16
Maternal, Infant, and Child Health

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-1</td>
<td>Fetal and infant deaths</td>
</tr>
<tr>
<td>16-1a</td>
<td>At 20 or more weeks of gestation</td>
</tr>
<tr>
<td>16-1b</td>
<td>Perinatal deaths</td>
</tr>
<tr>
<td>16-1c</td>
<td>Infant deaths</td>
</tr>
<tr>
<td>16-1d</td>
<td>Neonatal deaths</td>
</tr>
<tr>
<td>16-1e</td>
<td>Postneonatal deaths</td>
</tr>
<tr>
<td>16-1f</td>
<td>All birth defects</td>
</tr>
<tr>
<td>16-1g</td>
<td>Congenital heart defects</td>
</tr>
<tr>
<td>16-1h</td>
<td>SIDS deaths</td>
</tr>
<tr>
<td>16-2</td>
<td>Child deaths</td>
</tr>
<tr>
<td>16-2a</td>
<td>Children aged 1 to 4 years</td>
</tr>
<tr>
<td>16-2b</td>
<td>Children aged 5 to 9 years</td>
</tr>
<tr>
<td>16-3</td>
<td>Adolescent and young adult deaths</td>
</tr>
<tr>
<td>16-3a</td>
<td>Adolescents aged 10 to 14 years</td>
</tr>
<tr>
<td>16-3b</td>
<td>Adolescents aged 15 to 19 years</td>
</tr>
<tr>
<td>16-3c</td>
<td>Young adults aged 20 to 24 years</td>
</tr>
</tbody>
</table>

Maternal Deaths and Illnesses

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-4</td>
<td>Maternal deaths</td>
</tr>
<tr>
<td>16-5</td>
<td>Maternal illness and complications due to pregnancy</td>
</tr>
<tr>
<td>16-5a</td>
<td>During labor and delivery</td>
</tr>
<tr>
<td>16-5b</td>
<td>Ectopic pregnancies</td>
</tr>
<tr>
<td>16-5c</td>
<td>Postpartum complications</td>
</tr>
</tbody>
</table>
**Prenatal Care**
16-6 Prenatal care  
16-6a First trimester  
16-6b Early and adequate  
16-7 Childbirth classes

**Obstetrical Care**
16-8 Very low birth weight infants born at level III hospitals  
16-9 Cesarean births  
16-9a First-time births  
16-9b Prior cesarean deliveries

**Risk Factors**
16-10 Low birth weight and very low birth weight  
16-10a Low birth weight  
16-10b Very low birth weight  
16-11 Preterm births  
16-11a Total preterm  
16-11b 32 to 36 weeks of gestation  
16-11c Less than 32 weeks of gestation  
16-12 Weight gain during pregnancy  
16-13 Infants put to sleep on their backs

**Developmental Disabilities and Neural Tube Defects**
16-14 Developmental disabilities  
16-14a Mental retardation  
16-14b Cerebral palsy  
16-14c Autism  
16-14d Epilepsy  
16-15 Spina bifida and other neural tube defects  
16-16 Optimum folic acid levels  
16-16a Folic acid consumption  
16-16b Median RBC folate levels

**Prenatal Substance Exposure**
16-17 Prenatal substance exposure  
16-17a Alcohol  
16-17b Binge drinking  
16-17c Cigarette smoking  
16-17d Illicit drugs  
16-18 Fetal alcohol syndrome
Breastfeeding, Newborn Screening, and Service Systems

16-19 Breastfeeding
16-19a Early postpartum
16-19b At 6 months
16-19c At 1 year
16-20 Newborn bloodspot screening
16-20a Screening at birth
16-20b Followup diagnostic testing
16-20c Appropriate service interventions
16-21 Sepsis among children with sickle cell disease
16-22 Medical homes for children with special health care needs
16-23 Service systems for children with special health care needs
Fetal, Infant, Child, and Adolescent Deaths

16-1. Reduce fetal and infant deaths.

16-1a. Fetal deaths at 20 or more weeks of gestation.

National Data Source  National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source  National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective  14.2 (Maternal and Infant Health).

Measure  Rate per 1,000 live births plus fetal deaths.

Baseline  6.8 (1997).

Numerator  Number of fetal deaths (20 or more weeks of gestation).

Denominator  Number of live births plus fetal deaths (20 or more weeks gestation).

Targeted Population  U.S. resident live births plus fetal deaths (20 or more weeks gestation).

Questions Used To Obtain the National Data  Not applicable.

Expected Periodicity  Annual.

Comments  A description of the primary measurement used to determine the infant’s gestational age—the interval between the first day of the last normal menstrual period (LMP) and the birth—has been published by NCHS.¹

This objective uses the same measurement protocol as the comparable Healthy People 2000 objective 14.2. A description of the fetal death measurement has been published by NCHS.²
States are required to report fetal deaths if they occur in the 20th week of pregnancy or later, or if they weigh at least 350 grams. The number of fetal deaths may be underreported in part because of variations in reporting requirements by States.

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-1b. Fetal and infant deaths during perinatal period (28 weeks of gestation to 7 days or more after birth).

<table>
<thead>
<tr>
<th>National Data Source</th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Data Source</td>
<td>National Vital Statistics System (NVSS), CDC, NCHS.</td>
</tr>
<tr>
<td>Healthy People 2000</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Objective</td>
<td></td>
</tr>
<tr>
<td>Measure</td>
<td>Rate per 1,000 live births plus fetal deaths.</td>
</tr>
<tr>
<td>Baseline</td>
<td>7.5 (1997).</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of fetal and infant deaths (from 28 weeks gestation to 7 days after birth).</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of live births plus fetal deaths (of at least 28 weeks gestation).</td>
</tr>
<tr>
<td>Targeted Population</td>
<td>U.S. resident live births plus fetal deaths (20 or more weeks gestation).</td>
</tr>
<tr>
<td>Questions Used To</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Obtain the National Data</td>
<td></td>
</tr>
<tr>
<td>Expected Periodicity</td>
<td>Annual.</td>
</tr>
<tr>
<td>Comments</td>
<td>The number of fetal deaths may be underreported in part because of variations in reporting requirements by States.</td>
</tr>
<tr>
<td></td>
<td>A description of the primary measurement used to determine the infant’s gestational age—the interval between the first day of the last normal menstrual period (LMP) and the birth—has been published by NCHS.¹</td>
</tr>
</tbody>
</table>
A description of the perinatal death measurement has been published by NCHS.³

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-1c. All infant deaths (within 1 year).

<table>
<thead>
<tr>
<th>National Data Source</th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Data Source</td>
<td>National Vital Statistics System (NVSS), CDC, NCHS.</td>
</tr>
<tr>
<td>Measure</td>
<td>Rate per 1,000 live births.</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of deaths to infants under age 1 year.</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of live births.</td>
</tr>
<tr>
<td>Targeted Population</td>
<td>U.S. resident live births.</td>
</tr>
<tr>
<td>Questions Used To Obtain the National Data</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Expected Periodicity</td>
<td>Annual.</td>
</tr>
<tr>
<td>Comments</td>
<td>This objective uses a similar measurement protocol as the comparable Healthy People 2000 objective; however, all of the baseline data for this objective come from the period-linked birth and infant death data set (linked file).⁴ In the linked file, the information from the death certificate is linked to information on the birth certificate for each infant under 1 year who died during the calendar year. The purpose of linkage is to use the many variables and improve racial/ethnic reporting available from the birth certificate. The comparable Healthy People 2000 objective was tracked using the annual “unlinked” file⁵ for the total and black population, and the cohort (used from 1983–91) or period-(used since 1995) linked file for the American Indian/Alaska Native and Puerto Rican populations.²</td>
</tr>
</tbody>
</table>
16-1d. Neonatal deaths (within the first 28 days of life).

**National Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**State Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**Healthy People 2000 Objective**
14.1d (Maternal and Infant Health).

**Measure**
Rate per 1,000 live births.

**Baseline**

**Numerator**
Number of deaths infants aged under 28 days.

**Denominator**
Number of live births.

**Targeted Population**
U.S. resident live births.

**Questions Used To Obtain the National Data**
Not applicable.

**Expected Periodicity**
Annual.

**Comments**
See Comments provided with objective 16-1c for more information.

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-1e. Postneonatal deaths (between 28 days and 1 year).

**National Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**State Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**Healthy People 2000 Objective**
14.1g (Maternal and Infant Health).

**Measure**
Rate per 1,000 live births.

Numerator Number of deaths to infants aged 28 days to 11 months.

Denominator Number of live births.

Targeted Population U.S. resident live births.

Questions Used To Obtain the National Data Not applicable.

Expected Periodicity Annual.

Comments See Comments provided with objective 16-1c for more information.

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-1f. All birth defects.

National Data Source National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective Not applicable.

Measure Rate per 1,000 live births.

Baseline 1.6 (1998).

Numerator Number of infant (under age 1 year) deaths due to birth defects (ICD-9 codes 740-759).

Denominator Number of live births.

Targeted Population U.S. resident live births.

Questions Used To Obtain the National Data Not applicable.

Expected Periodicity Annual.
Comments  All of the baseline data for this objective come from the period-linked birth and infant death data set (linked file).\(^4\) In the linked file, the information from the death certificate is linked to information on the birth certificate for each infant under 1 year who died during the calendar year. The purpose of linkage is to use the many variables and improve racial/ethnic reporting available from the birth certificate.

See Part C for a description of the NVSS and Appendix A for focus area contact information.

<table>
<thead>
<tr>
<th>16-1g. Congenital heart defects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Data Source</td>
</tr>
<tr>
<td>State Data Source</td>
</tr>
<tr>
<td>Healthy People 2000 Objective</td>
</tr>
<tr>
<td>Measure</td>
</tr>
<tr>
<td>Baseline</td>
</tr>
<tr>
<td>Numerator</td>
</tr>
<tr>
<td>Denominator</td>
</tr>
<tr>
<td>Targeted Population</td>
</tr>
<tr>
<td>Questions Used To Obtain the National Data</td>
</tr>
<tr>
<td>Expected Periodicity</td>
</tr>
<tr>
<td>Comments</td>
</tr>
</tbody>
</table>
16-1h. Reduce deaths from sudden infant death syndrome (SIDS).

**National Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**State Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**Healthy People 2000 Objective**
Not applicable.

**Measure**
Rate per 1,000 live births.

**Baseline**
0.72 (1998).

**Numerator**
Number of infant (under age 1 year) deaths from SIDS (ICD-9 code 798.0).

**Denominator**
Number of live births.

**Targeted Population**
U.S. resident live births.

**Questions Used To Obtain the National Data**
Not applicable.

**Expected Periodicity**
Annual.

**Comments**
See Comments provided with objective 16-1f for more information.

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-2. Reduce the rate of child death.

16-2a. Children aged 1 to 4 years.

**National Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**State Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.
### Healthy People 2000

<table>
<thead>
<tr>
<th>Objective</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>Rate per 100,000 population.</td>
</tr>
<tr>
<td>Baseline</td>
<td>34.6 (1998).</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of deaths among children aged 1 to 4 years.</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of children aged 1 to 4 years.</td>
</tr>
<tr>
<td>Targeted Population</td>
<td>U.S. resident population.</td>
</tr>
<tr>
<td>Questions Used To Obtain the National Data</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Expected Periodicity</td>
<td>Annual.</td>
</tr>
<tr>
<td>Comments</td>
<td>See Part C for a description of NVSS and Appendix A for focus area contact information.</td>
</tr>
</tbody>
</table>

### 16-2b. Children aged 5 to 9 years.

<table>
<thead>
<tr>
<th>National Data Source</th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Data Source</td>
<td>National Vital Statistics System (NVSS), CDC, NCHS.</td>
</tr>
<tr>
<td>Healthy People 2000 Objective</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Measure</td>
<td>Rate per 100,000 population.</td>
</tr>
<tr>
<td>Baseline</td>
<td>17.7 (1998).</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of deaths among children aged 5 to 9 years.</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of children aged 5 to 9 years.</td>
</tr>
<tr>
<td>Targeted Population</td>
<td>U.S. resident population.</td>
</tr>
<tr>
<td>Questions Used To Obtain the National Data</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Expected Periodicity</td>
<td>Annual.</td>
</tr>
<tr>
<td>Comments</td>
<td>See Part C for a description of NVSS and Appendix A for focus area contact information.</td>
</tr>
</tbody>
</table>
16-3. Reduce deaths of adolescents and young adults.

16-3a. Adolescents aged 10 to 14 years.

National Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective: Not applicable.

Measure: Rate per 100,000 population.


Numerator: Number of deaths among adolescents aged 10 to 14 years.

Denominator: Number of adolescents aged 10 to 14 years.


Questions Used To Obtain the National Data: Not applicable.

Expected Periodicity: Annual.

Comments: See Part C for a description of NVSS and Appendix A for focus area contact information.

16-3b. Adolescents aged 15 to 19 years.

National Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective: Not applicable.

Measure: Rate per 100,000 population.

Baseline: 70.6 (1998).

Numerator: Number of deaths among adolescents aged 15 to 19 years.

Denominator: Number of adolescents aged 15 to 19 years.
<table>
<thead>
<tr>
<th>Targeted Population</th>
<th>U.S. resident population.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions Used To Obtain the National Data</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Expected Periodicity</td>
<td>Annual.</td>
</tr>
<tr>
<td>Comments</td>
<td>See Part C for a description of NVSS and Appendix A for focus area contact information.</td>
</tr>
</tbody>
</table>

16-3c. Young adults aged 20 to 24 years.

<table>
<thead>
<tr>
<th>National Data Source</th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Data Source</td>
<td>National Vital Statistics System (NVSS), CDC, NCHS.</td>
</tr>
<tr>
<td>Healthy People 2000 Objective</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Measure</td>
<td>Rate per 100,000 population.</td>
</tr>
<tr>
<td>Baseline</td>
<td>95.3 (1998).</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of deaths among young adults aged 20 to 24 years.</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of young adults aged 20 to 24 years.</td>
</tr>
<tr>
<td>Targeted Population</td>
<td>U.S. resident population.</td>
</tr>
<tr>
<td>Questions Used To Obtain the National Data</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Expected Periodicity</td>
<td>Annual.</td>
</tr>
<tr>
<td>Comments</td>
<td>See Part C for a description of NVSS and Appendix A for focus area contact information.</td>
</tr>
</tbody>
</table>
16-4. Reduce maternal deaths.

National Data Source National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective

Measure Ratio per 100,000 live births.


Numerator Number of female deaths due to obstetric causes (ICD-9 codes 630 to 676) within 42 days of a pregnancy.

Denominator Number of live births.

Targeted Population U.S. resident population.

Questions Used To Obtain the National Data Not applicable.

Expected Periodicity Annual.

Comments Caution should be used when comparing these data with pregnancy-related mortality rates from other reports. NCHS uses the definition of maternal mortality and related coding conventions recommended in the ICD-9 by the World Health Organization. Other definitions may use different time intervals from pregnancy to death and may be more inclusive with regard to cause of death.

A description of the maternal mortality measurement has been published by NCHS.2

See Part C for a description of NVSS and Appendix A for focus area contact information.
16-5. Reduce maternal illness and complications due to pregnancy.

16-5a. Maternal complications during hospitalized labor and delivery.

National Data Source: National Hospital Discharge Survey (NHDS), CDC, NCHS.

State Data Source: State hospital discharge data systems.

Healthy People 2000 Objective: Adapted from 14.7 (Maternal and Infant Health).

Measure: Rate per 100 deliveries.


Numerator: Number of hospital discharges for females with any listed diagnosis of maternal complications during labor/delivery (see Comments).

Denominator: Number of hospital discharges for females who delivered one or more infants (principal diagnosis of ICD-9-CM code V27).


Questions Used To Obtain the National Data: Not applicable.

Expected Periodicity: Annual.

Comments: This objective was adapted from Healthy People 2000 objective 14.7, which measured “severe complications of pregnancy,” defined as hospitalizations for ICD-9-CM codes 630-676 (excluding 635 and 650). The data used to track this Healthy People 2010 objective use any listed diagnosis of selected ICD-9-CM codes 641-672 (see Appendix E for a detailed list of codes used).

Principal diagnosis is the diagnosis chiefly responsible for admission of the person to the hospital.

See Part C for a description of NHDS and Appendix A for focus area contact information.
16-5b. (Developmental) Ectopic pregnancies.

Comments
An operational definition could not be specified at the time of publication.
A proposed data source is the National Hospital Discharge Survey (NHDS), CDC, NCHS.
See Part C for a description of NHDS and Appendix A for focus area contact information.

16-5c. (Developmental) Postpartum complications, including postpartum depression.

Comments
An operational definition could not be specified at the time of publication.
See Appendix A for focus area contact information.

Prenatal Care

16-6. Increase the proportion of pregnant women who receive early and adequate prenatal care.

16-6a. Care beginning in first trimester of pregnancy.

National Data Source
National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source
National Vital Statistics System (NVSS), CDC, NCHS.

Leading Health Indicator
Access to Care.

Healthy People 2000 Objective
14.11 (Maternal and Infant Health).

Measure
Percent of live births.

Baseline

Numerator
Number of females receiving prenatal care in the first trimester (three months) of pregnancy.
Denominator: Number of live births.


Questions Used To Obtain the National Data: Not applicable.

Expected Periodicity: Annual.

Comments: A description of the primary measurement used to determine the fetus’s gestational age—the interval between the first day of the last normal menstrual period (LMP) and the birth—has been published by NCHS.¹ This objective uses the same measurement protocol as the comparable Healthy People 2000 objective 14.11. A description of the prenatal care measurement has been published by NCHS.² This objective is one of the measures used to track the Access to Care Leading Health Indicator. See Appendix H for a complete listing.

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-6b. Early and adequate prenatal care.

National Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective: Not applicable.

Measure: Percent of live births.


Numerator: Number of pregnant females receiving adequate prenatal care (by the Adequacy of Prenatal Care Utilization Index, APNCU).

Denominator: Number of live births.

Questions Used To Obtain the National Data

Expected Periodicity

Comments

The APNCU is a measure of prenatal care utilization that combines the month of pregnancy prenatal care begun with the number of prenatal visits. Rates can be classified as “intensive use,” “adequate,” “intermediate,” or “less than adequate.” For this objective, adequate prenatal care is defined as a score of either “adequate” or “intensive use.” A discussion of the APNCU has been published in a previous article.\(^6\)

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-7. (Developmental) Increase the proportion of pregnant women who attend a series of prepared childbirth classes.

Comments

An operational definition could not be specified at the time of publication.

Proposed data sources include the National Pregnancy and Health Survey, NIH, NICHD; the National Survey of Family Growth (NSFG), CDC, NCHS; and the National Health Interview Survey (NHIS), CDC, NCHS.

See Part C for a description of NSFG and NHIS and Appendix A for focus area contact information.

Obstetrical Care

16-8. Increase the proportion of very low birth weight (VLBW) infants born at level III hospitals or subspecialty perinatal centers.

National Data Source

Title V Reporting System, HRSA, MCHB.
### State Data Source
Title V Reporting System, HRSA, MCHB.

### Healthy People 2000 Objective
Adapted from 14.14 (Maternal and Infant Health).

### Measure
Percent.

### Baseline

### Numerator
Number of live births at VLBW in subspecialty facilities (level III facilities).

### Denominator
Number of infants born live at VLBW.

### Targeted Population
U.S. resident live births.

### Questions Used To Obtain the National Data
From the Title V Reporting System (Performance Measure 17).

### Expected Periodicity
Annual.

### Comments
VLBW is defined as a birth weight of less than 1,500 grams (3 lbs 4 ozs).

Data are reported by States each year as part of the Maternal and Child Health Block Grant application. A national weighted average is calculated by summing the numerator and denominator information reported by each jurisdiction.

This objective differs from Healthy People 2000 objective 14.14, which proposed to track the proportion of VLBW infants born in facilities covered by a neonatologist 24 hours a day. No data are available for Healthy People 2000 objective 14.14.

See Appendix A for focus area contact information.


16-9a. Women giving birth for the first time.

### National Data Source
National Vital Statistics System (NVSS), CDC, NCHS.

### State Data Source
National Vital Statistics System (NVSS), CDC, NCHS.
### Healthy People 2000 Objective

- **Objective**: Adapted from 14.8a (Maternal and Infant Health).
- **Measure**: Percent.
- **Numerator**: Number of births delivered by cesarean section to low-risk females giving birth for the first time.
- **Denominator**: Number of live births to low-risk females giving birth for the first time.
- **Targeted Population**: U.S. resident population.
- **Questions Used To Obtain the National Data**: Not applicable.
- **Expected Periodicity**: Annual.
- **Comments**: For this objective a low-risk female is defined as one with a full-term (at least 37 weeks since LMP), singleton (not a multiple pregnancy), vertex fetus (head facing in a downward position in the birth canal).

A description of the primary measurement used to determine the fetus’s gestational age, the interval between the first day of LMP and the birth has been published by NCHS.¹

This objective uses a similar calculation protocol as the comparable Healthy People 2000 objective (14.8). The primary differences lie in the data sources used to measure the objective (the Healthy People 2010 objective used data from birth certificates and the Healthy People 2000 objective uses data obtained from hospital records) and the Healthy People 2010 objective focuses on low-risk women, while the Healthy People 2000 objective targeted all women who have not previously delivered an infant by cesarean. A description of how to calculate the Healthy People 2000 cesarean measurement has been published by NCHS.²

See Part C for a description of NVSS and Appendix A for focus area contact information.

---

¹ NCHS. ¹
² NCHS. ²
### 16-9b. Prior cesarean birth.

<table>
<thead>
<tr>
<th>National Data Source</th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Data Source</td>
<td>National Vital Statistics System (NVSS), CDC, NCHS.</td>
</tr>
<tr>
<td>Healthy People 2000</td>
<td>Adapted from 14.8b (Maternal and Infant Health).</td>
</tr>
</tbody>
</table>

#### Objective

- **Measure**: Percent.
- **Baseline**: 72 (1998).
- **Numerator**: Number of cesarean deliveries to low-risk females who previously delivered an infant by cesarean.
- **Denominator**: Number of live births to low-risk females who previously delivered an infant by cesarean.
- **Targeted Population**: U.S. resident population.
- **Questions Used To Obtain the National Data**: Not applicable.
- **Expected Periodicity**: Annual.

#### Comments

For this objective a low-risk female is defined as one with a full-term (at least 37 weeks since LMP), singleton (not a multiple pregnancy), vertex fetus (head facing in a downward position in the birth canal).

A description of the primary measurement used to determine the fetus’s gestational age, the interval between the first day of LMP and the birth has been published by NCHS.¹
This objective uses a similar calculation protocol as the comparable Healthy People 2000 objective (14.8). The primary differences lie in the data sources used to measure the objective (the Healthy People 2010 objective uses data from birth certificates and the Healthy People 2000 objective used data obtained from hospital records) and the Healthy People 2010 objective focuses on low-risk women while the Healthy People 2000 objective targets all women who previously delivered an infant by cesarean. A description of how the Healthy People 2000 cesarean measurement was calculated has been published by NCHS.²

This measure is the complement of the vaginal birth after cesarean (VBAC) rate for low-risk women.

See Part C for a description of NVSS and Appendix A for focus area contact information.

Risk Factors

16-10. Reduce low birth weight (LBW) and very low birth weight (VLBW).

16-10a. Low birth weight (LBW).

National Data Source  National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source  National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective  14.5 (Maternal and Infant Health).

Measure  Percent.

Baseline  7.6 (1998).

Numerator  Number of live births with birth weight of less than 2,500 grams (5 lbs 8 oz).

Denominator  Number of live births.

Targeted Population  U.S. resident live births.
16-10b. Very low birth weight (VLBW).

National Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source: National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective: 14.5 (Maternal and Infant Health).

Measure: Percent.


Numerator: Number of live births with birth weight of less than 1,500 grams (3 lbs 4 oz).

Denominator: Number of live births.


Questions Used To Obtain the National Data: Not applicable.

Expected Periodicity: Annual.

Comments: See Part C for a description of NVSS and Appendix A for focus area contact information.

16-11. Reduce preterm births.

16-11a. Total preterm births.

National Data Source: National Vital Statistics System (NVSS), CDC, NCHS.
<table>
<thead>
<tr>
<th><strong>State Data Source</strong></th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Healthy People 2000</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Objective</strong></td>
<td><strong>Measure</strong></td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td>11.6 (1998).</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>Number of infants born prior to 37 completed weeks of gestation.</td>
</tr>
<tr>
<td><strong>Denominator</strong></td>
<td>Number of live births.</td>
</tr>
<tr>
<td><strong>Targeted Population</strong></td>
<td>U.S. resident live births.</td>
</tr>
<tr>
<td><strong>Questions Used To Obtain the National Data</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Expected Periodicity</strong></td>
<td>Annual.</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>A description of the primary measurement used to determine the infant’s gestational age, the interval between the first day of LMP and the birth has been published by NCHS. See Part C for a description of NVSS and Appendix A for focus area contact information.</td>
</tr>
</tbody>
</table>

**16-11b. Live births at 32 to 36 weeks of gestation.**

<table>
<thead>
<tr>
<th><strong>National Data Source</strong></th>
<th>National Vital Statistics System (NVSS), CDC, NCHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State Data Source</strong></td>
<td>National Vital Statistics System (NVSS), CDC, NCHS.</td>
</tr>
<tr>
<td><strong>Healthy People 2000 Objective</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Measure</strong></td>
<td>Percent.</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td>9.6 (1998).</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>Number of infants born between 32 and 36 completed weeks of gestation.</td>
</tr>
<tr>
<td><strong>Denominator</strong></td>
<td>Number of live births.</td>
</tr>
<tr>
<td><strong>Targeted Population</strong></td>
<td>U.S. resident live births.</td>
</tr>
</tbody>
</table>
Questions Used To Obtain the National Data
Not applicable.

Expected Periodicity
Annual.

Comments
A description of the primary measurement used to determine the infant’s gestational age—the interval between the first day of LMP and the birth has been published by NCHS.¹

See Part C for a description of NVSS and Appendix A for focus area contact information.

16-11c. Live births at less than 32 weeks of gestation.

National Data Source National Vital Statistics System (NVSS), CDC, NCHS.

State Data Source National Vital Statistics System (NVSS), CDC, NCHS.

Healthy People 2000 Objective Not applicable.

Measure Percent.

Baseline 2.0 (1998).

Numerator Number of infants born at less than 32 completed weeks of gestation.

Denominator Number of live births.

Targeted Population U.S. resident live births.

Questions Used To Obtain the National Data Not applicable.

Expected Periodicity Annual.

Comments A description of the primary measurement used to determine the infant’s gestational age—the interval between the first day of LMP and the birth has been published by NCHS.¹

See Part C for a description of NVSS and Appendix A for focus area contact information.
16-12. (Developmental) Increase the proportion of mothers who achieve a recommended weight gain during their pregnancies.

Comments

An operational definition could not be provided at the time of publication.

A proposed data source is the 2003 revision of the U.S. Standard Certificate of Live Birth from the National Vital Statistics System (NVSS), CDC, NCHS.

This objective is adapted from Healthy People 2000 objective 14.6, which used data from the 1998 National Maternal and Infant Health Survey. That survey has not been repeated. A description of recommended weight gain for Healthy People 2000 has been published by NCHS.²

See Appendix A for focus area contact information.

16-13. Increase the percentage of healthy full-term infants who are put down to sleep on their backs.

**National Data Source**
National Infant Sleep Position Study, NIH, NICHD.

**State Data Source**
Not specified.

**Healthy People 2000 Objective**
Not applicable.

**Measure**
Percent.

**Baseline**

**Numerator**
Number of infants (less than 8 months) put down to sleep on their backs.

**Denominator**
Number of infants (less than 8 months).

**Targeted Population**
U.S. resident population.

**Questions Used To Obtain the National Data**

- There are a number of positions that babies can be put in to sleep. Do you have a position that you usually place the baby in to sleep?
[If Yes:]  

*Would that be:*  
on his/her side,  
on his/her stomach with his/her head face down,  
on his/her stomach with his/her head turned to the side,  
on his/her back,  
or in some other position?

Expected Periodicity  
Annual.

Comments  
Study infants include infants younger than 8 months at time of interview. The total number of infants studied each year was approximately 1,000. An analysis of the National Infant Sleep Position Study has been published elsewhere. See Appendix A for focus area contact information.

---

**Developmental Disabilities and Neural Tube Defects**

**16-14. Reduce the occurrence of developmental disabilities.**

**16-14a. Mental retardation.**

**National Data Source**  
Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP), CDC, NCEH.

**State Data Source**  
State surveillance systems.

**Healthy People 2000 Objective**  
Not applicable.

**Measure**  
Rate per 10,000.

**Baseline**  

**Numerator**  
Number of children aged 8 years with an IQ of 70 or less whose parent(s) or legal guardian(s) reside in metropolitan Atlanta, Georgia.

**Denominator**  
Number of children aged 8 years residing in metropolitan Atlanta, Georgia.

**Targeted Population**  
Resident population (selected areas—see Comments).

**Questions Used To Obtain the National Data**  
Not applicable.
Expected Periodicity  
Annual.

Comments  
IQ is an acronym for intelligence quotient.

If an IQ score was not available, a written statement by a psychometrist that the child’s intellectual functioning falls within the range for mental retardation was acceptable.

Metropolitan Atlanta, Georgia, consists of a five-county area including Clayton, Cobb, DeKalb, Fulton, and Gwinnett.

A description of MADDSP has been published by CDC.8

See Appendix A for focus area contact information.

16-14b. Cerebral palsy.

<table>
<thead>
<tr>
<th>National Data Source</th>
<th>Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP), CDC, NCEH.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Data Source</td>
<td>State surveillance systems.</td>
</tr>
<tr>
<td>Healthy People 2000</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Objective</td>
<td>Rate per 10,000.</td>
</tr>
<tr>
<td>Numerator</td>
<td>Number of children aged 8 years with cerebral palsy whose parent(s) or legal guardian(s) reside in metropolitan Atlanta, Georgia.</td>
</tr>
<tr>
<td>Denominator</td>
<td>Number of children aged 8 years residing in metropolitan Atlanta, Georgia.</td>
</tr>
<tr>
<td>Targeted Population</td>
<td>Resident population (selected areas—see Comments).</td>
</tr>
<tr>
<td>Questions Used To</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Obtain the National</td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td></td>
</tr>
</tbody>
</table>

Expected Periodicity  
Annual.

Comments  
Metropolitan Atlanta, Georgia, consists of a five-county area including Clayton, Cobb, DeKalb, Fulton, and Gwinnett.
A definition of cerebral palsy and a description of MADDSP has been published by CDC.$

See Appendix A for focus area contact information.

16-14c. (Developmental) Autism spectrum disorder.

Comments
An operational definition could not be specified at the time of publication.

Data will be available from Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP), beginning with 1997 data.

See Appendix A for focus area contact information.

16-14d (Developmental) Epilepsy.

Comments
An operational definition could not be specified at the time of publication.

Data will be available from Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP), beginning with 1997 data.

See Appendix A for focus area contact information.

16-15. Reduce the occurrence of spina bifida and other neural tube defects (NTDs).

National Data Source
National Birth Defects Prevention Network (NBDPN), CDC, NCEH.

State Data Sources
State birth defects monitoring systems; State vital statistics.

Healthy People 2000 Objective
Adapted from 14.17 (Maternal and Infant Health).

Measure
Ratio per 10,000 live births.

Baseline
6 (1996) (selected States—see Comments).
Numerator
Number of live births and fetal deaths of 20 or more weeks gestation diagnosed with spina bifida and other neural tube defects (ICD-9 codes 740-742.0).

Denominator
Number of live births.

Targeted Population
Resident live births plus fetal deaths (20 or more weeks gestation) (selected States—see Comments).

Questions Used To Obtain the National Data
Not applicable.

Expected Periodicity
Annual.

Comments
A description of the primary measurement used to determine an infant’s gestational age—the interval between the first day of LMP and the birth has been published by NCHS.¹

NCEH is collaborating with more than 30 States in NBDPN to systematically collect population-based birth defect data in a timely fashion.

This objective is comparable to Healthy People 2000 objective 14.17, which was tracked by the Birth Defects Monitoring Program (BDMP) through 1993. However, the BDMP system of voluntary reporting by hospitals was unreliable and no longer exists.

See Appendix A for focus area contact information.

16-16. Increase the proportion of pregnancies begun with an optimum folic acid level.

16-16a. Consumption of at least 400 µg of folic acid each day from fortified foods or dietary supplements by nonpregnant women aged 15 to 44 years.

National Data Source
National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

State Data Source
Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

Healthy People 2000 Objective
Not applicable.

Measure
Percent.
---|---
**Numerator** | Number of nonpregnant females aged 15 to 44 years who report consuming an average of 400 µg of folic acid daily over the past month.

**Denominator** | Number of nonpregnant females aged 15 to 44 years.

**Targeted Population** | U.S. civilian, noninstitutionalized population.

**Questions Used To Obtain the National Data** | From the 1988–94 National Health and Nutrition Examination Survey:

- Folic acid intake is estimated from questions regarding vitamin intake for specific vitamin brand names and the frequency and duration of use.

**Expected Periodicity** | Annual, beginning with 1999 data.

**Comments** | For this measure only folic acid intake from dietary supplements is included. Folic acid intake from food was not included. In 1991–94, very few women would have been consuming 400 µg folic acid per day unless they were taking a supplement containing folic acid.

The method of calculation of this objective involves averaging the intake of folic acid in the past month. Because the number of days in a month varies, the threshold consumption level used in the calculation of the baseline data for this objective is an average of 394 µg per day.

See Part C for a description of NHANES and BRFSS and Appendix A for focus area contact information.

---

**16-16b. Median red blood cell (RBC) folate level among nonpregnant women aged 15 to 44 years.**

**National Data Source** | National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

**State Data Source** | Not identified.

**Healthy People 2000 Objective** | Not applicable.

**Measure** | Number (ng/ml).
Numerator Median RBC folate level.
Denominator Not applicable.
Targeted Population U.S. civilian, noninstitutionalized population.
Questions Used To Obtain the National Data Not applicable.
Expected Periodicity Annual beginning with 1999 data.
Comments The median RBC folate is a population-weighted estimate from a blood specimen collected from women aged 15 to 44 years as part of the standard NHANES protocol.
See Part C for a description of NHANES and Appendix A for focus area contact information.

Prenatal Substance Exposure

16-17 Increase abstinence from alcohol, cigarettes, and illicit drugs among pregnant women.

6-17a. Alcohol.

National Data Source National Household Survey on Drug Abuse (NHSDA), SAMHSA.
State Data Source Not identified.
Healthy People 2000 Objective Adapted from 14.10 (Maternal and Infant Health).
Measure Percent.
Numerator Number of nonpregnant females, aged 15 to 44 years, reporting not drinking alcohol at all in the past month (30 days).
Denominator Number of nonpregnant females aged 15 to 44 years.
Targeted Population U.S. civilian, noninstitutionalized population.
Questions Used To Obtain the National Data

- Think about the last time you drank any type of alcoholic beverage. How long has it been since you last drank an alcoholic beverage?
  - If you last drank an alcoholic beverage within the past 30 days, mark the first box.
  - If it has been more than 30 days ago but within the past 12 months that you last drank an alcoholic beverage, mark the second box.
  - If it was more than 12 months ago but within the past 3 years, mark the third box.
  - If it has been more than 3 years since you last drank and alcoholic beverage, mark the fourth box.
  - If you have never drunk an alcoholic beverage in your life, mark the last box.

- Are you currently pregnant?
  
  [If yes:]  
  - How many months pregnant are you?
  - Number of months pregnant _____

Expected Periodicity
Annual.

Comments
To ensure adequate precision of estimates for pregnant women, baseline data are based on combined data from 1996 and 1997 NHSDAs and represent annual average estimates for 1996 and 1997.

This objective is a measure similar to Healthy People 2000 objective 14.10, which used data from the National Maternal and Infant Health Survey and the National Pregnancy and Health Survey.

See Part C for a description of NHSDA and Appendix A for focus area contact information.

16-17b. Binge drinking.

National Data Source
National Household Survey on Drug Abuse (NHSDA), SAMHSA.

State Data Source
Not identified.

Healthy People 2000 Objective
Adapted from 14.10 (Maternal and Infant Health).

Measure
Percent.
Numerator  Number of nonpregnant females aged 15 to 44 years reporting not binge drinking at all in the past month (30 days).
Denominator  Number of nonpregnant females aged 15 to 44 years.
Targeted Population  U.S. civilian, noninstitutionalized population.

Questions Used To Obtain the National Data
From the 1996–97 National Household Survey on Drug Abuse:

➢ During the past 30 days, on how many days did you have 5 or more drinks on the same occasion? By “occasion,” we mean at the same time or within a couple of hours of each other. On the solid line, write the number of days in the past 30 days when you drank 5 or more drinks of an alcoholic beverage on the same occasion.
   If you never had 5 or more drinks on the same occasion on any day when you drank during the past 30 days, mark the first box.
   If you have never drunk an alcoholic beverage in your life, mark the last box.

➢ Are you currently pregnant?
   [If yes:]
   o How many months pregnant are you?
      Number of months pregnant _____

Expected Periodicity  Annual.
Comments  Binge drinking is defined as drinking five or more alcoholic drinks on the same occasion on at least one day in the past 30 days. By “occasion” is meant at the same time or within a couple of hours of each other.

To ensure adequate precision of estimates for pregnant women, baseline data are based on combined data from 1996 and 1997 NHSDAs and represent annual average estimates for 1996 and 1997.
This objective is adapted from Healthy People 2000 objective 14.10, which measured use of alcohol during pregnancy data from the National Maternal and Infant Health Survey and the National Pregnancy and Health Survey. Binge drinking during pregnancy was not addressed in Healthy People 2000.

See Part C for a description of NHSDA and Appendix A for focus area contact information.

16-17c. Cigarette smoking.

**National Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**State Data Source**
National Vital Statistics System (NVSS), CDC, NCHS.

**Healthy People 2000 Objective**
14.10 (Maternal and Infant Health).

**Measure**
Percent.

**Baseline**
87 (1998) (selected areas—see Comments).

**Numerator**
Number of women having live births reporting abstaining from cigarette smoking during pregnancy.

**Denominator**
Number of live births.

**Targeted Population**
Resident population (selected areas—see Comments).

**Questions Used To Obtain the National Data**
From the U.S. Standard Certificate of Live Birth (1989 revision):

- Other risk factors for this pregnancy - Complete all items.
  
  [A number of check boxes are provided including...]
  
  Tobacco use during pregnancy........ yes ☐ no ☐
  
  Average number of cigarettes per day ______

**Expected Periodicity**
Annual.

**Comments**
Baseline data for smoking during pregnancy are for 46 States, the District of Columbia, and New York City. Data on smoking during pregnancy were not available for California, Indiana, New York State (New York City did report), and South Dakota.
16-17d. Illicit drugs.

**National Data Source**
National Household Survey on Drug Abuse (NHSDA), SAMHSA.

**State Data Source**
Not identified.

**Healthy People 2000 Objective**
Adapted from 14.10 (Maternal and Infant Health).

**Measure**
Percent.

**Baseline**

**Numerator**
Number of nonpregnant females aged 15 to 44 years reporting not using any illicit drugs in the past month (30 days).

**Denominator**
Number of nonpregnant females aged 15 to 44 years who were pregnant.

**Targeted Population**
U.S. civilian, noninstitutionalized population.

**Questions Used To Obtain the National Data**
From the 1996–97 National Household Survey on Drug Abuse:

> [The following question is asked separately for each illicit drug: marijuana or hashish, cocaine, “crack,” heroin, hallucinogens, and inhalants:]

> - **How long has it been since you last used [marijuana or hashish, cocaine, “crack,” heroin, hallucinogens, inhalants]?**
>
>   - **If your answer is within the past 30 days, mark the first box.**
>   - **If your answer is more than 30 days ago but within the past 12 months, mark the second box.**
>   - **If your answer is more than 12 months ago but within the past 3 years, mark the third box.**
>   - **If your answer is more than 3 years ago, mark the next-to-last box.**
>   - **If you have never used (marijuana or hashish, cocaine, “crack,” heroin, hallucinogens, inhalants) in your life, mark the last box.**
[The following questions are asked separately for nonmedical use of analgesics (prescription pain killers), tranquilizers, stimulants, and sedatives:

- As you read the following list of (prescription pain killers, tranquilizers, stimulants, sedatives), please mark one box beside each (pain killer, tranquilizers, stimulants, sedatives) to indicate whether you have ever used that (pain killer, tranquilizers, stimulants, sedatives) when it was not prescribed for you, or that you took only for the experience or feeling it caused. Again, we are interested in all kinds of (prescription pain killers, tranquilizers, stimulants, sedatives), in pill or nonpill form.

[This question is followed by a list of common drugs in the category specified and the following additional questions:]

- Have you ever used a (pain killer, tranquilizers, stimulants, sedatives) whose name you don’t know that was not prescribed for you, or that you took only for the experience or feeling it caused? If “YES,” mark the first box; if “NO,” mark the second box.

- Have you ever used any other (pain killer, tranquilizers, stimulants, sedatives) besides the ones listed above, that was not prescribed for you, or that you took only for the experience or feeling it caused? PLEASE PRINT NAME(S) OF OTHER [PAIN KILLERS, TRANQUILIZERS, STIMULANTS, SEDATIVES] BELOW. If “YES,” mark the first box; if “NO,” mark the second box.

[If the respondent reported use of any (pain killer, tranquilizers, stimulants, sedatives) they are asked:]

- How long has it been since you last used (a pain killer, tranquilizers, stimulants, sedatives) that was not prescribed for you, or that you took only for the experience or feeling it caused? If your answer is within the past 30 days, mark the first box. If your answer is more than 30 days ago but within the past 12 months, mark the second box. If your answer is more than 12 months ago but within the past 3 years, mark the third box. If your answer is more than 3 years ago, mark the next-to-last box.

- Are you currently pregnant?

  [If “yes”:
    - How many months pregnant are you? Number of months pregnant _____

  Expected Periodicity Annual.]
Illicit drugs are defined as marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including PCP and LSD), heroin, and nonmedical use of psychotherapeutics.

To ensure adequate precision of estimates for pregnant women, baseline data are based on combined data from 1996 and 1997 NHSDAs and represent annual average estimates for 1996 and 1997.

This objective is adapted from Healthy People 2000 objective 14.10, which tracked abstinence from marijuana and cocaine use during pregnancy with data from the National Maternal and Infant Health Survey and the National Pregnancy and Health Survey. The Healthy People 2010 objective measures abstinence from any illicit drug.

See Part C for a description of NHSDS and Appendix A for focus area contact information.

16-18. (Developmental) Reduce the occurrence of fetal alcohol syndrome (FAS).

An operational definition could not be specified at the time of publication.

A proposed data source is the Fetal Alcohol Syndrome Network (FASNet), CDC.

This objective is comparable to Healthy People 2000 objective 14.4, which was tracked by the Birth Defects Monitoring Program (BDMP) through 1993. However, the BDMP system of voluntary reporting by hospitals was unreliable and no longer exists.

See Appendix A for focus area contact information.
Breastfeeding, Newborn Screening, and Service Systems

16-19. Increase the proportion of mothers who breastfeed their babies.

16-19a. In early postpartum period.

National Data Source Mothers’ Survey, Ross Products Division, Abbott Laboratories, Inc.

State Data Source Not identified.

Healthy People 2000 Objective 14.9 (Maternal and Infant Health) (also 2.11).

Measure Percent.

Baseline 64 (1998).

Numerator Number of mothers who indicate that breast milk is at least one of the types of milk their infant was fed in the hospital.

Denominator Number of mothers of infants aged 1 to 12 months.

Targeted Population U.S. resident population.

Questions Used To Obtain the National Data From the 1998 Mothers’ Survey:

- Please check the milks your youngest baby was fed in the hospital:
  - Breast milk
  (List of formulas)
  - Cow’s milk

Expected Periodicity Annual.

Comments Early postpartum breastfeeding is defined as breastfeeding a newborn infant before being discharged from the hospital.

Surveys are sent out monthly to a sample of mothers with infants of every month of age between 1 month and 12 months. All are asked about the milk their infants were fed in the hospital, so the entire sample forms the denominator for this objective.

Respondents can check more than one type of milk. If breast milk is checked, the mother is considered to be breastfeeding, regardless of whether other milk or formulas are used.
A description of the Mothers’ Survey has been published elsewhere.9

See Appendix A for focus area contact information.

16-19b. At 6 months.

National Data Source Mothers’ Survey, Ross Products Division, Abbott Laboratories, Inc.

State Data Source Not identified.

Healthy People 2000 Objective 14.9 (Maternal and Infant Health) (also 2.11).

Measure Percent.


Numerator Number of mothers who indicate that breast milk is at least one of the types of milk their infant was fed 6 months after delivery.

Denominator Number of mothers of infants aged 6 months.

Targeted Population U.S. resident population.

Questions Used To Obtain the National Data From the 1998 Mothers’ Survey:

▶ Please check the milks your youngest baby was fed most often in the last week:
  
  Breast milk
  
  (List of formulas)
  
  Cow’s milk

Expected Periodicity Annual.

Comments Surveys are sent out monthly to a sample of mothers with infants of every month of age between 1 month and 12 months.

Respondents can check more than one type of milk. If breast milk is checked, the mother is considered to be breastfeeding, regardless of whether other milk or formulas are used as well.

A description of the Mothers’ Survey has been published elsewhere.9

See Appendix A for focus area contact information.
16-19c. At 1 year.

**National Data Source**
Mothers’ Survey, Ross Products Division, Abbott Laboratories, Inc.

**State Data Source**
Not identified.

**Healthy People 2000 Objective**
Adapted from 14.9 (Maternal and Infant Health) (also 2.11).

**Measure**
Percent.

**Baseline**
16 (1998).

**Numerator**
Number of mothers who indicate that breast milk is at least one of the types of milk their infant was fed 1 year after delivery.

**Denominator**
Number of mothers of infants aged 1 year.

**Targeted Population**
U.S. resident population.

**Questions Used To Obtain the National Data**

> Please check the milks your youngest baby was fed most often in the last week:
> Breast milk
> (List of formulas)
> Cow’s milk

**Expected Periodicity**
Annual.

**Comments**
Surveys are sent out monthly to a sample of mothers with infants of every month of age between 1 month and 12 months.

Respondents can check more than one type of milk. If breast milk is checked, the mother is considered to be breastfeeding, regardless of whether other milk or formulas are used as well.

A description of the Mothers’ Survey has been published elsewhere.9

This objective is comparable to Healthy People 2000 objective 14.9; however, the measurement of infants aged 1 year is new to Healthy People 2010.

See Appendix A for focus area contact information.
16-20. (Developmental) Ensure appropriate newborn bloodspot screening, followup testing, and referral to services.

16-20a. Ensure that all newborns are screened at birth for conditions mandated by their State-sponsored newborn screening programs, for example, phenylketonuria and hemoglobinopathies.

Comments
An operational definition could not be specified at the time of publication.

Proposed data sources are the Title V Performance Measures, HRSA, MCHB and the National Newborn Screening and Genetic Resource Center.

This objective is adapted from Healthy People 2000 objective 14.15, which measured newborns screened by State-sponsored programs for genetic disorders and referral for appropriate treatment. Healthy People 2000 objective 14.15 was tracked with data from the Council of Regional Networks for Genetic Services, Association of State and Territorial Public Health Laboratory Directors.

See Appendix A for focus area contact information.

16-20b. Ensure that followup diagnostic testing for screening positives is performed within an appropriate time period.

Comments
An operational definition could not be specified at the time of publication.

Proposed data sources are the Title V Performance Measures, HRSA, MCHB, and the National Newborn Screening and Genetic Resource Center.

This objective is adapted from Healthy People 2000 objective 14.15, which measured newborns screened by State-sponsored programs for genetic disorders and referral for appropriate treatment. Healthy People 2000 objective 14.15 was tracked with data from the Council of Regional Networks for Genetic Services, Association of State and Territorial Public Health Laboratory Directors.

See Appendix A for focus area contact information.
16-20c. Ensure that infants with diagnosed disorders are enrolled in appropriate service interventions within an appropriate time period.

Comments
An operational definition could not be specified at the time of publication.

Proposed data sources are the Title V Performance Measures, HRSA, MCHB, and the National Newborn Screening and Genetic Resource Center.

This objective is Healthy People 2000 objective 14.15, which measured newborns screened by State-sponsored programs for genetic disorders and referral for appropriate treatment. Healthy People 2000 objective 14.15 was tracked with data from the Council of Regional Networks for Genetic Services, Association of State and Territorial Public Health Laboratory Directors.

See Appendix A for focus area contact information.

16-21. (Developmental) Reduce hospitalization for life-threatening sepsis among children aged 4 years and under with sickling hemoglobinopathies.

Comments
An operational definition could not be specified at the time of publication.

A proposed data source is the National Hospital Discharge Survey (NHDS), CDC, NCHS.

See Part C for a description of NHDS and Appendix A for focus area contact information.

16-22. (Developmental) Increase the proportion of children with special health care needs who have access to a medical home.

Comments
An operational definition could not be specified at the time of publication.
A proposed data source is the Title V Reporting System, HRSA, MCHB.

See Appendix A for focus area contact information.

16-23. Increase the proportion of Territories and States that have service systems for children with special health care needs.

**National Data Source**
Title V Block Grant Application Form 13, HRSA, MCHB.

**State Data Source**
Not identified.

**Healthy People 2000 Objective**
Adapted from 17.20 (Diabetes and Other Chronic Disabling Conditions).

**Measure**
Percent.

**Baseline**
15.7 (1997)

**Numerator**
Number of States and Territories that have a score of at least 10 (of a possible 12) on a four-part rating of aspects of a coordinated continuum of appropriate services for children with special health care needs (CSHCN).

**Denominator**
59 States and Territories.

**Questions Used To Obtain the National Data**
From the Title V Block Grant Application (Form 13), in which State Title V officials are asked to rate their programs on the following criteria:

- *State program collaboration with other State agencies and private organizations. The State has established and maintained an ongoing interagency collaborative process for the assessment of needs with respect to the development of community-based systems of services for CSHCN. State programs collaborate with other agencies and organizations in the formulation of coordinated policies, standards, data collection and analysis, financing of services, and program monitoring to assure comprehensive, coordinated services for CSHCN and their families.*
• State support for communities. State programs emphasize the development of community-based programs by establishing and maintaining a process for facilitating community systems building through mechanisms such as technical assistance and consultation, education and training, common data protocols, and financial resources for communities engaged in systems development to assure that the unique needs of CSHCN are met.

• Coordination of health components of community-based systems. A mechanism exists in communities across the State for coordination of health services with one another. This includes coordination among providers of primary care, habilitative and rehabilitative services, other specialty medical treatment services, mental health services, and home health care.

• Coordination of health services with other services at the community level. A mechanism exists in communities across the State for coordination and service integration among programs serving CSHCN, including early intervention and special education, social services, and family support services.

**Expected Periodicity**
Annual.

**Comments**
Possible responses to each are 0 (not met), 1 (partially met), 2 (mostly met), and 3 (completely met). The State’s score is the sum of the four ratings.

This objective is adapted from Healthy People 2000 objective 17.20, which tracked the number of States that had service systems for children with or at risk of chronic disabling conditions, as required by Public Law 101-239. A data source was never identified to track Healthy People 2000 objective 17.20.

See Appendix A for focus area contact information.

---

**References**


