

Motor vehicle accidents account for over half of all unintentional injury deaths among teenagers.¹ Teenage drivers have crash rates that are nearly three times those of drivers older than 20 years.² Factors related to lack of driving experience and maturity contribute to motor vehicle mortality, such as speeding, distracted driving, reckless driving, impaired driving, not wearing seatbelts, and presence of other teenage passengers.² Males ages 16-19 are three times as likely to die in motor vehicle accidents as females the same age.²

(1) Centers for Disease Control and Prevention. WISQARS—Web-based Injury Statistics Query and Reporting System. 2021 December. <https://www.cdc.gov/injury/wisqars/index.html>

(2) Centers for Disease Control and Prevention. Teen Drivers: Get the Facts. 2022 November. https://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html

OUTCOME MEASURE
Adolescent Suicide

Adolescent suicide rate, ages 10 through 19, per 100,000

GOAL

To eliminate self-induced, preventable morbidity and mortality.

DEFINITION

Numerator: Number of deaths attributed to suicide among adolescents ages 10 through 19 years

Denominator: Number of adolescents, ages 10 through 19 years

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Mental Health and Mental Disorders (MHMD) Objective 01: Reduce the suicide rate. (Baseline: 14.2 suicides per 100,000 population occurred in 2018 (age adjusted to the year 2000 standard population), Target: 12.8 suicides per 100,000 population)

Related to MHMD Objective 02: Reduce suicide attempts by adolescents. (Baseline: 2.4 suicide attempts per 100 population of students in grades 9 through 12 occurred in the past 12 months, as reported in 2017, Target: 1.8 suicide attempts per 100)

DATA SOURCES

National Vital Statistics System (NVSS)

Population estimates come from the U.S. Census Bureau

SIGNIFICANCE

Suicide is in the top three leading causes of death for adolescents ages 10 through 19 years.¹ Adolescent suicide increased 63% between 2007 and 2021 for 15–19-year-olds and more than tripled for 10- 14-year olds.² Suicide and suicidal ideation is often indicative of mental health problems and stressful or traumatic life events. In 2019, 18.8 percent of high school students reported they had thought seriously about committing suicide in the past year.³ While females are more likely to report considering suicide,³ males are more likely to die by suicide.¹ The suicide mortality rate for males is nearly three times that of females.¹

(1) Heron M. Deaths: Leading Causes for 2019. Natl Vital Stat Rep. 2021;70(9):1-114.

<https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-09-508.pdf>

(2) Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 1999-2020 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 1999-2020, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Sep 18, 2023 10:51:43 AM

(3) Centers for Disease Control, Division of Adolescent and School Health. Youth Risk Behavior Survey: Data Summary and Trends Report, 2009-2019. Mental Health and Suicide. (pp 57-69)

<https://www.cdc.gov/healthyyouth/data/yrbs/pdf/YRBSDataSummaryTrendsReport2019-508.pdf>

OUTCOME MEASURE
Adolescent Firearm Death

Adolescent firearm death rate, ages 10 through 19, per 100,000

GOAL

To reduce the death rate of adolescents, ages 10 through 19, from firearms.

DEFINITION

Numerator: Number of deaths to adolescents, ages 10 through 19 years, caused by firearms.

Denominator: Number of adolescents, ages 10 through 19

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Injury and Violence Prevention (IVP) Objective 13: Reduce firearm-related deaths. (Baseline: 11.9 firearm-related deaths per 100,000 population occurred in 2018, Target: 10.7 per 100,000 population).

DATA SOURCES

National Vital Statistics System (NVSS)
Population estimates come from the U.S. Census Bureau

SIGNIFICANCE

More child and adolescent deaths occur from firearm-related injuries than by any other means.¹ Firearm-related deaths include suicide, homicide, unintentional, and undetermined deaths. Firearm-related deaths increased overall during the COVID-19 pandemic and are involved in nearly 8 in 10 homicides and half of all suicides.² From 2019 to 2020, the firearm-related mortality rate increased by 26% for adolescents aged 15 through 19 years, and 50% for adolescents aged 10 through 14 years.³ Among adolescents aged 15 through 19 years, the vast majority of the increase was due to homicide deaths (90%). Among younger adolescents aged 10 through 14 years, half of the increase was due to homicide deaths and 40% was due to suicide deaths.

- (1) Lee LK, Fleegler EW, Goyal MK, et al. Firearm-Related Injuries and Deaths in Children and Youth [published online ahead of print, 2022 Oct 8]. *Pediatrics*. 2022;10.1542/peds.2022-060071. doi:10.1542/peds.2022-060071 <https://publications.aap.org/pediatrics/article/150/6/e2022060071/189687/Firearm-Related-Injuries-and-Deaths-in-Children>
- (2) CDC Vital Signs: Firearm Deaths Grow, Disparities Widen. 6 June 2022. <https://www.cdc.gov/vitalsigns/firearm-deaths/index.html>
- (3) Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2021 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 2018-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10-expanded.html> on Sep 18, 2023 3:00:50 PM

OUTCOME MEASURE
Injury Hospitalization

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

GOAL

To decrease the rate of hospital admissions for non-fatal injury among children ages 0 through 19.

DEFINITION

Numerators:

Number of hospital admissions with a primary diagnosis of unintentional or intentional injury among children ages 0 through 9 (excludes in-hospital deaths)

Number of hospital admissions with a primary diagnosis of unintentional or intentional injury among adolescents, ages 10 through 19 (excludes in-hospital deaths)

Denominators:

Number of children, ages 0 through 9

Number of adolescents, ages 10 through 19

Units: 100,000

Text: Rate

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Injury and Violence Prevention (IVP) Objective 02: Reduce emergency department (ED) visits for nonfatal injuries. (Baseline: 9,349.5 ED visits per 100,000 population occurred in 2017 (age adjusted to the year 2000 standard population), Target: 7,738.2 ED visits per 100,000 population)

DATA SOURCES

Healthcare Cost and Utilization Project (HCUP) - State Inpatient Database (SID) Population estimates come from the U.S. Census Bureau

SIGNIFICANCE

Unintentional injury is the leading cause of child and adolescent mortality, from age 1 through 19.¹ Yet for every child death, there are an estimated 25 non-fatal hospitalizations,² representing a significant source of disability with lifelong mental, physical, and financial impact.^{1,3} Effective interventions to reduce injury exist but are not fully implemented in systems of care that serve children and their families.² Reducing the burden of nonfatal injury can greatly improve the life course trajectory of infants, children, and adolescents resulting in improved quality of life and cost savings.

(1) CDC. Key Injury and Violence Data. 2017 May 8. https://www.cdc.gov/injury/wisqars/overview/key_data.html

(2) CDC. Child Injury, Vital Signs. 2020 January 6. <https://www.cdc.gov/vitalsigns/childinjury/index.html>

(3) CDC. WISQARS Cost of Injury. 2020. <https://wisqars.cdc.gov/cost/>

OUTCOME MEASURE
Women's Health Status

**Percent of women, ages 18 through 44, in
excellent or very good health**

GOAL

To improve the health status of women of reproductive age.

DEFINITION

Numerator: Number of women, ages 18 through 44, who report to be in excellent or very good health

Denominator: Number of women, ages 18 through 44

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

Behavioral Risk Factor Surveillance System (BRFSS)

SIGNIFICANCE

Self or proxy-reported health status is an indicator of health-related quality of life that is often more predictive of morbidity and mortality than objective measures of health.¹ Among US adults, self-rated health is positively associated with healthier behaviors such as never smoking, non-poor diet, meeting physical activity recommendations, and moderate alcohol consumption.² Self-rated good, very good, or excellent health among women ages 18-44 is a core state preconception health indicator.¹

- (1) Council of State and Territorial Epidemiologists. Core State Preconception Health Care Indicators. Accessed 2022 January 6.
<https://cdn.ymaws.com/www.cste.org/resource/resmgr/MCHIndicators/GeneralHealthStatus.pdf>
- (2) Ware D, Landy DC, Rabil A, Hennekens CH, Hecht EM. Interrelationships between self reported physical health and health behaviors among healthy US adults: From the NHANES 2009-2016. Public Health Pract (Oxf). 2022;4:100277. Published 2022 May 31. doi:10.1016/j.puhip.2022.100277
<https://www.sciencedirect.com/science/article/pii/S2666535222000532>

OUTCOME MEASURE
Children' Health Status

**Percent of children, ages 0 through 17, in
excellent or very good health**

GOAL

To improve the health status of children.

DEFINITION

Numerator: Number of children, ages 0 through 17, who are reported by a parent to be in excellent or very good health

Denominator: Number of children, ages 0 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Overall health status for children provides a global, summary measure of children's health and well-being. Children reported to be in excellent or very good health are more likely to thrive in a variety of health dimensions, including physical and mental health. Self or proxy-reported health status is an indicator of health-related quality of life that is often more predictive of morbidity and mortality than objective measures of health.¹

(1) Centers for Disease Control and Prevention. Health-Related Quality of Life. 2018 October 31.
<https://www.cdc.gov/hrqol/concept.htm>

OUTCOME MEASURE
Child Obesity

Percent of children, ages 2 through 4, and adolescents, ages 6 through 17, who are obese (BMI at or above the 95th percentile)

GOAL

To reduce the percent of children and adolescents with obesity.

DEFINITION

Numerators:

Number of children, ages 2 through 4, with a body mass index (BMI) at or above the sex-and age-specific 95th percentile from the CDC Growth Charts based on measured height and weight (WIC)

Number of adolescents, ages 6 through 17, with a body mass index (BMI) at or above the sex-and age-specific 95th percentile from the CDC Growth Charts based on parent-reported height and weight (NSCH)

Denominators:

Number of children, ages 2 through 4 (WIC)

Number of adolescents, ages 6 through 17 (NSCH)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Nutrition and Weight Status (NWS) Objective 04: Reduce the proportion of children and adolescents with obesity. (Baseline: 17.8% of children and adolescents aged 2 to 19 years had obesity in 2013-16, Target: 15.5%)

DATA SOURCES

Children 2-4 years: Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

Adolescents 6 through 17 years (parent report): National Survey of Children's Health (NSCH)

SIGNIFICANCE

Childhood obesity is a serious health problem in the United States, putting children and adolescents at risk for poor health. Currently, about 1 in 5 school-aged children have obesity. Childhood obesity is associated with a variety of adverse consequences, including an increased risk of cardiovascular disease, type 2 diabetes, asthma, social stigmatization, low self-esteem, and adult obesity. Obesity in adulthood is linked to cardiovascular disease, type 2 diabetes, and cancer, and children with obesity are likely to have more severe obesity and attendant health problems in adulthood. A variety of behavioral, genetic, and environmental factors contribute to obesity including school environments, neighborhood design, access to healthy foods, and access to safe places for physical activity.

(1) Centers for Disease Control and Prevention. Childhood Overweight and Obesity. 2022 April 1. <https://www.cdc.gov/obesity/childhood/index.html>

OUTCOME MEASURE
**Postpartum Depression/
Anxiety**

**Percent of women who experience postpartum
depressive symptoms**
**Percent of women who experience postpartum
anxiety symptoms**

GOAL

To reduce the prevalence of postpartum depression and anxiety.

DEFINITION

Numerators:

Number of women who reported postpartum depressive symptoms (defined as reporting always/often feeling down, depressed, hopeless or always/often having little interest or little pleasure in doing things)

Number of women who reported postpartum anxiety symptoms (defined as always/often feeling nervous, anxious, on edge or always/often not being able to stop or control worrying)

Denominator: Number of women with a recent live birth

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

SIGNIFICANCE

Mental health conditions, including depression and anxiety, are common during the postpartum period. One in eight women report experiencing depressive symptoms following a live birth.¹ While data are limited on the prevalence of postpartum anxiety, it is estimated that 11.5% of pregnant and postpartum people experience perinatal mood and anxiety disorders.² Mental health conditions are associated with several adverse health behaviors and outcomes, including poorer maternal and infant bonding, decreased breastfeeding initiation, and delayed infant development.³ They are also the leading underlying causes of pregnancy-related deaths.⁴

- (1) Bauman BL, Ko JY, Cox S, et al. Vital Signs: Postpartum Depressive Symptoms and Provider Discussions About Perinatal Depression - United States, 2018. *MMWR Morb Mortal Wkly Rep.* 2020;69(19):575-581. Published 2020 May 15. doi:10.15585/mmwr.mm6919a2 <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919a2.htm>
- (2) Slomian J, Honvo G, Emonts P, Reginster JY, Bruyère O. Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes [published correction appears in *Womens Health (Lond)*. 2019 Jan-Dec;15:1745506519854864]. *Womens Health (Lond)*. 2019;15:1745506519844044. doi:10.1177/1745506519844044 <https://journals.sagepub.com/doi/pdf/10.1177/1745506519844044>
- (3) Trost SL, Beaugard J, Njie F, et al. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022. <https://www.cdc.gov/reproductivehealth/maternal-mortality/docs/pdf/Pregnancy-Related-Deaths-Data-MMRCs-2017-2019-H.pdf>

OUTCOME MEASURE
Behavioral/Conduct
Disorders

Percent of children, ages 6 through 11, who have
a behavioral or conduct disorder

GOAL

To reduce the prevalence of behavioral and conduct disorders among children ages 6 through 11.

DEFINITION

Numerator: Number of children, ages 6 through 11 years, who are reported by a parent to have ever been told they have a behavioral or conduct problem by a health care provider or educator and currently have the condition

Denominator: Number of children, ages 6 through 11 years.

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Behavioral and conduct problems include oppositional, inappropriate, negative, or defiant behaviors as well as conduct problems.¹ In 2020-2021, approximately 10% of children ages 6 through 11 were reported by a parent to have ever been told they have a behavioral or conduct problem by a health care provider or educator; 8.9% were reported to currently have a behavioral or conduct problem.² These problems are associated with increased risk of substance use, mental disorders, injury, delinquency, and decreased life expectancy.^{3,4}

- (1) American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5). 5th ed. Arlington, VA: American Psychiatric Association; 2013.
- (2) Child and Adolescent Health Measurement Initiative. 2020-2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved 01/30/23 from <https://www.childhealthdata.org/browse/survey/results?q=9271&r=1&q=1005>
- (3) Erskine HE, Norman RE, Ferrari AJ, et al. Long-Term Outcomes of Attention-Deficit/Hyperactivity Disorder and Conduct Disorder: A Systematic Review and Meta-Analysis. *J Am Acad Child Adolesc Psychiatry*. 2016;55(10):841-850. doi:10.1016/j.jaac.2016.06.016 [https://www.jaacap.org/article/S0890-8567\(16\)31157-1/fulltext](https://www.jaacap.org/article/S0890-8567(16)31157-1/fulltext)
- (4) Scott JG, Giørtz Pedersen M, Erskine HE, et al. Mortality in individuals with disruptive behavior disorders diagnosed by specialist services - A nationwide cohort study. *Psychiatry Res*. 2017;251:255-260. doi:10.1016/j.psychres.2017.02.029 <https://www.sciencedirect.com/science/article/abs/pii/S0165178116314159?via%3Dihub>

OUTCOME MEASURE
**Adolescent Depression/
Anxiety**

**Percent of adolescents, ages 12 through 17, who
have depression or anxiety**

GOAL

To reduce the prevalence of depression and anxiety among adolescents.

DEFINITION

Numerator: Number of adolescents, ages 12 through 17, who are reported by a parent to have ever been told they have depression or anxiety problems by a health care provider and currently have the condition

Denominator: Number of adolescents, ages 12 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

In 2020-2021, 8.4% of adolescents ages 12 through 17 were reported by a parent to currently have depression and 14.5% were reported to have current anxiety problems.¹ Further, the prevalence of depression and anxiety problems have increased significantly between 2016 and 2020,² Children and adolescents with depression or anxiety are at increased risk other mental disorders and problems in school, and those with depression are at increased risk for self-harm and suicide.^{3,4}

- (1) Child and Adolescent Health Measurement Initiative. 2020-2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved 01/26/23 from www.childhealthdata.org.
- (2) Lebrun-Harris LA, Ghandour RM, Kogan MD, Warren MD. Five-Year Trends in US Children's Health and Well-being, 2016-2020 [published correction appears in JAMA Pediatr. 2022 Apr 4;:null][published correction appears in JAMA Pediatr. 2023 Jan 9;:]. JAMA Pediatr. 2022;176(7):e220056. doi:10.1001/jamapediatrics.2022.0056 <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2789946>
- (3) Bitsko RH, Holbrook JR, Ghandour RM, et al. Epidemiology and Impact of Health Care Provider-Diagnosed Anxiety and Depression Among US Children. J Dev Behav Pediatr. 2018;39(5):395-403. doi:10.1097/DBP.0000000000000571 https://journals.lww.com/jrnl/dbp/Abstract/2018/06000/Epidemiology_and_Impact_of_Health_Care.6.aspx
- (4) Merikangas KR, He JP, Burstein M, et al. Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey Replication--Adolescent Supplement (NCS-A). J Am Acad Child Adolesc Psychiatry. 2010;49(10):980-989. doi:10.1016/j.jaac.2010.05.017 [https://www.jaacap.org/article/S0890-8567\(10\)00476-4/fulltext](https://www.jaacap.org/article/S0890-8567(10)00476-4/fulltext)

**OUTCOME MEASURE
CSHCN Systems of Care**

**Percent of children with special health care
needs (CSHCN), ages 0 through 17, who receive
care in a well-functioning system**

GOAL

To ensure access to needed and continuous systems of care for children and youth with special health care needs.

DEFINITION

Numerator: Number of CSHCN, ages 0 through 17, who are reported by a parent to receive all components of a well-functioning system of care (families partner in decision-making if needed, medical home, preventive medical and dental care, continuous and adequate insurance, easy access to services, and preparation for transition to adult health care among adolescents)

Denominator: Number of CSHCN, ages 0 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) Objective 20: Increase the proportion of children and adolescents with special health care needs who receive care in a family-centered, comprehensive, and coordinated system. (Baseline: 15.7% in 2016-17, Target: 19.5%)

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

According to the 2020-2021 NSCH, only 13.7% of CSHCN receive services in a well-functioning system of services.¹ The Omnibus Budget Reconciliation Act of 1989 requires Title V to provide and promote family-centered, community-based, coordinated care and facilitate the development of community-based systems of services for children with special health care needs and their families. To address this requirement a minimum of 30 percent of the Title V Block Grant funding is allocated for this purpose, and HP 2030 Objective MICH-20 establishes the goal to increase the proportion of children with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems.

- (1) Child and Adolescent Health Measurement Initiative. 2020-2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved 01/26/23 from www.childhealthdata.org.
- (2) Strickland BB, Jones JR, Newacheck PW, Bethell CD, Blumberg SJ, Kogan MD. Assessing systems quality in a changing health care environment: the 2009-10 national survey of children with special health care needs. *Matern Child Health J.* 2015;19(2):353-361. doi:10.1007/s10995-014-1517-9 <https://link.springer.com/article/10.1007/s10995-014-1517-9>
- (3) Ghandour RM, Hirai AH, Kenney MK. Children and Youth With Special Health Care Needs: A Profile. *Pediatrics.* 2022;149(Suppl 7):e2021056150D. doi:10.1542/peds.2021-056150D <https://publications.aap.org/pediatrics/article/149/Supplement%207/e2021056150D/188226/Children-and-Youth-With-Special-Health-Care-Needs>

OUTCOME MEASURE
Flourishing

Percent of children, ages 6 months through 5, who are flourishing
Percent of children with and without special health care needs, ages 6 through 17, who are flourishing

GOAL

To increase the percent of children and adolescents who are flourishing.

DEFINITION

Numerators:

Number of children, ages 6 months through 5 years, who are reported by a parent to be flourishing (defined as parental response of always or usually to (1) This child is affectionate and tender with you; (2) This child bounces back quickly when things don't go his/her way; (3) This child shows interest and curiosity in learning new things; and (4) This child smiles and laughs a lot)

Number of children with and without special health care needs, ages 6 years through 17 years, who are flourishing (defined as parental response of always or usually to (1) show interest and curiosity in learning new things, (2) work to finish tasks they start, and (3) stay calm and in control when faced with a challenge")

Denominators:

Number of children ages 6 months through 5 years

Number of children ages 6 through 17 years

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Early and Middle Childhood (EMC) D07: Increase the proportion of children and adolescents who show resilience to challenges and stress (Developmental)

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Improving child health requires supporting efforts that increase flourishing. Flourishing captures a child's ability to cope with stressors and form healthy relationships.¹ In children less than five years, characteristics of flourishing reflect curiosity, resilience, attachment to caregivers, and contentment with life. In youth 6 to 17 years, characteristics of flourishing reflect interest in learning, resilience and self-regulation. Based on 2020-2021 National Survey of Child Health Data, only 80.8% of children ages 6 months - 5 years were flourishing.² The percent of youth flourishing is lower in the older age groups, with only 62.1% of 6-11 year olds and 58.7% of 12-17 year olds flourishing.² Additionally, there are markedly lower rates of flourishing for youth ages 6-17 years with special health care needs (35.2%) compared to those without special health care needs (69.2%).² Supporting programming that promotes characteristics of flourishing in children is essential to ensuring children are well-equipped to navigate and overcome every day and unexpected challenges.¹

- (1) Donney JF, Ghandour RM, Kogan MD, Lewin A. Family-Centered Care and Flourishing in Early Childhood. *Am J Prev Med.* 2022;63(5):743-750. doi:10.1016/j.amepre.2022.06.015
<https://www.sciencedirect.com/science/article/abs/pii/S0749379722003452#:~:text=Flourishing%20reflects%20a%20child's%20ability,child%20needs%20and%20family%20circumstances>.
- (2) Child and Adolescent Health Measurement Initiative. 2020-2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved 01/26/23 from www.childhealthdata.org.

OUTCOME MEASURE
Adverse Childhood
Experiences

Percent of children, ages 0 through 17, who
have experienced 2 or more Adverse
Childhood Experiences

GOAL To reduce the percent of children and adolescents who experience Adverse Childhood Experiences.

DEFINITION

Numerator: Number of children, ages 0 through 17, who are reported by a parent to have experienced 2 or more Adverse Childhood Experiences (hard to cover basics on family's income; parent/guardian divorced or separated; parent/guardian died; parent/guardian served time in jail; saw or hear parents or adults slap, hit, kick, punch one another in the home; was a victim of violence or witnessed violence in his or her neighborhood; lived with anyone who was mentally ill; suicidal or several depressed; lived with anyone who had a problem with alcohol or drugs; was treated or judged unfairly because of his or her race or ethnic group; or was treated or judged unfairly due to sexual orientation or gender identity).

Denominator: Number of children, ages 0 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Injury and Violence Prevention (IVP) D03: Reduce the number of young adults who report 3 or more adverse childhood experiences (Developmental)

DATA SOURCES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Adverse childhood experiences (ACEs) are a serious public health problem that are associated with poor health outcomes across the lifespan.¹ ACEs consist of potentially traumatic events that can result in chronic toxic stress; examples of ACEs include physical or emotional neglect, exposure to violence, or having a family member attempt suicide.^{1,2} Research has shown a strong relationship between increasing number of ACEs and poor health outcomes in childhood and adulthood.¹ Preventing ACEs can reduce many chronic health conditions, including depression in adults by as much as 44% and chronic obstructive pulmonary disease by 27%.³ In 2020-2021, 17.2% of children ages 0-17 had experienced at least two parent-reported ACE in their lifetime.⁴

- (1) Centers for Disease Control and Prevention (2019). Preventing Adverse Childhood Experiences: Leveraging the Best Available Evidence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf>
- (2) Maternal and Child Health Bureau. NSCH Data Brief: Adverse Childhood Experiences. 2020 June. <https://mchb.hrsa.gov/sites/default/files/mchb/data-research/nsch-ace-databrief.pdf>
- (3) Centers for Disease Control and Prevention. Vital Signs | Adverse Childhood Experiences (ACEs). 2021 August 23. <https://www.cdc.gov/vitalsigns/aces/index.html#:~:text=1%20Change%20how%20people%20think%20about%20the%20causes.and%20environments%20where%20children%20live%2C%20learn%2C%20and%20play.>
- (4) Child and Adolescent Health Measurement Initiative. 2020-2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved 01/26/23 from www.childhealthdata.org.

II. National Performance Measures

Short Title	Full Title
Postpartum Visit	A) Percent of women who attended a postpartum checkup within 12 weeks after giving birth and B) Percent of women who attended a postpartum checkup and received recommended care components
Postpartum Mental Health Screening	Percent of women screened for depression or anxiety following a recent live birth
Postpartum Contraception Use	Percent of women using a most or moderately effective contraceptive following a recent live birth
Perinatal Care Discrimination	Percent of women with a recent live birth who experienced racial/ethnic discrimination while getting healthcare during pregnancy, delivery, or at postpartum care
Risk-Appropriate Perinatal Care	Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)
Breastfeeding	A) Percent of infants who are ever breastfed and B) Percent of children, ages 6 month through 2 years, who were breastfed exclusively for 6 months
Safe Sleep	A) Percent of infants placed to sleep on their backs, B) Percent of infants placed to sleep on a separate approved sleep surface, C) Percent of infants placed to sleep without soft objects or loose bedding, D) Percent of infants room-sharing with an adult,
Housing Instability – Pregnancy	Percent of women with a recent live birth who experienced housing instability in the 12 months before a recent live birth
Housing Instability - Child	Percent of children, ages 0 through 11, who experienced housing instability in the past year
Developmental Screening	Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year
Childhood Vaccination	Percent of children who have completed the combined 7-vaccine series (4:3:1:3*:3:1:4) by age 24 months
Preventive Dental Visit – Pregnancy	Percent of women who had a preventive dental visit during pregnancy
Preventive Dental Visit – Child	Percent of children, ages 1 through 17, who had a preventive dental visit in the past year
Physical Activity	Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day
Food Sufficiency	Percent of children, ages 0 through 11, whose households were food sufficient in the past year
Adolescent Well-Visit	Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year
Mental Health Treatment	Percent of adolescents, ages 12 through 17, who receive needed mental health treatment or counseling
Tobacco Use	Percent of adolescents, grades 9 through 12, who currently use tobacco products
Adult Mentor	Percent of adolescents, ages 12 through 17, who have one or more adults outside the home who they can rely on for advice or guidance
Medical Home – Overall	Percent of children with and without special health care needs, ages 0 through 17, who have a medical home
Medical Home – Personal Doctor	Percent of children with and without special health care needs, ages 0 through 17, who have a personal doctor or nurse
Medical Home – Usual Source of Sick Care	Percent of children with and without special health care needs, ages 0 through 17, who have a usual source of sick care
Medical Home – Family Centered Care	Percent of children with and without special health care needs, ages 0 through 17, who have family centered care
Medical Home – Referrals	Percent of children with and without special health care needs, ages 0 through 17, who receive needed referrals
Medical Home – Care Coordination	Percent of children with and without special health care needs, ages 0 through 17, who receive needed care coordination
Transition	Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transition to adult health care
Bullying	Percent of adolescents with and without special health care needs, ages 12 through 17, who are bullied or who bully others

PERFORMANCE MEASURE
Postpartum Visit

**A) Percent of women who attended a postpartum
checkup within 12 weeks after giving birth**
**B) Percent of women who attended a postpartum
checkup and received recommended care
components**

GOAL

To increase the percent of women who have a postpartum visit within 12 weeks after giving birth and received recommended care components.

DEFINITION

Numerators:

A) Number of women who reported attending a postpartum checkup within 12 weeks after giving birth
B) Number of women who reported attending a postpartum checkup within 12 weeks after giving birth and that a healthcare provider talked to them about birth control methods and what to do if they felt depressed or anxious

Denominators:

A) Number of women with a recent live birth
B) Number of women with a recent live birth who reported attending a postpartum checkup within 12 weeks after giving birth

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Pregnancy and Childbirth (MICH) Objective D01: Increase the proportion of women who get screened for postpartum depression (Developmental)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Women/Maternal Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

The postpartum period is an important time for maternal health and well-being. Untreated chronic conditions and pregnancy-related complications increase the risk of adverse health outcomes in the weeks and months following delivery. Data from Maternal Mortality Review Committees in 36 states suggest that more than half of pregnancy-related deaths occur from 7 to 365 days postpartum.¹ A comprehensive postpartum visit is an opportunity to improve maternal health by providing recommended clinical services, including screening, counseling, and management of health issues.² Anticipatory guidance and screening for mental health conditions and contraceptive counseling are key components of postpartum care that are recommended by national quality standards and professional organizations.^{2,3,4} The American College of Obstetricians and Gynecologists (ACOG) recommends that all women have contact with their obstetrician-gynecologists or other obstetric providers within the first three weeks postpartum followed by a comprehensive postpartum visit within 12 weeks after birth.²

- (1) Trost SL, Beauregard J, Njie F, et al. Pregnancy-Related Deaths: [Data from Maternal Mortality Review Committees in 36 US States, 2017–2019](#). Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022.
- (2) [ACOG Committee Opinion No. 736: Optimizing Postpartum Care](#). *Obstet Gynecol*. 2018 Sept; 132(3): 784-785. doi: 10.1097/AOG.0000000000002849.
- (3) Interrante JD, Admon LK, Caroll C, et al. Association of health insurance, geography, and race and ethnicity with disparities in receipt of recommended postpartum care in the US. *JAMA Health Forum*. 2022; 3(10): e223292. doi:10.1001/jamahealthforum.2022.3292
- (4) Centers for Medicare & Medicaid Services. [2023 and 2024 Core Set of Maternal and Perinatal Health Measures for Medicaid and CHIP \(Maternity Core Set\)](#). 2023.

PERFORMANCE MEASURE
Postpartum Mental Health
Screening

Percent of women who were screened for depression or anxiety following a recent live birth

GOAL

To increase the percent of women who receive postpartum depression or anxiety screening.

DEFINITION

Numerator: Number of women who reported that a healthcare provider asked a series of questions, in person or on a form, to know if they were feeling down, depressed, anxious, or irritable since their new baby was born

Denominator: Number of women with a recent live birth

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Pregnancy and Childbirth (MICH) Objective D01: Increase the proportion of women who get screened for postpartum depression (Developmental)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Women/Maternal Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Mental health conditions are common complications during the postpartum period with approximately 1 in 8 women experiencing depressive symptoms following a live birth.¹ Mental health conditions are associated with several adverse health behaviors and outcomes, including poorer maternal and infant bonding, decreased breastfeeding initiation, and delayed infant development.² They are also the leading underlying causes of pregnancy-related deaths.³ Screening for mental health conditions can identify those at risk for depression and increase the provision of treatment or referrals with the potential to reduce other adverse health consequences. Several professional and clinical organizations such as the U.S. Preventive Services Task Force, the American College of Obstetricians and Gynecologists (ACOG), and the American Academy of Pediatrics recommend screening for postpartum depression; ACOG also recommends screening for anxiety symptoms during the postpartum visit.

- (1) Bauman BL, Ko JY, Cox S, et al. Vital Signs: Postpartum Depressive Symptoms and Provider Discussions About Perinatal Depression - United States, 2018. *MMWR Morb Mortal Wkly Rep.* 2020;69(19):575-581. Published 2020 May 15. doi:10.15585/mmwr.mm6919a2. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6919a2.htm>
- (2) Slomian J, Honvo G, Emonts P, Reginster JY, Bruyère O. Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes [published correction appears in *Womens Health (Lond)*. 2019 Jan-Dec;15:1745506519854864]. *Womens Health (Lond)*. 2019;15:1745506519844044. doi:10.1177/1745506519844044 <https://journals.sagepub.com/doi/pdf/10.1177/1745506519844044>
- (3) Trost SL, Beauregard J, Njie F, et al. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022. <https://www.cdc.gov/reproductivehealth/maternal-mortality/docs/pdf/Pregnancy-Related-Deaths-Data-MMRCs-2017-2019-H.pdf>

PERFORMANCE MEASURE
Postpartum Contraception Use

Percent of women who are using a most or moderately effective contraceptive following a recent live birth

GOAL

To increase the percent of women who are using postpartum contraception.

DEFINITION

Numerator: Number of women who reported they are using a most effective (long-acting reversible contraceptive such as contraceptive implants and intrauterine devices or systems as well as irreversible surgical contraception) or moderately effective (injectables, oral pills, patches, rings, or diaphragms) method of contraception

Denominator: Number of women with a recent live birth, excluding those who are currently pregnant

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Family Planning (FP) Objective 10: Increase the proportion of women at risk for unintended pregnancy who use effective birth control. (Baseline: 60.3% in 2015-17, Target: 65.1%)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Women/Maternal Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Contraception is recognized as an effective strategy for reducing unintended pregnancies and achieving healthy birth spacing thereby improving maternal and child health outcomes. In the United States, nearly two-thirds of reproductive-aged women report currently using contraception.¹ However, those at greatest need for contraception may not be accessing or using it. In 2017-2019, 3 in 5 reproductive-aged women from 45 U.S. jurisdictions had an ongoing or potential need for contraceptive services; nearly one-third were not using a method of contraception at last sexual encounter.² Long-acting reversible contraception methods are considered the most effective at preventing pregnancy, while short-acting reversible methods are moderately effective. Improving the uptake and use of these effective contraception methods in the postpartum period can prevent unintended pregnancies and improve health outcomes. Contraceptive care for postpartum women is part of the Core Set of Maternal and Perinatal Health Measures for Medicaid and CHIP.

- (1) Daniels K, Abma JC. Current Contraceptive Status Among Women Aged 15-49: United States, 2017-2019. NCHS Data Brief. 2020;(388):1-8. <https://www.cdc.gov/nchs/data/databriefs/db327-h.pdf>
- (2) Zapata LB, Pazol K, Curtis KM, et al. Need for Contraceptive Services Among Women of Reproductive Age - 45 Jurisdictions, United States, 2017-2019. MMWR Morb Mortal Wkly Rep. 2021;70(25):910-915. Published 2021 Jun 25. doi:10.15585/mmwr.mm7025a2 [https://www.cdc.gov/mmwr/volumes/70/wr/mm7025a2.htm#:~:text=During%202017%E2%80%932019%2C%20in%20the,45.3%25%20\(Puerto%20Rico\)%20to](https://www.cdc.gov/mmwr/volumes/70/wr/mm7025a2.htm#:~:text=During%202017%E2%80%932019%2C%20in%20the,45.3%25%20(Puerto%20Rico)%20to)

PERFORMANCE MEASURE
Perinatal Care Discrimination

Percent of women with a recent live birth who experienced racial/ethnic discrimination while getting healthcare during pregnancy, delivery, or at postpartum care

GOAL

To reduce the percent of women who experience racial/ethnic discrimination while getting healthcare during pregnancy, delivery, or postpartum.

DEFINITION

Numerator: Number of women who reported experiencing discrimination or were prevented from doing something, hassled, or made to feel inferior while getting healthcare during their pregnancy, at delivery, or at postpartum care because of their race, ethnicity or skin color.

Denominator: Number of women with a recent live birth

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Women/Maternal Health or Perinatal/Infant Health

MEASURE DOMAIN

Social Determinants of Health

SIGNIFICANCE

Significant disparities exist in maternal health outcomes especially for some racial and ethnic minority populations in the United States. Black and American Indian/Alaska Native people have pregnancy-related mortality rates that are 2-3 times higher than for White people.¹ These health disparities have persisted over time and are attributable to a combination of factors, including patient, community, health care provider, and systems factors. Racism is a key driver of racial and ethnic inequities that adversely impacts a population's mental and physical health.² In particular, discrimination, a domain of racism, has been found to be associated with poor mental health, adverse physical health outcomes (e.g., hypertension, obesity, cardiovascular disease), and other poor health behaviors and outcomes.³ As a key risk factor for maternal mortality and morbidity, it is important to understand the experiences of racial discrimination, particularly in healthcare settings where pregnant and postpartum people seek care, to more effectively address its impact on maternal health outcomes.

(1) Centers for Disease Control and Prevention. Pregnancy Mortality Surveillance System. 22 June 2022. <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>

(2) Centers for Disease Control and Prevention. Racism and health. 24 November 2021. <https://www.cdc.gov/minorityhealth/racism-disparities/index.html>

(3) Williams DR, Lawrence JA, Davis BA. Racism and Health: Evidence and Needed Research. Annu Rev Public Health. 2019;40:105-125. doi:10.1146/annurev-publhealth-040218-043750 <https://www.annualreviews.org/doi/10.1146/annurev-publhealth-040218-043750>

PERFORMANCE MEASURE
Risk-Appropriate Perinatal
Care

Percent of very low birth weight (VLBW) infants
born in a hospital with a Level III+ Neonatal
Intensive Care Unit (NICU)

GOAL

To ensure that higher risk mothers and newborns deliver at appropriate level hospitals.

DEFINITION

Numerator: Number of VLBW infants born in a hospital with a level III or higher NICU

Denominator: Number of VLBW infants (< 1500 grams)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES

Linked birth hospitalization data from the Healthcare Cost and Utilization Project (HCUP) and hospital data on NICU levels from American Hospital Association survey

MCH POPULATION DOMAIN

Perinatal/Infant Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Very low birth weight infants (<1,500 grams or 3.25 pounds) are the most fragile newborns with a risk of death 100 times higher than that of normal birth weight infants ($\geq 2,500$ grams or 5.5 pounds).¹ VLBW infants are significantly more likely to survive and thrive when born in a facility with a level-III Neonatal Intensive Care Unit (NICU), a subspecialty facility equipped to handle high-risk neonates. In 2012, the AAP provided updated guidelines on the definitions of neonatal levels of care to include Level I (basic care), Level II (specialty care), and Levels III and IV (subspecialty intensive care) based on the availability of appropriate personnel, physical space, equipment, and organization.² Given overwhelming evidence of improved outcomes, the AAP recommends that VLBW and/or very preterm infants (<32 weeks' gestation) be born in only level III or IV facilities.²

- (1) Ely DM, Driscoll AK. Infant Mortality in the United States, 2020: Data From the Period Linked Birth/Infant Death File. Natl Vital Stat Rep. 2022;71(5):1-18. https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_10-508.pdf
- (2) American Academy of Pediatrics Committee on Fetus And Newborn. Levels of neonatal care. Pediatrics. 2012;130(3):587-597. doi:10.1542/peds.2012-1999 <https://publications.aap.org/pediatrics/article/130/3/587/30212/Levels-of-Neonatal-Care>

PERFORMANCE MEASURE
Breastfeeding

- A) Percent of infants who are ever breastfed**
 - B) Percent of children, ages 6 months through 2 years, who were breastfed exclusively for 6 months**
-

GOAL

To increase the percent of infants who are breastfed and who are breastfed exclusively for six months.

DEFINITION

Numerators:

- A) Number of infants for whom breastfeeding was initiated by hospital discharge
- B) Number of children, ages 6 months through 2 years, who are reported by a parent to have been breastfed or fed breast milk exclusively for 6 months

Denominators:

- A) Number of live births, excluding those transferred to another facility within 24 hours and who died before completion of the report (NVSS)
- B) Number of children, ages 6 months through 2 years (NSCH)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 15: Increase the proportion of infants who are breastfed exclusively through 6 months (Baseline: 24.9% of infants born in 2015, Target: 42.4%)

Related to MICH Objective 16: Increase the proportion of infants who are breastfed at 1 year (Baseline: 35.9% of infants born in 2015, Target: 54.1%)

DATA SOURCES

National Vital Statistics System (NVSS) for states and territories
National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Perinatal/Infant Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

The American Academy of Pediatrics (AAP) recommends all infants (including premature and sick newborns) exclusively breastfeed for about six months, followed by continued breastfeeding as complementary foods are introduced for 2 years or longer. However, significant differences in breastfeeding initiation and duration persist by socioeconomic status and race/ethnicity. Breastfeeding supports optimal growth and development, strengthens the immune system, reduces respiratory infections, gastrointestinal illness, and SIDS, and promotes neurodevelopment. Breastfed children may also be less likely to develop diabetes, childhood obesity, and asthma. Maternal benefits include reduced postpartum blood loss due to oxytocin release and possible protective effects against breast and ovarian cancer, diabetes, hypertension, and heart disease.

(1) Meek JY, Noble L; Section on Breastfeeding. Policy Statement: Breastfeeding and the Use of Human Milk. Pediatrics. 2022;150(1):e2022057988. doi:10.1542/peds.2022-057988.
<https://publications.aap.org/pediatrics/article/150/1/e2022057988/188347/Policy-Statement-Breastfeeding-and-the-Use-of>

PERFORMANCE MEASURE
Safe Sleep

- A) Percent of infants placed to sleep on their backs
 - B) Percent of infants placed to sleep on a separate approved sleep surface
 - C) Percent of infants placed to sleep without soft objects or loose bedding
 - D) Percent of infants room-sharing with an adult during sleep
-

GOAL

To increase the percent of infants placed to sleep on their backs and in a safe sleep environment.

DEFINITION

Numerators:

- A) Number of women who reported that they placed their infant to sleep only on their backs (not stomach or side) in the past two weeks
- B) Number of women who reported that their infant always slept alone in their own crib or bed while they themselves were sleeping in the past two weeks. Cribs or beds include a crib, portable crib, or bassinet, and *not* a twin or larger mattress or bed, couch, sofa, armchair, car seat, swing, rocker, or other inclined sleeper.
- C) Number of women who reported that their infant was *not* placed to sleep with comforters, quilts, blankets, non-fitted sheets, soft toys, cushions, pillows (including nursing pillows), or crib bumper pads (mesh or non-mesh) in the past two weeks
- D) Number of women who reported that their infant's crib or bed was in the same room where they or another adult slept in the past two weeks

Denominators:

A-D) Number of women with a recent live birth, excluding those whose infant has died or is not currently living with them

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 14: Increase the proportion of infants placed to sleep on their backs (Baseline: 78.7% of infants born in 2016; Target: 88.9%);

Related to MICH Objective D3: Increase the proportion of infants who are put to sleep in a safe sleep environment. (Developmental)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Perinatal/Infant Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Sleep-related infant deaths, also called Sudden Unexpected Infant Deaths (SUID), account for the largest share of infant deaths after the first month of life.¹ SUID includes Sudden Infant Death Syndrome (SIDS), ill-defined deaths, and accidental suffocation and strangulation in bed. Due to heightened risk of SIDS when infants are placed to sleep in side (lateral) or stomach (prone) sleep positions, the American Academy of Pediatrics (AAP) has long recommended the back (supine) sleep position. To further reduce SUID, the AAP has several other recommendations for a safe sleep environment that include using a firm non-inclined sleep surface (e.g., crib or bassinet), room-sharing without bed-sharing, and avoiding soft bedding and overheating.²

- (1) Moon RY, Carlin RF, Hand I; Task Force on Sudden Infant Death Syndrome and the Committee on Fetus And Newborn. Evidence Base for 2022 Updated Recommendations for a Safe Infant Sleeping Environment to Reduce the Risk of Sleep-Related Infant Deaths. *Pediatrics*. 2022;150(1):e2022057991. <https://publications.aap.org/pediatrics/article/150/1/e2022057990/188304/Sleep-Related-Infant-Deaths-Updated-2022>
- (2) Moon RY, Carlin RF, Hand I; Task Force on Sudden Infant Death Syndrome and the Committee on Fetus And Newborn. Sleep-Related Infant Deaths: Updated 2022 Recommendations for Reducing Infant Deaths in the Sleep Environment. *Pediatrics*. 2022;150(1):e2022057990. doi:10.1542/peds.2022-057990. <https://publications.aap.org/pediatrics/article/150/1/e2022057991/188305/Evidence-Base-for-2022-Updated-Recommendations-for>

PERFORMANCE MEASURE
Housing Instability

Percent of women with a recent live birth who experienced housing instability in the 12 months before a recent live birth
Percent of children, ages 0 through 11, who experienced housing instability in the past year

GOAL

To reduce the percent of pregnant women and children experiencing housing instability.

DEFINITION

Numerators:

Number of women who reported being evicted, homeless, or lacking a regular place to sleep in the 12 months prior to delivering an infant

Number of children, ages 0 through 11, whose parents reported being behind on a housing payment in the past year, that the child had lived in three or more places in the past year, or that they had ever been homeless

Denominators:

Number of women with a recent live birth (PRAMS)

Number of children ages 0 through 11 (NSCH)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Social Determinants of Health (SDOH) Objective 4: Reduce the proportion of families that spend more than 30 percent of income on housing (Baseline: 34.6% in 2017, Target: 25.5%)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Perinatal/Infant Health and/or Child Health

MEASURE DOMAIN

Social Determinants of Health

SIGNIFICANCE

Safe and secure housing is a fundamental social determinant health. Housing instability can include a variety of challenges, such as difficulty making housing payments, overcrowding, moving frequently, eviction, and homelessness.¹ In pregnancy, housing instability is associated with inadequate prenatal care and adverse birth outcomes, including low birthweight and preterm birth.² Housing instability, particularly in early childhood, is linked to poor health and development.^{1,3} Homelessness is the most extreme form of housing instability. The highest risk period for sheltered homelessness is the first year of life and families with children comprise a third of all sheltered homeless people.⁴ Housing instability disproportionately burdens those with lower income and Black and Hispanic populations.¹⁻⁴

- (1) Healthy People 2030. Housing instability. <https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/housing-instability>
- (2) DiTosto JD, Holder K, Soyemi E, Beestrum M, Yee LM. Housing instability and adverse perinatal outcomes: a systematic review. *Am J Obstet Gynecol MFM*. 2021;3(6):100477. doi:10.1016/j.ajogmf.2021.100477. <https://www.sciencedirect.com/science/article/abs/pii/S2589933321001725>
- (3) Bess KD, Miller AL, Mehdipanah R. The effects of housing insecurity on children's health: a scoping review [published online ahead of print, 2022 Feb 4]. *Health Promot Int*. 2022;daac006. doi:10.1093/heapro/daac006 <https://academic.oup.com/heapro/advance-article-abstract/doi/10.1093/heapro/daac006/6522744>
- (4) U.S. Department of Housing and Urban Development. The 2017 Annual Homeless Assessment Report (AHAR) to Congress, Part 2: Estimates of Homelessness in the United States. <https://www.huduser.gov/portal/datasets/ahar/2017-ahar-part-2-estimates-of-homelessness-in-the-us.html>

PERFORMANCE MEASURE **Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year**
Developmental Screening

GOAL

To increase the percent of children who receive a developmental screening.

DEFINITION

Numerator: Number of children, ages 9 through 35 months (2 years), whose parents reported completing a standardized developmental screening questionnaire from a health care provider in the past year with age-specific content on language development and social behavior

Denominator: Number of children, ages 9 through 35 months

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) Objective 17: Increase the proportion of children who receive a developmental screening. (Baseline: 31.1% in 2016-17, Target: 35.8%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Child Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Early identification of developmental delays and disabilities is critical to provide referrals to services that can promote health and educational success.¹ It is an integral function of the primary care medical home. The American Academy of Pediatrics (AAP) recommends developmental screening at the 9, 18, and 24 or 30 month visit.¹ Developmental screening is part of the Core Set of Children's Health Care Quality Measures for Medicaid and CHIP. Systems-level quality improvement efforts that build on the medical home are needed to improve rates of developmental screening and surveillance.²

- (1) Council on Children With Disabilities; Section on Developmental Behavioral Pediatrics; Bright Futures Steering Committee; Medical Home Initiatives for Children With Special Needs Project Advisory Committee. Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening [published correction appears in Pediatrics. 2006 Oct;118(4):1808-9]. Pediatrics. 2006;118(1):405-420. doi:10.1542/peds.2006-1231 <https://publications.aap.org/pediatrics/article/118/1/405/69580/Identifying-Infants-and-Young-Children-With>
- (2) Hirai AH, Kogan MD, Kandasamy V, Reuland C, Bethell C. Prevalence and Variation of Developmental Screening and Surveillance in Early Childhood. JAMA Pediatr. 2018 Sep 1;172(9):857-866. doi: 10.1001/jamapediatrics.2018.1524. <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2686728>

PERFORMANCE MEASURE Childhood Vaccination

Percent of children who have completed the combined 7-vaccine series (4:3:1:3*:3:1:4) by age 24 months

GOAL

To increase the percent of children and adolescents who have completed recommended vaccines.

DEFINITION

Numerator: Number of children who have completed the combined 7-vaccine series of routinely recommended vaccinations (4:3:1:3*:3:1:4 or ≥4 doses of diphtheria and tetanus toxoids and acellular pertussis vaccine; ≥3 doses of poliovirus vaccine; ≥1 dose of measles-containing vaccine; ≥3 or ≥4 doses (depending upon product type) of Haemophilus influenzae type b conjugate vaccine; ≥3 doses of hepatitis B vaccine; ≥1 dose of varicella vaccine; and ≥4 doses of pneumococcal conjugate vaccine) by age 24 months

Denominator: Number of children born in a calendar year

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to IID Objective 02: Reduce the proportion of children who receive 0 doses of recommended vaccines by age 2 years. (Baseline: 1.3% of children born in 2015 had received 0 doses of recommended vaccines by their 2nd birthday, Target: 1.3%)

Related to Immunization and Infectious Disease (IID) Objective 06: Increase the vaccination coverage level of 4 doses of the diphtheria-tetanus-acellular pertussis (DTaP) vaccine among children by age 2 years. (Baseline: 80.7% of children born in 2015 received 4 or more doses of DTaP by their 2nd birthday, Target: 90.0%)

Related to IID Objective 03: Maintain the vaccination coverage level of 1 doses of the measles-mumps-rubella (MMR) vaccine among children by age 2 years. (Baseline: 90.8% of children born in 2015 received at least 1 does of MMR by their 2nd birthday, Target: 90.8%)

DATA SOURCES

National Immunization Survey (NIS)

MCH POPULATION DOMAIN

Child Health

MEASURE DOMAIN

Clinical Health System/Health Behavior

SIGNIFICANCE

Vaccination is one of the greatest public health achievements of the 20th century, resulting in dramatic declines in morbidity and mortality for many infectious diseases.¹ Childhood vaccination in particular is considered among the most cost-effective preventive services available, as it averts a potential lifetime lost to death and disability.² Currently, there are 15 different vaccines recommended by the Centers for Disease Control and Prevention from birth through age 18, many of which require multiple doses for effectiveness as well as boosters to sustain immunity.³ While there was no significant decline in overall vaccination coverage for the combined 7-vaccine series for children aged 24 months in 2020 and 2021, the first two years of the COVID-19 pandemic, vaccination coverage declined, however, for by 4-5 percentage points for children living below the federal poverty line or in rural areas.^{4H} The childhood immunization status measure for health plans is part of the Core Set of Children's Health Care Quality Measures for Medicaid and CHIP and the National Committee for Quality Assurance's Healthcare Effectiveness Data and Information Set.

- (1) Centers for Disease Control and Prevention (CDC). Ten great public health achievements--United States, 1900-1999. MMWR Morb Mortal Wkly Rep. 1999;48(12):241-243. <https://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>
- (2) Maciosek MV, LaFrance AB, Dehmer SP, et al. Updated Priorities Among Effective Clinical Preventive Services [published correction appears in Ann Fam Med. 2017 Mar;15(2):104]. Ann Fam Med. 2017;15(1):14-22. doi:10.1370/afm.2017. <https://www.annfammed.org/content/15/1/14>
- (3) Centers for Disease Control and Prevention. Immunization Schedules. 2020 February 3. <https://www.cdc.gov/vaccines/schedules/>
- (4) Hill HA, Chen M, Elam-Evans LD, Yankey D, Singleton JA. Vaccination Coverage by Age 24 Months Among Children Born During 2018-2019 - National Immunization Survey-Child, United States, 2019-2021. MMWR Morb Mortal Wkly Rep. 2023;72(2):33-38. Published 2023 Jan 13. doi:10.15585/mmwr.mm7202a3 https://www.cdc.gov/mmwr/volumes/72/wr/mm7202a3.htm#T2_down

PERFORMANCE MEASURE
Preventive Dental Visit

Percent of women who had a preventive dental visit during pregnancy
Percent of children, ages 1 through 17, who had a preventive dental visit in the past year

GOAL

To increase the percentage of pregnant women and children who receive preventive dental visits.

DEFINITION

Numerators:

Number of women who reported having their teeth cleaned by a dentist or dental hygienist during pregnancy

Number of children, ages 1 through 17, who are reported by a parent to have seen a dentist or other oral health care provider for preventive dental care in the past year

Denominators:

Number of women with a recent live birth (PRAMS)

Number of children, ages 1 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Oral Health (OH) Objective 08: Increase the proportion of children, adolescents, and adults who use the oral health care system. (Baseline: 43.3% in 2016 (age adjusted to the year 2000 standard population), Target: 45.0%)

Related to Oral Health (OH) Objective 09. Increase the proportion of low income youth who have a preventive dental visit. (Baseline: 78.8% in 2016-17, Target: 82.7%)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Women/Maternal Health, Child Health, and/or Adolescent Health

MEASURE DOMAIN

Clinical Health System

SIGNIFICANCE

Oral health is a vital component of overall health and oral health care remains the greatest unmet health need for children. Insufficient access to oral health care and effective preventive services affects children's health, education, and ability to prosper. To prevent tooth decay and oral infection, the American Academy of Pediatric Dentistry (AAPD) recommends preventive dental care for all children after the eruption of the first tooth or by 12 months of age, usually at intervals of every 6 months.¹ Oral Evaluation Dental Services is part of the Core Set of Children's Health Care Quality Measures for Medicaid and CHIP.

- (1) Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents. *Pediatr Dent.* 2017;39(6):188-196. <https://www.aapd.org/research/oral-health-policies--recommendations/periodicity-of-examination-preventive-dental-services-anticipatory-guidance-counseling-and-oral-treatment-for-infants-children-and-adolescents/>
- (2) Committee Opinion No. 569: oral health care during pregnancy and through the lifespan. *Obstet Gynecol.* 2013;122(2 Pt 1):417-422. doi:10.1097/01.AOG.0000433007.16843.10 https://journals.lww.com/greenjournal/Fulltext/2013/08000/Committee_Opinion_No_569_Oral_Health_Care_During.47.aspx#:~:text=Oral%20health%20is%20an%20important,%2C%20diabetes%2C%20and%20other%20disorders.

PERFORMANCE MEASURE
Physical Activity

**Percent of children, ages 6 through 11,
who are physically active at least 60
minutes per day**

GOAL

To increase the percent of children who are physically active.

DEFINITION

Numerator: Number of children, ages 6 through 11, who are reported by a parent to be physically active at least 60 minutes per day in the past week

Denominator: Number of children, ages 6 through 11

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Physical Activity Objective 09: Increase the proportion of children who meet the current aerobic physical activity guideline. (Baseline: 25.9% of children aged 6 to 13 years met the current aerobic physical activity guideline in 2016-17, Target: 30.4%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Child Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Physical activity in children improves bone health, weight status, cardiorespiratory and cardiometabolic health, and brain health, including improved cognition and reduced depressive symptoms. Physical activity reduces the risk of early life risk factors for cardiovascular disease, hypertension, Type II diabetes, and osteoporosis. In addition to aerobic and muscle-strengthening activities, bone-strengthening activities are especially important for children and young adolescents because the majority of peak bone mass is obtained by the end of adolescence.

- (1) U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans, 2nd edition*. Washington, DC: U.S. Department of Health and Human Services; 2018.
https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf

PERFORMANCE MEASURE
Food Sufficiency

Percent of children, ages 0 through 11, whose households were food sufficient in the past year

GOAL

To increase the percent of children whose households are always able to afford to eat good nutritious food.

DEFINITION

Numerator: Number of children, ages 0 through 11, whose households are reported by a parent to have always been able to afford to eat good nutritious food in the past year.

Denominator: Number of children, ages 0 through 11

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Nutrition and Weight Status Objective 01: Reduce household food insecurity and hunger (Baseline: 11.1% of households were food insecure in 2018, Target: 6.0%)

Related to Nutrition and Weight Status Objective 02: Eliminate very low food security in children (Baseline: 0.59% of households with children under 18 years had very low food security among children in 2018, Target: 0.0%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Child Health

MEASURE DOMAIN

Social Determinants of Health

SIGNIFICANCE

In 2021, 12.8% of children lived in food insecure households.¹ Food insecurity had been decreasing since the Great Recession, but the number of children in food insecure households increased by 10% in 2020 due to the COVID-19 Pandemic. The percentage sharply declined by 20% in 2021, the lowest prevalence on record since 1998. There were several temporary measures taken as part of the Public Health Emergency response to expand benefits and access to programs such as SNAP, WIC, and the National School Lunch Program plus general economic relief.^{1,2} Large disparities exist by race/ethnicity, disability status, urbanicity, and family structure.³ Food insecurity among children is associated with poor health status, mental health problems, behavioral and socio-emotional problems, and poor educational performance and academic outcomes.⁴

(1) Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, Anita Singh, September 2022. Household Food Security in the United States in 2021, ERR-309, U.S. Department of Agriculture, Economic Research Service. <https://www.ers.usda.gov/webdocs/publications/104656/err-309.pdf>

(2) U.S. Department of Agriculture. FNS Responds to COVID-19. (n.d.) <https://www.fns.usda.gov/coronavirus>

(3) Ullmann H, Weeks JD, Madans JH. Children Living in Households That Experienced Food Insecurity: United States, 2019-2020. NCHS Data Brief. 2022;(432):1-8. <https://www.cdc.gov/nchs/products/databriefs/db432.htm#:~:text=Summary-.In%202019%E2%80%932020%2C%2010.8%25%20of%20children%20aged%20%E2%80%93,or%20age%20of%20the%20child.>

(4) Food Research and Action Center (FRAC). The impact of poverty, food insecurity, and poor nutrition on health and well-being. 2017 December. <https://frac.org/wp-content/uploads/hunger-health-impact-poverty-food-insecurity-health-well-being.pdf>

**PERFORMANCE MEASURE
Adolescent Well-Visit**

**Percent of adolescents, ages 12 through 17,
with a preventive medical visit in the past year**

GOAL

To increase the percent of adolescents who have a preventive medical visit.

DEFINITION

Numerator: Number of adolescents, ages 12 through 17, who are reported by a parent to have had a preventive medical check-up with a health care provider in the past year

Denominator: Number of adolescents, ages 12 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Adolescent Health (AH) Objective 01: Increase the proportion of adolescents who received a preventive health care visit in the past year. (Baseline: 78.7% in 2016-17, Target: 82%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Adolescent Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Adolescence is a period of major physical, psychological, and social development. As adolescents move from childhood to adulthood, they assume individual responsibility for health habits, and those who have chronic health problems take on a greater role in managing those conditions. Initiation of risky behaviors, such as unsafe sexual activity, unsafe driving, and substance use, is a critical health issue during adolescence, as adolescents try on adult roles and behaviors. An annual preventive well visit may help adolescents adopt or maintain healthy habits and behaviors, avoid health-damaging behaviors, manage chronic conditions, and prevent disease. The Bright Futures guidelines recommends that adolescents have an annual checkup from age 11 through 21. The visit should cover a comprehensive set of preventive services, such as a physical examination, immunizations, and discussion of health-related behaviors including healthy eating, physical activity, substance use, sexual behavior, violence, and motor vehicle safety. The adolescent well-care visit measure for health plans is part of the Core Set of Children's Health Care Quality Measures for Medicaid and CHIP and the National Committee for Quality Assurance's Healthcare Effectiveness Data and Information Set.

(1) Hagan JF, Shaw JS, Duncan PM, eds. Adolescence Visits 11 Through 21 Years. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents. 4th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2017.

https://brightfutures.aap.org/Bright%20Futures%20Documents/BF4_AdolenceVisits.pdf

**PERFORMANCE MEASURE
Mental Health Treatment**

**Percent of adolescents, ages 12 through 17,
who receive needed mental health treatment or
counseling**

GOAL

To increase the percent of adolescents who receive needed mental health treatment or counseling.

DEFINITION

Numerator: Number of adolescents, ages 12 through 17, who are reported by a parent to have received treatment or counseling from a mental health professional during the past 12 months

Denominator: Number of adolescents, ages 12 through 17, who are reported by a parent to have either 1) received treatment or counseling from a mental health professional during the past 12 months or 2) did not receive treatment or counseling but needed to see a mental health professional

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Mental Health and Mental Disorders (MHMD) Objective 03: Increase the proportion of children with mental health problems who get treatment. (Baseline: 7070.7% of children aged 4 to 17 years with mental health problems received treatment in 2019, Target: 7979.3%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Adolescent Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Mental disorders among children are described as serious changes in the way children typically learn, behave, or handle their emotions, which cause distress and problems getting through the day.¹ The prevalence of mental/behavioral health conditions has been increasing among children and has been found to vary by geographic and sociodemographic factors.² However, a significant portion of children diagnosed with a mental health condition do not receive treatment.² Further, the receipt of treatment is generally dependent on sociodemographic and health-related factors.² Adequate insurance and access to a patient-centered medical home may improve mental health treatment.

(1) Centers for Disease Control and Prevention. Children's Mental Health. 2020 February 10.

<https://www.cdc.gov/childrensmentalhealth/index.html>

(2) Ghandour RM, Sherman LJ, Vladutiu CJ, et al. Prevalence and Treatment of Depression, Anxiety, and Conduct Problems in US Children. J Pediatr. 2019;206:256-267.e3. doi:10.1016/j.jpeds.2018.09.021.

[https://www.jpeds.com/article/S0022-3476\(18\)31292-7/fulltext](https://www.jpeds.com/article/S0022-3476(18)31292-7/fulltext)

**PERFORMANCE MEASURE
Tobacco Use**

**Percent of adolescents, grades 9 through 12,
who currently use tobacco products**

GOAL

To reduce the percent of adolescents who currently use tobacco products.

DEFINITION

Numerator: Number of adolescents in grades 9 through 12 who reported any use of tobacco products (including electronic vapor products, cigarettes, cigars, or smokeless tobacco) in the past 30 days

Denominator: Number of adolescents in grades 9 through 12

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Tobacco Use (TU) Objective 04: Reduce current tobacco use in adolescents. (Baseline: 18.3% of students in grades 6 through 12 used cigarettes, e-cigarettes, cigars, smokeless tobacco, hookah, pipe tobacco, and/or bidis in the past 30 days in 2018, Target: 11.3%)

DATA SOURCES

Youth Risk Behavior Surveillance System (YRBSS)

MCH POPULATION DOMAIN

Adolescent Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Tobacco product use in any form is unsafe, and tobacco product use is typically established during adolescence. Tobacco product use in youths is associated with depression, anxiety, and stress.¹ In 2022, 16.5% of high school students reported using any tobacco product, 14.1% reported using e-cigarettes.² Youth who are more likely to use tobacco products include American Indian/Alaskan Native youth, those identifying as LGB or transgender, those reporting severe psychological distress, those with low family affluence, and those with low academic achievement.²

(1) Centers for Disease Control and Prevention. Youth and Tobacco Use. 2022 November 10.

https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm

(2) Park-Lee E, Ren C, Cooper M, Cornelius M, Jamal A, Cullen KA. Tobacco Product Use Among Middle and High School Students - United States, 2022. MMWR Morb Mortal Wkly Rep. 2022;71(45):1429-1435.

Published 2022 Nov 11. doi:10.15585/mmwr.mm7145a1

<https://www.cdc.gov/mmwr/volumes/71/wr/pdfs/mm7145a1-h.pdf>

**PERFORMANCE MEASURE
Adult Mentor**

**Percent of adolescents, ages 12 through 17,
who have one or more adults outside the home
who they can rely on for advice or guidance**

GOAL

To increase the percent of adolescents with an adult mentor.

DEFINITION

Numerators:

Number of adolescents, ages 12 through 17, who are reported by a parent to have at least one other adult in their school, neighborhood, or community who knows them well and who they can rely on for advice or guidance (NSCH)

Number of adolescents, ages 12 through 17, who report that they have some other adult they can talk to about a serious problem (NSDUH)

Denominators:

Number of adolescents, ages 12 through 17 (NSCH)

Number of adolescents, ages 12 through 17 (NSDUH)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Adolescent Health (AH) 03: Increase the proportion of adolescents who have an adult they can talk to about serious problems (Baseline: 79.0 adolescents aged 12 to 17 years had an adult in their lives with whom they could talk about serious problems in 2018, Target: 82.9%)

DATA SOURCES

National Survey of Children's Health (parent-reported)

National Survey of Drug Use and Health (adolescent reported): used for overall state-level estimates only

MCH POPULATION DOMAIN

Adolescent Health

MEASURE DOMAIN

Social Determinants of Health

SIGNIFICANCE

Having a connection to a caring adult is one of several Positive Youth Experiences and is a protective factor that has been associated with several measures of child well-being, including markers of flourishing, physical activity, participation in activities, talking with parents as well as decreased likelihood of bullying and depression.¹ Furthermore, a growing evidence base demonstrates the effectiveness of programs to foster youth-adult partnerships in wide variety of settings (ex. after school programming²).

- (1) Murphey D, Bandy T, Schmitz H, Moore KA. Caring Adults: Important for Positive Child Well-Being. Child Trends, Publication #2013-54. 2013 December. <https://www.childtrends.org/wp-content/uploads/2013/12/2013-54CaringAdults.pdf>
- (2) Marttinen R, Johnston K, Phillips S, Fredrick RN, Meza B. REACH Harlem: young urban boys' experiences in an after-school PA positive youth development program. Physical Education and Sport Pedagogy. 2019;24:4, 373-389, doi: 10.1080/17408989.2019.1592147. <https://www.tandfonline.com/journals/cpes20>

PERFORMANCE MEASURE
Medical Home

Percent of children with and without special health care needs, ages 0 through 17, who have a medical home
Percent of children with and without special health care needs, ages 0 through 17, who have a personal doctor or nurse
Percent of children with and without special health care needs, ages 0 through 17, who have a usual source of sick care
Percent of children with and without special health care needs, ages 0 through 17, who have family centered care
Percent of children with and without special health care needs, ages 0 through 17, who receive needed referrals
Percent of children with and without special health care needs, ages 0 through 17, who receive needed care coordination

GOAL

To increase the percent of children with and without special health care needs who have a medical home.

DEFINITION

Numerators:

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to meet the criteria for having a medical home (personal doctor or nurse, usual source for care, family-centered care, referrals if needed, and care coordination if needed)

Number of children with and without special health care needs, ages 0 through 17, who have a personal doctor or nurse

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to have a place they usually go when the child is sick or needs advice about their health (excluding the hospital emergency room)

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent that the child's doctor or other health care provider always/usually 1) spent enough time with the child, 2) listened carefully to the child, 3) showed sensitivity to family values, 4) provided the specific information needed concerning the child, and 5) helped the family feel like a partner in the child's care

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to have no problem getting needed referrals

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to have received all needed help with care coordination

Denominators:

Number of children with and without special health care needs, ages 0 through 17

Number of children with and without special health care needs, ages 0 through 17

Number of children with and without special health care needs, ages 0 through 17

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to have had a visit with a health care professional in the past 12 months

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to have needed a referral to see any doctors or receive any services in the past 12 months

Number of children with and without special health care needs, ages 0 through 17, who are reported by a parent to have needed care coordination past 12 months

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 19: Increase the proportion of children and adolescents who receive care in a medical home. (Baseline: 48.6% in 2016-17, Target: 53.6%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Children with Special Health Care Needs, All Children (CSHCN and non-CSHCN), or All Adolescents (CSHCN and non-CSHCN)

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

The American Academy of Pediatrics (AAP) specifies seven qualities essential to medical home care, which include accessible, family-centered, continuous, comprehensive, coordinated, compassionate and culturally effective. Providing comprehensive and coordinated care to children in a medical home is the standard of pediatric practice. Research indicates that children with a stable and continuous source of health care are more likely to receive appropriate preventive care, are less likely to be hospitalized for preventable conditions, and are more likely to be diagnosed early for chronic or disabling conditions.

- (1) American Academy of Pediatrics. National Resource Center for Patient/Family-Centered Medical Home. (n.d.) <https://medicalhomeinfo.aap.org>

**PERFORMANCE MEASURE
Transition**

Percent of adolescents with and without special health care needs, ages 12 through 17, who received services to prepare for the transitions to adult health care

GOAL

To increase the percent of adolescents with and without special health care needs who have received services to prepare for the transitions to adult health care.

DEFINITION

Numerator: Number of adolescents with and without special health care needs, ages 12 through 17, who are reported by a parent to have received services to prepare for the transition to adult health care (time alone with a health care provider, active work to gain skills to manage health/health care or understand changes in health care at age 18, discussed shift to adult providers if needed)

Denominator: Number of adolescents, ages 12 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Adolescent Health (AH) Objective R01: Increase the proportion of adolescents (aged 12 to 17 years) with and without special health care needs who receive services to support their transition to adult health care. (Research)

Related to AH Objective 02: Increase the proportion of adolescents who speak privately with a physician or other health care provider during a preventive medical visit. (Baseline: 38.4% in 2016-17, Target: 43.3%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Children with Special Health Care Needs or All Adolescents (CSHCN and non-CSHCN)

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

The transition of youth to adulthood, including the movement from a child to an adult model of healthcare, has become a priority issue nationwide as evidenced by the 2011 clinical report and algorithm developed jointly by the AAP, American Academy of Family Physicians and American College of Physicians to improve healthcare transitions for all youth and families. Poor health has the potential to impact negatively the youth and young adults' academic and vocational outcomes. Over 90 percent of children with special health care needs now live to adulthood but are less likely than their non-disabled peers to complete high school, attend college or to be employed. Health and health care are cited as two of the major barriers to making successful transitions.

(1) White PH, Cooley WC; Transitions Clinical Report Authoring Group; American Academy of Pediatrics; American Academy of Family Physicians; American College of Physicians. Supporting the Health Care Transition From Adolescence to Adulthood in the Medical Home. *Pediatrics*. 2018;142(5):e20182587. *Pediatrics*. 2019;143(2):e20183610. doi:10.1542/peds.2018-3610.

<https://publications.aap.org/pediatrics/article/142/5/e20182587/38577/Supporting-the-Health-Care-Transition-From>

(2) American Academy of Pediatrics; American Academy of Family Physicians; American College of Physicians-American Society of Internal Medicine. A consensus statement on health care transitions for young adults with special health care needs. *Pediatrics*. 2002;110(6 Pt 2):1304-1306.

https://publications.aap.org/pediatrics/article-abstract/110/Supplement_3/1304/28819/A-Consensus-Statement-on-Health-Care-Transitions?redirectedFrom=fulltext

PERFORMANCE MEASURE
Bullying

Percent of adolescents, with and without special health care needs, ages 12 through 17, who are bullied or who bully others

GOAL

To reduce the percent of adolescents with and without special health care needs who are bullied or who bully others.

DEFINITION

Numerators:

Number of adolescents in grades 9 through 12 who report that they are bullied on school property or electronically in the past year (YRBSS)

Number of adolescents, ages 12 through 17, with and without special health care needs, who are reported by a parent to have been bullied in the past year (NSCH)

Number of adolescents, ages 12 through 17, with and without special health care needs, who are reported by a parent to have bullied others in the past year (NSCH)

Denominators:

Number of adolescents in grades 9 through 12 (YRBSS)

Number of adolescents ages 12 through 17 (NSCH)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to LGBT Objective 05: Reduce bullying of sexual minority (lesbian, gay, bisexual) high school students. (Baseline: 33.0% in 2017, Target: 25.1%)

Related to LGBT Objective D1: Reduce bullying of transgender students. (Developmental)

DATA SOURCES

Youth Risk Behavior Surveillance System (YRBSS); National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Children with Special Health Care Needs or All Adolescents (CSHCN and non-CSHCN)

MEASURE DOMAIN

Social Determinants of Health

SIGNIFICANCE

Bullying, particularly among school-age children, is a major public health problem that is associated with a number of behavioral, emotional, and physical adjustment problems. Adolescents who bully others tend to exhibit other defiant and delinquent behaviors, have poor school performance, be more likely to drop-out of school, and are more likely to bring weapons to school. Victims of bullying tend to report feelings of depression, anxiety, low self-esteem, and isolation; poor school performance; suicidal ideation; and suicide attempts. Bullying victims who also perpetrate bullying (i.e., bully-victims) may exhibit the poorest functioning, in comparison with either victims or bullies. Emotional and behavioral problems experienced by victims, bullies, and bully-victims may continue into adulthood and produce long-term negative outcomes, including low self-esteem and self-worth, depression, antisocial behavior, vandalism, drug use and abuse, criminal behavior, gang membership, and suicidal ideation.¹ Children with special health care needs are particularly vulnerable to bullying, with the prevalence of bullying over two times higher for children with special health care needs compared to children without special health care needs.² Dedicated support and prevention strategies are needed to support children and prevent bullying.

(1) U.S. Department of Health and Human Services. StopBullying.gov. (n.d.) <https://www.stopbullying.gov>.

(2) Child and Adolescent Health Measurement Initiative. 2020-2021 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved 01/30/23 from <https://www.childhealthdata.org/browse/survey/results?q=9586&r=1&q=1000>

III. Standardized Measures

Short Title	Full Title
Early Prenatal Care	Percent of pregnant women who receive prenatal care beginning in the first trimester
Well-Woman Visit	Percent of women, ages 18 through 44, with a preventive medical visit in the past year
Low-Risk Cesarean Delivery	Percent of cesarean deliveries among low-risk first births
Drinking During Pregnancy	A) Percent of women who drink any alcohol during pregnancy B) Percent of women who binge drink alcohol during pregnancy
Smoking – Pregnancy	Percent of women who smoke during pregnancy
Smoking – Household	Percent of children, ages 0 through 17, who live in households where someone smokes
Adolescent Physical Activity	Percent of adolescents, ages 12 through 17, who are physically active at least 60 minutes per day
Uninsured	Percent of children, ages 0 through 17, without health insurance
Adequate Insurance	Percent of children, ages 0 through 17, who are continuously and adequately insured
Forgone Health Care	Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year
MMR Vaccination	Percent of children in kindergarten who have received at least two doses of the MMR vaccine
Flu Vaccination	Percent of children, 6 months through 17 years, who are vaccinated annually against seasonal influenza
HPV Vaccination	Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine

**STANDARDIZED MEASURE
Early Prenatal Care**

**Percent of pregnant women who receive
prenatal care beginning in the first trimester**

GOAL

To ensure early entrance into prenatal care to enhance pregnancy outcomes.

DEFINITION

Numerator: Number of live births with reported first prenatal visit during the first trimester (before 13 weeks' gestation)

Denominator: Number of live births

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) 08 Objective: Increase the proportion of pregnant women who receive early and adequate prenatal care. (Baseline: 76.4% of pregnant females received early and adequate prenatal care in 2018, Target: 80.5%)

DATA SOURCES

National Vital Statistics System (NVSS)

MCH POPULATION DOMAIN

Women/Maternal Health or Perinatal/Infant Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Early prenatal care is essential for identification of maternal disease and risks for complications of pregnancy or birth. This can help ensure that women with complex problems, chronic illness, or other risks are seen by specialists. Early prenatal care can also provide important education and counseling on modifiable risks in pregnancy, including smoking, drinking, and inadequate or excessive weight gain.¹ Although early high-quality prenatal care is essential, particularly for women with chronic conditions or other risk factors, it may not be sufficient to assure optimal pregnancy outcomes. Efforts to improve pregnancy outcomes and the health of mothers and infants should begin prior to conception, whether before a first or subsequent pregnancy². As many women are not aware of being pregnant at first, it is important to establish healthy behaviors and achieve optimal health well before pregnancy.² The timeliness of prenatal care measure for health plans is part of the Core Set of Maternal and Perinatal Health Measures for Medicaid and CHIP and the National Committee for Quality Assurance's Healthcare Effectiveness Data and Information Set (HEDIS).

- (1) National Institute of Child Health and Human Development. What is prenatal care and why is it important? 2017 January 31. <https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care>
- (2) Johnson K, Posner SF, Biermann J, et al. Recommendations to improve preconception health and health care—United States. A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. MMWR Recomm Rep. 2006;55(RR-6):1-23. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5506a1.htm>

**STANDARDIZED MEASURE
Well-Woman Visit**

**Percent of women, ages 18 through 44, with a
preventive medical visit in the past year**

GOAL

To increase the percent of women who have an annual preventive medical visit.

DEFINITION

Numerator: Number of women, ages 18 through 44, who report visiting a doctor for a routine checkup in the past year

Denominator: Number of women, ages 18 through 44

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Access to Health Services (AHS) Objective 08: Increase the proportion of adults who get recommended evidence-based preventive health care. (Baseline: 8.55% in 2015, Target: 11.5%)

DATA SOURCES

Behavioral Risk Factor Surveillance System (BRFSS)

MCH POPULATION DOMAIN

Women/Maternal Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

An annual well-woman visit provides a critical opportunity to receive recommended clinical preventive services, including screening, counseling, and immunizations, which can lead to appropriate identification, treatment, and prevention of disease to optimize the health of women before, between, and beyond potential pregnancies.¹ For example, screening and management of chronic conditions such as diabetes, and counseling to achieve a healthy weight and smoking cessation, can be advanced within a well woman visit to promote women's health prior to and between pregnancies and improve subsequent maternal and perinatal outcomes.¹ The Women's Preventive Services Initiative (WPSI) is a coalition of national health professional organizations and patient advocates led by the American College of Obstetricians and Gynecologists (ACOG) and works to develop, review, and update recommendations for women's healthcare preventive services. WPSI recommends at least one preventive care visit per year beginning in adolescence and continuing across the lifespan with services completed at a single visit or in a series of visits to ensure all necessary services are obtained.²

(1) ACOG Committee Opinion No. 755: Well-Woman Visit. *Obstet Gynecol.* 2018;132(4):e181-e186. doi:10.1097/AOG.0000000000002897.

https://journals.lww.com/greenjournal/Fulltext/2018/10000/ACOG_Committee_Opinion_No_755_Well_Woman_Visit.61.aspx

(2) Women's Preventive Services Initiative. <https://www.womenspreventivehealth.org/>

STANDARDIZED MEASURE
Low-Risk Cesarean Delivery

Percent of cesarean deliveries among low-risk first births

GOAL

To reduce the percent of cesarean deliveries among low-risk first births.

DEFINITION

Numerator: Number of cesarean deliveries among term (37+ weeks), singleton, vertex births to nulliparous women

Denominator: Number of term (37+ weeks), singleton, vertex births to nulliparous women

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Maternal, Infant, and Child Health (MICH) Objective 06: Reduce cesarean births among low-risk women with no prior births (Baseline: 25.9% of low-risk females with no prior births had a cesarean birth in 2018, Target: 23.6%)

DATA SOURCES

National Vital Statistics System (NVSS)

MCH POPULATION DOMAIN

Women/Maternal Health

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Cesarean delivery can be a life-saving procedure for certain medical indications. However, for most low-risk pregnancies, cesarean delivery poses avoidable maternal risks of morbidity and mortality, including hemorrhage, infection, and blood clots—risks that compound with subsequent cesarean deliveries.¹ Much of the temporal increase in cesarean delivery (over 50% in the past decade), and wide variation across states, hospitals, and practitioners, can be attributed to first-birth cesareans.¹ Moreover, cesarean delivery in low-risk first births may be most amenable to intervention through quality improvement efforts.¹ This low-risk cesarean measure, also known as nulliparous term singleton vertex (NTSV) cesarean, is endorsed by the National Quality Forum (#0471) and included within The Joint Commission's National Quality Measures for hospitals (PC-02), and the Core Set of Maternal and Perinatal Health Measures for Medicaid and CHIP. An Alliance for Innovation on Maternal Health (AIM) patient safety bundle for Safe Reduction of Primary Cesarean Births was released in 2018.²

- (1) American College of Obstetricians and Gynecologists (College); Society for Maternal-Fetal Medicine, Caughey AB, Cahill AG, Guise JM, Rouse DJ. Safe prevention of the primary cesarean delivery. *Am J Obstet Gynecol.* 2014;210(3):179-193. doi:10.1016/j.ajog.2014.01.026
<https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2014/03/safe-prevention-of-the-primary-cesarean-delivery>
- (2) Alliance for Innovation on Maternal Health. Safe Reduction of Primary Cesarean Birth. (n.d.)
<https://safehealthcareforeverywoman.org/patient-safety-bundles/safe-reduction-of-primary-cesarean-birth/>

STANDARDIZED MEASURE
Drinking During Pregnancy

- A) Percent of women who drink any alcohol during pregnancy**
B) Percent of women who binge drink alcohol during pregnancy
-

GOAL

To reduce the percent of infants born with fetal alcohol spectrum disorders.

DEFINITION

Numerators:

- A) Number of women who reported having any alcoholic drinks during any trimester of pregnancy
B) Number of women who reported having 4 or more alcoholic drinks in a 2-hour timespan during any trimester of pregnancy

Denominator:

Number of women with a recent live birth

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) 09: Increase abstinence from alcohol among pregnant women. (Baseline: 89.3% of pregnant females aged 15 to 44 years reported abstaining from alcohol in the past 30 days in 2017-18, Target: 92.2%)

DATA SOURCES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Perinatal/Infant Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Fetal alcohol spectrum disorders (FASDs), which result in life-long physical and cognitive and/or behavioral problems, are caused by drinking during pregnancy.¹ Fetal alcohol syndrome (FAS) represents the severe end of FASDs, and is characterized by abnormal facial features (e.g., smooth ridge between nose and upper lip), lower than average height or weight, and central nervous system problems that create deficits in learning, memory, attention, communication, vision, and/or hearing.¹ While there is no known safe level of alcohol consumption in pregnancy, binge drinking and regular heavy drinking pose the greatest risks to fetal development.² In 2018-2020, 13.5% of pregnant adults reported drinking any alcohol in the past 30 days, and 5.2% reported binge drinking.³

(1) Centers for Disease Control and Prevention. Fetal Alcohol Spectrum Disorder (FASDs). 2022 November 4. <https://www.cdc.gov/ncbddd/fasd/facts.html>

(2) National Institute on Alcohol Abuse and Alcoholism. Fetal Alcohol Exposure. 2021 June. <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/fetal-alcohol-exposure>

(3) Gosdin LK, Deputy NP, Kim SY, Dang EP, Denny CH. Alcohol Consumption and Binge Drinking During Pregnancy Among Adults Aged 18-49 Years - United States, 2018-2020 [published correction appears in MMWR Morb Mortal Wkly Rep. 2022 Jan 28;71(4):156]. MMWR Morb Mortal Wkly Rep. 2022;71(1):10-13. Published 2022 Jan 7. doi:10.15585/mmwr.mm7101a2 <https://www.cdc.gov/mmwr/volumes/71/wr/mm7101a2.htm>

STANDARDIZED MEASURE
Smoking

Percent of women who smoke during pregnancy
Percent of children, ages 0 through 17, who live in households where someone smokes

GOAL

To decrease the number of women who smoke during pregnancy and to decrease the number of households where someone smokes.

DEFINITION

Numerators:

Number of women who report smoking during pregnancy (NVSS)

Number of children, ages 0 through 17, who are reported by a parent to live in a household where there is household member who smokes (NSCH)

Denominators:

Number of live births (NVSS)

Number of children, ages 0 through 17 (NSCH)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Maternal, Infant, and Child Health (MICH) Objective 10: Increase abstinence from cigarette smoking among pregnant women. (Baseline: 93.5% in 2018, Target: 95.7%)

Related to Tobacco Use (TU) Objective 15: Increase smoking cessation success during pregnancy among females. (Baseline: 20.2% in 2018, Target 24.4%)

Related to TU Objective 19: Reduce the proportion of children, adolescents and adults exposed to secondhand smoke. (Baseline: 25.5% in 2013-16 (age adjusted to the year 2000 standard population), Target: 17.3%)

DATA SOURCES and DATA ISSUES

National Vital Statistics System (NVSS)

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Women/Maternal Health, Perinatal/Infant Health, Child Health, and/or Adolescent Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Women who smoke during pregnancy are more likely to experience a fetal death or deliver a low birth weight baby. Adverse effects of parental smoking on children have been a clinical and public health concern for decades. Children exposed to environmental tobacco smoke have an increased frequency of ear infections; acute respiratory illnesses and related hospital admissions during infancy; severe asthma and asthma-related problems; lower respiratory tract infections; and SIDS.

- (1) National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta (GA): Centers for Disease Control and Prevention (US); 2014. <https://www.ncbi.nlm.nih.gov/books/NBK179276/>

STANDARDIZED MEASURE **Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day**
Adolescent Physical Activity

GOAL

To increase the percent of children and adolescents who are physically active.

DEFINITION

Numerators:

Number of adolescents, ages 12 through 17, who are reported by a parent to be physically active at least 60 minutes per day in the past week (NSCH)

Number of adolescents in grades 9 through 12 who report being physically active at least 60 minutes per day in the past week (YRBSS)

Denominators:

Number of adolescents ages 12 through 17 (NSCH)

Number of adolescents in grades 9 through 12 (YRBSS)

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical (YRBSS) to PA Objective 06: Increase the proportion of adolescents who meet the current aerobic physical activity guideline. (Baseline: 26.1% of students in grades 9 through 12 were physically active for at least 60 minutes on all 7 days of the past week in 2017, Target: 30.6%)

DATA SOURCES

National Survey of Children's Health (NSCH); Youth Risk Behavior Surveillance System (YRBSS)

MCH POPULATION DOMAIN

Adolescent Health

MEASURE DOMAIN

Health Behavior

SIGNIFICANCE

Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Physical activity in children and adolescents improves bone health, weight status, cardiorespiratory and cardiometabolic health, and brain health, including improved cognition and reduced depressive symptoms. Physical activity reduces the risk of early life risk factors for cardiovascular disease, hypertension, Type II diabetes, and osteoporosis. In addition to aerobic and muscle-strengthening activities, bone-strengthening activities are especially important for children and young adolescents because the majority of peak bone mass is obtained by the end of adolescence.

(1) U.S. Department of Health and Human Services. *Physical Activity Guidelines for Americans, 2nd edition*. Washington, DC: U.S. Department of Health and Human Services; 2018.

https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf

STANDARDIZED MEASURE Uninsured

Percent of children, ages 0 through 17, without health insurance

GOAL

To ensure access to needed health care services for children.

DEFINITION

Numerator: Number of children, ages 0 through 17, who are reported by a parent to not be currently covered by any private or public health insurance

Denominator: Number of children, ages 0 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Access to Health Services (AHS) Objective 01: Increase the proportion of persons with medical insurance. (Baseline: 89.0% of persons under 65 years had medical insurance in 2018, Target: 92.1%)

DATA SOURCES

American Community Survey (ACS)

MCH POPULATION DOMAIN

Child Health and/or Adolescent Health

MEASURE DOMAIN

Social Determinants of Health

SIGNIFICANCE

There is a well-documented benefit for children in having health insurance. Research has shown that children who acquire health insurance are more likely to have access to a usual source of care, receive well child care and immunizations, to have developmental milestones monitored, and receive prescriptions drugs, appropriate care for asthma and basic dental services.¹ Serious childhood problems are more likely to be identified early in children with insurance, and insured children with special health care needs are more likely to have access to specialists.¹ Insured children not only receive more timely diagnosis of serious health care conditions but experience fewer avoidable hospitalizations, improved asthma outcomes and fewer missed school days.¹ The number of uninsured children in the United States decreased for many years, reaching the lowest percent in 2016 at 4.7%.² However, between 2016 and 2018 the number of uninsured children increased by 12.5%, largely due to a decline in public coverage.² From 2018 to 2020, the number of uninsured children increased by 1.6 percentage points for children living in poverty.³ As part of the public health emergency response to the COVID-19 pandemic, temporary changes to Medicaid and CHIP drove a decrease in the level of uninsured children, back down to 5.0%.⁴

- (1) Institute of Medicine (US) Committee on Health Insurance Status and Its Consequences. America's Uninsured Crisis: Consequences for Health and Health Care. Washington (DC): National Academies Press (US); 2009. <https://nap.nationalacademies.org/catalog/12511/americas-uninsured-crisis-consequences-for-health-and-health-care>
- (2) Alker J, Roygardner L. The Number of Uninsured Children is On the Rise. Georgetown University Health Policy Institute, Center for Children and Families. 2019 October. <https://ccf.georgetown.edu/wp-content/uploads/2019/10/Uninsured-Kids-Report.pdf>
- (3) U.S. Census Bureau. Changes in Children's Health Coverage Varied by Poverty Status From 2018 to 2020. 14 September 2021. <https://www.census.gov/library/stories/2021/09/uninsured-rates-for-children-in-poverty-increased-2018-2020.html>
- (4) U.S. Census Bureau. More Children Were Covered by Medicaid and CHIP in 2021. 13 September 2022. <https://www.census.gov/library/stories/2022/09/uninsured-rate-of-children-declines.html>

STANDARDIZED MEASURE
Adequate Insurance

Percent of children, ages 0 through 17, who are continuously and adequately insured

GOAL

To increase the percent of children who are continuously and adequately insured.

DEFINITION

Numerator: Number of children, ages 0 through 17, who are reported by a parent to be continuously insured in the past year with adequate coverage, based on 3 criteria: covers needed services, covers needed providers, and reasonably covers costs.

Denominator: Number of children, ages 0 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Access to Health Services (AHS) Objective 01: Increase the proportion of persons with medical insurance. (Baseline: 89.0% in 2018, Target: 92.1%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Child Health, Adolescent Health, and/or Children with Special Health Care Needs

MEASURE DOMAIN

Clinical Health Systems

SIGNIFICANCE

Inadequately insured children are more likely to have delayed or forgone care and are less likely to have a medical home and receive needed referrals, care coordination, and family-centered care.¹ The American Academy of Pediatrics (AAP) highlighted the importance of this issue with a policy statement. The major problems cited were cost-sharing requirements that are too high, benefit limitations, and inadequate coverage of needed services.²

(1) Yu J, Perrin JM, Hagerman T, Houtrow AJ. Underinsurance Among Children in the United States. *Pediatrics*. 2022;149(1):e2021050353. doi:10.1542/peds.2021-050353.

<https://publications.aap.org/pediatrics/article/149/1/e2021050353/183780/Underinsurance-Among-Children-in-the-United-States?autologincheck=redirected>

(2) Hudak ML, Helm ME, White PH; Committee on Child Health Financing. Principles of Child Health Care Financing. *Pediatrics*. 2017;140(3):e20172098. doi:10.1542/peds.2017-2098

<https://publications.aap.org/pediatrics/article/140/3/e20172098/38435/Principles-of-Child-Health-Care-Financing>

STANDARDIZED MEASURE
Forgone Health Care

Percent of children, ages 0 through 17, who were unable to obtain needed health care in the past year

GOAL

To ensure access to needed health care services for children.

DEFINITION

Numerator: Number of children, ages 0 through 17 years, who are reported by a parent to be unable to obtain needed health care in the past year

Denominator: Number of children, ages 0 through 17 years

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Access to Health Services (AHS) Objective 04: Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care. (Baseline 4.1% of persons unable to obtain or delayed in obtaining necessary medical care in 2017, Target 3.3%)

Related to AHS 05: Reduce the proportion of persons who are unable to obtain or delayed in obtaining necessary dental care. (Baseline 4.6% in 2017, Target 4.1%)

Related to AHS 06: Reduce the proportion of persons who are unable to obtain or delayed in obtaining necessary prescription medicines. (Baseline 3.4 % in 2017, Target 3.0%)

DATA SOURCES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Child Health and/or Adolescent Health

MEASURE DOMAIN

Clinical Health System

SIGNIFICANCE

Improving access to quality health services is essential for optimal health in both preventing and treating health conditions. When needed care is not received, health may suffer and conditions may not be prevented or may grow in severity. Common barriers to care include financial burden, insurance coverage, insurance type, language, and parental education.^{2,3} Adequate insurance and access to a patient-centered medical home can reduce unmet needs for health care.¹

- (1) Strickland BB, Jones JR, Ghandour RM, Kogan MD, Newacheck PW. The medical home: health care access and impact for children and youth in the United States. *Pediatrics*. 2011;127(4):604-611. doi:10.1542/peds.2009-3555 <https://publications.aap.org/pediatrics/article-abstract/127/4/604/65081/The-Medical-Home-Health-Care-Access-and-Impact-for?redirectedFrom=fulltext>
- (2) Lichstein JC, Ghandour RM, Mann MY. Access to the Medical Home Among Children With and Without Special Health Care Needs. *Pediatrics*. 2018;142(6):e20181795. doi:10.1542/peds.2018-1795. <https://publications.aap.org/pediatrics/article/142/6/e20181795/76857/Access-to-the-Medical-Home-Among-Children-With-and>
- (3) Wisk LE, Witt WP. Predictors of delayed or forgone needed health care for families with children. *Pediatrics*. 2012;130(6):1027-1037. doi:10.1542/peds.2012-0668. <https://publications.aap.org/pediatrics/article-abstract/130/6/1027/30328/Predictors-of-Delayed-or-Forgone-Needed-Health>

STANDARDIZED MEASURE
MMR Vaccination

Percent of children in kindergarten who have received two or more doses of the MMR vaccine

GOAL

To increase the percent of children and adolescents who have completed recommended vaccines.

DEFINITION

Numerator: Number of children in kindergarten who have received two or more doses of the MMR vaccine

Denominator: Number of children in kindergarten

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical to Immunization and Infectious Disease (IID) Objective 04: Maintain the vaccination coverage level of 2 doses of the MMR vaccine for children in kindergarten. (Baseline of 95.2% of children enrolled in kindergarten received 2 or more doses of MMR for the 2018-2019 school year, Target: 95.0%)

DATA SOURCES

Annual School Assessment Reports

MCH POPULATION DOMAIN

Child Health

MEASURE DOMAIN

Clinical Health System/Health Behavior

SIGNIFICANCE

Vaccination requirements for children attending childcare facilities and schools help to maintain high vaccination coverage and low rates of vaccine-preventable diseases.¹ Childhood vaccination in particular is considered among the most cost-effective preventive services available, as it averts a potential lifetime lost to death and disability.² Measles is a highly contagious and serious respiratory disease that can spread quickly to children who are not vaccinated³.

- (1) Centers for Disease Control and Prevention. School Vaccination Requirements and Exemptions. 2017 October 12. <https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/requirements/index.html>
- (2) Maciosek MV, LaFrance AB, Dehmer SP, et al. Updated Priorities Among Effective Clinical Preventive Services [published correction appears in Ann Fam Med. 2017 Mar;15(2):104]. Ann Fam Med. 2017;15(1):14-22. doi:10.1370/afm.2017 <https://www.annfammed.org/content/15/1/14>
- (3) Centers for Disease Control and Prevention. Vaccine (Shot) for Measles. 2021 January 25. <https://www.cdc.gov/vaccines/parents/diseases/measles.html>

STANDARDIZED MEASURE
Flu Vaccination

Percent of children, ages 6 months through 17 years, who are vaccinated annually against seasonal influenza

GOAL

To increase the percent of children and adolescents who have completed recommended vaccines.

DEFINITION

Numerator: Number of children, ages 6 months through 17 years, who are reported by a parent to have received a seasonal influenza vaccine

Denominator: Number of children, ages 6 months through 17 years

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Immunization and Infectious Disease (IID) Objective 09: Increase the proportion of persons who are vaccinated annually against seasonal influenza. (Baseline of 49.2% of persons aged 6 months and over were vaccinated against seasonal influenza for the flu season 2017-18, Target: 70.0%)

DATA SOURCES

National Immunization Survey - Flu (NIS-Flu)

MCH POPULATION DOMAIN

Child Health and/or Adolescent Health

MEASURE DOMAIN

Clinical Health System/Health Behavior

SIGNIFICANCE

Influenza (flu) is a contagious respiratory illness caused by influenza viruses.¹ Influenza can cause mild to severe illness.¹ Each year, millions of children get sick with seasonal flu; thousands of children are hospitalized, and some children die from the flu.² Possible complications from the flu include: pneumonia, dehydration, worsening long-term medical problems, brain dysfunction, sinus problems and ear infections, and death.² Annual flu vaccination helps prevent flu infection and risk of flu-associated hospitalization.¹

(1) Centers for Disease Control and Prevention. Influenza (Flu). 2023 January 13. <https://www.cdc.gov/flu/index.htm>

(2) Centers for Disease Control and Prevention. Children and Influenza (Flu). 2022 November 30.

<https://www.cdc.gov/flu/highrisk/children.htm>

**STANDARDIZED MEASURE
HPV Vaccination**

**Percent of adolescents, ages 13 through 17, who
have received at least one dose of the HPV
vaccine**

GOAL

To increase the percent of children and adolescents who have completed recommended vaccines.

DEFINITION

Numerator: Number of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine

Denominator: Number of adolescents, ages 13 through 17 years

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Related to Immunization and Infectious Disease (IID) Objective 08: Increase the proportion of adolescents who receive recommended doses of human papillomavirus (HPV) vaccine. (Baseline 48.0% of adolescents aged 13 through 15 years received recommended doses of the HPV vaccine in 2018, Target: 80.0%)

DATA SOURCES

National Immunization Survey - Teen (NIS-Teen)

MCH POPULATION DOMAIN

Adolescent Health

MEASURE DOMAIN

Clinical Health System/Health Behavior

SIGNIFICANCE

HPV (Human papillomavirus) vaccine can prevent infection with some types of human papillomavirus that are spread through intimate skin-to-skin or sexual contact. HPV vaccine prevents infection from HPV types that cause over 90% of the following cancers: cervical, vaginal and vulvar cancers in women; penile cancer in men; and anal cancers in both men and women. HPV is recommended for adolescents 11 or 12 years of age to ensure protection before exposure to the virus.

(1) Centers for Disease Control and Prevention. Vaccine Information Statements: HPV (Human Papillomavirus). 2021 August 6. <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hpv.html>

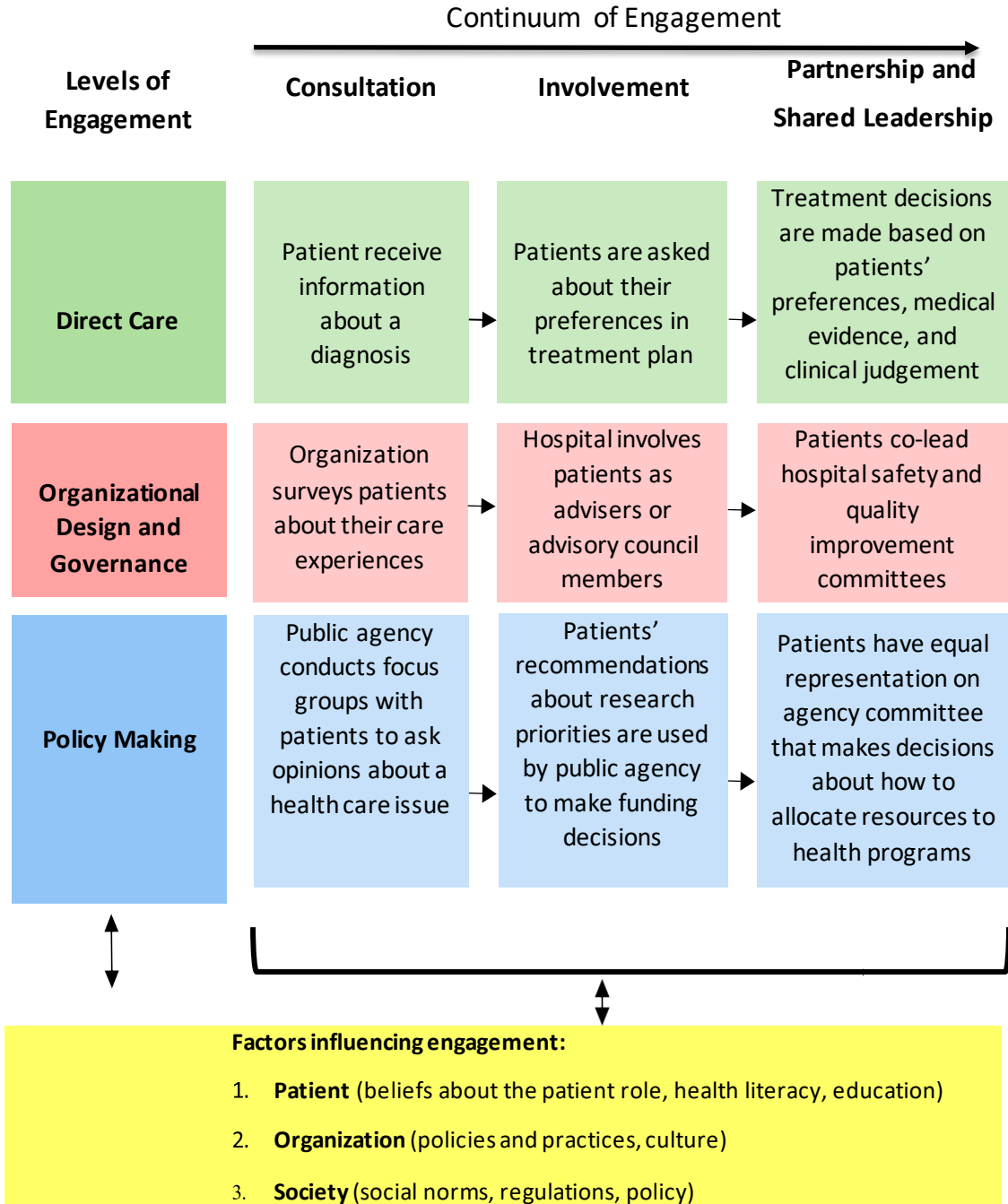
APPENDIX D: FAMILY PARTNERSHIP CONTINUUM

Family partnership is defined as patients, families, their representatives, and health professionals working in active partnership at various levels across the health care system—direct care, organizational design and governance, and policy making—to improve health and health care. This partnership is accomplished through the intentional practice of working with families for the ultimate goal of positive outcomes in all areas through the life course.² The Figure below represents a continuum of engagement with families and individuals at different levels in the health care system, from the consultation, involvement, and partnership stage.³ Additionally, the Family Engagement in Systems Assessment Tool (FESAT) and Toolkit, developed by Family Voices, assesses patient and family engagement at the systems level. The Toolkit also provides activities to support and improve systems-level activities with families. To access, click here: <https://familyvoices.org/familyengagementtoolkit/>

² Carman K., Dardess, P., Maurer, M., Sofaer, S., Adams, K., Bechtel, C., Sweeney, J. Patient and Family Engagement: A framework for understanding the elements and developing interventions and policies. *Health Affairs*. 2013; 32:223-231

³ Ibid

A Multidimensional Framework for Patient and Family Engagement in Health and Health Care



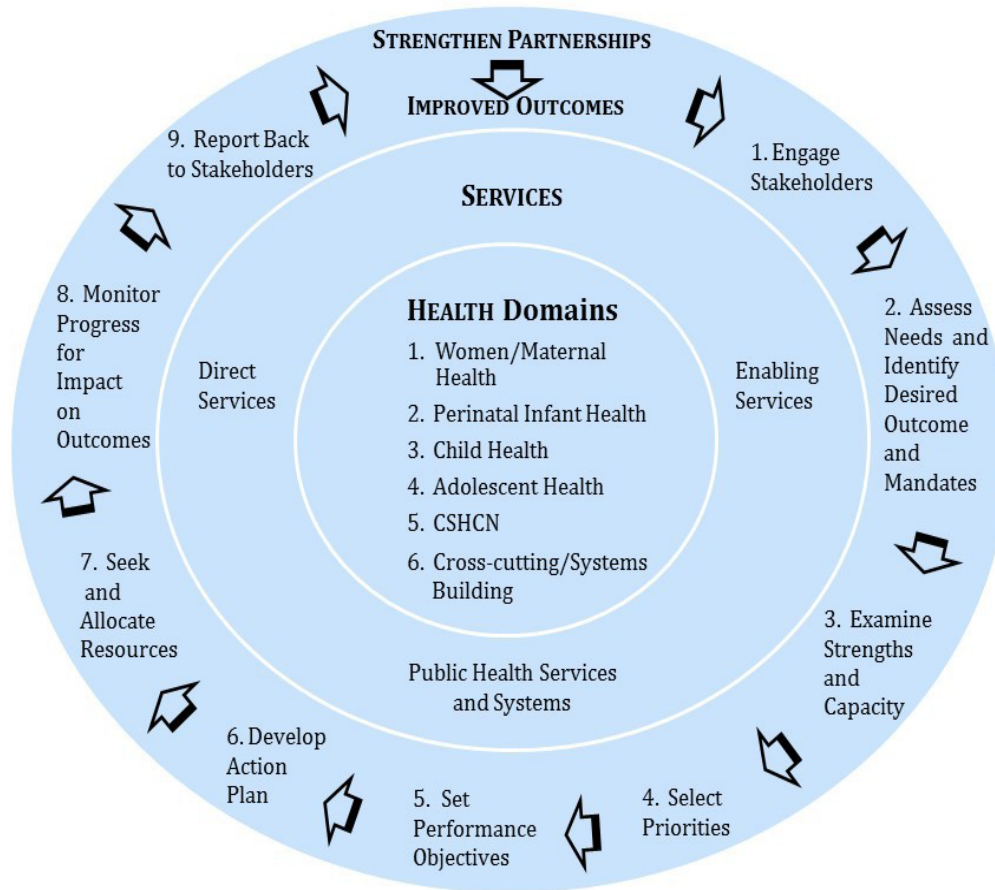
APPENDIX E: NEEDS ASSESSMENT – BACKGROUND AND CONCEPTUAL FRAMEWORK

Conducting a Needs Assessment is a systematic process to acquire an accurate, thorough picture of the strengths and weaknesses of a state’s public health system that can be used in response to the preventive and primary care services needs for ALL pregnant women, mothers, infants (up to age one), and children, including children with special health care needs [Section 505 (a)(1)]. The Needs Assessment process includes the collection and examination of information about the state’s capacity and infrastructure, needs and desired outcomes for the MCH population, and legislative mandates, etc. This information is utilized to determine priority goals, develop a plan of action, and to allocate funds and resources. The Needs Assessment is a collaborative process that should include the HRSA/MCHB, the state Department of Health, families, practitioners, the community, and other agencies and organizations within each state and jurisdiction that have an interest in the well-being of the MCH population.

Title V of the Social Security Act requires states to conduct a statewide Needs Assessment every five years. States will report on the next Five-year Needs Assessment in calendar year 2020 as part of the FY 2021 MCH Block Grant Application process. Rather than submitting a comprehensive “stand-alone document”, as was required prior to 2015, states now submit a Five-Year Needs Assessment Summary that concisely describes the process and findings. As the Needs Assessment document may serve multiple purposes, a state may wish to develop a more comprehensive document to meet its broader needs. This document cannot be submitted in place of the required Five-year Needs Assessment Summary, but states may include a URL, if the document is posted online, in the Five-year Needs Assessment Summary or they may submit the document as an attachment to the Application/Annual Report in the electronic application system. Over the five-year reporting period, states are encouraged to continuously revisit the Five-Year Needs Assessment Summary and to provide updates, as needed, in the interim year Applications/Annual Reports. Furthermore, it is expected that states will have ongoing communication with stakeholders and partners throughout the Needs Assessment process and continue to engage with such partners during the interim reporting years.

The primary goal of the statewide Needs Assessment is to improve MCH outcomes and to strengthen its state, local and community partnerships for addressing the needs of its MCH population. The following figure illustrates the continuity of the Needs Assessment process and its relationship to the planning and monitoring functions of Title V and the population that it serves.

State MCH Block Grant Needs Assessment, Planning, Implementation and Monitoring Process



A brief description of the steps involved in the Public Health Planning Cycle to inform ongoing needs assessment is presented in the following sections.

I. Engage Stakeholders

As depicted, the starting point for the Needs Assessment process is to **engage stakeholders**. Engaging stakeholders and strengthening partnerships is a continuous and on-going activity. The state needs strong partnerships with its stakeholders throughout the Needs Assessment process. Effective coalitions can help the state to realistically assess needs and identify desired outcomes and mandates, assess strengths and examine capacity, select priorities, seek resources, set performance objectives, develop an action plan, allocate resources, and monitor progress for impact on targeted outcomes.

II. Assess Needs and Identify Desired Outcomes and Mandates

The second stage in the process is to **assess needs** of the MCH population groups using the Title V National Outcome Measures (NOMs), national, state and strategy performance measures and other available state-level quantitative and qualitative data. For example, the National Survey of Children's Health (NSCH) provides key data for the needs assessment process for understanding the strengths and gaps in the system of care for children, including CSHCN. States should assess MCH population needs based on the following five population health domains: 1) Women/Maternal Health; 2) Perinatal/Infant Health; Child Health; 4) Adolescent Health; and 5) Children with Special Health Care Needs (CSHCN). These population health domains fall with the three MCH population groups that are defined in Section 505(a)(1) of the Title V legislation. The anticipated outcome of this assessment is to identify community/system needs and **desired outcomes** by specific MCH population groups. In addition, the state will need to identify needs and **desired outcomes** for cross-cutting and systems issues. The state will also need to **identify** legislative, political, community-driven, financial, and/or other internal and external **mandates** which may go beyond the findings identified through the Needs Assessment process but are priorities for implementation within the state.

III. Examine Strengths and Capacity

The third stage in the Needs Assessment process is **examining strengths and capacity**. This stage involves examining the state's capacity to engage in various activities, including conducting the statewide Five-year Needs Assessment and collecting/reporting annual performance data based on the five identified MCH population health domains and the types of MCH services provided.

This stage involves describing and assessing the state's current resources, activities, and services as well as the state's ability to continue to provide quality services by each of the three MCH service levels. These levels include 1) Direct Services; 2) Enabling Services; and 3) Public Health Services and Systems. The anticipated outcome is a better understanding of the relationship of the state's existing program/system capacity to its identified strengths and needs. This examination may reveal strengths and weaknesses in capacity not previously identified.

IV. Select Priorities

In the **select priorities** stage, each state examines the identified needs and matches them to the desired outcomes, required mandates and level of existing capacity. As a result, states will select seven to ten priority areas for targeted focus in promoting continued improvement and progress. Examples of inputs include: the Needs Assessment process, the opinions of stakeholders, the examination of program capacity and the political priorities within the state. The anticipated outcome is the development of a set of priority needs (between seven and ten), which are unique to the individual state based on its Needs Assessment findings. Priorities identified should address areas in which the state believes there is reasonable opportunity for a focused programmatic effort (e.g., new or enhanced interventions, initiatives, or systems of care) to lead to an improved outcome.

V. Set Performance Objectives

Setting performance objectives consists of two phases. In the first phase, each state will develop action strategies to address their identified priority needs. Based on the priority needs and program strategies developed, the state will select five National Performance Measures (NPMs), Evidence-based or –informed Strategy Measures (ESMs) for addressing each of the selected NPMs, and State Performance Measures (SPMs). SPMs should be based on the state’s identified MCH priorities and target those priority needs that are not fully addressed by the selected NPMs and their related ESMs.

Secondly, the state will set five-year targets (i.e., performance objectives) for the five selected NPMs, the ESMs and the SPMs. The anticipated results of this stage are the identification of NOMs, NPMs, ESMs and SPMs that directly relate to the state priorities and establish a level of accountability for achieving measureable progress.

VI. Develop an Action Plan

The next stage is to **develop an action plan**, which involves the planning and identification of specific activities for implementing the program strategies which were developed in Stage 5 to address the identified priority needs and selected national/state measures. In developing an Action Plan, states will create the Five-year State Action Plan Table.

In developing the Action Plan, the state shall complete the Five-year State Action Plan Table as part of the first year Application/Annual Report in the five year cycle. This Table is a tool to assist states in aligning their program strategies, NPMs, SPMs and ESMs with the priority needs that were identified in the Five-year Needs Assessment. Updates to the strategies, activities and measures will be provided by the state, as needed, in subsequent interim year Applications/Annual Reports.

Figure 4 in Part Two, Section II of the Application/Annual Report Guidance depicts the steps involved in the development of, and the annual reporting on, the implementation of the Five-year State Action Plan.

VII. Seek and Allocate Resources

Following the identification of program activities is the allocation of resources stage. In this stage, the focus is on the funding of planned activities to address state priorities. Inputs include the five-year State Action Plan, current budgets, political priorities, and partnerships. The anticipated outcome is the development of a program budget and plan that directs available resources towards the activities identified in Stage Six as the most important for addressing the state’s priorities.

VIII. Monitor Progress for Impact on Outcomes

In **monitoring progress for impact on outcomes**, the states examine the results of their efforts to see if there has been improvement. Inputs include NOMs, NPMs, SPMs and ESMs, performance objectives and other quantitative and qualitative information. Potential outcomes may include altered activities and shifting of resource allocations to address current levels of performance and availability of resources. Feedback loops between various stages of the process allow for continuous input and re-evaluation of the outputs.

IX. Report Back to Stakeholders

This final step assures accountability to the stakeholders and partners who have worked with the MCH staff throughout the Needs Assessment process. It also assures the continued involvement of all stakeholders and partners in the ongoing Needs Assessment processes.

APPENDIX F: REQUIRED APPLICATION/ANNUAL REPORT COMPONENTS AND TIMELINE

Submission Date	Application Year	Annual Report Year
July 15, 2024	<p align="center">Fiscal Year (FY) 2025 (Year 05 Application of Five-Year Reporting Cycle.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Complete SF-424 <input type="checkbox"/> Update MCH Success Story <input type="checkbox"/> Update Needs Assessment - MCH Population Health and Wellbeing, Emerging Issues and SSDI <input type="checkbox"/> Update Financial Narratives <input type="checkbox"/> Add FY 2025 Performance Objective for each selected NPM, SPM, and ESM on Form #10 <input type="checkbox"/> Update State Action Plan Table as needed <input type="checkbox"/> Update State’s Action Plan Narratives by MCH Health Domain <input type="checkbox"/> Update Public Input <input type="checkbox"/> Update Technical Assistance <input type="checkbox"/> Update Title V – Medicaid IAA/MOU <input type="checkbox"/> Review all other sections and update only if needed <input type="checkbox"/> Enter Budgeted Data for Application Year on Forms #2, #3a and #3b <input type="checkbox"/> Provide State Contacts and Toll-free Telephone Line on Form #8 <input type="checkbox"/> Review Other State Data (OSD) on Form #11 and Form #10 for National Outcome Measures (NOMs) 	<p align="center">FY 2023 (Interim Year 03 of Five-Year Reporting Cycle)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Enter the FY 2023 Annual Indicator Data (specifically, the Numerator, Denominator, Data Source and Data Note) for the Selected NPMs, ESMs and SPMs. <input type="checkbox"/> Report on FY 2023 Program Activities and Analyze Performance, by MCH Health Domain <input type="checkbox"/> Enter Expenditure Data on Forms #2, #3a, and #3b <input type="checkbox"/> Enter Required Data (i.e., Newborn and Others Screening, Unduplicated Count and Total Encounters of Individuals Served, Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX, MCH Workforce Development and MCH Data Access and Linkages) on Forms #4, #5a, #5b, #6, #7 and #12 for the Reporting Year.

Submission Date	Application Year	Annual Report Year
July 15, 2025	<p style="text-align: center;">FY 2026 (First Application Year of New Five-Year Reporting Cycle)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Complete SF-424 <input type="checkbox"/> Update Executive Summary <input type="checkbox"/> Update MCH Success Story <input type="checkbox"/> Provide Overview of the State <input type="checkbox"/> Provide Needs Assessment Summary for New Five-Year Reporting Cycle <input type="checkbox"/> Identify 7-10 Priority Needs (Form #9) <input type="checkbox"/> Select at least 5 NPMs and enter Five-year performance objectives on Form #10 <input type="checkbox"/> Develop ESMs for each selected NPM; Prepare Detail Sheet on Form #10; and Enter Five-year performance objectives on Form #10 <input type="checkbox"/> Develop SPMs to address Priority Needs not addressed through the NPMs and ESMs; Prepare Detail Sheet on Form #10; and Enter Five-year performance objectives on Form #10 <input type="checkbox"/> Update Financial Narratives <input type="checkbox"/> Prepare Five-Year State Action Plan Table <input type="checkbox"/> Update State’s Action Plan Narratives by MCH Health Domain <input type="checkbox"/> Update Public Input <input type="checkbox"/> Update Technical Assistance <input type="checkbox"/> Update Title V – Medicaid IAA/MOU <input type="checkbox"/> Enter Budgeted Data for Application Year on Forms #2, #3a and #3b <input type="checkbox"/> Provide State Contacts and Toll-free Telephone Line on Form #8 <input type="checkbox"/> Review Other State Data (OSD) on Form #11 and Form #10 for National Outcome Measures (NOMs) 	<p style="text-align: center;">FY 2024 (Interim Year 04 of Previous Five-Year Reporting Cycle)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Enter the FY 2024 Annual Indicator Data (specifically, the Numerator, Denominator, Data Source and Data Note) for the Selected NPMs, ESMs and SPMs <input type="checkbox"/> Report on FY 2024 Program Activities and Analyze Performance, by MCH Health Domain <input type="checkbox"/> Enter Expenditure Data on Forms #2, #3a, and #3b <input type="checkbox"/> Enter Required Data (i.e., Newborn and Others Screening, Unduplicated Count and Total Encounters of Individuals Served, Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX, State Toll-free Hotline and Other Appropriate Methods Data, and MCH Data Access and Linkages) on Forms #4, #5a, #5b, #6, #7 and #12 for the Reporting Year.

Submission Date	Application Year	Annual Report Year
	<input type="checkbox"/> Enter Budgeted Data for Application Year on Forms #2, #3a and #3b	
July 15, 2026	<p style="text-align: center;">FY 2027 (Year 02 Application of Five-year Reporting Cycle.)</p> <input type="checkbox"/> Complete SF-424 <input type="checkbox"/> Update MCH Success Story <input type="checkbox"/> Update Needs Assessment - MCH Population Health and Wellbeing, Emerging Issues and SSDI <input type="checkbox"/> Update Financial Narratives <input type="checkbox"/> Add FY 2027 Performance Objective for each selected NPM, SPM, and ESM on Form #10 <input type="checkbox"/> Update State Action Plan Table as needed <input type="checkbox"/> Update State’s Action Plan Narratives by MCH Health Domain <input type="checkbox"/> Update Public Input <input type="checkbox"/> Update Technical Assistance <input type="checkbox"/> Update Title V – Medicaid IAA/MOU <input type="checkbox"/> Review all other sections and update only if needed <input type="checkbox"/> Enter Budgeted Data for Application Year on Forms #2, #3a and #3b <input type="checkbox"/> Provide State Contacts and Toll-free Telephone Line on Form #8 <input type="checkbox"/> Review Other State Data (OSD) on Form #11 and Form #10 for National Outcome Measures (NOMs)	<p style="text-align: center;">FY 2025 (Interim Year 05 of Previous Five-Year Reporting Cycle)</p> <input type="checkbox"/> Enter the FY 2025 Annual Indicator Data (specifically, the Numerator, Denominator, Data Source and Data Note) for the Selected NPMs, ESMs and SPMs. <input type="checkbox"/> Report on FY 2025 Program Activities and Analyze Performance, by MCH Health Domain <input type="checkbox"/> Enter Expenditure Data on Forms #2, #3a, and #3b <input type="checkbox"/> Enter Required Data (i.e., Newborn and Others Screening, Unduplicated Count and Total Encounters of Individuals Served, Deliveries and Infants Served by Title V and Entitled to Benefits Under Title XIX, MCH Workforce Development and MCH Data Access and Linkages) on Forms #4, #5a, #5b, #6, #7 and #12 for the Reporting Year.

APPENDIX G: FINANCIAL BUDGET AND EXPENDITURE REPORTING

I. Importance of Financial Reporting

As a federal grant, the Title V Maternal and Child Health (MCH) Services Block Grant to States Program requires financial and programmatic reporting to demonstrate accountability in the use of federal funds. Consistent with the intent of a formula block grant, the financial reporting of a state's planned budget for the Application year and the expenditures for the Annual Report year in the MCH Block Grant is defined at a high level for financial data collection. The intent of this financial reporting is to demonstrate how both federal and non-federal resources advance the Federal-State Partnership and support state-led efforts to develop and implement a five- year State Action Plan that responds to its identified MCH priority needs.

Financial reporting is required in the Financial Narrative and Forms 2, 3a, and 3b, as well as related Form 5. The line items on Forms 2, 3 and 5 are mandated in the legislation.

Instructions for completing these reporting forms are attached to the individual reporting form. The purpose of this appendix is to provide supportive discussion on how the financial forms and the individuals served work in tandem to tell the state's Title V story.

II. The Financial Forms

There are five forms related to financial and related programmatic reporting that are to be completed in each year's submission of the MCH Block Grant Application/Annual Report. These forms are:

1. SF-424 – Application Financial Assistance. This is a federal form that officially requests the application year funding from the federal government. This form is used by HRSA Grants Management for initiating funding to the state.
2. Form 2 – MCH Budget/Expenditure Details, which breaks out the Application year budget and Annual Report year expenditures by source of funding. Both budget and expenditures include administrative costs.
3. Form 3a – Budget and Expenditure Details by Types of Individuals Served, which breaks out funding by MCH populations (pregnant women, infants <1, children 1 through 21 years, children with special health care needs [CSHCN], and all others). The budget and expenditures by individuals served are broken out by the federal and non-federal allocation, besides being further broken down by population. It is important to note that the reporting on this form does NOT include administrative costs.
4. Form 3b - Budget and Expenditure Details by Types of Services, which breaks out funding by the three MCH Pyramid (Figure 1) service categories (direct services, enabling service, and public health services and systems). Like Form 3a, the budget and expenditures by types of services are broken out by the federal and non-federal allocation, besides being further broken down by types of services. There is additional detailed

reporting for direct services by population, and for expenditures of direct services, by specific types of direct services. It is important to note that, like Form 2, Form 3b also should include administrative costs.

5. Form 5a Count of Individuals Served By Title V, and Form 5b, Total Percentage of Population Served by Title V, which documents the populations served by total Federal- State Partnership Funding. Form 5a reports those who received a direct or enabling service funded by Title V in each of the MCH population groups, while the state provides an estimate for the total percentage of populations who received a Title V-supported service in each of the MCH population groups across all levels of the MCH Pyramid, including public health services and systems on Form 5b. Total expenditures provided by population served for the reporting year on Form 3a should relate to the estimate of all MCH populations reached on Form 5.

III. How the Financial Reporting Forms are Connected

In order to understand how the finances are planned and support the work of the Federal-State Title V Partnership, there needs to be an understanding of four major financial questions that underpin the Title V MCH Services Block Grant:

1. What is the source of funding? (Form 2)
2. How are the funds distributed across MCH population groups? (Form 3a)
3. What types of services are planned and supported with the funding? (Form 3b)
4. What is the reach of these funds across population groups? (Form 5)

The combination of these four questions provides a broad understanding of how Title V funds support the work of the state Title V program and its activities to reach its MCH populations.

The source of funding has strict legislative financial requirements that include a state match to receive the federal allocation. As for the federal allocation, Section 503(a) requires that the Secretary make payments “for each quarter, of an amount equal to four-sevenths of the total of the sums expended by the State during such quarter in carrying out the provisions of this title.” This provision means that three-sevenths is provided by the state. In short, states must provide a three dollar match for every four federal dollars allocated. The state must also maintain the state funding at a level at least equal to the level provided in 1989 to address the requirement for the maintenance of effort [Section 505(a)(4)].

The federal allocation has certain characteristics. The federal allocation to the 59 states and jurisdictions is based on a legislative formula that considers in part the number of children in poverty in a state compared to the total number of children in poverty nationally. Also, both the budget and expenditures for this federal allocation must meet the requirement of “30/30/10” (i.e., at least 30% of the budget/expenditures must be for primary and preventive services for children, at least 30% of the budget/expenditures must be

for children with special health care needs, and no more than 10% can be planned/expended on administrative costs). Once the level of federal and state funding is determined, each state decides how those resources will be allocated across the MCH populations and distributed to support a range of MCH program activities. This discretion in determining how to best invest federal Title V funds to most effectively complement state-supported efforts in addressing the unique needs of each individual state is key to understanding how the MCH Block Grant program is administered.

Each state has unique needs, which are reflected in the development and implementation of a Five-Year State Action Plan (SAP) to assure the delivery of needed services to its MCH population.

IV. Relationship Between Form 2 and Form 3

States report federal and non-federal budget and expenditures on Form 3a and 3b separately, which provides the opportunity to assure that reporting in the three areas of interest (i.e., funding by source, individuals served, and types of services) is consistent across the forms.

There are several specific areas across which accurate reporting is needed to assure that the budget and expenditures reported on each of the forms are correct, and the Title V Information System (TVIS) has been programmed with validations across forms to help guide accurate reporting.

Specifically, the state should consider the following concepts to assure accuracy in its reporting across Forms 2, 3a, and 3b:

Form 2 Federal Allocation Requirements:

- Form 2, Line 1A: Federal Allocation for Preventive and Primary Care for Children. At least 30% of the Federal Allocation for both budget and expenditures should be entered.
- Form 2, Line 1B: Federal Allocation for Children with Special Health Care Needs. At least 30% of the Federal Allocation for both budget and expenditures should be entered.
- Form 2, Line 1C: Federal Allocation for Title V Administrative Costs. No more than 10% for administrative costs should be entered.
- Form 2, Line 2: Federal Allocation Subtotal of Lines 1A-C for Children, Children with Special Health Care Needs, and Administrative Costs. This amount does not have to equal 100%, as it does not include pregnant women and all others.
- Form 2, Line 7: Total State Match. This amount must meet or exceed the FY1989 Maintenance of Effort on Line 7A, and must meet the state match requirement, as described above.

Since Form 3a is broken out by federal and non-federal allocations by population, those specific populations that require a certain level of federal support on Form 2 (children and children with special health care needs) must agree with those same populations on Form 3a for the federal allocation.

- Form 2, Line 1A and Form 3a, Line 1A.3: Federal Allocation for Children. The federal funding provided must agree for both budget and expenditures on these two forms.

- Form 2, Line 1B and Form 3a, Line 1A.4: Federal Allocation for Children with Special Health Care Needs. The federal funding provided must agree for both budget and expenditures on these two forms.

V. Form 3b: Breaking out Types of Services and Defining Types of Direct Services in Detail

The Title V MCH Services Block Grant serves as a major source of funding supporting the MCH public health system and may also serve as a payer of last resort in many states. Understanding the extent to which services are supported by both federal allocation and the state match is key to understanding the fiscal and health services environment in which Title V operates and better tells the state Title V story about the services delivered. Form 3b captures these data, and one area of reporting of particular interest on Form 3b is the reporting on direct services, which is broken out by MCH populations and further detailed on the specific type of direct services. The state should report as much detail as possible on Form 3b, Line 4 on the types of direct services, as this reporting helps provide a context on Title V's ongoing role in the health service environment in the state.

Effective financial reporting on the financial forms requires clear understanding of how the funding is distributed and used from the source of funding and the types of services provided to which MCH population. The description of how the financial data reported on these forms work is outlined in detail in Financial Narrative for Expenditures section (pages 27 – 28) of the Title V MCH Block Grant Application/Annual Report Guidance. The state “should reflect on the federal and non-federal monies that have been obligated and spent. This discussion is intended to provide the reader with an understanding of how the supported programs and services link with the state’s MCH priority needs and meet the requirements of Title V legislation.”

VI. Form 5b: Population Estimates Reported are Linked to Allocations Reported on Form 3a

Data estimates reported on the MCH population reached on Form 5b are closely linked with the expenditures reported for each MCH population on Form 3a, since the total support noted with both the federal and non-federal allocations would be the supporting the MCH populations reported on Form 5b with services. As the state provides the financial data on its reporting forms, recognizing the reach of the allocations to the population served is necessary for accurate reporting.

VII. Use of Notes on the Forms versus Reporting in the Financial Narrative

Whenever financial data are provided on Forms 2, 3a, and 3b and there may be a need for clarification on what is being reported, a state is encouraged to use the note feature in TVIS to explain the data. This note feature should be used to explain significant differences (10% or more) between the budget and the expenditures, details on the types of programs and activities associated with a specific financial figure that needs explanation, or any other pertinent information about the reported financial data. It is a judgment call if the reporting is better in a note or the Financial Narrative or both. A guiding rule is that if it is a high-level report of how the program operates, it should be in the Financial Narrative, while a more specific explanation for a number being reported would be better captured in a field or form- level note.

VIII. Financial Narrative Reporting

In the Financial Narrative, the state provides a budget plan for the Application year and reports on its expenditures for the Annual Report year. This narrative around the Annual Report year expenditures is a reflection on how the federal and state allocations are being utilized to support the implementation of a state's Five-Year Action Plan and includes a comparison of planned, budgeted activities with actual expenditures for that fiscal year. The state should link the allocation of financial resources with outcomes achieved relative to the State's Title V program plan, which provides the reader with an understanding of the reach of the state Title V program activities to its MCH populations.

IX. Connecting the Financial Forms to the State Action Plan Narrative

States are encouraged to think strategically about how well the information reported through the financial forms supports and connects to the State Action Plan narrative. Three examples are provided on the following page to assist states in assuring that the financial forms and the narrative discussion tell a consistent and cohesive story on the role of Title V in the state.

Examples for Assuring Consistency Between Financial Forms and Narrative State Action Plan

Example 1 – A State with strong support for public health infrastructure:

When a state's financial forms reflect heavy investment in public health infrastructure, the narrative would be expected to speak of key public health strategies that are designed to address MCH priority needs.

Example 2 – A State with high levels of state match that support direct services for CSHCN:

When a state's financial forms reflect high levels of state match to support direct services, the strategies should describe the role that Title V plays in supporting these services.

Example 3 – A state that relies heavily on partnerships to provide funding and support for key MCH initiatives:

When a state's financial forms reflect limited availability of Title V partnership funds, the narrative would be expected to describe a more limited scope of Title V strategies, and/or leveraging of partners to address key MCH needs.

APPENDIX H: POPULATION HEALTH & CHILDREN WITH SPECIAL HEALTH CARE NEEDS (CSHCN)⁴

I. Rationale for CSHCN Population Health Strategies

Children and youth with special health care needs⁵ need enhanced access to high quality, comprehensive health care in well-integrated, community-based systems due to the complex nature of their health and social conditions. Even if these services are available, they are often not well coordinated across multiple service systems. CSHCN and their families should receive services and supports through a comprehensive system to achieve optimal health and quality of life.⁶ To increase reach, impact, and sustainability of federal/state funds, State Title V programs are encouraged to incorporate public health services, systems, or population health strategies. Promoting the effective and efficient organization and utilization of resources to assure access to necessary comprehensive services for CSHCN⁷ and their families require State Title V efforts to strengthen the systems that serve this population and the policies that influence and guide these systems.

II. Definition: Population Health Strategies for CSHCN

A population health strategy for CSHCN intends to improve the health and well-being of an entire group or subgroup.^{8,9} These strategies occur at the policy¹⁰ or systems¹¹ level and are measurable over time. They are designed to improve health equity and often focus on social and environmental factors.

III. Why implement strategies at the policy and systems level?

CSHCN and their families face substantial barriers to health care. The following 2017-2018 National Survey of Children's Health results¹² demonstrate the inequities CSHCN and their families experience around access to care issues and the compounding effects of social determinants of health across systems that serve this population.

- **Nearly one in five (18.5%) children and youth younger than 18 years in the U.S. have a special health care need.**

⁴ For purposes of the MCH Block Grant program, children are defined as ages 1 through 21 years. As referenced throughout the Title V MCH Services Block Grant Guidance, the population of CSHCN is inclusive of children and youth.

⁵ Children and youth with special health care needs have or are at increased risk for chronic physical, developmental, behavioral or emotional conditions and who also require health and related services of a type or amount beyond that required by children generally (McPherson et al., 1998).

⁶ Section 501(a)(1)(D) of the Title V legislation states that the purpose of the MCH Block Grant is to enable each state to provide and to promote family-centered, community-based, coordinated care (including care coordination services, as defined in subsection (b)(3)) for children with special health care needs (CSHCN) and to facilitate the development of community-based systems of services for such children and their families.

⁷ Section 501(b)(3) of the Title V legislation includes a definition of "care coordination services." https://www.ssa.gov/OP_Home/ssact/title05/0501.htm

⁸ Kindig D, Stoddart G. What is population health?. Am J Public Health. 2003;93(3):380-383. doi:10.2105/ajph.93.3.380

⁹ Examples include, but are not limited to, children with medical complexity, CSHCN experiencing disparities by region, race, or condition, and CSHCN in a specific state.

¹⁰ Policy may include legislative or organizational policy.

¹¹ Systems involve more than one institution, organization, or agency.

¹² Child and Adolescent Health Measurement Initiative. 2017-2018 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved 2/5/2020 from www.childhealthdata.org. CAHMI: www.cahmi.org.

- White children were **more likely** (21.3%) to receive care within a well-functioning system than Black (13.7%), Hispanic (13.2%), or Asian (13.5%) children.
- **33%** of CSHCN experience two or more adverse childhood events compared to 15% of children without a special health care need.
- CSHCN with a household income below federal poverty level were **significantly less likely** to have a medical home. **More than half** of CSHCN (57%) do not receive care that meets medical home criteria; nearly one-third (30%) of those who need care coordination did not receive it.
- CSHCN were **significantly more likely** to live in households that could not always afford to eat good nutritious meals than non-CSHCN. Among CSHCN, those with more complex needs were significantly more likely than those with less complex needs.
- **Almost three times** as many families of CSHCN were frustrated in their efforts to get services for their child compared to families of non-CSHCN (36% vs 13% respectively).
- **One-third** (34%) of all children received developmental screening.
- **More than 80%** of CSHCN ages 12 through 17 years do not receive services necessary for transition to adult health care.

IX. Examples of State Title V Programs Implementing Population Health Strategies

There is not one correct way to implement a population health strategy for CSHCN and families. Additionally, population health approaches may be developed and implemented incrementally to reach an entire CSHCN population. The examples below illustrate various population health approaches a state Title V program can take to implement policy and systems change.

Population based approach reaching MCH population, where CSHCN are a subset: *Building capacity of healthcare professionals to address social determinants of health (RI)*

Need: To improve the social determinants of health for the state’s maternal and child health population.

Goal: The state’s goal was to sustain and build the capacity of non-licensed health care professionals to address the social, environmental, and economic determinants of health.

Mechanism/Strategy for Change: The state developed peer-to-peer support networks within the healthcare system. Such networks include CSHCN parent consultants, community health workers (CHW), and peer resource specialists. The state developed mechanisms to certify CHW, build the capacity of CHW, and convene multi-payer Community Health Teams. State Title V funds are used to pay for some positions, but not services rendered. The intention of this initiative is to reach all MCH populations in the state; it includes specific training for personnel to ensure that CSHCN and their families benefit equally from the services.

Intended Audience/Population: Entire MCH population in the state, where CSHCN are addressed as a subset deserving special attention.

Measurement and Outcomes: The state is currently collecting process data on the number of CHW certified. The intention is to collect outcome data on quality of life for CSHCN and families, and the percent of families who report increased access to supports and services.

Population based approach reaching MCH population, where CSHCN are a subset: *Building capacity of healthcare professionals to address social determinants of health (RI)*

Population Health Characteristics: This is an example of how Federal and state Title V resources can be leveraged with existing efforts across other sectors and programs to advance systems that serve CSHCN and their families to impact a greater proportion of the population.

Population based approach reaching entire state CSHCN population: *Transforming the system of health care to focus on quality of life for CSHCN and their families (FL)*

Need: Health care delivery is increasingly influenced by quality measures. Commonly used metrics for children focus on immunizations and well child care visits, which are important but insufficient for CSHCN who have many complex health needs.

Goal: The state's goal was to modify the use of quality measures to better reflect what is important to CSHCN and their families.

Mechanism/Strategy for Change: The state's Title V program, under the authority of the state surgeon general, convened a technical advisory panel composed of youth with special health care needs, families of CSHCN, clinicians, insurers, agency leaders, and experts in quality measurement. The panel recommended that quality of life measures, for both children/youth and their caregivers, be included in health insurance programs and in Title V programs for CSHCN. These recommendations were implemented for all Title V programs and for the state health insurance program for CSHCN.

Intended Audience/Population: All CSHCN and their families in the state.

Measurement and Outcomes: Data from quality of life measures for both CSHCN and their caregivers are being collected by organizations contracted to provide Title V CSHCN services and by the state managed care organization, which insures over 70,000 CSHCN. This program began in 2019, data are not yet available. The next steps will be to analyze whether quality of life measures correlate with health care experiences (e.g. hospitalizations, unmet health care needs, etc.) and whether health care plans and providers improve quality of life measures.

Population Health Characteristics: This is an example of how Federal and state Title V funds can be used to influence the system of services for CSHCN and their families. If collecting data on quality of life is successful for the state managed care plan, the next step will be to work with the state Medicaid office to extend the program to all managed care plans that include CSHCN. This movement towards policy and systems level change happens incrementally and can lead to measurable population outcomes.

Population based approach reaching entire state CSHCN population: *Ensuring the system of services for CSHCN and families through telemedicine (CO)*

Need: Families of CSHCN in the rural areas of the state report barriers to accessing specialty care, specifically traveling long distances, difficulty transporting children with complex needs and missed work time.

Goal: The state's goal was to improve access to pediatric specialty care, with a focus on rural and remote geographic locations, by implementing telemedicine statewide.

Mechanism/Strategy for Change: The state transitioned Title V funded clinics to a children's hospital and contracted with the hospital to expand the use of telemedicine for rural regions and improve access to various types of pediatric specialists.

Intended Audience/Population: CSHCN and their families, primary and specialty providers in rural areas of Colorado, hospital-based pediatric specialists and local public health agencies.

Measurement and Outcomes: Families report improved access to care and quality of life (time to get care, proximity of care, faster response to changes in symptoms, fewer missed days of work). The shift contributed to state level policy changes around use and reimbursement of telemedicine. This example includes process indicators used to show progress: number of clinics utilizing telemedicine for specialty care (including behavioral health), number of specialty areas accessible via telemedicine, percent of families reporting fewer trips to the children's hospital.

Population Health Characteristics: Although many stakeholders, especially clinicians and youth/families, focus on providing health care services to individuals, the state Title V program is best positioned to examine the system as a whole. This is an example of how the state Title V program understood that a partner was better positioned to provide direct, outreach services. By transferring these clinics, Title V was able to redirect resources to improve the overall system and increase access to pediatric care for all CSHCN in the state, versus only individuals served through the Title V-funded outreach clinics. Through the contract with the children's hospital, Title V was able to influence an increased focus on the more rural areas of the state where CSHCN experienced disparities in access and quality of care.

Population based approach reaching subset of CSHCN (Young Adults with Medical Complexity (YAMC): Pilot Intended to Develop into A Population Based Approach (OR)

Need: Young adults with medical complexity (YAMC) are not adequately prepared for, or supported in, the transfer of care from pediatric to adult primary care.

Goal: The state's goal is to provide support to YAMC and/or their families to identify and establish care with an adult primary care provider (PCP).

Mechanism/Strategy for Change: The state convened a team composed of family representatives, clinical providers, and Title V CSHCN staff to develop, test and revise a multi-stage strategy to (a) alert YAMC and their families that an adult primary care provider is needed, (b) create a Health Passport (a.k.a., essential care plan information) to share with an adult provider, (c) review insurance plan and other key characteristics of potential adult providers, and (d) schedule and attend an appointment with an adult PCP. The state's plan is that through quality improvement practice, we will identify a strategy(ies) that can be spread over time to health systems throughout Oregon to support the entire population of YAMC.

Intended Audience/Population: Young adults ages 17 years and older who meet the Complex Chronic Disease category of the Pediatric Medical Complexity Algorithm (PMCA; Simon et al., 2014) and do not yet have an adult primary care physician. Because the state is developing and piloting a strategy using quality improvement methodology, the project's initial focus is on youth who meet the age and complexity criteria and who receive primary care through Oregon Health & Science University (OHSU) pediatric clinics.

Measurement and Outcomes: The state intends to (1) reduce the amount of time families spend attempting to identify an adult provider, (2) confirm that the YAMC established with an adult PCP, (3) observe increases in use of primary care by this population, and (4) observe decreases in emergency room use for this population. Although the state's strategy is in a developmental phase, the current *process outcomes* are: (1) clinic staff time dedicated to strategy implementation, (2) strategy acceptability to clinic staff and families/YAMC, (3) enrollee attendance at transfer preparation appointments, and (4) completion of Health Passports for each enrolled YAMC.

Population Health Characteristics: This provides an example of how population health approaches may start as a pilot project or smaller initiative with a subgroup of the population. Title V programs use a variety of mechanisms, e.g., quality improvement and Implementation Science Frameworks, to develop, implement, test, improve, and scale-up pilot projects or initiatives to reach a broader population. Through quality improvement practice, the state will identify a strategy(ies) that can be spread over time to health systems throughout Oregon to support the entire population of YAMC.

Population based approach reaching subset of CSHCN (Latino CSHCN): *Improving care coordination for CSHCN and families through standardized training (Generic example)*

Need: Latino/Hispanic CSHCN and their families are less likely to receive care in a well-functioning system than White CSHCN and their families.

Goal: The state's goal was to improve the quality and effectiveness of care coordination services for Latino CSHCN and families by implementing a standardized Care Coordination Curriculum.

Mechanism/Strategy for Change: The state developed a culturally responsive Care Coordination Curriculum in partnership with the Coalition of Latino Communities, a statewide advocacy organization. The state and Coalition piloted the curriculum with ACO and clinic care coordinators in three regions. After monitoring adherence to the model for 6 months, obtaining user feedback, and making curriculum adjustments, Title V and Coalition staff conducted Care Coordination Curriculum trainings in the remaining four regions. The final implementation phase of this strategy entailed collaborating with Medicaid to reimburse for care coordination services. Additionally, the state required that all care coordinators who serve CSHCN and their families through FQHCs to be trained using the curriculum.

Intended Audience/Population: All Medicaid-insured Latino CSHCN and their families in the state.

Measurement and Outcomes: The state began collecting process data describing the number of care coordinators trained and the number of care coordinators adhering to the curriculum. Additionally, the state collected outcome data to capture family satisfaction and quality of life at baseline and after one year of implementation in all regions. The state also tracked change over time in the percent of Latino CSHCN and families that report receiving effective care coordination services through the National Survey of Children's Health.

Population Health Characteristics: This is an example of how movement towards policy and systems level change happens incrementally and leads to measurable population outcomes, as indicated by the satisfaction and quality of life measures collected in this example.

APPENDIX I: MCH WORKFORCE CAPACITY

The health of the nation's women, children, youth, and families is influenced by a wide array of factors. At the foundation of a healthy community is a highly qualified, diverse workforce that can positively affect maternal and child health at the individual, community, and policy levels.¹³ Successful implementation of the five-year State Action Plan requires a workforce that is adequate in size, effectively trained and properly supported. State Title V programs have an important role in the ongoing assessment of MCH staff competencies and training needs, identification of skill and technical gaps, and provision of professional development and growth opportunities for staff to help assure optimal impact for state Title V MCH programs. Regular and systematic assessment of the MCH public health workforce can lead to improved knowledge, competence and effectiveness of the MCH workforce, and also support staff recruitment and retention in Title V.

There are several tools available to state Title V agencies to assist in assessing the training and professional development needs of staff and in identifying learning opportunities. The following resources outline critical skills important to fostering a highly skilled and qualified MCH public health workforce and link to resources tailored to the professional development of state Title V staff.

I. MCH Leadership Competencies

https://mchb.hrsa.gov/training/documents/MCH_Leadership_Competencies_v4.pdf

MCHB in partnership with stakeholders developed the MCH Leadership Competencies in order to support current and future MCH leaders by defining the knowledge and skills necessary to lead in MCH. The MCH Leadership Competencies describe the necessary knowledge, skills (foundational and advanced), personal characteristics, and values within a framework designed to support and promote MCH leadership. The Competencies can be used in a variety of ways, including:

1. As a framework to identify the knowledge and skills needed to develop current and future Title V leaders.
2. To cultivate, sustain, grow, and measure leadership within the current MCH workforce, including new and seasoned Title V staff and leaders.
3. To guide measurement and evaluation of leadership training for Title V staff.

II. MCH Self-Assessment Tool

<https://www.mchnavigator.org/assessment/>

The MCH Self-Assessment is an online tool aligned to the MCH Leadership Competencies that can be used to identify MCH professionals' strengths and learning needs, match MCH professionals' learning needs to appropriate trainings, and receive a personalized learning plan. The online self-assessment can

¹³ Maternal and Child Health Leadership Competencies-Version 4.0. Available at https://mchb.hrsa.gov/training/documents/MCH_Leadership_Competencies_v4.pdf

provide a personalized learning plan for individual staff, and can track increases in knowledge and skills longitudinally. State Title V agencies can use the self-assessment tool for individual staff members, or as a group within Title V to identify professional development needs and interests, and identify free learning opportunities to advance knowledge and skill. Title V agencies can also request a state-specific snapshot of workforce demographics and knowledge/skills across the MCH Leadership Competencies, based on results of the self-assessment. The self-assessment tool and information on state snapshots can be found the MCH Navigator website (described below).

III. MCH Navigator

<https://www.mchnavigator.org/>

The MCH Navigator is a centralized portal for pursuing continuous learning in maternal and child health (MCH) and is designed to help emerging and established MCH professionals and students map professional growth pathways. The MCH Navigator includes a range of learning opportunities tailored to MCH professionals and can be accessed through both self-directed learning or semi-structured learning. State Title V programs can use the MCH Navigator to assist with orientation and onboarding of new staff, to develop individual learning plans, and to conduct group learning or training activities on topics related to MCH core competencies, knowledge and skill areas. State Title V staff can use the MCH Navigator to and to complete the self-assessment tool noted above.

IV. The National Maternal and Child Health Workforce Development Center

<https://mchwdc.unc.edu/>

The National Maternal and Child Health Workforce Development Center (the Center) helps state and territorial Title V leaders and their partners tackle complex challenges through training, collaborative learning, coaching, and consultation. Through the Center's customized workforce development offerings, State Title V leaders and staff identify a health transformation challenge and develop skills and knowledge to apply in real-time to their state-specific challenge. State Title V programs can also access Center-developed self-paced trainings via the MCH Navigator (described above). The Center's website also includes resources for Title V agencies to identify the skills and knowledge needed to support work aligned with each of the 15 National Performance Measures. State Title V programs can also access a list of "Foundational Skills" needed to support all Title V National Performance Measures.

V. 2021 Public Health Workforce Interests and Needs Survey (PH WINS)

<https://www.phwins.org/national>

The 2021 Public Health Workforce Interests and Needs Survey (PH WINS) was conducted by the de Beaumont Foundation and the Association of State and Territorial Health Officials (ASTHO) between September 2021 and January 2022. The survey provides data on workforce demographics, job characteristics, training needs, intent to stay or leave, professional engagement and satisfaction, and other areas.

APPENDIX J: GLOSSARY

A comprehensive glossary of terms relevant to maternal and child health (MCH) practice, including services for children with special health care needs (CSHCN), is available on the MCH Navigator site. To access the Glossary, click on:

https://www.mchnavigator.org/documents/Glossary_of_MCH_Terms_and_Acronyms_2012-11-17.pdf.

This project is administered by Georgetown University through funding provided by the Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB.) The MCH Navigator is a learning portal for MCH professionals, students, and others working to improve the health and well-being of women, children, adolescents, and families.

Definitions included in this Glossary are intended to supplement the broader set of terms that are included in the MCH Navigator Glossary. The following list of terms and their definitions have specific relevance to the State Title V MCH Block Grants.

Comprised of the following two main sections, the Glossary is intended to assist State Title V programs in completing the yearly Title V MCH Block Grant Application/Annual Report.

- Supplemental Program Information (which includes multiple sub-sections); and
- Definitions of Program-Relevant MCH Terms.

SUPPLEMENTAL PROGRAM INFORMATION

I. TITLE V PROGRAM ADMINISTRATION

Data Systems Development – Development of data management systems (electronic or other) or linking of existing databases to support states’ ability to collect, tabulate, analyze, and report data accurately.

Government Performance and Results Act (GPRA) – Federal legislation enacted in 1993 that requires Federal agencies to develop strategic plans, prepare annual plans setting performance goals, and report annually on actual performance.

Jurisdictions – The following nine jurisdictions receive Title V Maternal and Child Health Block Grant Program funding: the District of Columbia, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau and the U.S. territories of the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Life Course Theory (LCT) – A conceptual framework that helps explain health and disease patterns, particularly health disparities, across populations and over time. Instead of focusing on differences in health patterns based on one disease or condition at a time, LCT points to broad social, economic and environmental factors as underlying causes of persistent inequalities in health for a wide range of diseases and conditions across population groups. LCT is population focused, and firmly rooted in social determinants and social equity models. Though not often explicitly stated, LCT is also community (or “place”) focused, since social, economic and environmental patterns are closely linked to community and neighborhood settings.¹⁴

Needs Assessment – A process to understand the strengths and needs of the health service system within a community or population. For maternal and child health purposes, needs assessment efforts consider the following components: 1) health status, 2) health service utilization, 3) health systems capacity, and 4) population/ community characteristics and contextual characteristics.

Objectives – A statement of intention with which actual achievement and results can be measured and compared. SMART objectives are Specific, Measurable, Achievable, Relevant and Time-phased. See also Objectives and Performance Objectives within the Performance Measurement Section.

Priority Needs – Title V legislation direct states to conduct a statewide, comprehensive MCH Needs Assessment every five years to identify the need for preventive and primary care services for pregnant women, mothers, infants, children and children with special health care needs. From this assessment, states select seven to ten priorities for focused programmatic efforts over the five-year reporting cycle.

State – Terminology used in this Guidance to reference the 50 states and the nine jurisdictions (See also “Jurisdictions”).

Strategies – General approaches taken to achieve objectives: activities are specific actions to implement the strategies. For example, a strategy may be to improve provider training with activities that could

¹⁴ <https://mchb.hrsa.gov/training/lifecourse.asp>

include developing a training module, delivering or promoting the training, and monitoring utilization and/or knowledge improvement. Program activities for implementing the identified program strategies are discussed and updated annually as part of the State Action Plan narrative.

Technical Assistance (TA) – The process of providing advice, assistance, and training by an expert with specific technical/content knowledge to address an identified need. Technical Assistance relationships are program-focused, and may use an interactive, on-site/hands-on approach as well as telephone or email assistance. Technical Assistance delivery is short in duration, customized to meet the needs of the client, and offers prescriptive solutions to a specific issue.

II. COLLABORATIVE LEARNING, INNOVATION AND QUALITY IMPROVEMENT

Aim Statement – A written measurable description of desired outcomes used in a quality improvement initiative. A strong AIM statement outlines what is to be accomplished, quantifies the changes that are to be achieved and sets a date by which the goals will be reached.

Blueprint for Change – A tool to help define action steps for a team’s strategic priorities.

ColIN versus COIN – The Collaborative Improvement and Innovation Network (ColIN) initiative extends the Collaboration Innovation Network (COIN) model to include the concept of *improvement* in recognition of the need to strengthen existing investments in maternal and infant health as well as to develop innovative, new approaches.

Collaborative Innovation Network (COIN) – A cyberteam of self-motivated people with a collective vision, enabled by the Web to collaborate in achieving a common goal by sharing ideas, information and work.¹⁵

Collaborative Learning – Projects using this model enable learners of different abilities and interests to work jointly in small groups to complete a project or solve a problem.

Collective Impact – A concept that provides a framework for bringing diverse people and organizations together in a structured way to achieve social change.¹⁶

Driver Diagram – A logic chart that organizes the different aspects of an improvement project so key interventions and relationships between these interventions may be clearly understood by all involved.

Infant Mortality ColIN Framework – A framework that presents a theory of the relationships between (1) key domains of influence (e.g., engaged leadership or innovation), (2) the periods of engagement, and (3) the strategies priorities that will be employed to reduce infant mortality rates in the U.S.

Learning Collaborative – A group of individuals or organizations that come together for a defined period of time to work together to improve process relevant to a specific topic. Members of a learning collaborative generally agree upon a shared set of data to measure and meet regularly to learn from each other and project experts.

¹⁵ Gloor, Peter A. “Swarm Creativity.” *Competitive Advantage through Collaborative Innovation Networks*. (2006)

¹⁶ <http://collectiveimpactforum.org/what-collective-impact>

Learning Sessions – Members of learning collaboratives generally agree to a regular schedule of multi-day meetings throughout the collaborative. These meetings may be in person or virtual. The learning sessions allow Collaborative faculty and partners to share latest research or important information on the topic of the collaborative, and they allow participants to share their work and to learn from each other.

Perinatal Periods of Risk (PPOR) – Both a community approach and an analytic framework for investigating and addressing high infant mortality rates in urban settings. The overall intent of the PPOR approach is to develop a simple method that can be used by communities to mobilize and prioritize prevention efforts. PPOR brings community stakeholders together to build consensus, support and partnership around infant mortality rates.¹⁷

Primary Drivers – Found in the CoIIN framework and driver diagrams, drivers are system components, factors or broad improvement areas that contribute directly to achieving the stated outcome. For example, if the outcome is reducing infant mortality, a strategic priority/primary driver might be to improve access to and quality of prenatal care for women (see strategic priorities).

Potential Action/Change Concept – Actionable steps for change targeted at improving specific processes, often originating from brainstorming sessions with the team and evidence-based best practices.

Quality Improvement in Public Health – The use of a deliberate and defined improvement process, which is focused on activities that are responsive to community needs and improving population health. This effort is continuous and ongoing to achieve measureable improvements in the efficiency, effectiveness, performance, accountability, outcomes and other indicators of quality in services or processes, which achieve equity and improve the health of the community.

Strategic Priorities – Found in the CoIIN framework and driver diagrams, these priorities are system components, factors or broad improvement areas that contribute directly to achieving the stated outcome. For example, if the outcome is reducing infant mortality, a strategic priority/primary driver might be to improve access to and quality of prenatal care for women.

III. FAMILY PARTNERSHIP

Cultural Competence – A set of values, behaviors, attitudes, and practices within a system, organization, program or among individuals and which enables them to work effectively cross culturally. Further, cultural competence refers to the ability to honor and respect the beliefs, language, inter-personal styles and behaviors of individuals and families receiving services, as well as staff who are providing such services.

Culturally Sensitive – The recognition and understanding that different cultures may have different concepts and practices with regard to health care; the respect of those differences and the development of approaches to health care with those differences in mind.

¹⁷ <http://www.citymatch.org/projects/perinatal-periods-risk-ppor>

Family Partnership – For purposes of the MCH Block Grant, family partnership is defined as patients, families, their representatives, and health professionals working in active partnership at various levels across the health care system—direct care, organizational design and governance, and policy making—to improve health and health care.¹⁸ This partnership is accomplished through the intentional practice of working with families for the ultimate goal of positive outcomes in all areas through the life course. Additional references include, but are not limited to, several comprehensive reports written by the Association of Maternal and Child Health Programs (AMCHP) that describe family engagement efforts in State Title V programs. These references are available at:

<http://www.amchp.org/programsandtopics/family-engagement/Pages/default.aspx>.

Patient- and Family-Centered Care – “An approach to the planning, delivery, and evaluation of health care that is grounded in a mutually beneficial partnership among patients, families, and providers that recognizes the importance of the family in the patient’s life.”¹⁹ “This approach recognizes that the perspectives and information provided by families, children, and young adults are essential components of high-quality clinical decision-making, and that patients and family are integral partners with the health care team.”²⁰

IV. CHILDREN WITH SPECIAL HEALTH CARE NEEDS

Care Coordination Services – Services that promote the effective and efficient organization and utilization of resources to assure access to necessary comprehensive services for children with special health care needs and their families. [Section 501(b)(3)] Pediatric care coordination is “patient and family centered, assessment driven, team based.”²¹ Care coordination services facilitate linkage of children and their families with appropriate services and resources that meet their health and social needs to achieve optimal health. This care is to be distinguished from case management which primarily focuses on the children’s medical issues.²²

Case Management Services – Services that assure access to quality prenatal, delivery and postpartum care for pregnant women; and services that assure access to quality preventive and primary care services for infants up to age one (1) ([Section 501(b)(4)]).

Children With Special Health Care Needs (CSHCN) – Children with special health care needs are those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.²³ For Form 5 reporting, infants with special health care needs (0-12 months) and CSHCN ages

¹⁸ Carman K., Dardess, P., Maurer, M., Sofaer, S., Adams, K., Bechtel, C., Sweeney, J. Patient and Family Engagement: A framework for understanding the elements and developing interventions and policies. *Health Affairs*. 2013; 32:223-231.

¹⁹ Committee on Hospital Care and Institute for Patient- and Family-Centered Care. *Patient- and Family-Centered Care and the Pediatrician’s Role*. *Pediatrics*. 2012; 129: 394

²⁰ Ibid.

²¹ Antonelli RC, McAllister J, Popp J. 2009. Developing Care Coordination as a critical component of a high performance pediatric health care system. Washington DC: The Commonwealth Fund

²² Turchi RM, Mann M. Building a medical home for children and youth with special health care needs. In: Hollar D, ed. *Handbook of Children with Special Health Care Needs*. New York, NY: Springer-Verlag; 2013:399-418.

²³ McPherson M., Arango P., Fox H. A new definition of children with special health care needs. *Pediatrics*. 1998; 102: 137-140.

one (1) through 21 are captured separately as a subset under children. The reported totals for all infants and children should include infants and children who have special health care needs.

Systems of Services for Children with Special Health Care Needs – A system of services for children with special health care needs is a “family-centered coordinated network of community-based services designed to promote the healthy development and well-being of children and their families”.²⁴ Additionally, a “well-functioning system of services will coordinate and integrate the full range of needed child and family services, including health care, education, and social services, with the goal of optimizing outcomes for the children and families it serves.”²⁵

Key frameworks describing the system of services for CSHCN:

- Six Core Outcomes for CSHCN^{26,27}
 - Family Professional Partnership
 - Medical Home
 - Adequate Health Insurance
 - Early and Continuous Screening and Surveillance
 - Easy to Use Services and Supports
 - Transition to Adult Health Care
- National Standards for Systems of Care for Children and Youth with Special Health Care Needs
 - The National Systems Standards describe the process and provide a framework necessary to build an effective system of services for CSHCN. The standards are divided into ten core domains, and they are based on the six core outcomes listed above for CSHCN. Additional information is available at: <http://www.amchp.org/AboutTitleV/Resources/Documents/Standards%20Charts%20FINAL.pdf>.

V. EMERGENCY PLANNING AND PREPAREDNESS²⁸

Emergency – Any incident, whether natural, technological, or human-caused, that necessitates responsive action to protect life or property.

Emergency Operations Center (EOC) – The physical location where the coordination of information and resources to support incident management (on-scene operations) activities normally takes place.

Emergency Operations Plan (EOP) – A plan for responding to a variety of potential hazards.

Incident Management – The broad spectrum of activities and organizations providing operations, coordination, and support applied at all levels of government, using both governmental and

²⁴ Perrin, J., Romm, D., Bloom, S., Homer, C., Kuhlthau, K., Cooley, C., Duncan, P., Roberts, R., Sloyer, P., Wells, N., Newacheck, P. A family-centered, community-based system of services for children and youth with special health care needs. 2007; 161 (10): 933-936.

²⁵ Ibid.

²⁶ National Agenda for Children with Special Health Care Needs: Achieving the Goals 2000. Washington, D.C.: Health Resources Services Administration; 1999.

²⁷ Strickland, B., van Dyck, P., Kogan, M., Lauver, C., Blumberg, S., Bethell, C., Newacheck, P. Assessing and ensuring a comprehensive system of services for children with special health care needs: a public health approach. 2011; 101 (2): 224-231.

²⁸ Federal Emergency Management Agency (FEMA), June 2020 <https://training.fema.gov/emiweb/is/icsresource/assets/glossary%20of%20related%20terms.pdf>

nongovernmental resources to plan for, respond to, and recover from an incident, regardless of cause, size, or complexity.

Mission Area – One of five areas (Prevention, Protection, Mitigation, Response, and Recovery) designated in the National Preparedness Goal to group core capabilities.

Mitigation – The capabilities necessary to reduce the loss of life and property from natural and/or manmade disasters by lessening the impacts of disasters.

Prevention – The capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. In national preparedness guidance, the term “prevention” refers to preventing imminent threats.

Protection – The capabilities necessary to secure the homeland against acts of terrorism and manmade or natural disasters.

Recovery – The capabilities necessary to assist communities affected by an incident to recover effectively.

Response – The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

Definitions of Title V Program-Relevant MCH Terms

Acquired Brain Injury – Injury to the brain that is not hereditary, congenital, degenerative, or induced by birth trauma. Traumatic brain injury is a type of acquired brain injury.

Bullying – Unwanted, aggressive behavior among school aged children that involves a real or perceived power imbalance. The behavior is repeated, or has the potential to be repeated, over time. Additional guidance on bullying surveillance is available at: <http://www.cdc.gov/violenceprevention/pdf/bullying-definitions-final-a.pdf>.

Clinical Genetics – Clinical and laboratory services for individuals and families with, or at risk for, health problems with a heritable component. The application of the principles of genetics and genomics to predict, diagnose, and treat disease and improve health.

Community – A group of individuals living as a smaller social unit within the confines of a larger one due to common geographic boundaries, a common work environment, common interests and other uniting factors.

Community-based Care – Services provided within the context of a defined community.

Community-based Service System – An infrastructure that operates across service sectors that facilitates the integration of services in several dimensions, which includes organization, delivery, and financing.²⁹

Early Neonatal Period – Period covered by the first week after birth or an age of less than seven days.

Genetic Counseling: The process of helping people to understand and adapt to the medical, psychological, and familial implications of genetic contributions to disease. This process integrates: interpretation of family and medical history to assess the chance of disease occurrence or recurrence; education about inheritance, testing, management, prevention, resources and research; counseling to promote informed choices; and adaptation to the risk or condition.

Health Care System – The entirety of the agencies, services, and providers involved or potentially involved in the health care of community members and the interactions among those agencies, services and providers.

Human Genetics: The science of genes, heredity and variation in human organisms.

Health Care Transition – The process of moving from a child to an adult model of health care. The goal of health care transition (HCT) is to optimize health and assist youth in reaching their full potential, which requires an active process over time that addresses many aspects of a youth's life, including medical, psychosocial, educational, and vocational needs. This process also ensures continuity of developmental and age-appropriate health care services. Successful transition involves the engagement and participation of the pediatric and adult medical home team, the family and other care givers, and the individual youth

²⁹ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. The National Survey of Children with Special Health Care Needs Chartbook 2009–2010. Rockville, Maryland: U.S. Department of Health and Human Services, 2013.

collaborating in a positive and mutually respectful relationship.³⁰ For more information see <http://www.gottransition.org/>

Low Income – An individual or family with an income that is determined to be below the income official federal poverty line, as defined by the Office of Management and Budget and revised annually in accordance with 42 U.S.C. 9902(2). [Section 501(b)(2)]

Medical Home – An approach to providing comprehensive, high quality health care that is accessible, family-centered, continuous, comprehensive, coordinated, compassionate and culturally effective.³¹ Care occurs in an environment of trust and mutual responsibility between the family, patient, and primary care provider. The principle of family-centered care defines the care to be received in a medical home while a team-based approach is central to delivering care in the medical home. Within the medical home, care coordination addresses interrelated medical, dental, mental and behavioral, social, educational, and financial needs to achieve optimal health and wellness outcomes. Additional information is available at: <https://medicalhomeinfo.aap.org/Pages/default.aspx>.

Morbidity – A general term for any health condition that encompasses diseases, injuries, and impairments in a population or group.

Mortality – A general term for the incidence of deaths in a population or group. The number of deaths may be reported by age, sex, race/ethnicity, geographic area, and cause of death.

Mortality Rate – The number of deaths occurring in a particular population during a specific time period, as calculated by the number of deaths in that group (numerator) divided by the total population (denominator) and expressed as per 1,000 live births (infant mortality rate only) or per 100,000 population, generally at mid-year.

National Improvement Partnership Network (NIPN) – A network of states who have an Improvement Partnership (IP), which is a durable collaborative of public and private partners that use the science of quality improvement and a systems approach to improve health care infrastructure and practice. Established in 2009, NIPN is led by the Vermont Child Health Improvement Program (VCHIP).

National Survey of Children’s Health (NSCH) – Sponsored by the Maternal and Child Health Bureau of the Health Resources and Services Administration, the NSCH examines the physical and emotional health status and health service needs and utilization patterns of children ages 0-17 years of age. Special emphasis is placed on factors that may relate to well-being of children, including medical homes, family interactions, parental health, school and after-school experiences, and safe neighborhoods. The NSCH was fielded three times as a telephone-based survey, in 2003, 2007 and 2011-2012, yielding both state- and nationally representative data. In 2016, the NSCH underwent a significant redesign, becoming an annual address-based mailed survey with a web-based response option that merged content from the previous

³⁰ American Academy of Pediatrics. American Academy of Family Physicians and American College of Physicians. Transitions Clinical Report Authoring Group. Supporting the health care transition from adolescence to adulthood in the medical home. Pediatrics. 2011;

³¹ American Academy of Pediatrics. Organizational principles to guide and define the child health care system and/or improve the health of all children. Pediatrics; 110 (1): 2002

NSCH and National Survey of Children with Special Health Care Needs (NS-CSHCN).

<https://mchb.hrsa.gov/data/national-surveys>

National Survey of Children with Special Health Care Needs (NS-CSHCN) – This survey was sponsored by the Maternal and Child Health Bureau of the Health Resources and Services Administration. The NS-CSHCN was conducted three times as a telephone-based survey, in 2001, 2005-2006 and 2009-2010, and yielded state- and nationally representative data on the health care experiences of CSHCN and their families. In 2016, the NS-CSHCN was merged with the NSCH to provide one unified survey administered annually by mail with a web-based response option. Additional information is available at:

<https://mchb.hrsa.gov/data/national-surveys>.

Neonatal Period – period covered by the first month after birth or an age of less than 28 days.

Newborn – A recently born infant, usually less than one month old.

Newborn Screening (NBS) – The process of testing newborn babies for some serious, but treatable, conditions. Four million newborns each year are tested for conditions on the Recommended Uniform Screening Panel (a set of conditions recommended by the Secretary of HHS for NBS) that are not apparent at birth but require early intervention and treatment to mitigate brain and organ damage, severe illness, and life-threatening complications associated with these conditions. NBS can include a heel stick, hearing screen, and pulse oximetry. The conditions that newborn babies are screened for varies by state. When a newborn screening result is out-of-range, further diagnostic testing is required to confirm or specify the results.

Newborn Screening Long-term Follow-up – Comprises the assurance and provision of ongoing quality chronic disease management, condition-specific treatment, and age-appropriate care throughout the lifespan of individuals identified with a condition included in newborn screening.

Newborn Screening Short-term Follow-up – The process of ensuring that all newborns are screened, that an appropriate follow-up caregiver is informed of results, that confirmatory testing has been completed, and that the infant has received a diagnosis and, if necessary, treatment is initiated.

Perinatal – Period pertaining to immediately before and after birth. For example, the definition of perinatal mortality refers to fetal and early neonatal death between 28 weeks or more gestation through the first week of life (less than seven days after birth).

Postneonatal Period – Period of infant age from one month (28 days) up to one year (<365 days).

Prenatal – Occurring or existing before birth, referring to both the care of the woman during pregnancy and the growth and development of the fetus.

Preventive Services – Activities aimed at reducing the incidence of health problems or disease prevalence in the community, or the personal risk factors for such diseases or conditions.

Preventive Oral Health Services – Activities that aim to improve and maintain good oral health and function by reducing the onset and/or development of oral diseases or deformities and the occurrence of

oro-facial injuries. Examples of preventive oral health services include, but are not limited to, oral hygiene instructions, fluoride treatment, and Dental Sealants.

Primary Care/Primary Care Services – The provision of comprehensive personal health services that include health maintenance and preventive services, initial assessment of health problems, treatment of uncomplicated and diagnosed chronic health problems, and the overall management of an individual's or family's health care services.

Recommended Uniform Screening Panel (RUSP) – The RUSP is a list of disorders that are recommended by the Secretary of the Department of Health and Human Services (HHS) for states to screen as part of their state universal newborn screening (NBS) programs. Disorders on the RUSP are chosen based on evidence that supports the potential net benefit of screening, the ability of states to screen for the disorder, and the availability of effective treatments. It is recommended that every newborn be screened for all disorders on the RUSP. Most states screen for the majority of disorders on the RUSP; newer conditions are still in process of adoption. Some states also screen for additional disorders. Although states ultimately determine what disorders their NBS program will screen for, the RUSP establishes a standardized list of disorders that have been supported by the Advisory Committee on Heritable Disorders in Newborns and Children and the Secretary of HHS.

Safe Infant Sleep Environment – Infant is placed to sleep on its back, in its own crib without blankets or soft items or bed-sharing. Additional information is available at:

<http://pediatrics.aappublications.org/content/early/2011/10/12/peds.2011-2284>

Sudden Unexpected Infant Deaths (SUID) - Deaths in infants less than one year of age that occur suddenly and unexpectedly, and in whom the cause of death is not immediately obvious prior to investigation.

Sudden Infant Death Syndrome (SIDS) – The sudden death of an infant less than one year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and review of the clinical history.

Systems Development – Activities involving the creation or enhancement of organizational infrastructures at the community level for the delivery of health services and other needed ancillary services to individuals in the community by improving the service capacity of health care service providers.

Traumatic Brain Injury – An alteration in brain function, or other evidence of brain pathology caused by an external force.