FEDERALLY AVAILABLE DATA (FAD) RESOURCE DOCUMENT

This document provides detailed data notes, FAD availability, stratifier information, the ***complete FAD excel file***, and SAS code as available for each National Outcome Measure and National Performance Measure. It is designed to issue any clarifications, enable states to make comparisons to U.S. and other state data, and to provide statistical code for states to examine their own indicator data on a timelier or more granular basis than available federally. It is a living document that will be updated as new data notes or clarifications become available.

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Document Version History

Version #	Implemented By	Revision Date	Modifications
1.0	Keriann Uesugi	04/01/2021	Initial 2022 Release with complete FAD excel file (provided as attachment)

Attachments – Descriptions and Instructions for Retrieving

There are three excel files that can be accessed by clicking on the paper clip (attachment) icon on the left hand panel of this document. If the panel does not appear, download the document and open the Adobe Acrobat toolbar (press Ctrl H).

1) All FAD Data File – This excel file contains all Federally Available Data (FAD) for National Performance and Outcome Measures for all states/jurisdictions and the U.S. Data are generally available by year (to monitor trends and set objectives) and by various demographic stratifiers (to identify and monitor disparities and target programmatic efforts accordingly). Standard errors (SEs) and 95% confidence intervals (CIs) are provided to facilitate analytic comparisons both within and across states/jurisdictions. Numerators and denominators (weighted if from surveys) are also provided to quantify and communicate impact and numbers affected. Data can be filtered (e.g. by measure, data source, data year, state, or stratifier of interest) and sorted (e.g., highest to lowest estimate rankings) to facilitate comparisons. Data notes and alerts for each measure are provided within separate worksheets of the file; available definitions and notes on the stratifiers are contained within the measure details of this PDF.

   An additional worksheet provides some basic analyses to assess state performance over time and compared with the US overall. Data for each measure are presented beginning with a base year of 2015 (adjusted as needed by data source), which represents the year prior to the Title V transformation and introduction of the Title V Performance Measure framework, through the most recent (i.e. current) year available. Comparisons are made between the current year and the base year, the current year and the last year (or the last year with non-overlapping data periods), and the current year to the current year US estimate. Z-tests were used to assess statistical significant differences ($p<0.05$). For within state, across time comparisons, Z equals the difference between estimates (X) divided by the square root of the sum of the squared standard errors (SE) for each estimate (Equation 1). For comparisons between the current state estimate and the current US estimate, the nested Z equals the difference between the state estimate and the US estimate divided by the square root of the sum of the squared standard errors for the state estimate and the US estimate minus the product of 2 times the squared standard error for the state estimate times the state weighted denominator (d) divided by US weighted denominator (Equation 2).

Comparison	Equation	Equation Number
Within state, across time	$Z = \frac{\bar{X}_i - \bar{X}_j}{\sqrt{SE_i^2 + SE_j^2}}$	(1)

Comparison	Equation	Equation Number
State compared to US	$Z = \frac{\bar{X}_\iota - \overline{X_{US}}}{\sqrt{SE_i^2 + SE_{US}^2 - 2SE_i^2 * \frac{d_i}{d_{US}}}}$	(2)

Within the spreadsheet, absolute differences for each of these comparisons are provided and shaded to represent the result of the corresponding Z-test. Differences shaded green represent a significant improvement over time or higher performance than the US. Differences shaded orange represent a significant worsening over time or lower performance than the US. Differences shaded grey represent no significant difference over time or compared to the US.

State rankings for the base year, last year, and current year are also provided as well as the change in rankings. States are ranked from 1 (highest performance) to 51 (lowest performance). Jurisdictions (except DC) are excluded from rankings.

2) Form 11 – This excel file contains Other State Data that may be helpful for states/jurisdictions to monitor and review. Specific data elements are noted below. Standard errors (SEs) and 95% confidence intervals (CIs) are provided to facilitate analytic comparisons both within and across states/jurisdictions. Numerators and denominators (weighted if from surveys) are also provided to quantify and communicate impact and numbers affected. Data can be filtered (e.g. by measure, data source, data year, state, or stratifier of interest) and sorted (e.g., highest to lowest estimate rankings) to facilitate comparisons. Data notes are provided within a separate worksheet of the file. Please see the Block Grant guidance for more information on this form.

   #1A/B: Infant mortality rate, low birth weight, and preterm birth by race/ethnicity (already provided as NOM 9.1, 4, 5)
   #2: Infant mortality rate, low birth weight, and preterm birth by county
   #3: State MCH Workforce (counts and rate per 100,000 population)
      Obstetricians
      Family medicine physicians
      Certified family nurse practitioners – not available
      Certified nurse midwives
      Pediatricians
      Certified pediatric nurse practitioners – not available

3) All FAD-Jurisdictions Data File – This excel file contains all Federally Available Data (FAD) for the National Performance and Outcome Measures derived from the Maternal and Child Health Jurisdictional Survey (MCH-JS) conducted in all 8 jurisdictions. Data are formatted similarly to the All FAD Data File, but data are not provided by any demographic stratifiers. Standard errors (SEs) and 95% confidence intervals (CIs) are provided to facilitate analytic comparisons both within and across jurisdictions. Weighted numerators and denominators are also provided to quantify and communicate impact and numbers affected. Data can be filtered (e.g. by measure and jurisdiction) and sorted (e.g., highest to lowest estimate rankings) to facilitate comparisons. Measure definitions, data notes and sas code for each measure are provided within separate worksheets of the file.

Figure 1: Evidence-based/informed National Performance and Outcome Measure Linkages*

National Outcome Measure		National Performance Measure														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
#	Short Title	Well-woman visit	Low-risk cesarean delivery	Risk-appropriate perinatal care	Breastfeeding	Safe sleep	Developmental screening	Injury hospitalization	Physical activity	Bullying	Adolescent well-visit	Medical home	Transition	Preventive dental visit	Smoking	Adequate insurance
1	Early prenatal care															
2	Severe maternal morbidity	X	X												X	
3	Maternal mortality	X	X												X	
4	Low birth weight	X													X	
5	Preterm birth	X													X	
6	Early term birth	X													X	
7	Early elective delivery															
8	Perinatal mortality	X		X											X	
9.1	Infant mortality	X		X	X	X									X	
9.2	Neonatal mortality	X		X											X	
9.3	Postneonatal mortality	X			X	X									X	
9.4	Preterm-related mortality	X		X											X	
9.5	SUID mortality				X	X									X	
10	Drinking during pregnancy	X														
11	Neonatal abstinence syndrome	X														
12	Newborn screening timely follow-up															
13	School readiness						X									
14	Tooth decay/cavities													X		
15	Child mortality							X								
16.1	Adolescent mortality							X		X	X					
16.2	Adolescent motor vehicle death							X			X					
16.3	Adolescent suicide							X		X	X					
17.1	CSHCN															
17.2	CSHCN systems of care										X	X	X	X		X
17.3	Autism															
17.4	ADD/ADHD															
18	Mental health treatment										X	X				X
19	Overall health status						X		X		X	X		X	X	X
20	Obesity								X		X					
21	Uninsured															
22.1	Child vaccination															X
22.2	Flu vaccination										X					X
22.3	HPV vaccination										X					X
22.4	Tdap vaccination										X					X
22.5	Meningitis vaccination										X					X
23	Teen births	X									X					
24	Postpartum depression	X														
25	Forgone health care											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; however, not all NOMs must have linked NPMs, as they may be important to monitor as sentinel health indicators regardless.

Figure 2: National Outcome Measures (NOMs)

No.	Title V MCH Services Block Grant - National Outcome Measures
1	Percent of pregnant women who receive prenatal care beginning in the first trimester
2	Rate of severe maternal morbidity per 10,000 delivery hospitalizations
3	Maternal mortality rate per 100,000 live births
4	Percent of low birth weight deliveries (<2,500 grams)
5	Percent of preterm births (<37 weeks gestation)
6	Percent of early term births (37,38 weeks gestation)
7	Percent of non-medically indicated early elective deliveries
8	Perinatal mortality rate per 1,000 live births plus fetal deaths
9.1	Infant mortality rate per 1,000 live births
9.2	Neonatal mortality rate per 1,000 live births
9.3	Postneonatal mortality rate per 1,000 live births
9.4	Preterm-related mortality rate per 100,000 live births
9.5	Sudden Unexpected Infant Death (SUID) rate per 100,000 live births
10	Percent of women who drink alcohol in the last 3 months of pregnancy
11	Rate of neonatal abstinence syndrome per 1,000 birth hospitalizations
12	Percent of eligible newborns screened for heritable disorders with on time physician notification for out of range screens who are followed up in a timely manner. (DEVELOPMENTAL)
13	Percent of children meeting the criteria developed for school readiness (DEVELOPMENTAL)
14	Percent of children, ages 1 through 17, who have decayed teeth or cavities in the past year
15	Child mortality rate, ages 1 through 9, per 100,000
16.1	Adolescent mortality rate, ages 10 through 19, per 100,000
16.2	Adolescent motor vehicle mortality rate ages 15 through 19 per 100,000
16.3	Adolescent suicide rate ages 15 through 19 per 100,000
17.1	Percent of children with special health care needs (CSHCN), ages 0 through 17
17.2	Percent of children with special health care needs (CSHCN), ages 0 through 17, who receive care in a well-functioning system
17.3	Percent of children, ages 3 through 17, diagnosed with an autism spectrum disorder
17.4	Percent of children, ages 3 through 17, diagnosed with Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)
18	Percent of children, ages 3 through 17, with a mental/behavioral condition who receive treatment or counseling
19	Percent of children, ages 0 through 17, in excellent or very good health
20	Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)
21	Percent of children, ages 0 through 17, without health insurance
22.1	Percent of children who have completed the combined 7-vaccine series (4:3:1:3*:3:1:4) by age 24 months
22.2	Percent of children, 6 months through 17 years, who are vaccinated annually against seasonal influenza
22.3	Percent of adolescents, ages 13 through 17, who have received at least one dose of the HPV vaccine
22.4	Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap vaccine
22.5	Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate vaccine
23	Teen birth rate, ages 15 through 19, per 1,000 females
24	Percent of women who experience postpartum depressive symptoms following a recent live birth
25	Percent of children, ages 0 through 17, who were not able to obtain needed health care in the past year

NOM 1 - 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) in the calendar year

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 and DATA ISSUES

National Vital Statistics System (NVSS)

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 pregnancy.[2] 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) Centers for Disease Control and Prevention. Recommendations to improve preconception health and health care—United States. MMWR Recommendations and Reports. 2006;55(RR-06):1–23. https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5506a1.htm

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	AS, FM, MH, PW, VI
2016	AS, FM, MH, PW
2015	CT, NJ, AS, FM, MH, PW

Year	Data Not Available
2014	CT, NJ, RI, AS, FM, MH, PW, VI
2013	AL, AZ, AR, CT, HI, ME, NJ, RI, WV, AS, FM, MH, PW, VI
2012	AL, AK, AZ, AR, CT, HI, ME, MS, NJ, RI, VA, WV, AS, FM, MH, PW, VI
2011	AL, AK, AZ, AR, CT, HI, ME, MS, MN, MS, NJ, RI, VA, WV, AS, FM, GU, MH, PW, VI
2010	AL, AK, AZ, AR, CT, HI, LA, ME, MA, MN, MS, NJ, NC, RI, VA, WV, WI, AS, FM, GU, MH, PW, VI
2009	AL, AK, AZ, AR, CT, DC, HI, IL, LA, ME, MD, MA, MN, MS, MO, NV, NJ, NC, OK, RI, VA, WV, WI, AS, FM, GU, MH, MP, PW, VI

Data Notes

Prenatal care utilization was modified in the 2003 revision of the U.S. Standard Certificate of Live Birth and is only available for the states/jurisdictions that had implemented the 2003 revision as of January 1 of the data year. Overall U.S. estimates prior to 2016 are not comparable due to the addition of states over time that have implemented the 2003 revision. Trends within a state after the 2003 revision are comparable. Marital status is not available for California. Urban/rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for

Stratifier	Subcategory	Special Notes
	Non-Metro	Counties. Not available for territories.
WIC Participation	Yes No	Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident births;
if precare in (1,2,3) then first_tri_pnc=1;   * precare = month of prenatal care entry;
else if 0<=precare<=10 then first_tri_pnc=0;
```

NOM 2 - 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 and DATA ISSUES

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

SIGNIFICANCE

Over 25,000 women experience severe maternal morbidity during delivery hospitalizations every year. This includes significant life-threatening complications, such as hemorrhage, infection, and cardiac events, that may require lengthy hospital stays with long-term health consequences.[1,2] 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.[1] Minority women and particularly non-Hispanic black women have higher rates of severe maternal morbidity.[2]

(1) Centers for Disease Control and Prevention. Reproductive Health: Severe Maternal Morbidity in the United States. 2020 January 31. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html#rates

(2) Fingar KR, Hambrick MM, Heslin KC, Moore JE. Trends and disparities in delivery hospitalizations involving severe maternal morbidity, 2006-2015. Healthcare Cost and Utilization Project. 2018 Sept: Statistical Brief #243. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb243-Severe-Maternal-Morbidity-Delivery-Trends-Disparities.pdf

FAD Availability by Year

Year	Data Not Available
2019	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2018	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2017	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2016	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2015 Q1-Q3	AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2014	AK, AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2013	AK, AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2012	AL, DC, DE, ID, MS, NH, AS, FM, GU, MH, MP, PW, PR, VI
2011	AL, DC, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI

Year	Data Not Available
2010	AL, DC, DE, ID, ND, NH, AS, FM, GU, MH, MP, PW, PR, VI
2009	AK, AL, DC, DE, ID, MS, ND, AS, FM, GU, MH, MP, PW, PR, VI
2008	AK, AL, DC, DE, ID, MS, MT, ND, AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

Three states (AK, NY, and VA) updated their 2018 data, and therefore US estimates were also updated. This measure continues to apply a 2021 revised SMM code set which helps to bridge the ICD-10-CM/PCS transition and which excludes blood transfusion due to poor specificity in the absence of other SMM indicators. A total of 23 codes were added to ICD-9-CM and 83 codes were added to ICD-10-CM/PCS while 11 codes were dropped in ICD-9-CM and 16 codes were dropped in ICD-10-CM/PCS that were either conceptually inconsistent or implausible at delivery (e.g., first trimester). In addition, shock codes involving sepsis and anesthesia were moved to those respective indicator categories as the primary cause. Data for 2016 and onward are based on ICD-10-CM/PCS and may not be comparable to previous ICD-9-CM estimates. Data for 2015 represents only three quarters of the year (January through September) due to the transition to ICD-10-CM/PCS in the last quarter of 2015; thus the rate should be interpreted with caution as it does not represent a full year of change relative to 2014. This measure is based on the CDC-developed definition of severe maternal morbidity identified from hospital discharge procedure and diagnosis codes that indicate a potentially life-threatening condition or maternal complication (Callaghan et al, 2012): http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/SevereMaternalMorbidity.html Delivery hospitalizations were identified by diagnosis codes for an outcome of delivery, diagnosis-related group delivery codes, and procedure codes for selected delivery-related procedures (Kuklina et al, 2008). Re-classification based on short length of stay in cases of diagnosis codes without in-hospital mortality, transfer, or severe complications identified by procedure codes (e.g., hysterectomy, ventilation) is no longer applied. State-level estimates include inpatient stays for state residents treated in their home state and state residents treated in other states that provide data to the Healthcare Cost and Utilization Project (HCUP). For information on the HCUP Partner organizations, please visit https://www.hcup-us.ahrq.gov/partners.jsp

This analysis is limited to community, non-rehabilitation, non-long term acute care hospitals, which are defined as short-term, non-Federal hospitals. Community hospitals include obstetrics and gynecology, otolaryngology, orthopedic, cancer, pediatric, public, and academic medical hospitals. Excluded are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. U.S. estimates are calculated using the available State data and are not nationally weighted; therefore, U.S. estimates may not be comparable across years due to the different states included in any given year. In addition, certain states did not provide reliable race and/or ethnicity data and are excluded from totals by race/ethnicity. For more information about the HCUP State Inpatient Databases (SID), please visit https://www.hcup-us.ahrq.gov/sidoverview.jsp

(1) Callaghan WM, Creanga AA, Kuklina EV. Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. Obstet Gynecol. 2012 Nov;120(5):1029-36.

(2) Kuklina EV, Whiteman MK, Hillis SD, Jamieson DJ, Meikle SF, Posner SF, et al. An enhanced method for identifying obstetric deliveries: implications for estimating maternal morbidity. Matern Child Health J 2008;12:469–77.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Total	Hemorrhage Complications Respiratory Complications Cardiac Complications Renal Complications Sepsis Complications Other Obstetric Complications Other Medical Complications	These are complication groupings to monitor and potentially inform action; they are not mutually exclusive and may not reflect underlying causes. See SAS code for indicators within each group.
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Females ages <12 or >55 were excluded as implausible

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Refers to expected primary payer. Medicaid may include CHIP and Medicare. Other Public includes military insurance, Indian Health Service, and other federal, state, or local government payment source. For more information, please see https://www.hcup-us.ahrq.gov/reports/methods/2014-03.pdf
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander Other	Other includes other and multiple race. Not available for all states.
Urban-Rural Residence	Large Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Large metro is defined as metropolitan areas with at least 1 million residents. Small/ medium metro is defined as metropolitan areas of less than 1 million residents. Non-metro is defined as micropolitan and non-metropolitan, non-micropolitan areas.
Median ZIP Code Income	Quartile 1 Quartile 2 Quartile 3 Quartile 4	Quartiles (poorest to wealthiest) based on current year median household income obtained from Claritas.

SAS Code

```
DATA ;
IF COMMUNITY_NONREHAB =1; * restrict to non-federal, non-rehab facilities;

LENGTH  DELIVERY_DRG CESAREAN_DRG CESAREAN_DX CESAREAN_PR DELIVERY_650
        DELIVERY_PR DELIVERY_V27 ABORT_DX ABORT_PR 3.;

ARRAY DX{*} INSERT DIAGNOSIS CODES ;
ARRAY PR{*} INSERT PROCEDURE CODES ;

DO I=1 TO DIM(DX) ;

  /*BEGIN ICD-9-CM DIAGNOSIS*/

  IF YEAR<=2015 THEN DO;

    /*ANY V27 DELIVERY CODES*/
    IF DX[I]=:'V27' THEN DELIVERY_V27=1;

    /*NORMAL DELIVERY*/
    ELSE IF DX[I]=:'650' THEN DELIVERY_650=1;

    /*IDENTIFY ABORTIONS, ECTOPIC, HYDATIDIFORM MOLE FOR EXCLUSION*/
```

```
IF DX[I] IN: ('630','631','632','633','634','635','636','637','638','639') THEN
  ABORT_DX=1;

/*C-SECTION DELIVERY*/
IF DX(I) IN: ('66970','66971') THEN CESAREAN_DX=1;


/*SEVERE MATERNAL MORBIDITY INDICATORS*/

/*AMI*/
IF DX(I) IN: ('410') THEN SMM1=1;

  /*ANEURYSM*/
IF DX(I) IN: ('441') THEN SMM2=1;

  /* ACUTE RENAL FAILURE */
IF DX(I) IN: ('5845','5846','5847','5848','5849','6693')
     THEN SMM3=1;

  /*ACUTE RESP DISTRESS SYNDROME*/
IF DX(I) IN: ('5185','51881','51882','51884','7991') THEN SMM4=1;

  /*AMNIOTIC FLUID EMBOLISM */
IF DX(I) EQ: '6731' THEN SMM5=1;

  /*CARDIAC ARREST/VENTRICULAR FIBRILLATION*/
IF DX(I) IN: ('42741','42742','4275') THEN SMM6=1;

  /*DISSEMINATED INTRAVASCULAR COAGULATION*/
IF DX(I) IN: ('2866','2869','6413','6663') THEN SMM8=1;

/* ECLAMPSIA */
IF DX(I) IN: ('6426') THEN SMM9 =1;

/* HEART FAILURE/ARREST DURING PROCEDURE*/
IF DX(I) IN: ('9971') THEN SMM10=1;

  /* PUERPERAL CEREBROVASCULAR DISORDERS*/
IF DX(I) IN: ('0463','34839','36234','430','431','432','433','434','436','437',
     '6715','6740','99702','435') THEN SMM11=1;

/*PULMONARY EDEMA*/
IF DX(I) IN: ('5184') THEN SMM12=1;

/*ACUTE HEART FAILURE*/
IF DX(I) IN: ('4280','4281','42820','42821','42823','42830','42831','42833',
     '42840','42841','42843','4289') THEN SMM12=1;

  /*SEVERE ANESTHESIA COMPLICATIONS */
IF DX(I) IN: ('6680','6681','6682','9954','99586') THEN SMM13=1;

  /*SEPSIS*/
IF DX(I) IN: ('038','449','6702','78552','99591','99592','99802') THEN SMM14=1;



/*SHOCK*/
```

```
  IF DX(I) IN: '6691','78550','78551','78559','9950',/*9980,*/'99800',
    '99801','99809') THEN SMM15=1;

  /*SICKLE CELL DISEASE WITH CRISIS*/
  IF DX(I) IN: ('28242','28262','28264','28269','28952') THEN SMM16=1;

    /*AIR AND THROMBOTIC EMBOLISM */
  IF DX(I) IN: ('4150','4151','6730','6732','6733','6738') THEN SMM17=1;

END;
/* END OF ICD-9-CM DIAGNOSIS*/

/* BEGIN ICD-10-CM DIAGNOSIS*/

ELSE DO;

  /*ANY Z37 DELIVERY CODES*/
  IF DX(I) IN: ('Z37') THEN DELIVERY_V27 =1;


  ELSE IF DX(I) IN: ('O80','O82','O7582') THEN DO;

      /*NORMAL DELIVERY*/
      DELIVERY_650 =1;

      /*C-SECTION DELIVERY*/
      IF DX(I) IN: ('O82','O7582') THEN CESAREAN_DX=1;
  END;

  /*IDENTIFY ABORTIONS, ECTOPIC, HYDATIDIFORM MOLE FOR EXCLUSION*/
  IF DX(I) IN: ('O00','O01','O02','O03','O04','O07','O08')
      THEN ABORT_DX =1;


  /*SEVERE MATERNAL MORBIDITY INDICATORS*/

  /*ACUTE MYOCARDIAL INFARCTION*/
  IF DX(I) IN: ('I21','I22') THEN SMM1=1;

    /*ANEURYSM*/
  IF DX(I) IN: ('I71','I790') THEN SMM2=1;

  /* ACUTE RENAL FAILURE */
  IF DX(I) IN: ('N17','O904') THEN SMM3 =1;

    /*ACUTE RESP DISTRESS SYNDROME*/
  IF DX(I) IN: ('J80','J951','J952','J953','J9582','J960',
      'J962','J969','R0603','R092') THEN SMM4=1;

    /*AMNIOTIC FLUID EMBOLISM */
  IF DX(I) IN: ('O88112','O88113','O88119','O8812','O8813')  THEN SMM5=1;

    /*CARDIAC ARREST/VENTRICULAR FIBRILLATION*/
  IF DX(I) IN: ('I46','I490') THEN SMM6=1;



  /*DISSEMINATED INTRAVASCULAR COAGULATION*/
```

```
    IF DX(I) IN: ('D65','D688','D689','O45002','O45003','O45009','O45012','O45013',
    'O45019','O45022','O45023','O45029','O45092','O45093','O45099','O46002',
    'O46003','O46009','O46012','O46013','O46019','O46022','O46023','O46029',
    'O46092','O46093','O46099','O670','O723') THEN SMM8=1;

    /* ECLAMPSIA */
    IF DX(I) IN: ('O15') THEN SMM9 =1;

      /* HEART FAILURE/ARREST DURING PROCEDURE*/
    IF DX(I) IN: ('I9712','I9713','I9771') THEN SMM10=1;

    /* PUERPERAL CEREBROVASCULAR DISORDERS*/
    IF DX(I) IN: ('A812','G45','G46','G9349','H340','I60','I61','I62','I63','I65',
      'I66','I67','I68','O2250','O2252','O2253','I9781','I9782','O873') THEN
      SMM11=1;

    /*PULMONARY EDEMA*/
    IF DX(I) IN: ('J810') THEN SMM12=1;

    /*ACUTE HEART FAILURE*/
    IF DX(I) IN: ('I501','I5020','I5021','I5023','I5030','I5031','I5033',
        'I5040','I5041','I5043','I50810','I50811','I50813','I50814',
            'I5082','I5083','I5084','I5089','I509') THEN SMM12=1;

    /*SEVERE ANESTHESIA COMPLICATIONS */
    IF DX(I) IN: ('O29112','O29113','O29119','O29122','O29123','O29129','O29192',
    'O29193','O29199','O29212','O29213','O29219','O29292','O29293','O29299',
    'O740','O741','O742','O743','O8901','O8909','O891','O892','T882XXA','T883XXA')
            THEN SMM13=1;

    /*SEPSIS*/
    IF DX(I) IN: ('A327','A40','A41','I76','O85','O8604','R6520','R6521',
      'T8112XA','T8144XA') THEN SMM14=1;

      /*SHOCK*/
    IF DX(I) IN: ('O751','R57','T782XXA','T8110XA','T8111XA','T8119XA','T886XXA')
            THEN SMM15=1;

    /*SICKLE CELL DISEASE WITH CRISIS*/
    IF DX(I) IN: ('D570', 'D5721', 'D5741', 'D5781') THEN SMM16=1;

      /*AIR AND THROMBOTIC EMBOLISM */
    IF DX(I) IN: ('I2601','I2602','I2609','I2690','I2692','I2693','I2694','I2699',
      'O88012','O88013','O88019','O8802','O8803','O88212','O88213','O88219',
      'O8822','O8823','O88312','O88313','O88319','O8832','O8833','O88812','O88813',
      'O88819','O8882','O8883','T800XXA')
        THEN SMM17=1;

  END;

  /* END OF ICD-10-CM DIAGNOSIS */

END;



DO I=1 TO DIM(PR) ;
```

```
  /* BEGIN ICD-9-CM PROCEDURES */

  IF YEAR<=2015 THEN DO;


    /*ANY DELIVERY */
    IF PR[I] IN ('720','721','7221','7229','7231','7239','724','7251','7252',
       '7253','7254','726','7271','7279','728','729','7322','7359',
       '736','740','741','742','744','7499') THEN DELIVERY_PR=1;

    /* IDENTIFY ABORTIONS FOR EXCLUSION*/
    IF PR[I] IN ('6901','6951','7491','750') THEN ABORT_PR=1;

    /*C-SECTION DELIVERY*/
    IF PR(I) IN ('740','741','742','744','7499') THEN CESAREAN_PR=1;

    /*CONVERSION OF CARDIAC RHYTHM */
    IF PR(I) IN: ('996') THEN SMM7=1;

      /*BLOOD TRANSFUSIONS - Excluded but could be examined
      IF PR(I) IN: ('990') THEN SMM18=1; */

     /*HYSTERECTOMY*/
    IF PR(I) IN
('683','684','685','686','687','6839','6849','6859','6869','6879','689') THEN
SMM19=1;

      /*TEMPORARY TRACHEOSTOMY*/
    IF PR(I) IN: ('311') THEN SMM20=1;

    /*VENTILATION*/
    IF PR(I) IN: ('9670','9671','9672') THEN SMM21=1;

  END;

  /* END OF ICD-9-CM PROCEDURES*/

  /* BEGIN ICD-10-PCS PROCEDURES*/

  ELSE DO;

    /*ANY DELIVERY */
    IF '10D00Z0' LE PR(I) LE: '10D00Z2' OR '10D07Z3' LE PR(I) LE: '10D07Z8'
       OR PR(I) IN : ('10E0XZZ') THEN DO;

       DELIVERY_PR =1;

       /*C-SECTION DELIVERY*/
       IF '10D00Z0' LE PR(I) LE: '10D00Z2' THEN CESAREAN_PR=1;

    END;

    /* IDENTIFY ABORTIONS FOR EXCLUSION*/
    IF PR(I) IN: ('10A0') THEN ABORT_PR =1;


/*CONVERSION OF CARDIAC RHYTHM */
```

```
    IF PR(I) IN: ('5A12012','5A2204Z') THEN SMM7=1;

/*HYSTERECTOMY*/
    IF PR(I) IN: ('0UT90ZL','0UT90ZZ','0UT97ZL','0UT97ZZ') THEN SMM19=1;

/*TEMPORARY TRACHEOSTOMY*/
    IF PR(I) IN: ('0B110F4','0B113F4','0B114F4') THEN SMM20=1;

/*VENTILATION*/
    IF PR(I) IN: ('5A1935Z', '5A1945Z', '5A1955Z') THEN SMM21=1;

   END;
  /* END OF ICD-10-PCS PROCEDURES*/

END;

/*BEGIN MS-DRG*/
/* ANY DELIVERY*/
IF DRG IN (765:768,774,775,783:788,796:798,805:807) THEN DELIVERY_DRG=1; ELSE
DELIVERY_DRG=0;

/* C-SECTION DELIVERY*/
IF DRG IN (765,766,783:788) THEN CESAREAN_DRG=1;

/*END MS-DRG*/

/*ANY ABORTION - DIAGNOSIS OR PROCEDURE*/
IF ABORT_DX=1 OR ABORT_PR=1 THEN ABORT=1; ELSE ABORT=0;

/*DENOMINATOR: ANY DELIVERY EXCLUDING ABORTION*/

ARRAY SMMVARS{*} SMM1-SMM17 SMM19-SMM21;

IF (DELIVERY_V27=1 OR DELIVERY_650=1 OR DELIVERY_DRG=1 OR DELIVERY_PR=1 OR
CESAREAN_DX=1) AND ABORT=0
            AND FEMALE=1 AND 12 LE AGE LE 55 THEN DO;
      SMM=0;
    DO I=1 TO DIM(SMMVARS);
      IF SMMVARS(I)=1 THEN SMM=1;
    END;
    DELI_FLAG=1;

/* Complication Grouping */

* Hemmorhage = DIC, Shock, Hysterectomy;
IF SMM8=1 OR SMM15=1 OR SMM19=1 then SMM_GROUP1=1; ELSE SMM_GROUP1=0;

* Respiratory = Acute Respiratory Distress Syndrome, Temporary Tracheostomy,
Ventilation;
IF SMM4=1 OR SMM20=1 OR SMM21=1 then SMM_GROUP2=1; ELSE SMM_GROUP2=0;

* Cardiac = Acute Myocardial Infarction, Aneurysm, Cardiac Arrest, Conversion of
Cardiac Rhythm, Heart Failure Arrest During Surgery, Acute Health Failure,
Pulmonary Edema;
IF SMM1=1 OR SMM2=1 OR SMM6=1 OR SMM7=1 OR SMM10=1 OR SMM12=1 then SMM_GROUP3=1;
ELSE SMM_GROUP3=0;

* Renal = Acute Renal Failure;
```

```
IF SMM3=1 then SMM_GROUP4=1; ELSE SMM_GROUP4=0;

* Sepsis;
IF SMM14=1 then SMM_GROUP5=1; ELSE SMM_GROUP5=0;

* Other obstetrical = Amniotic Fluid Embolism, Eclampsia, Severe Anesthesia
Complication, Air & Thrombotic Embolism;
IF SMM5=1 OR SMM9=1 OR SMM13=1 OR SMM17=1 then SMM_GROUP6=1; ELSE SMM_GROUP6=0;

* Other medical = Puerperal Cerebrovascular Disorder, Sickle Cell Disease with
Crisis;
IF SMM11=1 OR SMM16=1 then SMM_GROUP7=1; ELSE SMM_GROUP7=0;
END;

*PATIENT STATE RESIDENCE;
LENGTH PSTATE $2; if not missing(pstco2) then PSTATE = fipstate(int(pstco2/1000));

LABEL       SMM="SEVERE MATERNAL MORBIDITY"
            SMM_GROUP1="Hemmorhage Complications"
            SMM_GROUP2="Respiratory Complications"
            SMM_GROUP3="Cardiac Complications"
            SMM_GROUP4="Renal Complications"
            SMM_GROUP5="Sepsis Complications"
            SMM_GROUP6="Other Obstetric Complications"
            SMM_GROUP7="Other Medical Complications"
            PSTATE="PATIENT RESIDENCE STATE";
```

Data Alert

Three states (AK, NY, and VA) updated their 2018 data, and therefore US estimates were also updated. New stratifiers are available for injury intent and mechanism of injury.

NOM 3 - 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 and DATA ISSUES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Maternal mortality is a sentinal indicator of health and health care quality worldwide. In 2018, the national maternal mortality rate was 17.4 deaths per 100,000 live births. There are significant racial disparities with Black women dying at more than 2.5 times the rate of White women (37.1 versus 14.7). 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 hemmorhage and preeclampsia.

(1) Centers for Disease Control and Prevention. National Center for Health Statistics. 2018 Maternal Mortality Reports. 2020 January 9. https://cdc.gov/nchs/maternal-mortality/reports.htm

FAD Availability by Year

Year	Data Not Available
2016-2020	AS, MH, PW, VI
2015-2019	AS, MH, PW, VI
2014-2018	AS, GU, MP, MH, PW, PR, VI

Data Notes

Ascertainment of maternal deaths was modified by a pregnancy checkbox in the 2003 revision of the U.S. Standard Certificate of Death. These estimates based on state of residence were furnished by NCHS and follow the 2018 coding method in which the pregnancy checkbox is not used for women 45 and over due to significant error rates in this age group (not applied to territories). Five-year estimates are provided to improve precision and reportability. Changes are mitigated with five-year data where each estimate shares 80% (4/5) of the data with the next estimate. Standard statistical tests that assume independence should not be used when comparing overlapping 5-year estimates. Rates may be underestimated in states that had not implemented the standard pregnancy checkbox as of January 1, 2016 (CA, WV). In addition, it is likely that some of the variation in state rates is due to the marked differences in the quality of state maternal mortality data. Variation in the quality of

reporting maternal deaths may be due to differences in electronic registration systems and differences in policies and programs designed to verify the pregnancy status of female decedents of reproductive age. These differences may result in underestimates of maternal deaths in some cases, and overestimates in others. For more information about the new maternal mortality release and changes in coding, please see https://www.cdc.gov/nchs/maternal-mortality/index.htm

Marital status is not available for California.

Estimates for FM were available from the United Nations Maternal Mortality Estimation Interagency Group https://www.who.int/reproductivehealth/publications/maternal-mortality-2000-2017/en/

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	
Marital Status	Married Unmarried	
Nativity	Born in U.S. Born outside U.S.	
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident deaths;
IF substr(ICD,1,3)='A34' OR 'O00'<=substr(ICD,1,3)<='O95' OR 'O98'<=substr(ICD,1,3)<='O99' THEN
MATERNAL=1;  * ICD = underlying cause of death;
```

NOM 4 - 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 and DATA ISSUES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Low birth weight infants include pre-term infants and infants with intrauterine growth retardation[1]. 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]

(1) March of Dimes. Low Birthweight. 2018 March. http://www.marchofdimes.org/baby/low-birthweight.aspx

(2) Martin JA, Hamilton BE, Osterman MCK, Driscoll AK. Births: Final Data for 2018. National Vital Statistics Reports. 2019 November 27. 68(13). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	FM, MH, PW, VI
2016	FM, MH, PW
2015	FM, MH, PW
2014	FM, MH, PW, VI
2013	FM, MH, PW, VI
2012	FM, MH, PW
2011	FM, MH, PW
2010	FM, MH, PW
2009	FM, MH, PW

Data Notes

Follows NCHS birth weight edits to replace as unknown if outside of 227-8165 grams or grossly incompatible with both the obstetric estimate and LMP-based estimate of gestational age. Marital status is not available for California. Urban/rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Total	Very Low Birth Weight, <1,500 grams Moderately Low Birth Weight, 1,500-2,499 grams	
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only.
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident births;
if dbwt<9999 then do; * dbwt = birth weight;
if dbwt<2500 then lbw=1; else lbw=0;
if dbwt<1500 then vlbw=1; else vlbw=0;
if 1500<=dbwt<2500 then mlbw=1; else mlbw=0; end;
```

NOM 5 - Percent of preterm births (<37 weeks)

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 and DATA ISSUES

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 infection, younger and older maternal age, substance use, poverty, stress, and multiple births.[1]

(1) Centers for Disease Control and Prevention. Preterm birth. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm

(2) Martin JA, Hamilton BE, Osterman MCK, Driscoll AK. Births: Final Data for 2018. National Vital Statistics Reports. 2019 November 27. 68(13). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	AS, FM, MH, PW, VI
2016	AS, FM, MH, PW
2015	AS, FM, MH, PW
2014	AS, FM, MH, PW, VI
2013	AS, FM, MH, PW, VI
2012	AS, FM, MH, PW
2011	AS, FM, MH, PW
2010	AS, FM, MH, PW
2009	AS, FM, MH, PW

Data Notes

Based on obstetric/clinical estimate of gestation, following NCHS edits to replace as unknown if outside of 17-47 weeks. Marital status is not available for California. Urban/rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Total	Early Preterm Birth, <34 weeks Late Preterm Birth, 34-36 weeks	
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident births;
if 17<=estgest<=47 then do; * estgest = obstetric/clinical estimate of gestational age;
if estgest<37 then ptb=1; else ptb=0;
if estgest<34 then eptb=1; else eptb=0;
if 34<=estgest<37 then lptb=1; else lptb=0;
if estgest in (37,38) then earlyterm=1; else earlyterm=0;end;
```

NOM 6 - Percent of early term births (37, 38 weeks)

GOAL

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

DEFINITION

Numerator:
Number of live births born at 37,38 completed weeks of gestation

Denominator: Number of live births

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

National Vital Statistics System (NVSS)

SIGNIFICANCE

Although the risk is less than for preterm babies, those born "early term" at 37 or 38 completed weeks of gestation, are still at greater risk of immediate health problems and long-term complications compared to "full term" (39, 40 weeks completed gestation) infants.[1] In 2018, more than 25% of all births were early term.[2] Complications during the newborn period include respiratory distress and neurological disorder, while long-term complications can include learning and behavioral problems.[1]

(1) National Institutes of Health. National Child and Maternal Health Education Program. Is it worth it? Reducing elective deliveries before 39 weeks. https://www.nichd.nih.gov/ncmhep/initiatives/is-it-worth-it/moms
(2) Martin JA, Hamilton BE, Osterman MCK, Driscoll AK. Births: Final Data for 2018. National Vital Statistics Reports. 2019 November 27. 68(13). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	AS, FM, MH, PW, VI
2016	AS, FM, MH, PW
2015	AS, FM, MH, PW
2014	AS, FM, MH, PW, VI
2013	AS, FM, MH, PW, VI
2012	AS, FM, MH, PW
2011	AS, FM, MH, PW
2010	AS, FM, MH, PW
2009	AS, FM, MH, PW

Data Notes

Based on obstetric/clinical estimate of gestation, following NCHS edits to replace as unknown if outside of 17-47 weeks. Marital status is not available for California. Urban/rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident births;
if 17<=estgest<=47 then do; * estgest = obstetric/clinical estimate of gestational age;
if estgest<37 then ptb=1; else ptb=0;
if estgest<34 then eptb=1; else eptb=0;
if 34<=estgest<37 then lptb=1; else lptb=0;
if estgest in (37,38) then earlyterm=1; else earlyterm=0;
end;
```

NOM 7 - Percent of non-medically indicated early elective deliveries

GOAL

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

DEFINITION

Numerator: Number of inductions or cesareans without labor or spontaneous rupture of membranes among deliveries at 37, 38 completed weeks of gestation without conditions possibly justifying elective delivery <39 weeks according to The Joint Commission

Denominator: Number of deliveries at 37, 38 completed weeks of gestation without conditions possibly justifying elective delivery <39 weeks according to The Joint Commission

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

CMS Hospital Compare

SIGNIFICANCE

Non-medically indicated early term births (37,38 weeks) present avoidable risks of neonatal morbidity and costly NICU admission.[1] Early elective delivery prior to 39 weeks is a perinatal quality measure endorsed by the National Quality Forum (#469) and included within The Joint Commission's National Quality Measures for hospitals (PC-01) and the Center for Medicare and Medicaid Services' Hospital Inpatient Quality Reporting Program.[2]

(1) American College of Obstetricians and Gynecologists (ACOG). Avoidance of Nonmedically Indicated Early-Term Deliveries and Associated Neonatal Morbidities. Obstet Gynecol. 2019 Feb. 133(2):e156-e163. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2019/02/avoidance-of-nonmedically-indicated-early-term-deliveries-and-associated-neonatal-morbidities

(2) National Quality Forum. PC-01 Elective Delivery. http://www.qualityforum.org/QPS/0469

FAD Availability by Year

Year	Data Not Available
2020/Q3-2021/Q2	AS, FM, GU, MH, MP, PW, VI
2019/Q4-2020/Q3	AS, FM, GU, MH, MP, PW, VI
2019/Q1-2019/Q4	AS, FM, GU, MH, MP, PW, VI
2018/Q4-2019/Q3	AS, FM, GU, MH, MP, PW, VI
2018/Q3-2019/Q2	AS, FM, GU, MH, MP, PW, VI
2018/Q2-2019/Q1	AS, FM, GU, MH, MP, PW, VI
2018/Q1-2018/Q4	AS, FM, GU, MH, MP, PW, VI
2017/Q4-2018/Q3	AS, FM, GU, MH, MP, PW, VI
2017/Q3-2018/Q2	AS, FM, GU, MH, MP, PW, VI
2017/Q2-2018/Q1	AS, FM, GU, MH, MP, PW, VI
2017/Q1-2017/Q4	AS, FM, GU, MH, MP, PW, VI
2016/Q4-2017/Q3	DC, AS, FM, GU, MH, MP, PW, VI
2016/Q3-2017/Q2	DC, AS, FM, GU, MH, MP, PW

Year	Data Not Available
2016/Q2-2017/Q1	NV, AS, FM, GU, MH, MP, PW
2016/Q1-2016/Q4	NV, AS, FM, GU, MH, MP, PW
2015/Q4-2016/Q3	HI, AS, FM, GU, MH, MP, PW
2015/Q3-2016/Q2	HI, AS, FM, GU, MH, MP, PW
2015/Q2-2016/Q1	AS, FM, GU, MH, MP, PW
2015/Q1-2015/Q4	AS, FM, GU, MH, MP, PW
2014/Q4-2015/Q3	MD, AS, FM, MH, MP, PW
2014/Q3-2015/Q2	AS, FM, MH, MP, PW
2014/Q2-2015/Q1	AS, FM, MH, MP, PW
2014/Q1-2014/Q4	AS, FM, GU, MH, MP, PW
2013/Q4-2014/Q3	AS, FM, GU, MH, MP, PW
2013/Q3-2014/Q2	AS, FM, GU, MH, MP, PW
2013/Q2-2014/Q1	MD, AS, FM, GU, MH, MP, PW

Data Notes

Indicator data reflect all births in Medicare-certified hospitals (virtually all U.S. hospitals excluding critical access and VHA hospitals). Standard errors, numerators, and denominators are not available; hospital births are often sampled and are not weighted when forming total average estimates for states and the US overall. Indicator data are available for download with hospital-specific detail at **https://data.medicare.gov/data/hospital-compare** (PC_01 within Timely and Effective Care)

Available Stratifiers and Notes

No stratifiers available

SAS Code

Not available

NOM 8 - 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 and DATA ISSUES

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 ECW. Fetal and Perinatal Mortality: United States, 2013. National Vital Statistics Reports. 2015 July 23. 64(8). https://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_08.pdf

(2) Gregory ECW, Drake P, Martin JA. Lack of Change in Perinatal Mortality in the United States, 2014-2016. National Center for Health Statistics Data Brief. 2018 Aug. No. 316. https://www.cdc.gov/nchs/data/databriefs/db316.pdf

FAD Availability by Year

Year	Data Not Available
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	FM, MH, PW, VI
2016	FM, MH, PW
2015	FM, MH, PW
2014	FM, MH, PW, VI
2013	FM, MH, PW, VI
2012	FM, MH, PW
2011	FM, MH, PW
2010	FM, MH, PW
2009	FM, MH, PW

Data Notes

Fetal deaths with missing or not stated gestational age that were presumed to be 20+ weeks were proportionally distributed to <28 and 28+ weeks. In 2014, NCHS transitioned to the obstetric estimate for the tabulation flag of fetal deaths with stated or presumed gestation of 20 weeks or more. Prior year perinatal mortality estimates rely on LMP-based gestational age. Early neonatal deaths are weighted to account for deaths that were unable to be linked to a birth certificate in a given state or territory. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. In 2019 the total number of fetal deaths in Connecticut were underreported by approximately one-third, and therefore all data should be interpreted with caution. Stratifiers for Guam and Puerto Rico are calculated with one-year data because 3 consecutive years of linked data are unavailable. Urban/rural residence is not available for territories. Unlinked data are used for Northern Marianas Islands since linked data are unavailable; therefore no stratifiers are available. For more information about the fetal death and linked birth/infant death files, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Birthweight	<1,500 grams 1,500-2,499 grams 2,500+ grams	
Gestational age	<34 weeks 34-36 weeks 37,38 weeks 39+ weeks	Based on obstetric estimate
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race. Not available for Puerto Rico.
Plurality	Singleton Multiple Birth	Includes imputed plurality
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

SAS Code

```
/* Requires 2 files: fetal deaths and linked birth/infant deaths */
IF RESTATUS NE 4 AND TABFLG=2; *restrict to resident fetal deaths with a stated or presumed gestational age of 20+ weeks;
IF OEGest_Comb<28 THEN FETAL28=0;
IF 28<=OEGest_Comb<99 THEN FETAL28=1;
IF OEGest_Comb=99 THEN FETAL28=.;  * proportionally distribute missing to <28, 28+ weeks in excel;

/* linked file numerator - deaths */
IF RESTATUS NE 4 AND AGED<7;  * restrict to resident, early neonatal deaths;

/* linked file denominator - births */
IF RESTATUS NE 4;  * restrict to resident births;
```

NOM 9.1 - 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 and DATA ISSUES

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 infant mortality rate among non-Hispanic blacks is more than twice that of non-Hispanic whites.[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) U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Child Health USA 2014. Rockville, Maryland: U.S. Department of Health and Human Services, 2014. https://mchb.hrsa.gov/chusa14/health-status-behaviors/infants/infant-mortality.html

(2) Ely DM, Driscoll AK. Infant Mortality in the United States, 2017: Data From the Period Linked Birth/Infant Death File. National Vital Statistics Reports. 2019 August 1. 68 (10). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_10-508.pdf

FAD Availability by Year

Year	Data Not Available
2019	AS, VI
2018	AS, VI
2017	VI
2016	
2015	
2014	VI

Year	Data Not Available
2013	VI
2012	
2011	
2010	
2009	

Data Notes

Infant deaths are weighted to account for deaths that were unable to be linked to a birth certificate in a given state. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Stratifiers that were modified or newly added on the 2003 revision (i.e., maternal education, delivery payment source, prenatal WIC participation) are only reportable for the states/jurisdictions that had implemented the 2003 revision as of January 1, 2014. Marital status is not available for California. Stratifiers for Guam and Puerto Rico are calculated with one-year data because 3 consecutive years of linked data are unavailable. Urban/rural residence is not available for territories. Unlinked data are used for Northern Marianas Islands since linked data are unavailable; therefore no stratifiers are available. For more information about the linked birth/infant death file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm
Data for the Freely Associated States are from the United Nations Interagency Group for Child Mortality Estimation available at www.childmortality.org

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Birthweight	<1,500 grams 1,500-2,499 grams 2,500+ grams	
Gestational age	<34 weeks 34-36 weeks 37,38 weeks 39+ weeks	Based on obstetric estimate
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only.
Plurality	Singleton Multiple Birth	Includes imputed plurality

Stratifier	Subcategory	Special Notes
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4;  *restrict to resident births;
```

NOM 9.2 - 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 and DATA ISSUES

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, 2017: Data From the Period Linked Birth/Infant Death File. National Vital Statistics Reports. 2019 August 1. 68 (10). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_10-508.pdf
(2) Ely DM, Driscoll AK, Mathews TJ. Infant mortality by age at death in the United States, 2016. NCHS Data Brief, no 326. Hyattsville, MD: National Center for Health Statistics. 2018. https://www.cdc.gov/nchs/products/databriefs/db326.htm

FAD Availability by Year

Year	Data Not Available
2019	AS, VI
2018	AS, VI
2017	VI
2016	
2015	
2014	VI
2013	VI
2012	
2011	
2010	
2009	

Data Notes

Infant deaths are weighted to account for deaths that were unable to be linked to a birth certificate in a given state. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Stratifiers that were modified or newly added on the 2003 revision (i.e., maternal education, delivery payment source, prenatal WIC participation) are only reportable for the states/jurisdictions that had implemented the 2003 revision as of January 1, 2014. Marital status is not available for California. Stratifiers for Guam and Puerto Rico are calculated with one-year data because 3 consecutive years of linked data are unavailable. Urban/rural residence is not available for territories. Unlinked data are used for Northern Mariana Islands since linked data are unavailable; therefore no stratifiers are available. For more information about the linked birth/infant death file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm
Data for the Freely Associated States are from the United Nations Interagency Group for Child Mortality Estimation available at www.childmortality.org

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Birthweight	<1,500 grams 1,500-2,499 grams 2,500+ grams	
Gestational age	<34 weeks 34-36 weeks 37,38 weeks 39+ weeks	Based on obstetric estimate
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only.
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race.

Stratifier	Subcategory	Special Notes
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4;  *restrict to resident births;
IF AGED<28 THEN NEONATAL=1;  * age at death < 28 days;
```

NOM 9.3 - 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 and DATA ISSUES

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, 2017: Data From the Period Linked Birth/Infant Death File. National Vital Statistics Reports. 2019 August 1. 68 (10). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_10-508.pdf

(2) Ely DM, Driscoll AK, Mathews TJ. Infant mortality by age at death in the United States, 2016. NCHS Data Brief, no 326. Hyattsville, MD: National Center for Health Statistics. 2018. https://www.cdc.gov/nchs/products/databriefs/db326.htm

FAD Availability by Year

Year	Data Not Available
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	FM, MH, PW, VI
2016	FM, MH, PW
2015	FM, MH, PW
2014	FM, MH, PW, VI
2013	FM, MH, PW, VI
2012	FM, MH, PW
2011	FM, MH, PW
2010	FM, MH, PW
2009	FM, MH, PW

Data Notes

Infant deaths are weighted to account for deaths that were unable to be linked to a birth certificate in a given state. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Stratifiers that were modified or newly added on the 2003 revision (i.e., maternal education, delivery payment source, prenatal WIC participation) are only reportable for the states/jurisdictions that had implemented the 2003 revision as of January 1, 2014. Marital status is not available for California. Stratifiers for Guam and Puerto Rico are calculated with one-year data because 3 consecutive years of linked data are unavailable. Urban/rural residence is not available for territories. Unlinked data are used for Northern Mariana Islands since linked data are unavailable; therefore no stratifiers are available. For more information about the linked birth/infant death file, please see the User's Guide located at **http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm**

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Birthweight	<1,500 grams 1,500-2,499 grams 2,500+ grams	
Gestational age	<34 weeks 34-36 weeks 37,38 weeks 39+ weeks	Based on obstetric estimate
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only.
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

Stratifier	Subcategory	Special Notes
WIC Participation	Yes No	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4;  *restrict to resident births;
IF AGED>=28 THEN POSTNEONATAL=1; * age at death 28-364 days;
```

NOM 9.4 - 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 and DATA ISSUES

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.[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) Ely DM, Driscoll AK. Infant Mortality in the United States, 2017: Data From the Period Linked Birth/Infant Death File. National Vital Statistics Reports. 2019 August 1. 68 (10). 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 Policy Statement. Pediatrics 2012; 130:587-597. https://pediatrics.aappublications.org/content/130/3/587

FAD Availability by Year

Year	Data Not Available
2019	AS, FM, MH, MP, PW, VI
2018	AS, FM, MH, MP, PW, VI
2017	AS, FM, MH, MP, PW, VI
2016	AS, FM, MH, MP, PW, VI
2015	AS, FM, MH, MP, PW, VI
2014	AS, FM, MH, MP, PW, VI
2013	AS, FM, MH, MP, PW, VI
2012	AS, FM, MH, MP, PW
2011	AS, FM, MH, MP, PW
2010	AS, FM, MH, MP, PW
2009	AS, FM, MH, MP, PW

Data Notes

Follows the CDC definition of preterm-related cause if 75% or more of infants whose deaths were attributed to a cause were born at less than 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. Preterm-related causes of death are further restricted to preterm infants when determining preterm-related deaths. Gestational age was based on the obstetric/clinical estimate. This measure provides a conservative estimate of the preterm contribution as indirect causes are not included and many non-specific causes of death (e.g. other perinatal conditions) have a high percentage of deaths to preterm infants but lack etiologic specificity. Infant deaths are weighted to account for deaths that were unable to be linked to a birth certificate in a given state. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Stratifiers that were modified or newly added on the 2003 revision (i.e., maternal education, delivery payment source, prenatal WIC participation) are only reportable for the states/jurisdictions that had implemented the 2003 revision as of January 1, 2014. Marital status is not available for California. Stratifiers for Guam and Puerto Rico are calculated with one-year data because 3 consecutive years of linked data are unavailable. Urban/rural residence is not available for territories. For more information about the linked birth/infant death file, please see the User's Guide located at **http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm**

Callaghan WD, MacDorman MF, Rasmussen SA, Qin C, Lackritz EM, et al. The contribution of preterm birth to infant mortality rates in the United States. Pediatrics 118(4):1566–73. 2006.

Mathews TJ, MacDorman MF. Infant mortality statistics from the 2010 period linked birth/infant death data set. National vital statistics reports; vol 62 no 8. Hyattsville, MD: National Center for Health Statistics. 2013.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only.
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race.

Stratifier	Subcategory	Special Notes
	Non-Hispanic Asian/Pacific Islander	
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4;  *restrict to resident births;
if (substr(ICD,1,3) in ('P22','P36','P77') or substr(ICD,1,4) in ('K550', 'P000', 'P010', 'P011', 'P015', 'P020', 'P021',
'P027', 'P102', 'P280', 'P281') or 'P070'<=substr(ICD,1,4)<='P073' or 'P250'<=substr(ICD,1,4)<='P279'  or
'P520'<=substr(ICD,1,4)<='P523') and 17<=estgest<37 then preterm_related=1;   * ICD = underlying cause of
death, estgest = obstetric/clinical estimate of gestational age;
```

NOM 9.5 - Sudden Unexpected Infant Death (SUID) rate per 100,000 live births

GOAL

To reduce the rate sleep-related SUIDs

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 and DATA ISSUES

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 and AAP TASK FORCE ON SUDDEN INFANT DEATH SYNDROME. SIDS and Other Sleep-Related Infant Deaths: Evidence Base for 2016 Updated Recommendations for a Safe Infant Sleeping Environment. Pediatrics. 2016;138(5):e20162940.

(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

FAD Availability by Year

Year	Data Not Available
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	FM, MH, PW, VI
2016	FM, MH, PW
2015	FM, MH, PW
2014	FM, MH, PW, VI
2013	FM, MH, PW, VI
2012	FM, MH, PW
2011	FM, MH, PW
2010	FM, MH, PW
2009	FM, MH, PW

Data Notes

Infant deaths are weighted to account for deaths that were unable to be linked to a birth certificate in a given state. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Stratifiers that were modified or newly added on the 2003 revision (i.e., maternal education, delivery payment source, prenatal WIC participation) are only reportable for the states/jurisdictions that had implemented the 2003 revision as of January 1, 2014. Marital status is not available for California. Stratifiers for Guam and Puerto are calculated with one-year data because 3 consecutive years of linked data are unavailable. Urban/rural residence is not available for territories. Unlinked data are used for Northern Mariana Islands since linked data are unavailable; therefore no stratifiers are available. For more information about the linked birth/infant death file, please see the User's Guide located at **http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm**

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Birthweight	<1,500 grams 1,500-2,499 grams 2,500+ grams	
Gestational age	<34 weeks 34-36 weeks 37,38 weeks 39+ weeks	Based on obstetric estimate
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only.
Plurality	Singleton Multiple Birth	Includes imputed plurality
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Refers to maternal race/ethnicity. Includes imputed race and multiple race bridged to single race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

Stratifier	Subcategory	Special Notes
WIC Participation	Yes No	From the 2003 revision to the U.S. Certificate of Live Birth. Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4;  *restrict to resident births;
IF substr(ICD,1,3) in ('R95','R99','W75') then SUID=1;  * ICD = underlying cause of death;
```

NOM 10 - Percent of women who drink alcohol in the last 3 months of pregnancy

GOAL

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

DEFINITION

Numerator: Number of women who report drinking alcohol in the last 3 months 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 and DATA ISSUES

Pregnancy Risk Assessment Monitoring System (PRAMS)

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] In 2015-2017, around 1 in 9 pregnant women reported drinking alcohol in the past 30 days, and a third of those women reported binge drinking.[2] 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] FASDs are preventable through abstinence from alcohol among pregnant women. Early diagnosis and intervention programs are critical to improve developmental outcomes for children with FAS.[1]

(1) Centers for Disease Control and Prevention. Fetal Alcohol Spectrum Disorder (FASDs). 2019 March 29. https://www.cdc.gov/ncbddd/fasd/facts.html

(2) Denny CH, Acero CS, Naimi TS, Kim SY. Consumption of Alcohol Beverages and Binge Drinking Among Pregnant Women Aged 18–44 Years — United States, 2015–2017. MMWR Morb Mortal Wkly Rep 2019;68:365–368. DOI: http://dx.doi.org/10.15585/mmwr.mm6816a1

FAD Availability by Year

Year	Data Not Available
2020	AL, AZ, AR, CA, DC, FL, ID, IL, IN, IA, KS, KY, MA, MI, NV, NH, NM, NY*, NC*, ND, OH, OK, OR, RI, SC, TX*, UT, WV, WI, AS, FM, GU, MH, MP, PW, PR, VI
2019	AL, AZ, AR, CA, DC, FL, ID, IL, IN, IA, KS, KY, MA, MI, NV, NH, NM, ND, OH, OK, OR, RI, SC, TX*, UT, WV, WI, AS, FM, GU, MH, MP, PW, PR, VI
2018	AL, AZ, AR, CA, DC, FL, HI*, ID, IL, IN, IA, KS, KY, MA, MI, NV, NH, NM, ND, OH, OK, OR, RI, SC, TN*, TX*, UT, WV, WI, AS, FM, GU, MH, MP, PW, PR, VI, NYC
2017	AL, AZ, AR, CA, DC, FL, HI*, ID, IL, IN, IA, KS, KY, MA, MI, MN*, MS*, NE*, NV, NH, NM, ND, OH, OK, OR, RI, SC, TN*, TX*, UT, WV, WI, AS, FM, GU, MH, MP, PW, PR, VI, NYC

Year	Data Not Available
2016	AL, AZ, AR, CA, DC, FL, GA*, HI*, ID, IL, IN, IA, KS, KY, MA, MI, MN*, MS*, MT, NV, NH, NM, NC*, ND, OH, OK, OR, RI, SC, SD, TN*, UT, WV, WI, AS, FM, GU, MH, MP, PW, PR, VI, NYC
2015	AZ, CA, DC, FL*, GA*, IN, ID, KS, KY, MN*, MS*, MT, NC*, ND, NV, RI*, SC*, SD, AS, FM, GU, MH, MP, PW, PR, VI
2014	AZ, AR*, CA, CO*, DC, FL*, GA*, IN, ID, KS, KY, LA*, MI*, MN*, MS*, MT, NC*, ND, NV, OR*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2013	AL*, AZ, CA, CT*, DC, FL*, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NV, OH*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2012	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NV, NY*, SC*, SD, TX*, VA*, WV^, AS, FM, GU, MH, MP, PW, PR, VI
2011	AL*, AK*, AZ, CA, CT, DC, FL*, IA, IL*, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NV, OH*, SC*, SD, TN*, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2010	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NM*, NV, SC*, SD, TN*, VA*, WI*, AS, FM, GU, MH, MP, PW, PR, VI
2009	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MT, NC*, ND, NH, NM*, NV, NY*, NYC*, SC*, SD, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2008	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MO*, MT, ND, NH, NM*, NV, NYC*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI, NYC*
2007	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, ND, NH, NM*, NV, SD, TN*, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI

*PRAMS data are available to be reported by the state/jurisdiction; did not meet response rate threshold required for reporting by CDC PRAMS but MCHB does not use a response rate criteria for TVIS as long as data are appropriately weighted to account for non-response bias.

Data Notes

The item on drinking in the last three months of pregnancy switched from core to standard in 2016 (Phase 8 PRAMS) and is no longer collected by all participating states. Per CDC PRAMS policy, only states/jurisdictions that met the response rate threshold are included (≥50% from 2018 to 2020, ≥55% from 2015 to 2017, ≥60% from 2012 to 2014, ≥65% response from 2007 to 2011). The 2018 response rate threshold was retroactively increased from 55% to 50%, and 4 additional states data are now included along with the updated U.S. estimate for 2018. Overall U.S. estimates by year may not be comparable due to the different states/jurisdictions included in any given year. For NY, 2008, 2016-2020 estimates do not include NYC, while 2012 estimates only include NYC. The estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-response, and non-coverage. Standard errors account for the complex survey design. For more information on the PRAMS methodology, visit http://www.cdc.gov/prams/

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	From the birth certificate.
Educational Attainment	Less than high school High school graduate Some college College graduate	From the birth certificate.
Health Insurance	Private Medicaid Other Public Uninsured	From the birth certificate. Refers to principal source of payment for delivery. Other Public includes Indian Health Service,

Stratifier	Subcategory	Special Notes
		CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	From the birth certificate.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	From the birth certificate.
WIC Participation	Yes No	From the birth certificate. Refers to prenatal WIC participation

SAS Code

```
durpreg_drnk = max(drk53l_a,drk63l_a);
```

NOM 11 - 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 and DATA ISSUES

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 2004 to 2014, the incidence of NAS increased more than five-fold, driven in large part by increases among Medicaid-financed births.[2] 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;66:242–245. DOI: http://dx.doi.org/10.15585/mmwr.mm6609a2

(2) Winkelman TNA, Villapiano N, Kozhimannil KB, Davis MM, Patrick SW. Incidence and Costs of Neonatal Abstinence Syndrome among Infants with Medicaid: 2004-2014. Pediatrics. April 2018, 141 (4) e20173520; DOI: https://doi-org.ezproxyhhs.nihlibrary.nih.gov/10.1542/peds.2017-3520

FAD Availability by Year

Year	Data Not Available
2019	AL, ID, AS, FM, GU, MH, MP. PW, PR, VI
2018	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2017	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2016	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2015 Q1-Q3	AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2014	AK, AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2013	AK, AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2012	AL, DC, DE, ID, MS, NH, AS, FM, GU, MH, MP, PW, PR, VI
2011	AL, DC, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2010	AL, DC, DE, ID, ND, NH, AS, FM, GU, MH, MP, PW, PR, VI

Year	Data Not Available
2009	AK, AL, DC, DE, ID, MS, ND, AS, FM, GU, MH, MP, PW, PR, VI
2008	AK, AL, DC, DE, ID, MT, ND, NH, AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

Three states (AK, NY, and VA) updated their 2018 data, and therefore US estimates were also updated. Data for 2016 and onward are based on ICD-10-CM and may not be comparable to previous ICD-9-CM estimates. Data for 2015 represents only three quarters of the year (January through September) due to the transition to ICD-10 in the last quarter of 2015; thus the rate should be interpreted with caution as it does not represent a full year of change relative to 2014. Cases of neonatal abstinence syndrome (on the birth record) were identified by ICD-9-CM diagnosis code 779.5 (drug withdrawal syndrome in newborn) and ICD-10-CM diagnosis code P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction). Possible iatrogenic cases, identified by ICD-9-CM diagnosis codes 765.00-765.05, 770.7, 772.1x, 777.5x, 777.6 and 779.7, were excluded from the numerator; iatrogenic exclusion is no longer necessary in ICD-10-CM with the introduction of P96.2 (withdrawal symptoms from therapeutic use of drugs in newborn). Birth hospitalizations were identified by ICD-9-CM diagnosis codes V30.xx-V39.xx, where the 4th and 5th digit is either 00, 01, 10 or 11, and ICD-10-CM diagnosis codes of Z38.00, Z38.01, Z38.1, Z38.2, Z38.30, Z38.31, Z38.4, Z38.5, Z38.61, Z38.62, Z38.63, Z38.64, Z38.65, Z38.66, Z38.68, Z38.69, Z38.7, or Z38.8. Those with an indication of transfer from another hospital were excluded to avoid duplication. State-level estimates include inpatient stays for state residents treated in their home state and state residents treated in other states that provide data to the Healthcare Cost and Utilization Project (HCUP). For information on the HCUP Partner organizations, please visit https://www.hcup-us.ahrq.gov/partners.jsp

This analysis is limited to community, non-rehabilitation, non-long term acute care hospitals, which are defined as short-term, non-Federal hospitals. Community hospitals include obstetrics and gynecology, otolaryngology, orthopedic, cancer, pediatric, public, and academic medical hospitals. Excluded are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. U.S. estimates are calculated using the available State data and are not nationally weighted; therefore, U.S. estimates may not be comparable across years due to the different states included in any given year. In addition, certain states did not provide reliable race and/or ethnicity data and are excluded from totals by race/ethnicity. For more information about the HCUP State Inpatient Databases (SID), please visit https://www.hcup-us.ahrq.gov/sidoverview.jsp

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Refers to expected primary payer. Medicaid may include CHIP and Medicare. Other Public includes military insurance, Indian Health Service, and other federal, state, or local government payment source. For more information, please see https://www.hcup-us.ahrq.gov/reports/methods/2014-03.pdf
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander Other	Other includes other and multiple race. Not available for all states.
Urban-Rural Residence	Large Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Large metro is defined as metropolitan areas with at least 1 million residents. Small/ medium

Stratifier	Subcategory	Special Notes
		metro is defined as metropolitan areas of less than 1 million residents. Non-metro is defined as micropolitan and non-metropolitan, non-micropolitan areas.
Median ZIP Code Income	Quartile 1 Quartile 2 Quartile 3 Quartile 4	Quartiles (poorest to wealthiest) based on current year median household income obtained from Claritas.

SAS Code

```
IF COMMUNITY_NONREHAB =1; * restrict to non-federal, non-rehab facilities;

ARRAY DX (&MAXDX) DX1-DX&MAXDX; * diagnosis codes;

*DENOMINATOR;
births=0;
DO I=1 TO &MAXDX;
IF DX(I) in:
('Z3800','Z3801','Z381','Z382','Z3830','Z3831','Z384','Z385','Z3861','Z3862','Z3863
','Z3864','Z3865','Z3866','Z3868','Z3869','Z387','Z388') then births=1; *ICD-10;
IF 'V30'<=:DX(I)<=:'V39' AND SUBSTR(DX(I),4,2) IN ('00','01','10','11') then
births=1;  *ICD-9;
 END;
DROP I;
IF ASOURCE in (2,3) then births=0;  * exclude transfers from another facility to
avoid duplication;
IF PointOfOriginUB04 in ('4','B','D','E','F') then births=0;
IF PointOfOriginUB04 in ('5','6') and ATYPE ne 4 then births=0;

*NUMERATOR;
if births=1 then do;
NAS=0;
DO I=1 TO &MAXDX;
IF DX(I)=:'P961' THEN NAS=1; *ICD-10;
IF DX(I)=:'7795' THEN NAS=1; *ICD-9;
IF DX(I) IN: ('76500'-'76505','7707','7721','7775','7776', '7797') THEN NAS=0; *
reclassify possibly iatrogenic cases in ICD-9 only;
 END;
END;
DROP I;

*PATIENT STATE RESIDENCE;
LENGTH PSTATE $2;
if not missing(pstco2) then PSTATE = fipstate(int(pstco2/1000));

LABEL NAS="INFANT WITH ABSTINENCE SYNDROME"
      PSTATE="PATIENT RESIDENCE STATE";
```

Data Alert

Three states (AK, NY, and VA) updated their 2018 data, and therefore US estimates were also updated.

NOM 12 - Percent of eligible newborns screened for heritable disorders with on time physician notification for out of range screens who are followed up in a timely manner. (DEVELOPMENTAL)

GOAL

To increase the percent of eligible newborns screened for heritable disorders with on-time physician notification for out of range screens and timely follow up.

DEFINITION

Numerator: Number of eligible newborns screened for heritable disorders with on time physician notification for out of range screens who are followed up in a timely manner. UNDER DEVELOPMENT

Denominator: Number of live eligible births

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

The American Public Health Laboratories (APHL) data set

SIGNIFICANCE

Newborn screening detects thousands of babies each year with potentially devastating, but treatable disorders. The benefits of newborn screening depend upon timely collection of the newborn blood-spots or administration of a point-of-care test (pulse oximeter for critical congenital heart disease (CCHD)), receipt of the newborn blood spot at the laboratory, testing of the newborn blood spot, and reporting out of all results. Timely detection and follow-up with appropriate treatment prevents death or disability and enables children to reach their full potential.

(1) Centers for Disease Control and Prevention. CDC Grand Rounds: Newborn Screening and Improved Outcomes. Morbidity and Mortality Weekly Report. 2012 June 1. 61(21): 390-93. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6121a2.htm

FAD Availability by Year

Developmental Measure – will not be available for this year's application

NOM 13 - Percent of children meeting the criteria developed for school readiness (DEVELOPMENTAL)

GOAL

To increase the percent of children ready for school.

DEFINITION

Numerator: Under development

Denominator: Under development

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 and DATA ISSUES

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 Childhood Education. 2016 August 5. https://www.cdc.gov/policy/hst/hi5/earlychildhoodeducation/

FAD Availability by Year

Developmental Measure – will not be available for this year's application

NOM 14 - 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 and DATA ISSUES

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 flouride varnish and dental sealants, community water flouridation, and oral hygeine practices, including brushing and flossing.

(1) Centers for Disease Control and Prevention. Children's Oral Health. 2019 May 19. https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.html

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	1-5 Years 6-11 Years 12-17 Years	
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent	

Stratifier	Subcategory	Special Notes
	Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NOM 14: Tooth decay/cavities, age 1-17 years***/

NOM14 = CAVITIES; /*Decayed teeth or cavities*/
if SC_AGE_YEARS < 1 then NOM14 = .L;
label NOM14 = "NOM-14: Tooth decay/cavities";

/* 1= Yes,  2= No */
```

NOM 15 - 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 and DATA ISSUES

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 2017. 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.

(1) Heron M. Deaths: Leading Causes for 2017. National Vital Statistics Reports. 2019. 2019 June 24. 68(6). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	FM, MH, PW, VI
2017	FM, MH, PW
2016	FM, MH, PW
2015	FM, MH, PW
2014	FM, MH, PW, VI
2013	FM, MH, PW, VI
2012	FM, MH, PW
2011	FM, MH, PW
2010	FM, MH, PW
2009	FM, MH, PW

Data Notes

Population denominators for 2009 are from revised intercensal July 1 estimates. Population denominators for 2010 are from Census April 1 estimates. Population denominators for 2011 through 2020 are from postcensal July 1 estimates for each vintage year. Population denominators for territories are from the Census International Data Base. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Urban/rural residence and race/ethnicity denominators are not available for territories. For more information about the mortality file, please see the User's Guide located at **http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm**

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Child Age	1-4 Years 5-9 Years	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Includes imputed race and multiple race bridged to single race. Not available for territories.
Sex	Female Male	
Urban/Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident deaths;
IF 3<=AGE<=7 THEN CHILD_DEATH=1; * age = age recode 27, restrict to age 1-9;
```

NOM 16.1 - 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 and DATA ISSUES

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 14,000 deaths occurred among U.S. children ages 10 through 19 in 2017. 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 2017. National Vital Statistics Reports. 2019 June 24. 68(6). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	FM, MH, PW, VI
2017	FM, MH, PW
2016	FM, MH, PW
2015	FM, MH, PW
2014	FM, MH, PW, VI
2013	FM, MH, PW, VI
2012	FM, MH, PW
2011	FM, MH, PW
2010	FM, MH, PW
2009	FM, MH, PW

Data Notes

Population denominators for 2009 are from revised intercensal July 1 estimates. Population denominators for 2010 are from Census April 1 estimates. Population denominators for 2011 through 2020 are from postcensal July 1 estimates for each vintage year. Population denominators for territories are from the Census International Data Base. Estimates by stratifiers are calculated with three-year data to improve precision and reportability. Urban/rural residence and race/ethnicity denominators are not available for territories. For more information about the mortality file, please see the User's Guide located at **http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm**

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Child Age	10-14 Years 15-19 Years	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Includes imputed race and multiple race bridged to single race. Not available for territories.
Sex	Female Male	
Urban/Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident deaths;
IF AGE in (8,9) THEN AD_DEATH=1; * age = age recode 27, restrict to age 10-19;
```

NOM 16.2 - 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 and DATA ISSUES

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

SIGNIFICANCE

More than one-third of all teen deaths are the result of a motor vehicle crash. Teenage drivers have crash rates that are nearly three times those of drivers older than 20 years. 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. Males ages 16-19 are more than twice as likely to die in motor vehicle accidents as females the same age.

(1) Centers for Disease Control and Prevention. Teen Drivers: Get the Facts. 2019 October.https://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html

FAD Availability by Year

Year	Data Not Available
2018-2020	AS, FM, MH, PW
2017-2019	AS, FM, MH, PW, VI
2016-2018	FM, MH, PW, VI
2015-2017	FM, MH, PW
2014-2016	FM, MH, PW, VI
2013-2015	FM, MH, PW, VI
2012-2014	FM, MH, PW, VI
2011-2013	FM, MH, PW, VI
2010-2012	FM, MH, PW
2009-2011	FM, MH, PW
2008-2010	FM, MH, PW
2007-2009	FM, MH, PW

Data Notes

Population denominators for 2009 are from revised intercensal July 1 estimates. Population denominators for 2010 are from Census April 1 estimates. Population denominators for 2011 through 2020 are from postcensal July 1 estimates for each vintage year. Population denominators for territories are from the Census International Data Base. Due to the relatively small number of deaths, three-year data estimates are provided to improve precision and reportability. However, trends are mitigated with three-year data where each estimate shares 67% (2/3) of the data with the next estimate. Standard statistical tests that assume independence should not be used when comparing overlapping 3-year estimates. Estimates by stratifiers are calculated with five-year data to improve precision and reportability. Urban/rural residence and race/ethnicity denominators are not available for territories. For more information about the mortality file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Includes imputed race and multiple race bridged to single race. Not available for territories.
Sex	Female Male	
Urban/Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident deaths;
IF (('V30'<=substr(ICD,1,3)<='V79' AND '4'<=substr(ICD,4,1)<='9') OR
 ('V81'<=substr(ICD,1,3)<='V82' AND substr(ICD,4,1)='1') OR ('V83'<=substr(ICD,1,3)<='V86'
 AND '0'<=substr(ICD,4,1)<='3')) OR
 (('V20'<=substr(ICD,1,3)<='V28' AND '3'<=substr(ICD,4,1)<='9') OR
 (substr(ICD,1,3)='V29' AND ('4'<=substr(ICD,4,1)<='9'))) OR
 (('V12'<=substr(ICD,1,3)<='V14' AND '3'<=substr(ICD,4,1)<='9') OR
 (substr(ICD,1,3)='V19' AND ('4'<=substr(ICD,4,1)<='6' ))) OR
 (('V02'<=substr(ICD,1,3)<='V04' AND substr(ICD,4,1) IN ('1','9')) OR
 substr(ICD,1,4)='V092') OR
 (substr(ICD,1,3)='V80' AND '3'<=substr(ICD,4,1)<='5') OR
 ((substr(ICD,1,3)='V87' AND '0'<=substr(ICD,4,1)<='8') OR substr(ICD,1,4)='V892')  AND AGE IN (8,9) THEN
AD_MVT=1; *ICD = underlying cause of death, age = age recode 27, restrict to age 15-19;
```

NOM 16.3 - Adolescent suicide rate, ages 15 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 15 through 19 years

Denominator: Number of adolescents, ages 15 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 and DATA ISSUES

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

SIGNIFICANCE

Suicide is the second leading cause of death for adolescents ages 15 through 19 years.[1] In 2017, there were 3,948 deaths due to suicide among adolescents ages 15 to 19 years, or 11.8 deaths per 100,000.[1] Adolescent suicide increased 56% between 2007 and 2017.[2] Suicide and suicidal ideation is often indicative of mental health problems and stressful or traumatic life events. In 2017,17.2 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 succeed in committing suicide.[1] The suicide mortality rate for males is nearly three times that of females.[1]

(1) Heron M. Deaths: Leading Causes for 2017. National Vital Statistics Reports. 2019. 2019 June 24. 68(6). https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf
(2) Cutin SC, Heron M. Death Rates Due to Suicide and Homicide Among Persons Aged 10-24: United States, 2000-2017. NCHS Data Brief. 2019 October. No 352. https://www.cdc.gov/nchs/data/databriefs/db352-h.pdf
(3) Centers for Disease Control, Division of Adolescent and School Health. Youth Risk Behavior Survey: Data Summary and Trends Report, 2007-2017. Mental Health and Suicide. (pp 46-56) https://www.cdc.gov/healthyyouth/data/yrbs/pdf/trendsreport.pdf

FAD Availability by Year

Year	Data Not Available
2018-2020	AS, FM, MH, PW
2017-2019	AS, FM, MH, PW, VI

Year	Data Not Available
2016-2018	FM, MH, PW, VI
2015-2017	FM, MH, PW
2014-2016	FM, MH, PW, VI
2013-2015	FM, MH, PW, VI
2012-2014	FM, MH, PW, VI
2011-2013	FM, MH, PW, VI
2010-2012	FM, MH, PW
2009-2011	FM, MH, PW
2008-2010	FM, MH, PW
2007-2009	FM, MH, PW

Data Notes

Population denominators for 2009 are from revised intercensal July 1 estimates. Population denominators for 2010 are from Census April 1 estimates. Population denominators for 2011 through 2020 are from postcensal July 1 estimates for each vintage year. Population denominators for territories are from the Census International Data Base. Due to the relatively small number of deaths, total estimates are shown with three-year data while estimates by stratifiers are shown with five-year data to improve precision and reportability. However, trends are mitigated with three-year data where each estimate shares 67% (2/3) of the data with the next estimate. Standard statistical tests that assume independence should not be used when comparing overlapping 3-year estimates. Urban/rural residence and race/ethnicity denominators are not available for territories. For more information about the mortality file, please see the User's Guide located at **http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm**

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander	Includes imputed race and multiple race bridged to single race. Not available for territories.
Sex	Female Male	
Urban/Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident deaths;
IF ('X60'<=substr(ICD,1,3)<='X84' OR substr(ICD,1,3)='U03' OR substr(ICD,1,4)='Y870') AND AGE in (8,9) THEN AD_SUICIDE=1; *age = age recode 27, restrict to age 15-19;
```

NOM 17.1 - Percent of children with special health care needs (CSHCN), ages 0 through 17

GOAL

To track the percent of children and youth with special health care needs.

DEFINITION

Numerator: Number of children, ages 0 through 17, who are reported by a parent to meet the criteria for having a special health care need based on the CSHCN screener (need for or use of prescription medication, elevated need for or use of services, functional limitations, need for or use of specialized therapy, ongoing emotional, behavioral, or developmental problems for which treatment or counseling is needed)

Denominator: Number of children, ages 0 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Children are considered to have a special health care need if, in addition to a chronic medical, behavioral, or developmental condition that has lasted or is expected to last 12 months or longer, they experience either service-related or functional consequences, including the need for or use of prescription medications and/or specialized therapies.[1] About 1 in 5 of all US children are considered to have special health care needs. However, they account for almost half of all health care expenditures for children.[2]

(1) U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. *Child Health USA 2014.* Rockville, Maryland: U.S. Department of Health and Human Services, 2014. https://mchb.hrsa.gov/chusa14/population-characteristics/children-special-health-care-needs.html

(2) Davis, K. Health Care Expenses and Utilization for Children with Special Health Care Needs, 2008: Estimates for the U.S. Civilian Noninstitutionalized Population. Statistical Brief #343. October 2011. Agency for Healthcare Research and Quality, Rockville,MD http://www.meps.ahrq.gov/mepsweb/data_files/publications/st343/stat343.shtml

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside

Stratifier	Subcategory	Special Notes
		U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/* Use derived variable SC_CSHCN: 1=CSHCN, 2=Non-CSHCN or follow code below */


rxmeds = 0;
if SC_K2Q10 = 1 and SC_K2Q11 = 1 and SC_K2Q12 = 1 then rxmeds = rxmeds + 1;
label rxmeds = "Children qualifying on the CSHCN Screener prescription medication
criteria";

serve = 0;
if SC_K2Q13 = 1 and SC_K2Q14 = 1 and SC_K2Q15 = 1 then serve = serve + 1;
label serve = "Children qualifying on the CSHCN Screener for elevated use of
services criteria";

func = 0;
if SC_K2Q16 = 1 and SC_K2Q17 = 1 and SC_K2Q18 = 1 then func = func + 1;
label func = "Children qualifying on the CSHCN Screener functional limitations
criteria";

therapy = 0;
if SC_K2Q19 = 1 and SC_K2Q20 = 1 and SC_K2Q21 = 1 then therapy = therapy + 1;
label therapy = "Children qualifying on the CSHCN Screener specialized therapy
criteria";

mhealth = 0;
if SC_K2Q22 = 1 and SC_K2Q23 = 1 then mhealth = mhealth + 1;
label mhealth = "Children qualifying on the CSHCN Screener ongoing emotional,
development or behavioral conditions criteria";

nom17_1 = 2;
if rxmeds = 1 or serve = 1 or func = 1 or therapy = 1 or mhealth = 1 then nom17_1
= 1;
label nom17_1 = "NOM 17.1: Percent of children with special health care needs ";
/* 1= Yes,  2= No */
```

NOM 17.2 - 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 and DATA ISSUES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

According to the 2017-18 NSCH, only 13.9% of CSHCN receive services in a well-functioning system of services. 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) 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 Feb;19(2):353-61. https://www.ncbi.nlm.nih.gov/pubmed/24912943

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The 'preventive medical and dental care' component of systems of care was affected by a 2018 wording change in the item assessing receipt of medical care in the past year that resulted in a decrease and may have affected the overall measure; the previous wording is restored in 2019. The item determining the denominator for those needing the 'shared decision-making' component of systems of care also changed in 2018; however, the assessment of shared decision-making among those with needed decisions did not change. Additional 2018 changes in subcomponents within medical home ('difficulty receiving referrals') and transition among adolescents ('time alone with provider' and 'anticipatory guidance') did not appear to affect the overall components for systems of care. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Total	Component: Shared Decision-Making if needed Component: Medical Home Component: Continuous and Adequate Insurance Component: Preventive Medical and Dental Care Component: Ease of Access Component: Transition among Adolescents	
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199%	Ratio of self-reported family income to the

Stratifier	Subcategory	Special Notes
	200%-399% ≥400%	federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NOM 17.2: System of care, children with special health care needs***/

/*System of care subcomponent 1: Children whose families are partners in shared
decision-making*/
ShareDec = .;
if DECISIONS in (.L,2)  then ShareDec = .L; /*No health care visit or need for
decision making*/
if DISCUSSOPT in (1,2,.M) and RAISECONC in (1,2,.M) and BESTFORCHILD in (1,2,.M)
then ShareDec = 1;
else if DISCUSSOPT in (3,4,.M) or RAISECONC in (3,4,.M) or BESTFORCHILD in (3,4,.M)
then ShareDec = 2;
if DISCUSSOPT = .M and RAISECONC = .M and BESTFORCHILD = .M then ShareDec = .M;
label  ShareDec = "Indicator 4.14: Children whose families are partners in shared
decision-making for their optimal health";

/*System of care subcomponent 2: Medical Home*/

PerDrNs = .;
if K4Q04_R in (1,2) then PerDrNs = 1;
else if K4Q04_R = 3 then PerDrNs = 2;
else if K4Q04_R = .M then PerDrNs = .M;
label PerDrNs = "Indicator 4.12a: Medical Home Component: Children with a personal
doctor or nurse";
```

```
UsualSck = .;
if K4Q01 = 1 and K4Q02_R in (1,3,4,5,6,7) then UsualSck = 1;
else if K4Q01 = 2 or K4Q02_R = 2 then UsualSck = 2;
else if K4Q01 = .M or K4Q02_R = .M then UsualSck = .M;
label UsualSck = "Usual sources for sick care";

time = .;
if K5Q40 = .M then time = .M;
else if K5Q40 = .L then time = 0;
else if K5Q40 = 1 then time = 1;
else if K5Q40 = 2 then time = 2;
else if K5Q40 in (3,4) then time = 3;
label time = "Doctors spent enough time with children";

listen = .;
if K5Q41 =.M then listen = .M;
else if K5Q41 = .L then listen = 0;
else if K5Q41 = 1 then listen = 1;
else if K5Q41 = 2 then listen = 2;
else if K5Q41 in (3,4) then listen = 3;
label listen = "Doctors listened carefully to children's parents";

sensitiv = .;
if K5Q42 = .M then sensitiv = .M;
else if K5Q42 = .L then sensitiv = 0;
else if K5Q42 = 1 then sensitiv = 1;
else if K5Q42 = 2 then sensitiv = 2;
else if K5Q42 in (3,4) then sensitiv = 3;
label sensitiv = "Doctors showed sensitivity to children's family's values and
customs";

info = .;
if K5Q43 = .M then info = .M;
else if K5Q43 = .L then info = 0;
else if K5Q43 = 1 then info = 1;
else if K5Q43 = 2 then info = 2;
else if K5Q43 in (3,4) then info = 3;
label info = "Doctors provided information specific to parents' concerns";

partner = .;
if K5Q44 = .M then partner = .M;
else if K5Q44 = .L then partner = 0;
else if K5Q44 = 1 then partner = 1;
else if K5Q44 = 2 then partner = 2;
else if K5Q44 in (3,4) then partner = 3;
label partner = "Doctors helped parents to feel like partners in child's care";

FamCent = .;
if time = .M and listen = .M and sensitiv = .M and info = .M and partner = .M then
FamCent = .M;
else if time = 0 then FamCent = .L;
else if time in (1,2,.M) and listen in (1,2,.M) and sensitiv in (1,2,.M) and info
in (1,2,.M) and
     partner in (1,2,.M) then FamCent = 1;
else if time in (3,.M) or listen in (3,.M) or sensitiv in (3,.M) or info in (3,.M)
or partner in (3,.M) then FamCent = 2;
label FamCent = "Indicator 4.12c: Medical Home Component: Family-centered care";
```

```
NoRefPrb = .;
if K5Q10 = 2 then NoRefPrb = .L;
else if K5Q10 = .M then NoRefPrb = .M;
else if K5Q11 in (2,3,4) then NoRefPrb = 2;
else if K5Q11 = 1 then NoRefPrb = 1;
else if K5Q11 = .M then NoRefPrb = .M;
label NoRefPrb = "Indicator 4.12d: Medical Home Component: Problems getting needed
referrals, all children";

DrComm = .;
if K5Q20_R = 3 or S4Q01 = 2 then DrComm = 0;
else if K5Q30 = .M then DrComm = .M;
else if K5Q30 = 1 then DrComm = 1;
else if K5Q30 = 2 then DrComm = 2;
else if K5Q30 in (3,4) then DrComm = 3;
else if K5Q30 = .L then DrComm = 0;
label DrComm = "Satisfaction with communication among child's doctor and other
health care provider";

CareHelp = .;
if S4Q01 = .M then CareHelp = .M;
else if K5Q20_R = 3 or S4Q01 = 2 then CareHelp = 0;
else if K5Q20_R = 2 and K5Q21 = 2 then CareHelp = 0;
else if K5Q20_R = .M and K5Q21 = 2 then CareHelp = .M;
else if K5Q20_R = .M then CareHelp = .M;
else if K5Q21 = .M then CareHelp = .M;
else if K5Q22 = .M then CareHelp = .M;
else if K5Q20_R = 1 and K5Q21 = 2 then CareHelp = 1;
else if K5Q22 = 1 then CareHelp = 1;
else if K5Q22 in (2,3) then CareHelp = 2;
label CareHelp = "Got all needed extra help with care coordination when needed";

OthComm = .;
if K5Q31_R in (2,3) then OthComm = 0;
else if K5Q31_R = .M then OthComm = .M;
else if K5Q32 = 1 then OthComm = 1;
else if K5Q32 in (2,3,4) then OthComm = 2;
else if K5Q32 = .M then OthComm = .M;
else if K5Q32 = .L then OthComm = 0;
label OthComm = "Satisfaction with communication among child's doctors and school,
child care provider, or special education program";

CareCoor = .;
if CareHelp = .M and DrComm = .M and OthComm = .M then CareCoor = .M;
else if CareHelp in (0,.M) and DrComm in (0,.M) and OthComm in (0,.M) then CareCoor
= .L;
else if CareHelp in (1,0,.M) and DrComm in (1,0,.M) and OthComm in (1,0,.M) then
CareCoor = 1;
else if CareHelp in (2,.M) or DrComm in (2,3,.M) or OthComm in (2,.M) then CareCoor
= 2;
label CareCoor = "Indicator 4.12e: Medical Home Component: Effective care
coordination, all children";

NPM11 = .;
if PerDrNs in (1,.M) and UsualSck in (1,.M) and NoRefPrb in (1,.L,.M) and FamCent
in (1,.L,.M) and CareCoor in (1,.L,.M) then NPM11 = 1;
if PerDrNs = 2 or UsualSck = 2 or NoRefPrb = 2 or FamCent = 2 or CareCoor = 2 then
NPM11 = 2;
```

```
if PerDrNs = .M and UsualSck = .M and NoRefPrb in (.L,.M) and FamCent in (.L,.M)
and CareCoor in (.L,.M) then NPM11 = .M;
label NPM11 = "NPM-11: Medical Home";
/*System of care subcomponent 3: Insurance - insured, no gap, adequate insurance**/

benefits = .;
if K3Q20 = 1 then benefits = 1;
if K3Q20 = 2 then benefits = 2;
if K3Q20 in (3,4) then benefits = 3;
if K3Q20 = .M then benefits = .M;
if CURRINS = .M then benefits = .M;
if CURRINS = 2 then benefits = .L;
label benefits = "Current insurance benefits meet child's needs";

allows = .;
if K3Q22 = 1 then allows = 1;
if K3Q22 = 2 then allows = 2;
if K3Q22 in (3,4) then allows = 3;
if K3Q22 = .M then allows = .M;
if CURRINS = .M then allows = .M;
if CURRINS = 2 then allows = .L;
label allows = "Current insurance coverage allows to see needed providers";

expense = .;
if K3Q21B = 1 then expense = 1;
if K3Q21B = 2 then expense = 2;
if K3Q21B in (3,4) then expense = 3;
if K3Q21B = .M then expense = .M;
if HOWMUCH = 1 then expense = 4;
if CURRINS = .M then expense = .M;
if CURRINS = 2 then expense = .L;
label expense = "Current insurance out-of-pocket expenses are reasonable";

InsAdeq = .;
if benefits in (1,2,.M) and allows in (1,2,.M) and expense in (1,2,4,.M) then
InsAdeq = 1;
if benefits = 3 or allows = 3 or expense = 3 then InsAdeq = 2;
if benefits = .M and allows = .M and expense = .M then InsAdeq = .M;
if CURRINS = 2 then InsAdeq = .L;
label InsAdeq = "Adequate Insurance";

CurrIns = CURRINS;
label CurrIns = "Indicator 3.1:Health insurance status at time of survey";

if InsGap in (2,3) then InsGap = 2;
label InsGap = "Indicator 3.2: Children without insurance at some point during the
past year";

NPM15 = .;
if InsGap in (1,.M) and InsAdeq in (1,.M) then NPM15 = 1;
if CurrIns = 2 or InsGap = 2 or InsAdeq = 2 then NPM15 = 2;
if InsGap = .M and InsAdeq = .M then NPM15 = .M;
label NPM15 = "NPM-15: Adequate Insurance";

/*System of care sub component 4: DRC Indicator 4.3: Received both preventive
medical and dental care***/

MedDentCare = .;
```

```
if PrevMed = .M and NPM13 in (.L,.M) then  MedDentCare = .M;
else if PrevMed in (1,.M) and NPM13 in (1,.L,.M) then  MedDentCare = 1;
else if PrevMed = 2 or NPM13 = 2 then  MedDentCare = 2;
label  MedDentCare = "Indicator 4.3: Children who received both preventive medical
and dental care during the past 12 months";

/*System of care subcomponent 5: Had difficulties in accessing care and always or
usually frustrated in effort getting services */
frustrated=.; /*DRC indicator 4.19*/
if C4Q04 = .M then frustrated = .M;
else if C4Q04 = 1 then frustrated = 0;
else if C4Q04 = 2 then frustrated = 1;
else if C4Q04 in (3,4) then frustrated = 2;
label frustrated = "Indicator 4.19: Family frustrated in efforts to get services
during the past 12 months";

UnmetFrust = .;
if K4Q27 = .M and frustrated = .M then UnmetFrust = .M;
else if K4Q27 in (2,.M) and frustrated in (0,1,.M) then UnmetFrust = 1;
else if K4Q27 = 1 or frustrated = 2 then UnmetFrust = 2;
label UnmetFrust = "Children whose parents had difficulties in accessing care and
always or usually frustrated in effort getting services for their children";

/*System of care subcomponent 6: Transition to adult health care, 12-17 only*/
/*Transition Part A: Time alone with health care provider*/
if year=2017 then do;
TimeAlone = .;
if DOCPRIVATE = 1 then TimeAlone = 1;
if DOCPRIVATE = 2 then TimeAlone = 2;
if S4Q01 = 2 or K4Q20R = 1 then TimeAlone = 2;
if DOCPRIVATE = .M then TimeAlone = .M;
if S4Q01 =.M or K4Q20R = .M then TimeAlone = .M;
if SC_AGE_YEARS < 12 then TimeAlone = .N;
end;
if year>=2018 then do;
TimeAlone = .;
if DOCPRIVATE = 1 then TimeAlone = 1;
if DOCPRIVATE = 2 then TimeAlone = 2;
if S4Q01 = 2 then TimeAlone = 2;
if DOCPRIVATE = .M then TimeAlone = .M;
if S4Q01 =.M then TimeAlone = .M;
if SC_AGE_YEARS < 12 then TimeAlone = .N;
end;
label TimeAlone = "Children who had time alone with health care provider at last
check-up, age 12-17 years";

/*Transition Part B: Active work with child*/
ActiveWork = .;
if CHANGEAGE = 1 or GAINSKILLS = 1 then ActiveWork = 1;
else if CHANGEAGE = 2 or GAINSKILLS = 2 then ActiveWork = 2;
else if CHANGEAGE in (3,.M) and GAINSKILLS in (3,.M) then ActiveWork = .M;
else if SC_AGE_YEARS < 12 then ActiveWork = .N;
label ActiveWork = "Provider worked with child to gain skills to manage
health/health care and understand health care changes at age 18, age 12-17 years";

/*Transition Part C: Anticipatory guidance*/
TrtAdult = .;
if TREATCHILD = 1 and TREATADULT = 1 then TrtAdult = 1;
```

```
else if TREATCHILD = 1 and TREATADULT = 2 then TrtAdult = 2;
else if TREATCHILD = 2 then TrtAdult = .L;
else if TREATCHILD = .M or TREATADULT = .M then TrtAdult = .M;
if SC_AGE_YEARS < 12 then TrtAdult = .N;
label TrtAdult = "Provider discussed shift to adult health care providers (if
needed), age 12-17 years";

/*Transition to adult health care composite measure; only excludes missing on all
subcomponents consisistent with adequate insurance*/
NPM12 = .;
if TimeAlone in (1,.M) and ActiveWork in (1,.M) and TrtAdult in (1,.M,.L) then
NPM12 = 1;
if TimeAlone = 2 or ActiveWork = 2 or TrtAdult = 2 then NPM12 = 2;
if TimeAlone = .M and ActiveWork = .M and TrtAdult = .M then NPM12 = .M;
if SC_AGE_YEARS < 12 then NPM12 = .N;
label NPM12 = "NPM-12: Transition";

SystCare = .;
if SC_AGE_YEARS <= 11 then do;
if ShareDec in (.L,1,.M) and NPM11 in (1,.M) and NPM15 in (1,.M) and MedDentCare in
(1,.M) and UnmetFrust in (1,.M)  then SystCare = 1;
if ShareDec = 2 or NPM11 = 2 or NPM15 = 2 or MedDentCare = 2 or UnmetFrust = 2
then SystCare = 2;
if ShareDec in (.L,.M) and NPM11 = .M and NPM15 = .M and MedDentCare =.M and
UnmetFrust = .M then SystCare = .M;
end;
if SC_AGE_YEARS >= 12 then do;
if ShareDec in (.L,1,.M) and NPM11 in (1,.M) and NPM15 in (1,.M) and MedDentCare in
(1,.M) and UnmetFrust in (1,.M) and NPM12 in (1,.M) then SystCare = 1;
if ShareDec = 2 or NPM11 = 2 or NPM15 = 2 or MedDentCare = 2 or UnmetFrust = 2 or
NPM12 = 2 then SystCare = 2;
if ShareDec in (.L,.M) and NPM11 = .M and NPM15 = .M and MedDentCare =.M and
UnmetFrust = .M and NPM12 = .M then SystCare = .M;
end;

if SC_CSHCN=1 then NOM17_2=SystCare; if SC_CSHCN=2 then NOM17_2=.L;
label NOM17_2="NOM-17.2: CSHCN Systems of Care";

/* 1= Yes,  2= No */
```

NOM 17.3 - Percent of children, ages 3 through 17, diagnosed with an autism spectrum disorder

GOAL

To track the percent of children and youth with autism spectrum disorder (ASD.

DEFINITION

Numerator: Number of children, ages 3 through 17, who are reported by a parent to have ever been told they have autism or ASD by a health care provider and to currently have the conditio

Denominator: Number of children, ages 3 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges. The prevalence of ASD has risen sharply over the last two decades. Aproximately 1 in 54 8-year old children have ASD. ASD is 4 times more common among boys than girls. While ASD can be detected by 18 months or earlier, the average age at diagnosis for ASD is 4 years old.The American Academy of Pediatrics recommends screening for ASD at 18 and 24 months. Early intervention services can improve a child's development.

(1) Centers for Disease Control and Prevention. Autism Spectrum Disorder. 2019 August 27. https://www.cdc.gov/ncbddd/autism/index.html

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	3-5 Years 6-11 Years 12-17 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside

Stratifier	Subcategory	Special Notes
		U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NOM 17.3: Current autism, age 3-17 years***/
NOM17_3 = .; /*Autism*/
if K2Q35A = 2 then NOM17_3 = 2;
if K2Q35A = 1 and K2Q35B = 2 then NOM17_3 = 2;
if K2Q35A = 1 and K2Q35B = 1 then NOM17_3 = 1;
if K2Q35A = .M or K2Q35B = .M then NOM17_3 = .M;
if SC_AGE_YEARS < 3 then NOM17_3 = .L;
label NOM17_3 = "NOM-17.3: Autism";

/* 1= Yes,  2= No */
```

NOM 17.4 - Percent of children, ages 3 through 17, diagnosed with Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)

GOAL

To track the percent of children and youth with attention deficit disorder/attent deficit hyperactivity disorder (ADD/ADHD).

DEFINITION

Numerator: Number of children, ages 3 through 17, who are reported by a parent to have ever been told they have ADD or ADHD by a health care provider and to currently have the condition

Denominator: Number of children, ages 3 through 17

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

Attention-deficit/hyperactivity disorder (ADHD) is one of the most common neurobehavioral disorders of childhood. It is sometimes referred to as Attention Deficit Disorder (ADD). ADHD is usually first diagnosed in childhood and often lasts into adulthood. Children with ADHD may have trouble paying attention, controlling impulsive behaviors, or be overly active. Children with ADHD are at increased risk for mental, behavioral, and emotional concerns and disorders. In 2017-2018, over 5 million children 3-17 years (8.9%) were currently diagnosed with ADHD.

(1) Centers for Disease Control and Prevention. Attention-Deficit / Hyperactivity Disorder (ADHD). 2019 October 4. https://www.cdc.gov/ncbddd/adhd/index.html

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	3-5 Years 6-11 Years 12-17 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside

Stratifier	Subcategory	Special Notes
		U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NOM 17.4: Current ADD/ADHD***/
NOM17_4 = .;
if K2Q31A = 2 then NOM17_4 = 2;
if K2Q31A = 1 and K2Q31B = 2 then NOM17_4 = 2;
if K2Q31A = 1 and K2Q31B = 1 then NOM17_4 = 1;
if K2Q31A = .M or K2Q31B = .M then NOM17_4 = .M;
if SC_AGE_YEARS < 3 then NOM17_4 = .L;
label NOM17_4 = "NOM-17.4: ADD/ADHD";

/* 1= Yes,  2= No */
```

NOM 18 - Percent of children, ages 3 through 17, with a mental/behavioral condition who receive treatment or counseling

GOAL

To increase the percent of children with a mental/behavioral condition who receive treatment or counseling.

DEFINITION

Numerator: Number of children, ages 3 through 17, who are reported by a parent to have ever been told they have a mental/behavioral condition by a health care provider (depression, anxiety problems, or behavioral or conduct problems), to currently have the condition, and to have received treatment or counseling from a mental health professional in the past year

Denominator: Number of children, ages 3 through 17, who are reported by a parent to have ever been told they have a mental/behavioral condition by a health care provider (depression, anxiety problems, or behavioral or conduct problems) and to currently have the condition

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: 73.3% of children aged 4 to 17 years with mental health problems received treatment in 2018, Target: 82.4%)

DATA SOURCES and DATA ISSUES

National Survey of Children's Health (NSCH)

SIGNIFICANCE

The prevalence of mental/behavioral health conditions has been increasing among children and has been found to vary by geographic and sociodemographic factors. However, a significant portion of children diagnosed with a mental health condition do not receive treatment. Further, the receipt of treatment is generally dependent on sociodemographic and health-related factors. Adequate insurance and access to a patient-centered medical home may improve mental health treatment.

(1) Ghandour RM, Kogan MD, Blumberg SJ, Jones JR, Perrin JM. Mental health conditions among school-aged children: geographic and sociodemographic patterns in prevalence and treatment. J Dev Behav Pediatr. 2012 Jan;33(1):42-54. https://www.ncbi.nlm.nih.gov/pubmed/22218014

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
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2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

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Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside

Stratifier	Subcategory	Special Notes
		U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

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/***NOM 18: Mental health treatment, age 3-17 years***/

anxiety = .; /*Anxiety*/
if K2Q33A = 2 then anxiety = 1;
if K2Q33A = 1 and K2Q33B = 2 then anxiety = 2;
if K2Q33A = 1 and K2Q33B = 1 then anxiety = 3;
if K2Q33A =.M or K2Q33B = .M then anxiety = .M;
if SC_AGE_YEARS < 3 then anxiety = .L;
label anxiety = "Children who currently have anxiety problems, age 3-17 years";

depress = .; /*Depression*/
if K2Q32A = 2 then depress = 1;
if K2Q32A = 1 and K2Q32B = 2 then depress = 2;
if K2Q32A = 1 and K2Q32B = 1 then depress = 3;
if K2Q32A = .M or K2Q32B = .M then depress = .M;
if SC_AGE_YEARS < 3 then depress = .L;
label depress = "Children who currently have depression, age 3-17 years";

behavior = .; /*Behavioral or conduct problems*/
if K2Q34A = 2 then behavior = 1;
if K2Q34A = 1 and K2Q34B = 2 then behavior = 2;
if K2Q34A = 1 and K2Q34B = 1 then behavior = 3;
if K2Q34A = .M or K2Q34B = .M then behavior = .M;
if SC_AGE_YEARS < 3 then behavior = .L;
label behavior = "Children who currently have behavioral or conduct problems, age
3-17 years";

ment3cond = 0;
if depress = 3 then ment3cond + 1;
if anxiety = 3 then ment3cond + 1;
if behavior = 3 then ment3cond + 1;
if depress = .M and anxiety = .M and behavior = .M then ment3cond = .M;
if SC_AGE_YEARS < 3 then ment3cond = .L;
label ment3cond = "Number of conditions";

NOM18 = .;
if ment3cond > 0 and K4Q22_R = 1 then NOM18 = 1;
```

```
if ment3cond > 0 and (K4Q22_R = 2 or K4Q22_R = 3) then NOM18 = 2;
if ment3cond = 0 then NOM18 = .L;
if ment3cond = .M then NOM18 = .M;
if K4Q22_R = .M then NOM18 = .M;
if SC_AGE_YEARS < 3 then NOM18 = .L;
label NOM18 = "NOM-18: Mental health treatment";
```

NOM 19 - 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 and DATA ISSUES

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

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent	

Stratifier	Subcategory	Special Notes
	Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NOM 19: Excellent/Very Good health status***/
NOM19 = .;
if K2Q01 in (1,2) then NOM19 = 1;
if K2Q01 in (3,4,5) then NOM19 = 2;
if K2Q01 = .M then NOM19 = .M;
label NOM19 = "NOM-19: Excellent/Very Good health status";

/* 1= Yes,  2= No */
```

NOM 20 - Percent of children, ages 2 through 4, and adolescents, ages 10 through 17, who are obese (BMI at or above the 95th percentile)

GOAL

To reduce the percent of children and adolescents who are considered obese.

DEFINITION

Numerator:
Number of children, ages 2 through 4, who are obese based on measured height and weight (WIC)
Number of adolescents, ages 10 through 17, who are obese based on parent-reported height and weight (NSCH)
Number of adolescents in grades 9 through 12 who are obese based on self-reported height and weight (YRBSS)

Denominator: Number of children, ages 2 through 4 (WIC)
Number of adolescents, ages 10 through 17 (NSCH)
Number of adolescents in grades 9 through 12 (YRBSS)

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 and DATA ISSUES

Children 2 through 4 years: Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)
Adolescents 10 through 17 years (parent report): National Survey of Children's Health (NSCH)
Adolescents grades 9 through 12 (adolescent report): Youth Risk Behavior Surveillance System (YRBSS)

SIGNIFICANCE

Childhood obesity is defined as a body mass index (BMI) at or above the 95th percentile for children and teens of the same age and sex. Childhood obesity is a serious health problem in the United States, that has tripled in prevalence since the 1970s. Currently, about 1 in 5 school-aged children are obese. 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.[1] Obesity in adulthood is linked to cardiovascular disease, type 2 diabetes, and cancer, and obese children are likely to have more severe obesity and attendant health problems in adulthood.

(1) Centers for Disease Control and Prevention. Childhood Overweight and Obesity. 2018 September 11. https://www.cdc.gov/obesity/childhood/causes.html

FAD Availability by Year – WIC

Year	Data Not Available
2018	FM, MH, PW
2016	FM, MH, PW
2014	FM, MH, PW

Year	Data Not Available
2012	FM, MH, PW
2010	FM, MH, PW
2008	FM, MH, MP, PW

Data Notes – WIC

Data are from the Women Infants and Children Participant and Program Characteristics file (WIC PC). WIC PC is a biennial census that includes participants who are certified to receive WIC benefits between April 1 and April 30 of the reporting year. Children's anthropometric measurements were taken by trained staff during required routine clinic visits. Weight was reported to the nearest 1/4 pound and height to the nearest 1/8 inch. This measure reflects sex-specific BMI-for-age ≥ the 95th percentile on the CDC growth charts among WIC participants ages 2-4. Children with missing or biologically implausible height, weight, and BMI were excluded. Biologically implausible z-scores are defined as height-for-age <-5.0 or >4.0, weight-for-age <-5.0 or >8.0, and BMI-for-age <-4.0 or >8.0. Data were analyzed by the Epidemiology and Surveillance Team of CDC's Obesity Prevention and Control Branch. For more information about WIC Participant and Program Characteristics, please visit https://www.fns.usda.gov/wic/wic-participant-and-program-characteristics-2018.

Available Stratifiers and Notes – WIC

Stratifier	Subcategory	Special Notes
Age	2 Years 3 Years 4 Years	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	

SAS Code – WIC

Not available

FAD Availability by Year – NSCH

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes – NSCH

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states

that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys

Available Stratifiers and Notes – NSCH

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native	Refers to child race/ethnicity

Stratifier	Subcategory	Special Notes
	Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code – NSCH

```
/***NOM 20: Obesity, age 10-17 years***/
NOM20 = .;
if BMICLASS = 4 then NOM20 = 1;
if BMICLASS in (1,2,3) then NOM20 = 2;
if BMICLASS = .M then NOM20 = .M;
if SC_AGE_YEARS < 10 then NOM20 = .L;
label NOM20 = "NOM-20: Obesity";
/* 1= Yes,  2= No */
```

FAD Availability by Year – YRBSS

Year	Data Not Available
2019	DE, IN, MN, OR, WA, WY, AS, FM, MH, PW, VI
2017	AL, GA, IN, MN, MS, NJ, OH, OR, SD, WA, WY, AS, FM, MH, PW, VI
2015	CO, GA, IA, KS, LA, MN, NJ, OH, OR, TX, UT, WA, WI, AS, FM, MH, VI
2013	CA, CO, IA, IN, MN, OR, PA, WA, FM, MH, PW, VI
2011	CA, DC, MN, MO, NV, OR, PA, WA, FM, MH, VI
2009	CA, DC, IA, MN, NE, OH, OR, VA, WA, AS, GU, FM, MH, MP, PR, VI
2007	AK, CA, CO, MN, NE, NJ, OR, PA, VA, WA, FM, PR, VI
2005	AK, CA, DC, IL, LA, MN, MS, NV, OR, PA, VA, WA, AS, FM, GU, MH, VI

Data Notes - YRBSS

YRBSS data are self-reported by students in grades 9 through 12. The estimates presented are weighted to account for the probability of selection and non-response, and are adjusted to reflect the total population of high school students by sex, grade, and race/ethnicity for the United States and for each state. Standard errors account for the complex survey design. National estimates are based on a national sample of all 50 states and DC. Sexual orientation is not available for all states. See "Methodology of the YRBSS" and "Software for Analyzing YRBS Data" on the YRBS web site at www.cdc.gov/yrbss for more information.

Available Stratifiers and Notes – YRBSS

Stratifier	Subcategory	Special Notes
Grade	9th grade 10th grade 11th grade 12th grade	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black	

Stratifier	Subcategory	Special Notes
	Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	
Sex	Female Male	
Sexual Orientation	Heterosexual Lesbian, Gay, Bisexual Not sure	Newly added in 2015; not available for all states

SAS Code – YRBSS

```
if QNOBESE=1 then NOM20=1;  *Overweight/Obese;
if QNOBESE=2 then NOM20=2; *Not overweight/obese;
```

NOM 21 - 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 and DATA ISSUES

American Community Survey (ACS) and/or National Survey of Children's Health (NSCH)

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]

(1) IOM (Institute of Medicine). America's Uninsured Crisis: Consequences for Health and Health Care. Washington, DC: National Academies Press. 2009. https://www.ncbi.nlm.nih.gov/pubmed/25009923

(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

FAD Availability by Year

Year	Data Not Available
2019	AS, FM, GU, MH, MP, PW, VI
2018	AS, FM, GU, MH, MP, PW, VI
2017	AS, FM, GU, MH, MP, PW, VI
2016	AS, FM, GU, MH, MP, PW, VI
2015	AS, FM, GU, MH, MP, PW, VI
2014	AS, FM, GU, MH, MP, PW, VI
2013	AS, FM, GU, MH, MP, PW, VI
2012	AS, FM, GU, MH, MP, PW, VI

Year	Data Not Available
2011	AS, FM, GU, MH, MP, PW, VI
2010	AS, FM, GU, MH, MP, PW, VI
2009	AS, FM, GU, MH, MP, PW, VI

Data Notes

Disruption of the 2020 ACS occurred due to the COVID-19 pandemic. The US Census Bureau did not release standard 1-year estimates, and therefore no data are provided for 2020. The numerators and denominators presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the population of U.S. children by state. Standard errors were estimated with the replicate weight method recommended by the US Census Bureau. For more information on the ACS Public Use Microdata Sample (PUMS) methodology, visit https://www.census.gov/programs-surveys/acs/technical-documentation/pums/documentation.html

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Child Age	0-5 Years 6-11 Years 12-17 Years	
Disability	Activity Limitations No Activity Limitations	Refers to having at least 1 of 6 types of difficulties: hearing, vision, cognitive, ambulatory, self-care, and independent living.
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household. Excludes children under the age of 18 who are also head of household or spouse of the head of household.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household.
Language	English Non-English	Refers to household language (English only versus other language spoken)
Marital Status	Married Unmarried	Refers to living in a two-parent married household versus unmarried, separated, cohabiting, other
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity among those living with child; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black	Refers to child race/ethnicity

Stratifier	Subcategory	Special Notes
	Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	
Sex	Female Male	

SAS Code

```
if 0 <=AGEP < 18 then do; * restrict to age 0-17;
if HICOV = 1 then INSURANCE = 0; * insured ;
if HICOV = 2 then INSURANCE = 1; * uninsured;
end;
```

Data Alert

Disruption of the 2020 ACS occurred due to the COVID-19 pandemic. The US Census Bureau did not release standard 1-year estimates, and therefore no data are provided for 2020.

NOM 22.1 - 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) by age 24 months

Denominator: Number of children born in a calendar year

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

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%)

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%)

DATA SOURCES and DATA ISSUES

National Immunization Survey (NIS)

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]

(1) Centers for Disease Control and Prevention. 1999. Ten great public health achievements— United States, 1900-1999. MMWR 48:241-48.
(2) Maciosek MV, Coffield AB, Edwards NM, FLottemesch TJ, Goodman MJ, Solberg LI. (2006) Priorities Among Effective Clinical Preventive Services: Results of a Systematic Review and Analysis. AM J Prev Med. 31(1): 52-61.
(3) Centers for Disease Control and Prevention. Immunization Schedules. 2020 February 3. https://www.cdc.gov/vaccines/schedules/

FAD Availability by Year

Year	Data Not Available
2017	AS, FM, MH, MP, PR, PW, VI

Year	Data Not Available
2016	AS, FM, MH, MP, PR, PW, VI
2015	AS, FM, MH, MP, PR, PW, VI
2014	AS, FM, MH, MP, PW
2013	AS, FM, GU, MH, MP, PW, VI
2012	AS, FM, GU, MH, MP, PW, PR, VI
2011	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

Vaccination coverage estimates are presented by birth year (birth cohort) rather than survey year. Because of the survey age eligibility range of 19 to 35 months, children born in three different calendar years appear in the data for each year of the survey. To estimate vaccination coverage among children born in a particular year, three years of survey data are combined and then stratified by birth year. In 2018, the NIS shifted from a dual-frame landline and cell-phone survey to a single frame cell-phone only survey. As a result, estimates that include the data year 2018 and beyond may not be directly comparable to those published with prior data years. The estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the non-institutionalized population of U.S. children. Standard errors account for the complex survey design. Estimates by demographic stratifiers rely on three years of data to improve precision and reportability. See NIS Public Use File Data Users Guide for more details at: https://www.cdc.gov/vaccines/imz-managers/nis/datasets.html

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Other Public includes Indian Health Service and Military insurance (except in territories); missing data were imputed.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household; missing data were imputed.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Missing data were imputed
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; missing data were imputed.
WIC Participation	Yes No	Current WIC participation

SAS Code

Variable name for the complete infant series is P_UTD431H314_ROUT_S

See Data User's Guide for more SAS, SUDAAN, and R code examples
http://www.cdc.gov/nchs/nis/data_files.htm

NOM 22.2 - 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 and DATA ISSUES

National Immunization Survey - Flu (NIS-Flu)

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 vaccinaion helps prevent flu infection and risk of flu-associated hospitalization.[1]

(1) Centers for Disease Control and Prevention. Influenza (Flu). 2019 July 10. https://www.cdc.gov/flu/index.htm
(2) Centers for Disease Control and Prevention. Children and Influenza (Flu). 2019 October 23. https://www.cdc.gov/flu/highrisk/children.htm

FAD Availability by Year

Year	Data Not Available
2020_2021	AS, FM, MH, MP, PW, PR, VI
2019_2020	AS, FM, MH, MP, PW, PR, VI
2018_2019	AS, FM, MH, MP, PW, PR, VI
2017_2018	AS, FM, MH, MP, PW, PR, VI
2016_2017	AS, FM, MH, MP, PW
2015_2016	AS, FM, MH, MP, PW
2014_2015	AS, FM, MH, MP, PW
2013_2014	AS, FM, GU, MH, MP, PW, PR, VI
2012_2013	AS, FM, GU, MH, MP, PW, PR, VI
2011_2012	AS, FM, GU, MH, MP, PW, PR, VI
2010_2011	AS, FM, GU, MH, MP, PW, PR, VI

Year	Data Not Available
2009_2010	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

Coverage estimates are for persons interviewed September through June for 2010-11 and 2011-12, and October through June for 2009-10, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2018-2019, 2019_2020, 2020_2021; and who reported being vaccinated August through May for 2009-10, 2010-11 and 2011-12, and July through May for 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2018-2019, 2019_2020, 2020_2021. Kaplan-Meier survival analysis was used to determine the cumulative influenza vaccination coverage (≥1 dose). Proxy numerators were derived by multiplying the survival estimate by the denominator. Month of vaccination was imputed for respondents with missing month of vaccination data. The estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the non-institutionalized population of U.S. children. Standard errors account for the complex survey design. Household income, race/ethnicity, and urban-rural residence were not available for territories. See the corresponding final online reports for further data analysis description: http://www.cdc.gov/flu/fluvaxview/index.htm See NIS Public Use File Data Users Guide for more details at: http://www.cdc.gov/nchs/nis/data_files.htm

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Child Age	6-23 Months 2-4 Years 5-12 Years 13-17 Years	
Household Income/Poverty	Below Poverty <75K, Above Poverty >75K	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household; not available for territories
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Includes imputed race/ethnicity; not available for territories
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; not available for territories

SAS Code

Not Available – data files are not publicly available

NOM 22.3 - 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 and DATA ISSUES

National Immunization Survey - Teen (NIS-Teen)

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 vuvlvar 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). 2019 October 29. https://www.cdc.gov/vaccines/hcp/vis/vis-statements/hpv.html

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, MP, PW, PR, VI
2019	AS, FM, MH, MP, PW
2018	AS, FM, MH, MP, PW, PR, VI
2017	AS, FM, MH, MP, PW, PR, VI
2016	AS, FM, MH, MP, PW
2015	AS, FM, MH, MP, PW
2014	AS, FM, GU, MH, MP, PW, VI
2013	AS, FM, MH, MP, PW, PR
2012	AS, FM, GU, MH, MP, PW, PR
2011	AS, FM, GU, MH, MP, PW, PR
2010	AS, FM, GU, MH, MP, PW, PR
2009	AS, FM, GU, MH, MP, PW, PR

Data Notes

In 2018, the NIS-Teen shifted from a dual-frame landline and cell-phone survey to a single frame cell-phone only survey. As a result, NIS-Teen estimates for 2018 and beyond may not be directly comparable to those published for prior survey years. Estimates by demographic stratifiers rely on three years of data to improve precision and reportability. All estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the non-institutionalized population of U.S. children. Standard errors account for the complex survey design. See NIS-Teen Public Use File Data Users Guide for more details at: https://www.cdc.gov/vaccines/imz-managers/nis/datasets.html

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Other Public includes Indian Health Service and Military insurance (except in territories); missing data were imputed.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household; missing data were imputed.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Missing data were imputed
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; missing data were imputed.

SAS Code

Variable name for ≥1 dose of HPV vaccine is P_UTDHPV

See Data User's Guide for more SAS, SUDAAN, and R code examples
http://www.cdc.gov/nchs/nis/data_files_teen.htm

NOM 22.4 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the Tdap 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 Tdap vaccine

Denominator: Number of adolescents, ages 13 through 17 years

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

National Immunization Survey - Teen (NIS-Teen)

SIGNIFICANCE

Tdap vaccine protects against tetanus, diphtheria, and pertussis.[1] Vaccination has helped keep the incidence of these diseases low in the United States. Infants and young children are recommended to receive a 5-dose series of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccines, with one adolescent booster dose of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine.[2]

(1) Centers for Disease Control and Prevention. Vaccine Information Statements: Tdap (Tetanus, Diphtheria, Pertussis). 2019 April 5. https://www.cdc.gov/vaccines/hcp/vis/vis-statements/tdap.html

(2) Liang JL, Tiwari T, Moro P, Messonnier NE, Reingold A, Sawyer M, Clark TA. Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACHIP). MMWR Reports. 2018 April 27, 67 (2); 1-44. https://www.cdc.gov/mmwr/volumes/67/rr/rr6702a1.htm

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, MP, PW, PR, VI
2019	AS, FM, MH, MP, PW
2018	AS, FM, MH, MP, PW, PR, VI
2017	AS, FM, MH, MP, PW, PR, VI
2016	AS, FM, MH, MP, PW
2015	AS, FM, MH, MP, PW
2014	AS, FM, GU, MH, MP, PW, VI
2013	AS, FM, MH, MP, PW, PR
2012	AS, FM, GU, MH, MP, PW, PR
2011	AS, FM, GU, MH, MP, PW, PR
2010	AS, FM, GU, MH, MP, PW, PR
2009	AS, FM, GU, MH, MP, PW, PR

Data Notes

Measure reflects adolescents ages 13 through 17 years who received at least one dose of Tdap vaccine on or after their 10th birthday. NIS-Teen vaccination coverage estimates are based on a sample of teens with adequate provider-reported vaccination histories (also known as "adequate provider data" or APD). In 2018, the NIS-Teen shifted from a dual-frame landline and cell-phone survey to a single frame cell-phone only survey. As a result, NIS-Teen estimates for 2018 and beyond may not be directly comparable to those published for prior survey years. In 2014, the NIS-Teen implemented a revised definition of adequate provider data. As a result, NIS-Teen estimates for 2014 and beyond are not directly comparable to those published for prior survey years. In order to compare current with prior NIS-Teen estimates, revised 2013 data are available at: http://www.cdc.gov/vaccines/imz-managers/coverage/nis/teen/apd-report.html Revised 2013 vaccination estimates are generally lower than original 2013 estimates using the prior APD definition. Estimates by demographic stratifiers rely on three years of data to improve precision and reportability. All estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the non-institutionalized population of U.S. children. Standard errors account for the complex survey design. See NIS-Teen Public Use File Data Users Guide for more details at: https://www.cdc.gov/vaccines/imz-managers/nis/datasets.html

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Other Public includes Indian Health Service and Military insurance (except in territories); missing data were imputed.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household; missing data were imputed.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Missing data were imputed.
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; missing data were imputed.

SAS Code

Variable name for ≥1 dose of Tdap vaccine is P_UTDTDAP

See Data User's Guide for more SAS, SUDAAN, and R code examples
http://www.cdc.gov/nchs/nis/data_files_teen.htm

NOM 22.5 - Percent of adolescents, ages 13 through 17, who have received at least one dose of the meningococcal conjugate 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 meningococcal conjugate vaccine

Denominator: Number of adolescents, ages 13 through 17 years

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

National Immunization Survey - Teen (NIS-Teen)

SIGNIFICANCE

Meningococcal disease can cause meningitis (infection of the lining of the brain and spinal cord) and infections of the blood.[1,2] Even when it is treated, meningococcal disease kills 10 to 15 infected people out of 100.[1,2] And of those who survive, about 10 to 20 out of every 100 will suffer disabilities such as hearing loss, brain damage, kidney damage, loss of limbs, nervous system problems, or severe scars from skin grafts.[1,2]

(1) Centers for Disease Control and Prevention. Vaccine Information Statements: Meningococcal B. 2019 August 15. https://www.cdc.gov/vaccines/hcp/vis/vis-statements/mening-serogroup.html

(2) Centers for Disease Control and Prevention. Meningococcal ACWY. 2019 August 15. https://www.cdc.gov/vaccines/hcp/vis/vis-statements/mening.html

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, MP, PW, PR, VI
2019	AS, FM, MH, MP, PW
2018	AS, FM, MH, MP, PW, PR, VI
2017	AS, FM, MH, MP, PW, PR, VI
2016	AS, FM, MH, MP, PW
2015	AS, FM, MH, MP, PW
2014	AS, FM, GU, MH, MP, PW, VI
2013	AS, FM, MH, MP, PW, PR
2012	AS, FM, GU, MH, MP, PW, PR
2011	AS, FM, GU, MH, MP, PW, PR
2010	AS, FM, GU, MH, MP, PW, PR
2009	AS, FM, GU, MH, MP, PW, PR

Data Notes

In 2018, the NIS-Teen shifted from a dual-frame landline and cell-phone survey to a single frame cell-phone only survey. As a result, NIS-Teen estimates for 2018 and beyond may not be directly comparable to those published for prior survey years. NIS-Teen vaccination coverage estimates are based on a sample of teens with adequate provider-reported vaccination histories (also known as "adequate provider data" or APD). In 2014, the NIS-Teen implemented a revised definition of adequate provider data. As a result, NIS-Teen estimates for 2014 and beyond are not directly comparable to those published for prior survey years. In order to compare current with prior NIS-Teen estimates, revised 2013 data are available at: http://www.cdc.gov/vaccines/imz-managers/coverage/nis/teen/apd-report.html Revised 2013 vaccination estimates are generally lower than original 2013 estimates using the prior APD definition. Estimates by demographic stratifiers rely on three years of data to improve precision and reportability. All estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the non-institutionalized population of U.S. children. Standard errors account for the complex survey design. See NIS-Teen Public Use File Data Users Guide for more details at: https://www.cdc.gov/vaccines/imz-managers/nis/datasets.html

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Other Public includes Indian Health Service and Military insurance (except in territories); missing data were imputed.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household; missing data were imputed.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Missing data were imputed.
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; missing data were imputed.

SAS Code

Variable name for ≥1 dose of meningococcal conjugate vaccine is P_UTDMENACWY

See Data User's Guide for more SAS, SUDAAN, and R code examples
http://www.cdc.gov/nchs/nis/data_files_teen.htm

NOM 23 - 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 and DATA ISSUES

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

FAD Availability by Year

Year	Data Not Available
2020	AS, MH, PW
2019	AS, MH, PW, VI
2018	AS, MH, PW, VI
2017	MH, PW, VI
2016	MH, PW
2015	MH, PW
2014	MH, PW
2013	MH, PW
2012	MH, PW
2011	MH, PW
2010	MH, PW
2009	MH, PW

Data Notes

Population denominators for 2009 are from revised intercensal July 1 estimates. Population denominators for 2010 are from Census April 1 estimates. Population denominators for 2011 through 2020 are from postcensal July 1 estimates for each vintage year. Population denominators for territories are from the Census International Data Base. Unstated Hispanic ethnicity is included in non-Hispanic categories for birth rates; denominators by race/ethnicity are not available for territories. Urban/rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm

Data for FM comes from the United Nations Population Division's World Population Prospects accessed from the World Bank http://databank.worldbank.org/data/reports.aspx?source=health-nutrition-and-population-statistics

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	15-17 Years 18-19 Years	Includes imputed age
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race. Not available for territories.
Urban/Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.

SAS Code

```
IF restatus NE 4; * restrict to resident births;
if 15<=mager<=19 then teen=1;
```

NOM 24 - Percent of women who experience postpartum depressive symptoms following a recent live birth

GOAL

To reduce the prevalence of postpartum depression

DEFINITION

Numerator: Number of women who report postpartum depressive symptoms following a recent live birth (defined as reporting always/often feeling down, depressed, hopeless or always/often having little interest or little pleasure in doing things)

Denominator: Number of women with a recent live birth

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

DATA SOURCES and DATA ISSUES

Pregnancy Risk Assessment Monitoring System (PRAMS)

SIGNIFICANCE

Postpartum depression (PPD) is common, affecting as many as 1 in 7 mothers.1 PPD generally occurs within 4 to 6 weeks after childbirth with symptoms that may include depressed mood, loss of interest or pleasure in activities, sleep disturbance, appetite disturbance, loss of energy, feelings of worthlessness or guilt, diminished concentration, irritability, anxiety, and thoughts of suicide.[1] PPD is associated with negative maternal physical and psychological health, relationship problems, and risky behaviors.[2] PPD is associated with poor maternal and infant bonding and may negatively influence child development.[2] Infant consequences of PPD include less infant weight gain and stunting, problems with sleep, poor social, emotional, behavioral, cognitive, and language development.[2] Universal screening and treatment for pregnant and postpartum women is recommended by the American College of Obstetricians and Gynecologists (ACOG), the American Academy of Pediatrics (AAP), and the U.S. Preventive Services Task Force.[1]

(1) American College of Obstetricians and Gynecologists. Committee Opinion No. 757. Screening for perinatal depression. Obstet Gynecol 2018; 132 (5): e208-e212. www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/11/screening-for-perinatal-depression

(2) Slomian J, Honvo G, Emonts P, Reginster JY, Bruyere O. Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. Women's Health. 2019; 15:1-55. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6492376/pdf/10.1177_1745506519844044.pdf

FAD Availability by Year

Year	Data Not Available
2020	CA, ID, IN*, NV*, NC*, OH, OK*, RI*, SC*, TX*, AS, FM, GU, MH, MP, PW, VI
2019	AZ*, CA, ID, IN*, NV*, OH, OK*, SC*, TX*, WV*, AS, FM, GU, MH, MP, PW, VI
2018	AZ*, CA, FL*, HI*, ID, NV*, OH, SC*, TN*, TX*, AS, FM, GU, MH, MP, PW, VI
2017	AZ*, AR*, CA, DC*, FL*, HI*, ID, IN*, MN*, MS*, NE*, NV*, OH, OR*, SC*, TN*, TX*, AS, FM, GU, MH, MP, PW, VI

Year	Data Not Available
2016	AL*, AZ, CA, DC, FL*, GA*, HI*, ID, IN, KS, KY, MN*, MS*, MT, NV, NC*, ND, OH, OR*, SC*, SD, TN*, AS, FM, GU, MH, MP, PW, PR, VI
2015	AZ, CA, DC, FL*, GA*, IN, ID, KS, KY, MN*, MS*, MT, NC*, ND, NV, RI*, SC*, SD, AS, FM, GU, MH, MP, PW, PR, VI
2014	AZ, AR*, CA, CO*, DC, FL*, GA*, IN, ID, KS, KY, LA*, MI*, MN*, MS*, MT, NC*, ND, NV, OR*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2013	AL*, AZ, CA, CT*, DC, FL*, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NV, OH*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI, NYC*
2012	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NV, NY*, SC*, SD, TX*, VA*, WV^, AS, FM, GU, MH, MP, PW, PR, VI

*PRAMS data are available to be reported by the state/jurisdiction; did not meet response rate threshold required for reporting by CDC PRAMS but MCHB does not use a response rate criteria for TVIS as long as data are appropriately weighted to account for non-response bias.

Data Notes

Per CDC PRAMS policy, only states/jurisdictions that met the response rate threshold are included (≥50% in 2018 to 2020, ≥55% from 2015 to 2017, ≥60% from 2012 to 2014, ≥65% response from 2007 to 2011). The 2018 response rate threshold was retroactively increased from 55% to 50%, and 11 additional states data are now included along with the updated U.S. estimate for 2018. Data presentation begins in 2012 as prior survey items on postpartum depression were not comparable before 2012. Overall U.S. estimates by year may not be comparable due to the different states/jurisdictions included in any given year. Consistent with vital statistics, overall U.S. estimates do not include territories. For NY, 2013 estimates do not include NYC, while 2012 and 2020 estimates only include NYC. The estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-response, and non-coverage. Standard errors account for the complex survey design. For more information on the PRAMS methodology, visit http://www.cdc.gov/prams/

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	From the birth certificate
Educational Attainment	Less than high school High school graduate Some college College graduate	From the birth certificate.
Health Insurance	Private Medicaid Other Public Uninsured	From the birth certificate. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	From the birth certificate
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian	From the birth certificate.

Stratifier	Subcategory	Special Notes
	Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	
WIC Participation	Yes No	From the birth certificate. Refers to prenatal WIC participation.

SAS Code

```
label pp_depress = 'Postpartum Depressive Symptoms';
```

NOM 25 - 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 and DATA ISSUES

National Survey of Children's Health (NSCH)

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 Apr;127(4):604-11.
(2) Lichstein JC, Ghandour RM, Mann MY. Access to the Medical Home Among Children With and Without Special Health Care Needs. Pediatrics. 2018 Dec; 142(6): e20181795
(3) Wisk LE, Witt WP. Predictors of Delayed or Forgone Needed Health Care for Families with Children. Pediatrics. 2012 Dec; 130(6): 127-1037.

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI

Year	Data Not Available
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language

Stratifier	Subcategory	Special Notes
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NOM 25: Forgone Health Care***/
NOM25 = K4Q27;
label NOM25 = "NOM-25: Forgone Health Care";

/* 1= Yes,  2= No */
```

Figure 3: National Performance Measures (NPMs)

No.	National Performance Measure
1	Percent of women, ages 18 through 44, with a preventive medical visit in the past year
2	Percent of cesarean deliveries among low-risk first births
3	Percent of very low birth weight (VLBW) infants born in a hospital with a Level III+ Neonatal Intensive Care Unit (NICU)
4	A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months
5	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
6	Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year
7	7.1 Rate of hospitalization for non-fatal injury per 100,000 children, ages 0 through 9; and 7.2 Rate of hospitalization for non-fatal injury per 100,000 adolescents, ages 10 through 19
8	8.1 Percent of children, ages 6 through 11, who are physically active at least 60 minutes per day; and 8.2 Percent of adolescents, ages 12 through 17, who are physically active at least 60 minutes per day
9	Percent of adolescents, ages 12 through 17, who are bullied or who bully others
10	Percent of adolescents, ages 12 through 17, with a preventive medical visit in the past year
11	Percent of children with and without special health care needs, ages 0 through 17, who have a medical home
12	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
13	13.1 Percent of women who had a dental visit during pregnancy; and 13.2 Percent of children, ages 1 through 17, who had a preventive dental visit in the past year
14	14.1 Percent of women who smoke during pregnancy; and 14.2 Percent of children, ages 0 through 17, who live in households where someone smokes
15	Percent of children, ages 0 through 17, who are continuously and adequately insured

NPM 1 - 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 receive appropriate evidence-based clinical preventive services. (Baseline: 8.0% in 2015, Target: 10.9%)

DATA SOURCES and DATA ISSUES

Behavioral Risk Factor Surveillance System (BRFSS)

MCH POPULATION DOMAIN

Women/Maternal Health

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 an annual well-woman visit beginning in adolescence and continuing across the lifespan with any health care provider offering preventive well-woman care.[2]

(1) Committee on Gynecologic Practice. ACOG Committee Opinion Number 755: Well-woman Visit. Obstet Gynecol. 2018 Oct 132(4):e181-e186. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/10/well-woman-visit

(2) Women's Health Preventive Initiative. https://www.womenspreventivehealth.org/

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, MP, PW, VI

Year	Data Not Available
2019	NJ, AS, FM, MH, MP, PW, VI
2018	AS, FM, MH, MP, PW, VI
2017	AS, FM, MH, MP, PW, VI
2016	AS, FM, MH, MP, PW
2015	AS, FM, MH, MP, PW, VI
2014	AS, FM, MH, MP, PW, VI
2013	AS, FM, MH, MP, PW, VI
2012	AS, FM, MH, MP, PW, VI
2011	AS, FM, MH, MP, PW, VI
2010	AS, FM, MH, MP, PW, VI
2009	AS, FM, MH, MP, PW, VI

Data Notes

The routine checkup item changed in 2018 and is not comparable to previous survey years; thus, only data since 2018 are provided. The definition of a routine checkup as a general physical exam, not an exam for a specific injury, illness, or condition is no longer part of the standard question and only provided if a respondent asks for clarification: "About how long has it been since you last visited a doctor for a routine checkup?" The estimates, numerators, and denominators presented are weighted to account for non-response and to reflect state population totals by various demographic characteristics. Standard errors account for the complex survey design. Urban/rural residence is not available for territories. For more information on the BRFSS methodology, visit http://www.cdc.gov/brfss/.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Age	18-24 Years 25-34 Years 35-44 Years	Includes imputed age. This is labeled as “Maternal Age” in TVIS but more accurately reflects a woman’s age regardless of childbearing status.
Educational Attainment	Less than high school High school graduate Some college College graduate	
Health Insurance	Insured Uninsured	Refers to current health insurance status
Household Income/Poverty	<$25,000 $25,000-$49,999 $50,000-$74,999 ≥$75,000	Missing data exceeded 10%; interpret with caution.
Language	English Non-English	Refers to language of survey administration
Marital Status	Married Unmarried	
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	

Stratifier	Subcategory	Special Notes
Urban/Rural Residence	Metro Non-Metro	Refers to county metropolitan status. Not available for territories.

SAS Code

```
/* NPM-1: Well-Woman Visit */


NPM1 = .;
if CHECKUP1 in (1,2,3,4,8) and (1<=_AGE_G <=3) and SEXVAR = 2 then do;
if CHECKUP1 = 1 then NPM1 = 1;
if CHECKUP1 in (2,3,4,8) then NPM1 = 2;
end;

/* 1= Yes,  2= No */
```

NPM 2 - 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 and DATA ISSUES

National Vital Statistics System (NVSS) – Birth File

MCH POPULATION DOMAIN

Women/Maternal Health

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 (ACOG) and Society for Maternal-Fetal Medicine (SMFM). Obstetric Care Consensus: Safe Prevention of the Primary Cesarean Delivery. Number 1 March 2014 (Reaffirmed 2016). https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2014/03/safe-prevention-of-the-primary-cesarean-delivery

(2) Council on Patient Safety in Women's Health Care. Safe Reduction of Primary Cesarean Birth (+AIM). https://safehealthcareforeverywoman.org/patient-safety-bundles/safe-reduction-of-primary-cesarean-birth/

FAD Availability by Year

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	AS, FM, MH, PW, VI

Year	Data Not Available
2016	AS, FM, MH, PW
2015	AS, FM, MH, PW
2014	AS, FM, MH, PW, VI
2013	AS, FM, MH, PW, VI
2012	AS, FM, MH, MP, PW
2011	AS, FM, MH, MP, PW
2010	AS, FM, MH, MP, PW
2009	AS, FM, MH, PW

Data Notes

Marital status is not available for California. Urban-rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	Refers to prenatal WIC participation.

SAS Code

```
IF RESTATUS NE 4; * restrict to resident births;
if lbo_rec=1 and 37<=estgest<=47 and dplural=1 and me_pres=1 then do;
* nulliparous (first births), term, singleton, vertex/cephalic;
if dmeth_rec=1 then ntsv_cesarean=0;  *vaginal;
if dmeth_rec=2 then ntsv_cesarean=1;  *cesarean;
end;
```

NPM 3 - 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 and DATA ISSUES

Linked birth certificate and hospital data on NICU levels from American Academy of Pediatrics (AAP), CDC Levels of Care Assessment Tool (LOCATe), or state certifications/designations

MCH POPULATION DOMAIN

Perinatal/Infant Health

SIGNIFICANCE

Very low birth weight infants (<1,500 grams or 3.25 pounds) are the most fragile newborns with a risk of death over 100 times higher than that of normal birth weight infants (≥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, 2017: Data from the Period Linked Birth/Infant Death File. National Vital Statistics Reports. 2019 August 1. 68 (10). 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 Sep;130(3):587-97. Reaffirmed Sept 2015. http://pediatrics.aappublications.org/content/130/3/587

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

GOAL

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

DEFINITION

Numerator:

A) Number of infants who are reported by a parent to have ever been breastfed
B) Number of infants who are reported by a parent to have been breastfed exclusively through 6 months

Denominator:

A) Number of infants born in a calendar year
B) Number of infants born in a calendar year

Units: 100

Text: Percent

HEALTHY PEOPLE 2030 OBJECTIVE

Identical 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 and DATA ISSUES

A) National Immunization Survey (NIS)
B) National Immunization Survey (NIS)

MCH POPULATION DOMAIN

Perinatal/Infant Health

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 1 year or longer. Exclusive breastfeeding for six months supports optimal growth and development by providing all required nutrients during that time. Breastfeeding 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) American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. Pediatrics. 2012 Mar;129(3):e827-41. http://pediatrics.aappublications.org/content/early/2012/02/22/peds.2011-3552

FAD Availability by Year

Year	Data Not Available
2018	AS, FM, MH, MP, PW, VI
2017	AS, FM, MH, MP, PW, PR, VI
2016	AS, FM, MH, MP, PW, PR, VI

Year	Data Not Available
2015	AS, FM, MH, MP, PW
2014	AS, FM, MH, MP, PW
2013	AS, FM, GU, MH, MP, PW, VI
2012	AS, FM, GU, MH, MP, PR, PW, VI
2011	AS, FM, GU, MH, MP, PR, PW, VI
2010	AS, FM, GU, MH, MP, PR, PW, VI
2009	AS, FM, GU, MH, MP, PR, PW, VI
2008	AS, FM, GU, MH, MP, PR, PW, VI
2007	AS, FM, GU, MH, MP, PR, PW, VI

Data Notes

Starting with 2009 births, the survey switched from a landline-only sample to a dual-frame sample including landlines and cell phones. Therefore, estimates from 2007 and 2008 may not be comparable to subsequent estimates. Starting with 2016 births, the survey switched from landline and cell phone sampling to cell phone sampling only. Therefore, previous estimates may not be comparable to subsequent estimates. The estimates presented are weighted to account for the probability of selection, non-coverage, non-response, and adjusted to reflect the non-institutionalized population of U.S. children. Standard errors account for the complex survey design. Weighted numerators and denominators were only provided for 2012 onward. To maximize the sample size for state-level estimates by stratifiers, 3 birth years are combined. State-level stratified data are only available for 2009-2011. National stratified data are not provided but can be obtained for single years at https://www.cdc.gov/nccdphp/dnpao/data-trends-maps/index.html. For more information on NIS breastfeeding data, visit http://www.cdc.gov/breastfeeding/data/nis_data/.

More current state-level stratified data for breastfeeding initiation are available from the birth certificate at https://wonder.cdc.gov/natality.html.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-29 Years ≥30 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% 400%-599% ≥600%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household.
Marital Status	Married Unmarried	Unmarried includes never married, widowed, separated, divorced
Birth Order	First born Not first born	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Includes imputed race/ethnicity
Sex	Female Male	

Stratifier	Subcategory	Special Notes
Urban-Rural Residence	MSA Non-MSA	Metropolitan Statistical Area is defined by U.S. Census Bureau
WIC Participation	Yes No, but eligible No	Current WIC Participation

SAS Code

Breastfeeding rates by birth year cohort cannot be calculated from the public use files. Year of birth is only available on the restricted use files. This code is provided for informational purposes only.

```
birthcohort=year(dob);
mob=month(dob);
breastfed=1*cbf_01;
howlongnum=1*cbf_02la;
if cbf_02la in (777, 999) then howlongnum=.;else if cbf_02la=888 then breastday=ageinday;
howlongunit=1*cbf_02ua;

if howlongunit=1 then breastday=howlongnum;
else if howlongunit=2 then breastday=howlongnum*7;
else if howlongunit=3 then breastday=howlongnum*30.4375;
else if howlongunit=4 then breastday=howlongnum*365.25;

if formday=. or compday=. then exclday=.;
else exclday=min(formday, compday,breastday);

if (howlongunit=1 and breastday > ageinday+1) then bf_flag=1;
else if (howlongunit=2 and breastday > ageinday+3) then bf_flag=1;
else if (howlongunit=3 and breastday > ageinday+15) then bf_flag=1;
else if (howlongunit=4 and breastday > ageinday+182) then bf_flag=1;
else if breastday > 36*30.4375 then bf_flag=1;

if bf_flag ~=1;

if breastfed=1 then everbreast=1;else if breastfed=2 then everbreast=2;

if exclday>=6*30.4375  and breastday>=6*30.4375 then excl6mon=1;else excl6mon=2;
```

NPM 5 - 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

GOAL

To increase the percent of infants placed to sleep on their backs, on a separate approved sleep surface, without soft objects or loose bedding

DEFINITION

Numerator:

A) Number of mothers who report that they most often place their baby to sleep on their back only
B) Number of mothers who report that their baby always/often slept alone, usually in a crib, bassinet, or pack and play, and not usually in a standard bed, couch, sofa, armchair, car seat, or swing in the past two weeks
C) Number of mothers who report that their baby did not usually sleep with blankets, toys, cushions, pillows, or crib bumper pads in the past two weeks

Denominator:

A) Number of women with a recent live birth
B) Number of women with a recent live birth
C) Number of women with a recent live birth

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 and DATA ISSUES

Pregnancy Risk Assessment Monitoring System (PRAMS)

MCH POPULATION DOMAIN

Perinatal/Infant Health

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 expanded recommendations for a safe sleep environment to include, among other practices, using a separate firm sleep surface (eg, crib or bassinet) without soft objects or loose bedding.[2]

(1) Moon RY and AAP TASK FORCE ON SUDDEN INFANT DEATH SYNDROME. SIDS and Other Sleep-Related Infant Deaths: Evidence Base for 2016 Updated Recommendations for a Safe Infant Sleeping Environment. Pediatrics. 2016;138(5):e20162940.
(2) American Academy of Pediatrics (AAP). Task Force on Sudden Infant Death Syndrome. SIDS and other sleep-related infant deaths: Updated 2016 recommendations for a safe infant sleeping environment. Pediatrics 2016. 138 (5):e20162938.

FAD Availability by Year

Year	Data Not Available
2020	CA, ID, IN*, NC*, NV*, OH, OK*, RI*, SC*, TX*, AS, FM, GU, MH, MP, PW, VI
2019	AZ*, CA, ID, IN*, NV*, OH, OK*, SC*, TX*, WV*, AS, FM, GU, MH, MP, PW, VI
2018	AZ*, CA, FL*, HI*, ID, NV*, OH, SC*, TN*, TX*, AS, FM, GU, MH, MP, PW, VI
2017	AZ*, AR*, CA, DC*, FL*, HI*, ID, IN*, MN*, MS*, NE*, NV*, OH, OR*, SC*, TN*, TX*, AS, FM, GU, MH, MP, PW, VI
2016	AL*, AZ, CA, DC, FL*, GA*, HI*, ID, IN, KS, KY, MN*, MS*, MT, NV, NC*, ND, OH, OR*, SC*, SD, TN*, AS, FM, GU, MH, MP, PW, PR, VI
2015	AZ, CA, DC, FL*, GA*, IN, ID, KS, KY, MN*, MS*, MT, NC*, ND, NV, RI*, SC*, SD, AS, FM, GU, MH, MP, PW, PR, VI
2014	AZ, AR*, CA, CO*, DC, FL*, GA*, IN, ID, KS, KY, LA*, MI*, MN*, MS*, MT, NC*, ND, NV, OR*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2013	AL*, AZ, CA, CT*, DC, FL*, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NV, OH*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI, NYC*
2012	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NV, NY*, SC*, SD, TX*, VA*, WV^, AS, FM, GU, MH, MP, PW, PR, VI
2011	AL*, AK*, AZ, CA, CT, DC, FL*, IA, IL*, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NV, OH*, SC*, SD, TN*, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2010	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NM*, NV, SC*, SD, TN*, VA*, WI*, AS, FM, GU, MH, MP, PW, PR, VI
2009	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MT, NC*, ND, NH, NM*, NV, NY*, NYC*, SC*, SD, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2008	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MO*, MT, ND, NH, NM*, NV, NYC*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI, NYC*
2007	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, ND, NH, NM*, NV, SD, TN*, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI

*PRAMS data are available to be reported by the state/jurisdiction; did not meet response rate threshold required for reporting by CDC PRAMS but MCHB does not use a response rate criteria for TVIS as long as data are appropriately weighted to account for non-response bias.

Data Notes

Per CDC PRAMS policy, only states/jurisdictions that met the response rate threshold are included (≥50% from 2018 to 2020, ≥55% from 2015 to 2017, ≥60% from 2012 to 2014, ≥65% response from 2007 to 2011). The 2018 response rate threshold was retroactively increased from 55% to 50%, and 11 additional states data are now included along with the updated U.S. estimate for 2018. Overall U.S. estimates by year may not be comparable due to the different states/jurisdictions included in any given year. Consistent with vital statistics, overall U.S. estimates do not include territories. Only back sleep position is available prior to 2016 (Phase 8). For NY, 2008 and 2013 estimates do not include NYC while 2012 and 2020 estimates only include NYC. The estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-response, and non-coverage. Standard errors account for the complex survey design. For more information on the PRAMS methodology, visit http://www.cdc.gov/prams/.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years	From the birth certificate.

Stratifier	Subcategory	Special Notes
	20-24 Years 25-29 Years 30-34 Years ≥35 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	From the birth certificate.
Health Insurance	Private Medicaid Other Public Uninsured	From the birth certificate. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	From the birth certificate
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	From the birth certificate.
WIC Participation	Yes No	From the birth certificate. Refers to prenatal WIC participation.

SAS Code

```
if (sleeppos=2) then infant_sleeping_position=2; *back only;
else if (1 le sleeppos le 7) then infant_sleeping_position=1; *other or
combination;

if (sleepown in (1,2)) and (slp_crb8=2) and (slp_mat8=1 and slp_chr=1 and
slp_swg=1) then approved_surface=2; *yes;
else if (sleepown in (3,4,5)) or (slp_crb8=1) or (slp_mat8=2 or slp_chr=2 or
slp_swg=2) then approved_surface=1; *no ;
if (sleepown <= 0) or  (slp_crb8<=0) or  (slp_mat8<=0 or  slp_chr<=0 or
slp_swg<=0) then approved_surface=.; *missing;


if (slp_nblk=1 and slp_toypil=1 and slp_npad=1) then no_softbed=2; *no soft
bedding;
else if (slp_nblk=2 or  slp_toypil=2 or  slp_npad=2) then no_softbed=1; *soft
bedding;
if (slp_nblk<=0 or  slp_toypil<=0 or  slp_npad<=0) then no_softbed=.; *missing;
```

NPM 6 - Percent of children, ages 9 through 35 months, who received a developmental screening using a parent-completed screening tool in the past year

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 and DATA ISSUES

The National Survey of Children's Health (NSCH).

MCH POPULATION DOMAIN

Child Health

SIGNIFICANCE

Early identification of developmental delays and disabilites is critical to provide referrals to services that can promote health and educational success. 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. Developmental screening is part of the Core Set of Children's Health Care Quality Measures for Medicaid and CHIP.

(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. Pediatrics. 2006 Jul;118(1):405-20. Reaffirmed November 2014. http://pediatrics.aappublications.org/content/118/1/405

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 21 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY21-POP001-0067). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent	

Stratifier	Subcategory	Special Notes
	Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NPM 6: Developmental screening***/

both_9to23= .;
if K6Q12 = 2 and SC_AGE_YEARS < 2 then both_9to23 = 2;
if K6Q13A = 2 or K6Q13B = 2 then both_9to23= 2;/*No - screening*/
if K6Q13A in (1,.M) and K6Q13B in (1,.M) then both_9to23 = 1;/*Yes - screening*/
if K6Q13A = .M and K6Q13B = .M then both_9to23= .M;/*Missing*/
if SC_AGE_YEARS = 2 then both_9to23= .L;/*2 years*/
if SC_AGE_YEARS >= 3 then both_9to23= .N;/*3-17 years*/
if SC_AGE_LT9 = 1 then both_9to23= .L;/*less than 9 months*/
label both_9to23 = "Yes/screening occurred group - age 9-23 months";

both_24to35= .;
if K6Q12 = 2 and SC_AGE_YEARS = 2 then both_24to35 = 2;
if K6Q14A = 2 or K6Q14B = 2 then both_24to35= 2;/*No - screening*/
if K6Q14A in (1,.M) and K6Q14B in (1,.M) then both_24to35= 1;/*Yes - screening*/
if K6Q14A =.M and K6Q14B = .M then both_24to35= .M;/*Missing*/
if SC_AGE_YEARS >= 3 then  both_24to35= .N;/*3-17 years*/
if SC_AGE_YEARS < 2 then  both_24to35= .L;/*less than 2 years*/
label both_24to35 = " Yes/screening occurred group - age 24-35 months";

NPM6 = .;
if both_9to23 = 1 or both_24to35 = 1 then NPM6 = 1; /*Yes - screening*/
if both_9to23 = 2 or both_24to35 = 2 then NPM6 = 2; /*No - screening*/
if both_9to23 = .M or both_24to35= .M then NPM6 = .M;
if SC_AGE_LT9 = 1 then NPM6 = .L; /*less than 9 months*/
if SC_AGE_YEARS >= 3 then NPM6 = .N; /*3-17 years*/
label NPM6 = "NPM-6: Developmental Screening";
```

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

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

DEFINITION
Numerator:
7.1 Number of hospital admissions with a primary diagnosis of unintentional or intentional injury among children ages 0 through 9 (excludes in-hospital deaths)
7.2 Number of hospital admissions with a primary diagnosis of unintentional or intentional injury among adolescents, ages 10 through 19 (excludes in-hospital deaths)

Denominator:
7.1 Number of children, ages 0 through 9
7.2 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 and DATA ISSUES
Healthcare Cost and Utilization Project (HCUP) - State Inpatient Database (SID)
Population estimates come from the U.S. Census Bureau

MCH POPULATION DOMAIN
Child Health and/or Adolescent Health

SIGNIFICANCE
Unintential 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] 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. National Action Plan for Injury Prevention. 2019 February 6. https://www.cdc.gov/safechild/nap/index.html

FAD Availability by Year

Year	Data Not Available
2019	AL, ID, AS, FM, GU, MH, MP, PW, PR, VI
2018	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2017	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2016	AL, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2015 Q1-Q3	AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2014	AK, AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2013	AK, AL, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2012	AL, DC, DE, ID, MS, NH, AS, FM, GU, MH, MP, PW, PR, VI
2011	AL, DC, DE, ID, NH, AS, FM, GU, MH, MP, PW, PR, VI
2010	AL, DC, DE, ID, ND, NH, AS, FM, GU, MH, MP, PW, PR, VI
2009	AK, AL, DC, DE, ID, MS, ND, AS, FM, GU, MH, MP, PW, PR, VI
2008	AK, AL, DC, DE, ID, MS, MT, ND, AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

Three states (AK, NY, and VA) updated their 2018 data, and therefore US estimates were also updated. Data for 2016 and onward are based on ICD-10-CM and may not be comparable to previous ICD-9-CM estimates. Data for 2015 represents only three quarters of the year (January through September) due to the transition to ICD-10-CM in the last quarter of 2015; thus the rate should be interpreted with caution as it does not represent a full year of change relative to 2014 and injury may be seasonal. A final report on ICD-10-CM case definitions for injury hospitalization is available at https://www.cdc.gov/nchs/data/nhsr/nhsr150-508.pdf State-level estimates include inpatient stays for state residents treated in their home state and state residents treated in other states that provide data to the Healthcare Cost and Utilization Project (HCUP). For information on the HCUP Partner organizations, please visit https://www.hcup-us.ahrq.gov/partners.jsp

This analysis is limited to community non-rehabilitation hospitals, which are defined as short-term, non-Federal hospitals. Community hospitals include obstetrics and gynecology, otolaryngology, orthopedic, cancer, pediatric, public, and academic medical hospitals. Excluded are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. U.S. estimates are calculated using the available State data and are not nationally weighted; therefore, U.S. estimates may not be comparable across years due to the different states included in any given year. In addition, certain states did not provide reliable race and/or ethnicity data and are excluded from totals by race/ethnicity. For more information about the HCUP State Inpatient Databases (SID), please visit https://www.hcup-us.ahrq.gov/sidoverview.jsp Population denominators are produced by the U.S. Census Bureau Population Estimates Program.

Population denominators are produced by the U.S. Census Bureau Population Estimates Program. Intercensal estimates are used for data years prior to 2010 (July 1), Census counts are used for the 2010 data year (April 1), and postcensal estimates for each respective vintage year are used for data years after 2010 (July 1). Population denominators are not available for health insurance type or median ZIP code income; numerators can be examined as a percentage of all non-fatal injury hospitalization.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Child Age	<1 Year 1-4 Years 5-9 Years 10-14 Years 15-19 Years	

Stratifier	Subcategory	Special Notes
Health Insurance	Private Medicaid Other Public Uninsured	Refers to expected primary payer. Medicaid may include CHIP and Medicare. Other Public includes military insurance, Indian Health Service, and other federal, state, or local government payment source. For more information, please see https://www.hcup-us.ahrq.gov/reports/methods/2014-03.pdf Only numerators are available, which can be examined as a percentage of all non-fatal injury hospitalizations.
Injury Intent	Intentional, assault Intentional, self-harm Unintentional Other/Unknown	Denominators are total population to calculate rates per 100,000 children, ages 0 through 9 years or rates per 100,000 adolescents, aged 10-19.
Mechanism of Injury	Fall Poisoning Motor Vehicle Traffic (MVT) Other/Unknown Struck by or against Transportation (not MVT) Fire, flame, hot object, or hot substance Firearm Cut or pierce Natural or environment, including bites Suffocation Drowning or submersion Overexertion Machinery	Denominators are total population to calculate rates per 100,000 children, ages 0 through 9 years or rates per 100,000 adolescents, aged 10-19.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian/Pacific Islander Other	Other includes other and multiple race. Not available for all states.
Sex	Female Male	
Urban-Rural Residence	Large Metro Small/Medium Metro Non-Metro	Based on 2003 Urban Influence Codes. Large metro is defined as metropolitan areas with at least 1 million residents. Small/ medium metro is defined as metropolitan areas of less than 1 million residents. Non-metro is defined as micropolitan and non-metropolitan, non-micropolitan areas.
Median ZIP Code Income	Quartile 1 Quartile 2 Quartile 3 Quartile 4	Quartiles (poorest to wealthiest) based on current year median household income obtained from Claritas.

SAS Code

```
INJURY=0;

IF DIED NE 1 and substr(DX1,7,1) in (' ','A','B','C') /* initial encounter only */
and
        /* injury codes */
        (DX1 in: ('S','T79','T8404','M97')
        OR 'T07' LE DX1 LE: 'T34'
        OR ('T36' LE DX1 LE: 'T50' AND SUBSTR(DX1,6,1) IN ('1','2','3','4'))
        OR (DX1 IN:
('T369','T379','T399','T414','T427','T439','T459','T479','T499')
                AND SUBSTR(DX1,5,1) IN ('1','2','3','4') )
        OR 'T51' LE DX1 LE: 'T65'
        OR 'T66' LE DX1 LE: 'T76'
        OR 'O9A2' LE DX1 LE: 'O9A5' )
        THEN INJURY=1;  * ICD-10 ;

IF DIED NE 1 AND ('8000'<=substr(DX1,1,4)<='9092' OR substr(DX1,1,4) IN
('9094','9955') OR '9099'<=substr(DX1,1,4)<='9949' OR
'99580'<=substr(DX1,1,5)<='99585') THEN INJURY=1; * ICD-9 ;

IF 0 LE AGE LE 19 AND COMMUNITY_NONREHAB =1; *only include community, non-rehab
hospitals;
IF HOSP_SERVICE=22 THEN DELETE; * exclude psychiatric facilities;

* ASSIGN PATIENT STATE RESIDENCE FROM COUNTY OF PATIENT RESIDENCE PSTCO2;
LENGTH PSTATE $2;
if not missing(pstco2) then PSTATE = fipstate(int(pstco2/1000));
```

Data Alert

Three states (AK, NY, and VA) updated their 2018 data, and therefore US estimates were also updated. New stratifiers are available for injury intent and mechanism of injury.

NPM 8

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

8.2 Percent of adolescents, ages 12 through 17 who are physically active at least 60 minutes per day

GOAL

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

DEFINITION

Numerator:

8.1 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 (NSCH)

8.2 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)

Denominator:

8.1 Number of children ages 6 through 11 (NSCH)

8.2 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

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%)

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 and DATA ISSUES

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

MCH POPULATION DOMAIN

Child Health and/or Adolescent Health

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

FAD Availability by Year – NSCH

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes – NSCH

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys

Available Stratifiers and Notes – NSCH

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if

Stratifier	Subcategory	Special Notes
		they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code – NSCH

```
/***NPM 8: Physical activity, age 6-11 years and 12-17 years***/

NPM8 = .;
if PHYSACTIV=4 then NPM8=1;
if PHYSACTIV in (1,2,3) then NPM8=2;
if SC_AGE_YEARS < 6 then NPM8 = .N;
label NPM8 = "NPM-8: Physical Activity";

NPM8_1 = NPM8;
if SC_AGE_YEARS > 11 then NPM8_1 = .L;
label NPM8_1 = "NPM-8: Physical Activity Child";

NPM8_2 = NPM8;
if SC_AGE_YEARS < 12 then NPM8_2 = .L;
label NPM8_2 = "NPM-8: Physical Activity Adolescent";

/* 1= Yes,  2= No */
```

FAD Availability by Year – YRBSS

Year	Data Not Available
2019	DE, IN, MN, OR, WA, WY, AS, FM, MH, PW, VI
2017	AL, GA, IN, MN, MS, NJ, OH, OR, SD, WA, WY, AS, FM, MH, PW, VI
2015	CO, GA, IA, KS, LA, MN, NJ, OH, OR, TX, UT, WA, WI, AS, FM, MH, VI
2013	CA, CO, IA, IN, LA, MN, OR, PA, WA, FM, MH, VI
2011	AR, CA, DC, FL, MA, MD, MN, MO, ND, NH, NJ, NV, OR, PA, WA, FM, MH, MP, VI
2009	AR, CA, DC, FL, IA, LA, MA, MD, MN, ND, NE, NJ, OH, OR, UT, VA, WA, AS, GU, FM, MH, MP, PR, VI
2007	AL, AR, AZ, CA, CO, FL, ME, MD, MN, NE, NJ, OR, PA, VA, WA, WI, FM, MH, MP, PR, VI
2005	All except NC

Data Notes - YRBSS

YRBSS data are self-reported by students in grades 9 through 12. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and are adjusted to reflect the total population of high school students by sex, grade, and race/ethnicity for the United States and for each state. Standard errors account for the complex survey design. National estimates are based on a national sample of all 50 states and DC. Sexual orientation is not available for all states. See "Methodology of the YRBSS" and "Software for Analyzing YRBS Data" on the YRBS web site at www.cdc.gov/yrbss for more information.

Available Stratifiers and Notes – YRBSS

Stratifier	Subcategory	Special Notes
Grade	9th grade 10th grade 11th grade 12th grade	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	
Sex	Female Male	
Sexual Orientation	Heterosexual Lesbian, Gay, Bisexual Not sure	Newly added in 2015; not available for all states

SAS Code – YRBSS

```
if q80='8' then QNPA7DAY=1;  *physically active 60+ minutes on all 7 of 7 previous days;
else if q80 in ('1','2','3','4','5','6','7') then QNPA7DAY=2;  *physically active 60+ minutes on 0-6 of previous 7 days;
else QNPA7DAY=.;
```

NPM 9 - Percent of adolescents, ages 12 through 17, who are bullied or who bully others

GOAL

To reduce the percent of adolescents who are bullied or who bully others.

DEFINITION

Numerator:
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, who are reported by a parent to have been bullied in the past year (NSCH)
Number of adolescents, ages 12 through 17, who are reported by a parent to have bullied others in the past year (NSCH)

Denominator:
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 and DATA ISSUES

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

MCH POPULATION DOMAIN

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

FAD Availability by Year – NSCH

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI

Year	Data Not Available
2018	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes – NSCH

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The bullying items changed in 2018 and cannot be combined with or compared to previous survey years; thus, only 2018 data and beyond are provided. In 2016 and 2017, the perpetration question asked parents/caregivers how well the phrase, "this child bullies others, picks on them, or excludes them," described the child. In 2018, the question asked "In the past 12 months, how often did this child bully others, pick on them, or exclude them?" The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). To improve reliability, state-level estimates are produced using two-year combined data whenever possible. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes – NSCH

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language

Stratifier	Subcategory	Special Notes
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code – NSCH

```
/***NPM 9: Bullied or bully others, age 12-17 years***/

NPM9bully = .;
if bully in (2,3,4,5) then NPM9bully = 1;
if bully = 1 then NPM9bully = 2;
if bully = .M then NPM9bully = .M;
if SC_AGE_YEARS < 12 then NPM9bully = .L;
label NPM9bully = "NPM-9: Bullying Perpetration";

NPM9bullied = .;
if BULLIED_R in (2,3,4,5) then NPM9bullied = 1;
if BULLIED_R = 1 then NPM9bullied = 2;
if BULLIED_R = .M then NPM9bullied = .M;
if SC_AGE_YEARS < 12 then NPM9bullied = .L;
label NPM9bullied = "NPM-9: Bullying Victimization";
/* 1= Yes,  2= No */
```

FAD Availability by Year – YRBSS

Year	Data Not Available
2019	DE, IN, MN, OR, VT*, WA, WY, AS, FM, MH, PW, VI
2017	AL, GA, IN, MN, MS, NJ, OH, OR, SD, VT*, WA, WY, AS, FM, MH, PW, VI
2015	AZ, CO, GA, IA, KS, LA, MN, NJ, OH, OR, TX, UT, VT*, WA, WI, AS, FM, MH, VI
2013	AZ, CA, CO, IA, IN, MN, MO*, OR, PA, VT*, WA, FM, MH, VI
2011	AZ, CA, DC, DE*, MA*, MN, MO, NV, OR, PA, WA, VT*, FM, MH, MP, VI

*These states have data available for one of the two bullying items and could report that item in TVIS.

Data Notes - YRBSS

This measure captures adolescents in grades 9 through 12 who report that they are bullied on school property or electronically in the past year (victimization). The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and are adjusted to reflect the total population of high school students by sex, grade, and race/ethnicity for the United States and for each state. Standard errors account for the complex survey design. National estimates are based on a national sample of all 50 states and DC. Sexual orientation is not available for all states. See "Methodology of the YRBSS" and "Software for Analyzing YRBS Data" on the YRBS web site at www.cdc.gov/yrbss for more information.

Available Stratifiers and Notes – YRBSS

Stratifier	Subcategory	Special Notes
Grade	9th grade 10th grade 11th grade 12th grade	
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	
Sex	Female Male	
Sexual Orientation	Heterosexual Lesbian, Gay, Bisexual Not sure	Newly added in 2015; not available for all states

SAS Code – YRBSS

```
if QN24=1 or QN25=1 then BULLIED=1;  *Yes;
else if QN24=2 and QN25=2 then BULLIED=2;  *No;
```

NPM 10 - 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 and DATA ISSUES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

Adolescent Health

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_AdolescenceVisits.pdf

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2019	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. This measure was affected by a 2018 wording change to the item assessing receipt of medical care in the past year with the previous wording restored in 2019; thus, 2018 data are not provided and there is a gap between 2016-2017 and 2019 data. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data whenever possible. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates. For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	Single parent refers to single mother only

Stratifier	Subcategory	Special Notes
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

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/***NPM 10: Adolescent well visit, age 12-17 years***/

PrevMed = .;
if K4Q20R in (2,3) then PrevMed = 1;
if K4Q20R = 1 then PrevMed = 2;
if K4Q20R = .M then PrevMed = .M;
if S4Q01 = 2 then PrevMed = 2;
if S4Q01 = .M then PrevMed = .M;
label PrevMed = "Indicator 4.1a: Children who had one or more preventive medical
care visits during past 12 months";

NPM10 = PrevMed;
if SC_AGE_YEARS < 12 then NPM10 = .L;
label NPM10 = "NPM-10: Adolescent well-visit";
```

NPM 11 - Percent of children with and without special health care needs, ages 0 through 17, who have a medical home

GOAL

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

DEFINITION

Numerator: 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)

Denominator: Number of children, ages 0 through 17

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 and DATA ISSUES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

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

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

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The 'difficulty receiving referrals' component of the medical home was changed in 2018. In 2016 and 2017, the question asked "how much of problem was it to get referrals?" In 2018, the question was changed to "how difficult was it to get referrals?" with new response options. While this component may not be comparable over time, the overall measure did not appear to be affected. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Total	Component: Usual Source of Care Component: Personal Doctor or Nurse Component: Family-Centered Care Component: Referrals if needed Component: Care Coordination if needed	
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.

Stratifier	Subcategory	Special Notes
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NPM 11: Medical Home, CSHCN and Non-CSHCN***/

PerDrNs = .;
if K4Q04_R in (1,2) then PerDrNs = 1;
else if K4Q04_R = 3 then PerDrNs = 2;
else if K4Q04_R = .M then PerDrNs = .M;
label PerDrNs = "Indicator 4.12a: Medical Home Component: Children with a personal
doctor or nurse";

UsualSck = .;
if K4Q01 = 1 and K4Q02_R in (1,3,4,5,6,7) then UsualSck = 1;
else if K4Q01 = 2 or K4Q02_R = 2 then UsualSck = 2;
else if K4Q01 = .M or K4Q02_R = .M then UsualSck = .M;
label UsualSck = "Usual sources for sick care";

time = .;
if K5Q40 = .M then time = .M;
else if K5Q40 = .L then time = 0;
else if K5Q40 = 1 then time = 1;
else if K5Q40 = 2 then time = 2;
else if K5Q40 in (3,4) then time = 3;
label time = "Doctors spent enough time with children";

listen = .;
if K5Q41 =.M then listen = .M;
else if K5Q41 = .L then listen = 0;
else if K5Q41 = 1 then listen = 1;
else if K5Q41 = 2 then listen = 2;
else if K5Q41 in (3,4) then listen = 3;
```

```
label listen = "Doctors listened carefully to children's parents";

sensitiv = .;
if K5Q42 = .M then sensitiv = .M;
else if K5Q42 = .L then sensitiv = 0;
else if K5Q42 = 1 then sensitiv = 1;
else if K5Q42 = 2 then sensitiv = 2;
else if K5Q42 in (3,4) then sensitiv = 3;
label sensitiv = "Doctors showed sensitivity to children's family's values and
customs";

info = .;
if K5Q43 = .M then info = .M;
else if K5Q43 = .L then info = 0;
else if K5Q43 = 1 then info = 1;
else if K5Q43 = 2 then info = 2;
else if K5Q43 in (3,4) then info = 3;
label info = "Doctors provided information specific to parents' concerns";

partner = .;
if K5Q44 = .M then partner = .M;
else if K5Q44 = .L then partner = 0;
else if K5Q44 = 1 then partner = 1;
else if K5Q44 = 2 then partner = 2;
else if K5Q44 in (3,4) then partner = 3;
label partner = "Doctors helped parents to feel like partners in child's care";

FamCent = .;
if time = .M and listen = .M and sensitiv = .M and info = .M and partner = .M then
FamCent = .M;
else if time = 0 then FamCent = .L;
else if time in (1,2,.M) and listen in (1,2,.M) and sensitiv in (1,2,.M) and info
in (1,2,.M) and
     partner in (1,2,.M) then FamCent = 1;
else if time in (3,.M) or listen in (3,.M) or sensitiv in (3,.M) or info in (3,.M)
or partner in (3,.M) then FamCent = 2;
label FamCent = "Indicator 4.12c: Medical Home Component: Family-centered care";

NoRefPrb = .;
if K5Q10 = 2 then NoRefPrb = .L;
else if K5Q10 = .M then NoRefPrb = .M;
else if K5Q11 in (2,3,4) then NoRefPrb = 2;
else if K5Q11 = 1 then NoRefPrb = 1;
else if K5Q11 = .M then NoRefPrb = .M;
label NoRefPrb = "Indicator 4.12d: Medical Home Component: Problems getting needed
referrals, all children";

DrComm = .;
if K5Q20_R = 3 or S4Q01 = 2 then DrComm = 0;
else if K5Q30 = .M then DrComm = .M;
else if K5Q30 = 1 then DrComm = 1;
else if K5Q30 = 2 then DrComm = 2;
else if K5Q30 in (3,4) then DrComm = 3;
else if K5Q30 = .L then DrComm = 0;
label DrComm = "Satisfaction with communication among child’s doctor and other
health care provider";

CareHelp = .;
```

```
if S4Q01 = .M then CareHelp = .M;
else if K5Q20_R = 3 or S4Q01 = 2 then CareHelp = 0;
else if K5Q20_R = 2 and K5Q21 = 2 then CareHelp = 0;
else if K5Q20_R = .M and K5Q21 = 2 then CareHelp = .M;
else if K5Q20_R = .M then CareHelp = .M;
else if K5Q21 = .M then CareHelp = .M;
else if K5Q22 = .M then CareHelp = .M;
else if K5Q20_R = 1 and K5Q21 = 2 then CareHelp = 1;
else if K5Q22 = 1 then CareHelp = 1;
else if K5Q22 in (2,3) then CareHelp = 2;
label CareHelp = "Got all needed extra help with care coordination when needed";

OthComm = .;
if K5Q31_R in (2,3) then OthComm = 0;
else if K5Q31_R = .M then OthComm = .M;
else if K5Q32 = 1 then OthComm = 1;
else if K5Q32 in (2,3,4) then OthComm = 2;
else if K5Q32 = .M then OthComm = .M;
else if K5Q32 = .L then OthComm = 0;
label OthComm = "Satisfaction with communication among child's doctors and school,
child care provider, or special education program";

CareCoor = .;
if CareHelp = .M and DrComm = .M and OthComm = .M then CareCoor = .M;
else if CareHelp in (0,.M) and DrComm in (0,.M) and OthComm in (0,.M) then CareCoor
= .L;
else if CareHelp in (1,0,.M) and DrComm in (1,0,.M) and OthComm in (1,0,.M) then
CareCoor = 1;
else if CareHelp in (2,.M) or DrComm in (2,3,.M) or OthComm in (2,.M) then CareCoor
= 2;
label CareCoor = "Indicator 4.12e: Medical Home Component: Effective care
coordination, all children";

NPM11 = .;
if PerDrNs in (1,.M) and UsualSck in (1,.M) and NoRefPrb in (1,.L,.M) and FamCent
in (1,.L,.M) and CareCoor in (1,.L,.M) then NPM11 = 1;
if PerDrNs = 2 or UsualSck = 2 or NoRefPrb = 2 or FamCent = 2 or CareCoor = 2 then
NPM11 = 2;
if PerDrNs = .M and UsualSck = .M and NoRefPrb in (.L,.M) and FamCent in (.L,.M)
and CareCoor in (.L,.M) then NPM11 = .M;
label NPM11 = "NPM-11: Medical Home";

if SC_CSHCN=1 then NPM11_1=NPM11; if SC_CSHCN=2 then NPM11_1=.L;
label NPM11_1 = "NPM-11: Medical Home CSHCN";

if SC_CSHCN=2 then NPM11_2=NPM11; if SC_CSHCN=1 then NPM11_2=.L;
label NPM11_2 = "NPM-11: Medical Home non-CSHCN";
/* 1= Yes,  2= No */
```

NPM 12 - 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 and DATA ISSUES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

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

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. Supporting the Health Care Transition from Adolescence to Adulthood in the Medical Home. 2018 Nov; 142(5): e20182587. https://pediatrics.aappublications.org/content/142/5/e20182587.

(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 Dec;110(6 Pt 2):1304-6. http://pediatrics.aappublications.org/content/110/Supplement_3/1304

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The 'time alone with a provider' component of transition care changed in 2018 to refer to the last medical visit rather than preventive visit. The 'anticipatory guidance' component of transition care also changed in 2018. In 2016 and 2017, the question asked, "Have they talked with you about having this child eventually see doctors or other health providers who treat adults?" In 2018, this question changed to, "Have they talked with you about when this child will need to see doctors or other health providers who treat adults?" While these components may not be comparable over time, the overall measure did not appear to be affected and the concept of transition care remains the same. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Total	Component: Time Alone with Provider Component: Active Work with Child Component: Anticipatory Guidance if needed	
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.

Stratifier	Subcategory	Special Notes
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

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/***NPM 12: Transition to adult health care, children with and without special
health care needs, age 12 -17 years***/

if year<2018 then do;
TimeAlone = .;
if DOCPRIVATE = 1 then TimeAlone = 1;
if DOCPRIVATE = 2 then TimeAlone = 2;
if S4Q01 = 2 or K4Q20R = 1 then TimeAlone = 2;
if DOCPRIVATE = .M then TimeAlone = .M;
if S4Q01 =.M or K4Q20R = .M then TimeAlone = .M;
if SC_AGE_YEARS < 12 then TimeAlone = .N;
end;
if year>=2018 then do;
TimeAlone = .;
if DOCPRIVATE = 1 then TimeAlone = 1;
if DOCPRIVATE = 2 then TimeAlone = 2;
if S4Q01 = 2 then TimeAlone = 2;
if DOCPRIVATE = .M then TimeAlone = .M;
if S4Q01 =.M then TimeAlone = .M;
if SC_AGE_YEARS < 12 then TimeAlone = .N;
end;
label TimeAlone = "Children who had time alone with health care provider at last
check-up, age 12-17 years";
```

```
/*Transition Part B: Active work with child*/
ActiveWork = .;
if CHANGEAGE = 1 or GAINSKILLS = 1 then ActiveWork = 1;
else if CHANGEAGE = 2 or GAINSKILLS = 2 then ActiveWork = 2;
else if CHANGEAGE in (3,.M) and GAINSKILLS in (3,.M) then ActiveWork = .M;
else if SC_AGE_YEARS < 12 then ActiveWork = .N;
label ActiveWork = "Provider worked with child to gain skills to manage
health/health care and understand health care changes at age 18, age 12-17 years";

/*Transition Part C: Anticipatory guidance*/
TrtAdult = .;
if TREATCHILD = 1 and TREATADULT = 1 then TrtAdult = 1;
else if TREATCHILD = 1 and TREATADULT = 2 then TrtAdult = 2;
else if TREATCHILD = 2 then TrtAdult = .L;
else if TREATCHILD = .M or TREATADULT = .M then TrtAdult = .M;
if SC_AGE_YEARS < 12 then TrtAdult = .N;
label TrtAdult = "Provider discussed shift to adult health care providers (if
needed), age 12-17 years";

/*Transition to adult health care composite measure; only excludes missing on all
subcomponents consisistent with adequate insurance*/
NPM12 = .;
if TimeAlone in (1,.M) and ActiveWork in (1,.M) and TrtAdult in (1,.M,.L) then
NPM12 = 1;
if TimeAlone = 2 or ActiveWork = 2 or TrtAdult = 2 then NPM12 = 2;
if TimeAlone = .M and ActiveWork = .M and TrtAdult = .M then NPM12 = .M;
if SC_AGE_YEARS < 12 then NPM12 = .N;
label NPM12 = "NPM-12: Transition";


if SC_CSHCN=1 then NPM12_1=NPM12; if SC_CSHCN=2 then NPM12_1=.L;
label NPM12_1 = "NPM-12: Transition CSHCN";

if SC_CSHCN=2 then NPM12_2=NPM12; if SC_CSHCN=1 then NPM12_2=.L;
label NPM12_2 = "NPM-12: Transition non-CSHCN";/* 1= Yes,  2= No */
```

NPM 13

13.1 Percent of women who had a preventive dental visit during pregnancy

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

GOAL

13.1 Number of women who report having their teeth cleaned by a dentist or dental hygienist during pregnancy
13.2 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

DEFINITION

Numerator:
13.1 Number of women who had a preventive dental visit during pregnancy
13.2 Number of infant or child, ages 1 through 17, who had a preventive dental visit in the past year

Denominator:
13.1 Number of women with a recent live birth
13.2 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 and DATA ISSUES

13.1 Pregnancy Risk Assessment Monitoring System (PRAMS)
13.2 National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

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

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] Preventive dental care in pregnancy is also recommended by the American College of Obstetricians and Gynecologists (ACOG) to improve lifelong oral hygiene habits and dietary behavior for women and their families.[2]

(1) America Academy of Pedatric Dentistry. Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Health Treatment for Infants, Children, and Adolescents. 2018. Reference Manual of Pediatric Dentistry. https://www.aapd.org/globalassets/media/policies_guidelines/bp_periodicity.pdf

(2) American College of Obstetricians and Gynecologists. Oral Health Care During Pregnancy and Through the Lifespan. Committee Opinion #569 August 2013 (reaffirmed 2017) https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2013/08/oral-health-care-during-pregnancy-and-through-the-lifespan

NPM 13.1 Data (PRAMS)

FAD Availability by Year – PRAMS

Year	Data Not Available
2020	CA, ID, IN*, NC*, NV*, OH, OK*, RI*, SC*, TX*, AS, FM, GU, MH, MP, PW, VI
2019	AZ*, CA, ID, IN*, NV*, OH, OK*, SC*, TX*, WV*, AS, FM, GU, MH, MP, PW, VI
2018	AZ*, CA, FL*, HI*, ID, NV*, OH, SC*, TN*, TX*, AS, FM, GU, MH, MP, PW, VI
2017	AZ*, AR*, CA, DC*, FL*, HI*, ID, IN*, MN*, MS*, NE*, NV*, OH, OR*, SC*, TN*, TX*, AS, FM, GU, MH, MP, PW, VI
2016	AL*, AZ, CA, DC, FL*, GA*, HI*, ID, IN, KS, KY, MN*, MS*, MT, NV, NC*, ND, OH, OR*, SC*, SD, TN*, AS, FM, GU, MH, MP, PW, PR, VI
2015	AZ, CA, DC, FL*, GA*, IN, ID, KS, KY, MN*, MS*, MT, NC*, ND, NV, RI*, SC*, SD, AS, FM, GU, MH, MP, PW, PR, VI
2014	AZ, AR*, CA, CO*, DC, FL*, GA*, IN, ID, KS, KY, LA*, MI*, MN*, MS*, MT, NC*, ND, NV, OR*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2013	AL*, AZ, CA, CT*, DC, FL*, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NV, OH*, SC*, SD, TX*, VA*, AS, FM, GU, MH, MP, PW, PR, VI
2012	AL*, AZ, CA, CT, DC, FL*, IA, IN, ID, KS, KY, LA*, MS*, MT, NC*, ND, NH, NV, NY*, SC*, SD, TX*, VA*, WV^, AS, FM, GU, MH, MP, PW, PR, VI
2011	AL*, AK*, AZ, AR, CA, CO, CT, DE, DC, FL, GA, IA, IL, IN, ID, KS, KY, LA, MD, MI, MN, MS, MT, NM, NC, ND, NH, NV, OH, OK, OR, PA, RI, SC, SD, TN, TX*, UT, VA, VT, WI, WY, AS, FM, GU, MH, MP, PW, VI, PR, NYC
2010	AL*, AZ, AR, CA, CO, CT, DE, DC, FL, GA, IA, IL, IN, ID, KS, KY, LA, MD, MI, MN, MS, MT, NC, ND, NH, NM, NV, OH, OK, OR, PA, RI, SC, SD, TN, UT, VA, VT, WI, WY, AS, FM, GU, MH, MP, PW, VI, PR, NYC
2009	AL*, AZ, AR, CA, CO, CT, DE, DC, FL, GA, IA, IL, IN, ID, KS, KY, LA, MD, MI, MN, MS, MT, NC, ND, NH, NM, NV, NY*, OH, OK, OR, PA, RI, SC, SD, TN, UT, VA, VT, WI, WY, AS, FM, GU, MH, MP, PW, VI, PR, NYC
2008	AL*, AZ, CA, CT, DE, DC, FL, GA, HI, IA, IL, IN, ID, KS, KY, LA, MN, MO*, MT, NC, ND, NH, NM, NV, OK, OR, PA, RI, SC*, SD, TX, VA, WI, WY, AS, FM, GU, MH, MP, PW, PR, VI, NYC

*PRAMS data for this item are available to be reported by the state; did not meet response rate threshold required for reporting by CDC PRAMS but MCHB does not use a response rate criteria for TVIS as long as data are appropriately weighted to account for non-response bias.

Data Notes – PRAMS

This measure refers to receipt of a preventive dental visit (i.e. teeth cleaning) during pregnancy. The item became a core question in 2012 (Phase 7 PRAMS) and is available for certain states that selected this standard question in prior years. Slight differences in the survey item and skip pattern over different PRAMS phases may affect trending. Per CDC PRAMS policy, only states/jurisdictions that met the response rate threshold are included (≥50% from 2018 to 2020, ≥55% from 2015 to 2017, ≥60% from 2012 to 2014, ≥65% response from 2007 to 2011). The 2018 response rate threshold was retroactively increased from 55% to 50%, and 11 additional states data are now included along with the updated U.S. estimate for 2018. Overall U.S. estimates by year may not be comparable due to the different states/jurisdictions included in any given year. Consistent with vital statistics, overall U.S. estimates do not include territories. For NY, 2008, 2010, 2011 estimates do not include NYC; 2012 and 2020 estimates only include NYC. The estimates, numerators, and denominators presented are weighted to account for the probability of selection, non-response, and non-coverage. Standard errors account for the complex survey design. For more information on the PRAMS methodology, visit http://www.cdc.gov/prams/.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	From the birth certificate.
Educational Attainment	Less than high school High school graduate Some college College graduate	From the birth certificate.
Health Insurance	Private Medicaid Other Public Uninsured	From the birth certificate. Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	From the birth certificate.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	From the birth certificate.
WIC Participation	Yes No	From the birth certificate. Refers to prenatal WIC participation.

SAS Code – PRAMS

```
if (qx_phase in (7,8)) then do;
  teeth_cleaned = dds_cln;
end;
if (qx_phase in (5,6)) then do;
  if (dds_preg=.S) then teeth_cleaned = 1; *no -- dds_ever=1 -- never had teeth cleaned at any time;
```

```
  else teeth_cleaned = max(dds_preg,ddsxpreg);
end;
label teeth_cleaned = 'Teeth Cleaned During Pregnancy';

value teeth_cleaned
1='No'
2='Yes';
```

NPM 13.2 Data (NSCH)

FAD Availability by Year - NSCH

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes - NSCH

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes – NSCH

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly

Stratifier	Subcategory	Special Notes
		purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code - NSCH

```
/***NPM 13.2: Preventive dental visit, age 1-17 years***/
NPM13 = .;
if DENTISTVISIT in (2,3) then NPM13 = 1;
if DENTISTVISIT = 1 then NPM13 = 2;
if DENTISTVISIT = .M then NPM13 = .M;
if K4Q30_R = 3 then NPM13 = 2;
if K4Q30_R = .M then NPM13 = .M;
if SC_AGE_YEARS < 1 then NPM13 = .L;
label NPM13 = "NPM-13.2: Preventive Dental Visit";

/* 1= Yes,  2= No */
```

NPM 14
14.1 Percent of women who smoke during pregnancy
14.2 Percent of children, ages 0 through 17, who live in households where someone smokes

GOAL

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

DEFINITION

Numerator:
14.1 Number of women who report smoking during pregnancy
14.2 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

Denominator:
14.1 Number of live births
14.2 Number of children, ages 0 through 17

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

14.1 National Vital Statistics System (NVSS)
14.2 National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

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

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 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) U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Printed with corrections, January 2014. https://www.ncbi.nlm.nih.gov/books/NBK179276/pdf/Bookshelf_NBK179276.pdf

NPM 14.1 Data (NVSS)

FAD Availability by Year – NVSS

Year	Data Not Available
2020	AS, FM, MH, PW
2019	AS, FM, MH, PW, VI
2018	AS, FM, MH, PW, VI
2017	AS, FM, MH, PW, VI*
2016	AS, FM, MH, PW, VI*
2015	CT, NJ, AS, FM, MH, PW, VI*
2014	CT, HI*, NJ, RI, AS, FM, MH, PW, VI
2013	AL, AZ, AR, CT, HI, ME, MI*, NJ, RI, WV, AS, FM, MH, PW, VI
2012	AL, AK, AZ, AR, CT, HI, ME, MI*, MS, NJ, RI, VA, WV, AS, FM, MH, PW, VI
2011	AL, AK, AZ, AR, CT, HI, ME, MS, MI*, MN, MS, NJ, RI, VA, WV, AS, FM, GU, MH, PW, VI
2010	AL, AK, AZ, AR, CT, FL*, GA*, HI, LA, ME, MA, MI*, MN, MS, NJ, NC, RI, VA, WV, WI, AS, FM, GU, MH, PW, VI
2009	AL, AK, AZ, AR, CT, DC, FL*, GA*, HI, IL, LA, ME, MD, MA, MI*, MN, MS, MO, NV, NJ, NC, OK, RI, VA, WV, WI, AS, FM, GU, MH, MP, PW, VI

*Tobacco use data are not comparable or not reliable for these states/years despite implementation of the 2003 revision of the U.S. Standard Certificate of Live Birth

Data Notes – NVSS

Tobacco use in pregnancy was modified in the 2003 revision of the U.S. Standard Certificate of Live Birth and is only available for the states/jurisdictions that had implemented the 2003 revision as of January 1 of the data year. Overall U.S. estimates prior to 2016 are not comparable due to the addition of states over time that have implemented the 2003 revision. Trends within a state after the 2003 revision are comparable. Marital status is not available for California. Urban/rural residence is not available for territories. For more information about the birth file, please see the User's Guide located at http://www.cdc.gov/nchs/data_access/VitalStatsOnline.htm.

Available Stratifiers and Notes – NVSS

Stratifier	Subcategory	Special Notes
Maternal Age	<20 Years 20-24 Years 25-29 Years 30-34 Years ≥35 Years	Includes imputed age
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to maternal educational attainment.
Health Insurance	Private Medicaid Other Public Uninsured	Refers to principal source of payment for delivery. Other Public includes Indian Health Service, CHAMPUS/TRICARE, other government (federal, state, or local) payment source, or other payment source.
Marital Status	Married Unmarried	Includes imputed marital status. Not available for California.
Nativity	Born in U.S. Born outside U.S.	Refers to maternal nativity; territories are included in the U.S. for territory data only
Plurality	Singleton Multiple Birth	Includes imputed plurality

Stratifier	Subcategory	Special Notes
Race/ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to maternal race/ethnicity. Includes imputed race.
Urban-Rural Residence	Large Central Metro Large Fringe Metro Small/Medium Metro Non-Metro	Based on 2013 NCHS Urban-Rural Classification Scheme for Counties. Not available for territories.
WIC Participation	Yes No	Refers to prenatal WIC participation.

SAS Code – NVSS

```
IF RESTATUS NE 4; * restrict to resident births;

/* Code from original variables */
/* cig_1= #cigarettes in 1st trimester */
/* cig_2= #cigarettes in 2nd trimester */
/* cig_3= #cigarettes in 3rd trimester */
IF 0<cig_1<99 | 0<cig_2<99 | 0<cig_3<99 THEN smoked=1;
IF cig_1=0 & cig_2=0 & cig_3=0 THEN smoked=0;

/* Code from NCHS recode */
if cig_rec='Y' then smoked=1;
if cig_rec='N' then smoked=0;
```

NPM 14.2 Data (NSCH)

FAD Availability by Year - NSCH

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes - NSCH

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes – NSCH

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid Uninsured	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent	

Stratifier	Subcategory	Special Notes
	Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code - NSCH

```
/***NPM 14.2: Someone living in the household smokes***/
NPM14 = K9Q40;
label NPM14 = "NPM-14.2: Smoking Household";
/* 1= Yes,  2= No */
```

NPM 15 - Percent of children, ages 0 through 17, who are continuously and adequately insured

GOAL

To increase the percent of children who are adequately insured

DEFINITION

Numerator: Number of children, ages 0 through 17, who are reported by a parent to be were 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 and DATA ISSUES

National Survey of Children's Health (NSCH)

MCH POPULATION DOMAIN

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

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) Kogan MD, Newacheck PW, Blumberg SJ, Ghandour RM, Singh GK, Strickland BB, van Dyck PC. Underinsurance among children in the United States. N Engl J Med. 2010 Aug 26;363(9):841-51. http://www.nejm.org/doi/full/10.1056/NEJMsa0909994

(2) Hudak ML, Helm ME, White PH, Committee on Child Health Financing. Principles of Health Care Financing. Pediatrics. 2017; 140 (3) w20172098. https://pediatrics.aappublications.org/content/140/3/e20172098

FAD Availability by Year

Year	Data Not Available
2019-2020	AS, FM, GU, MH, MP, PW, PR, VI
2018-2019	AS, FM, GU, MH, MP, PW, PR, VI
2017-2018	AS, FM, GU, MH, MP, PW, PR, VI
2016-2017	AS, FM, GU, MH, MP, PW, PR, VI
2016	AS, FM, GU, MH, MP, PW, PR, VI

Data Notes

NSCH data are reported by a parent or guardian with knowledge of the health and health care of the sampled child. The estimates, numerators, and denominators presented are weighted to account for the probability of selection and non-response, and adjusted to represent the non-institutionalized population of children in the U.S. and each state who live in housing units. Standard errors account for the complex survey design. For 19 states that lacked complete information on the public use file, urban/rural residence was obtained from restricted access files at the U.S. Census Bureau, which reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release (CBDRB-FY22-POP001-0054). In 2016, the NSCH utilized an increased sample size to support state-level analyses with a single year of data collection. Starting in 2017, state-level estimates are produced using two-year combined data. Change will be muted with two-year data where each estimate shares half of the data with the next estimate and it is best to examine statistical significance with non-overlapping estimates (e.g., 2016-2017 to 2018-2019 rather than 2017-2018 to 2018-2019). For more information on the NSCH methodology, visit https://mchb.hrsa.gov/data/national-surveys.

Available Stratifiers and Notes

Stratifier	Subcategory	Special Notes
Adverse Childhood Experiences	None 1 ACE 2+ ACEs	Based on sum of 9 Adverse Childhood Experiences
Child Age	0-5 Years 6-11 Years 12-17 Years	
CSHCN Status	CSHCN Non-CSHCN	Special Health Care Needs identified by validated 5-item screener
Educational Attainment	Less than high school High school graduate Some college College graduate	Refers to highest education of a parent/guardian in the household.
Health Insurance	Private Medicaid	Refers to current insurance. Private includes employer-based coverage, directly purchased plans, and military insurance. Medicaid includes all public insurance programs for those with low incomes or a disability (may include Medicare); children were classified as Medicaid if they had any public coverage.
Household Income-Poverty Ratio	<100% 100%-199% 200%-399% ≥400%	Ratio of self-reported family income to the federal poverty threshold value depending on the number of people in the household. Includes imputed income data.
Language	English Non-English	Refers to primary household language
Household Structure	Two-parent married Two-parent unmarried Single parent	

Stratifier	Subcategory	Special Notes
	Other	
Nativity	Born in U.S. Born outside U.S.	Refers to parental nativity; classified as born outside U.S. if either parent is born outside U.S.
Race/Ethnicity	Non-Hispanic White Non-Hispanic Black Hispanic Non-Hispanic American Indian/Alaska Native Non-Hispanic Asian Non-Hispanic Native Hawaiian/Other Pacific Islander Non-Hispanic Multiple Race	Refers to child race/ethnicity
Sex	Female Male	
Urban-Rural Residence	MSA, Central City MSA, Non-Central City Non-MSA	Metropolitan Statistical Area as defined by the U.S. Census Bureau; obtained from restricted access files

SAS Code

```
/***NPM 15: Adequate insurance***/

benefits = .;
if K3Q20 = 1 then benefits = 1;
if K3Q20 = 2 then benefits = 2;
if K3Q20 in (3,4) then benefits = 3;
if K3Q20 = .M then benefits = .M;
if CURRINS = .M then benefits = .M;
if CURRINS = 2 then benefits = .L;
label benefits = "Current insurance benefits meet child's needs";

allows = .;
if K3Q22 = 1 then allows = 1;
if K3Q22 = 2 then allows = 2;
if K3Q22 in (3,4) then allows = 3;
if K3Q22 = .M then allows = .M;
if CURRINS = .M then allows = .M;
if CURRINS = 2 then allows = .L;
label allows = "Current insurance coverage allows to see needed providers";

expense = .;
if K3Q21B = 1 then expense = 1;
if K3Q21B = 2 then expense = 2;
if K3Q21B in (3,4) then expense = 3;
if K3Q21B = .M then expense = .M;
if HOWMUCH = 1 then expense = 4;
if CURRINS = .M then expense = .M;
if CURRINS = 2 then expense = .L;
label expense = "Current insurance out-of-pocket expenses are reasonable";

InsAdeq = .;
if benefits in (1,2,.M) and allows in (1,2,.M) and expense in (1,2,4,.M) then
InsAdeq = 1;
if benefits = 3 or allows = 3 or expense = 3 then InsAdeq = 2;
```

```
if benefits = .M and allows = .M and expense = .M then InsAdeq = .M;
if CURRINS = 2 then InsAdeq = .L;
label InsAdeq = "Adequate Insurance";

CurrIns = CURRINS;
label CurrIns = "Indicator 3.1:Health insurance status at time of survey";

if InsGap in (2,3) then InsGap = 2;
label InsGap = "Indicator 3.2: Children without insurance at some point during the
past year";

NPM15 = .;
if InsGap in (1,.M) and InsAdeq in (1,.M) then NPM15 = 1;
if CurrIns = 2 or InsGap = 2 or InsAdeq = 2 then NPM15 = 2;
if InsGap = .M and InsAdeq = .M then NPM15 = .M;
label NPM15 = "NPM-15: Adequate Insurance";

/* 1= Yes,  2= No */
```