Performance Measurement in Maternal and Child Health

Recife, Brazil

April 15, 2004

Health Resources And Services Administration
Maternal And Child Health Bureau

Peter C. Van Dyck, MD, MPH
The MCH Block Grant (Title V) States’ Program 501(a)(1)(a-d)

☞ “Title V authorizes appropriations to states to improve the health of all mothers and children”

☞ “To provide and assure mothers and children... Access to quality maternal and child health services”

☞ “To reduce infant mortality...preventable diseases and handicapping conditions among children...increase number of...Immunized children...”
The MCH Block Grant (Title V) States’ Program 501(a)(1)(a-d)

“To increase low income children receiving health assessments and...diagnosis and treatment services”

“Promote health...by providing prenatal, delivery, and postpartum care...”

“Promote health of children by providing preventive and primary care services...”
“To provide and promote family-centered, community-based, coordinated care... for children with special health care needs... and facilitate... community based systems of services for such children and their families”
The MCH Budget for 2003 and 2004 (millions)

<table>
<thead>
<tr>
<th></th>
<th>FY2003</th>
<th>FY2004 (PB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCH Block Grant</td>
<td>$730.0</td>
<td>$750.8</td>
</tr>
<tr>
<td>State Block Grant</td>
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<tr>
<td>SPRANS (General)</td>
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<td>$109.1</td>
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<tr>
<td>CISS</td>
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<td>$19.3</td>
</tr>
<tr>
<td>SPRANS (Earmark)</td>
<td>$9.4</td>
<td>$0.0</td>
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</table>

1-numbers will not add due to rounding
### The MCH Budget for 2003 and 2004 (millions)

<table>
<thead>
<tr>
<th>Category</th>
<th>FY2003</th>
<th>FY2004 (PB)</th>
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<tbody>
<tr>
<td>Healthy Start</td>
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<tr>
<td>Hearing Screening</td>
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<tr>
<td>EMSC</td>
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<td>$18.9</td>
</tr>
<tr>
<td>Poison Control Center</td>
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<td>$21.2</td>
</tr>
<tr>
<td>Trauma/EMS</td>
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<td>$0.0</td>
</tr>
<tr>
<td>AbEd Community</td>
<td>$54.6</td>
<td>$73.0</td>
</tr>
<tr>
<td>AbEd State</td>
<td>$50.0</td>
<td>$50.0</td>
</tr>
<tr>
<td>Bioterrorism</td>
<td>$514.6</td>
<td>$518.1</td>
</tr>
<tr>
<td>Traumatic Brain (TBI)*</td>
<td>$9.4</td>
<td>$7.5</td>
</tr>
</tbody>
</table>
MCH BUREAU

PROGRAM STRENGTHS
MCHB Program Strengths

- Genuine partnership between federal government, states, and communities

- Statement of priorities consistent with the healthy people 2000 and 2010 goals

- Commitment to both federal and state financing evidenced by match of 4 federal to 3 state dollars
MCHB Program Strengths

- 5 year needs assessment planning
- Framework that targets states’ expenditures to the entire MCH population--infants, children, adolescents, women, pregnant women, CSHCN
MCHB Program Strengths

- Flexibility for states’ to tailor programs

- Commitment for coordination with all other major children’s programs--idea, WIC, medicaid, SCHIP, nutrition, headstart, early intervention
Healthy People 2010
Focus Area 16 Objectives

Healthy Pregnancies and Healthy Infants

- Fetal and infant deaths
- Low and very low birth weight
- Preterm births
- Spina bifida and other neural tube defects
Infant Death Rates (Within 1 Year) by Race and Ethnicity: 1998 - 2001

Per 1,000 live births

15
American Indian/Alaska Native

Black, Not Hispanic

Native Hawaiian/Other Pacific Islander

Total

2010 Target

White, Not Hispanic

Hispanic*

Asian

10

5

0

1998 1999 2000 2001

Source: NVSS, NCHS, CDC.

* Persons of Hispanic origin may be of any race.

Obj. 16-1c
All Infant Deaths (Within 1 Year) by State: 1998-2000

2010 Target = 4.5

Source: NVSS, NCHS, CDC.

Per 1,000 live births

- 9.0 or more (6)
- 8.0 - 8.9 (9)
- 7.0 - 7.9 (15)
- 6.0 - 6.9 (13)
- Less than 6.0 (8)
MCH Bureau Performance Measurement System

I. DECREASE DISPARITIES
- STATE/NATIONAL INDICATORS
- HEALTHY PEOPLE 2010
- LEGISLATIVE PRIORITIES
- PARTNERSHIPS INPUT

II. INCREASE QUALITY
- DIRECT HEALTH
- ENABLING SERVICES
- POPULATION BASED
- INFRASTRUCTURE SERVICES

III. IMPROVE INFRASTRUCTURE
- HEALTHY START
- EMERGENCY SERVICES FOR CHILDREN
- TRAUMATIC BRAIN INJURY

PRIORITY AND GOALS
- MCHB PROGRAM AND RESOURCE ALLOCATION
- MCHB PERFORMANCE MEASURES
- MCHB OUTCOME MEASURES

STATE BLOCK GRANT
SPRANS
HEALTHY START
EMERGENCY SERVICES FOR CHILDREN
TRAUMATIC BRAIN INJURY

PERINATAL MORTALITY
INFANT MORTALITY
NEONATAL MORTALITY
POSTNEONATAL MORTALITY
CHILD MORTALITY
INFANT DEATH DISPARITY
Criteria For Selecting Performance Measures

- Relevant to state Title V activities
- Understandable to policy makers and the public
- Process and capacity measures should link to the outcome measures
Criteria For Selecting Performance Measures

- Measurable change expected within 5 years
- Consideration for measures which are prevention focused
- Data generally available from majority of state
The 18 National Performance Measures

8) the rate of deaths to children aged 1-14 caused by motor vehicle crashes per 100,000 children.

9) percentage of mothers who breastfeed their infants at hospital discharge.

10) percentage of newborns who have been screened for hearing impairment before hospital discharge.
17) percent of very low birth weight infants delivered at facilities for high-risk deliveries and neonates.

18) percent of infants born to pregnant women receiving prenatal care beginning in the first trimester.
Title V Information System

MCHB’s ERP
- Electronic search and retrieval
- Printed Reports Across States and Years

State ERP
- Automated updating and error checking
- Printed Forms

Title V IS
- Automated search and sorting
- Other Data Sources
- Database Searches on the Internet
**PERFORMANCE MEASURE # 16**

The rate (per 100,000) of suicide deaths among youths aged 15 through 19.

### Annual Objective and Performance Data

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Performance Objective</td>
<td>8.1</td>
<td>8.05</td>
<td>6.9</td>
<td>6.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Annual Indicator</td>
<td>9.3</td>
<td>7</td>
<td>6.1</td>
<td>6.7</td>
<td>7</td>
</tr>
<tr>
<td>Numerator</td>
<td>85</td>
<td>65</td>
<td>58</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>Denominator</td>
<td>911819</td>
<td>927044</td>
<td>957537</td>
<td>1051356</td>
<td>1071066</td>
</tr>
</tbody>
</table>

Is the Data Provisional or Final?
- Final
- Provisional

### Year 2003-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Performance Objective</td>
<td>6.6</td>
<td>6.5</td>
<td>6.4</td>
<td>6.3</td>
<td>6.2</td>
</tr>
</tbody>
</table>

**Please fill in only the Objectives for the above years. Numerator, Denominator and Annual Indicators are not required for future year data.**
Federal-State Title V Block Grant Partnership Expenditures by Class of Individuals Served

View Federal Reporting expended to the States

The purpose of Title V is to improve the health of all mothers and children, including children with special health care needs (CSHCN). Each year, States report how their Federal-State Partnership funds were expended on services for pregnant women, infants, children ages 1-21, CSHCN, all others, and administration. This report displays historical data on expenditures by class of individuals served (National).

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Pregnant Women</th>
<th>Infants Less Than 1 Year</th>
<th>Children 1 to 22 Years</th>
<th>CSHCN</th>
<th>All Others</th>
<th>Administration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>National</td>
<td>$405,240,715</td>
<td>$366,705,970</td>
<td>$826,144,357</td>
<td>$1,871,129,115</td>
<td>$223,901,512</td>
<td>$95,705,450</td>
<td>$3,788,827,119</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>$10.7%</td>
<td>$9.7%</td>
<td>$21.8%</td>
<td>$49.4%</td>
<td>$5.9%</td>
<td>$2.5%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>$10.1%</td>
<td>$11.4%</td>
<td>$20.3%</td>
<td>$50.1%</td>
<td>$5.1%</td>
<td>$2.9%</td>
<td>--</td>
</tr>
<tr>
<td>2001</td>
<td>National</td>
<td>$395,903,878</td>
<td>$498,506,142</td>
<td>$903,018,190</td>
<td>$2,117,521,506</td>
<td>$231,225,547</td>
<td>$120,801,265</td>
<td>$4,266,976,528</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>$9.3%</td>
<td>$11.7%</td>
<td>$21.2%</td>
<td>$49.6%</td>
<td>$5.4%</td>
<td>$2.8%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>$8.9%</td>
<td>$11.3%</td>
<td>$20.6%</td>
<td>$51.8%</td>
<td>$4.9%</td>
<td>$2.6%</td>
<td>--</td>
</tr>
</tbody>
</table>
Title V authorizes appropriations to States to improve the health of all mothers and children, including children with special health care needs (CSHCN). This report displays historical data on the total number of individuals served by Title V. "Others" usually represents services to reproductive-age women.

<table>
<thead>
<tr>
<th>Year</th>
<th>Pregnant Women</th>
<th>Infants Less Than 1 Year</th>
<th>Children 1 to 22 Years</th>
<th>CSHCN</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>1,963,797</td>
<td>2,907,840</td>
<td>16,456,435</td>
<td>875,648</td>
<td>1,810,999</td>
<td>24,014,719</td>
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<tr>
<td>1998</td>
<td>2,268,820</td>
<td>3,140,720</td>
<td>17,624,074</td>
<td>860,599</td>
<td>22,667,911</td>
<td>26,162,124</td>
</tr>
<tr>
<td>1999</td>
<td>2,217,483</td>
<td>3,600,536</td>
<td>18,389,416</td>
<td>967,050</td>
<td>1,922,633</td>
<td>27,097,118</td>
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<tr>
<td>2000</td>
<td>2,198,190</td>
<td>3,662,470</td>
<td>18,163,820</td>
<td>970,044</td>
<td>2,207,935</td>
<td>27,202,459</td>
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<tr>
<td>2001</td>
<td>2,223,588</td>
<td>3,793,747</td>
<td>17,793,416</td>
<td>1,010,732</td>
<td>2,257,003</td>
<td>27,078,486</td>
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<tr>
<td>2002</td>
<td>2,290,473</td>
<td>3,839,605</td>
<td>17,474,597</td>
<td>1,255,152</td>
<td>2,405,995</td>
<td>27,265,822</td>
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</tbody>
</table>
National Performance Measure #11

Percentage of mothers who breastfeed their infants at hospital discharge.

All States report annually on their progress toward achieving the targets they set for 18 National Performance Measures. This table displays data from one of these measures. The advantages of breastfeeding are well documented; they include nutritional, immunological, psychological, and economic benefits for both infant and mother.

<table>
<thead>
<tr>
<th>State</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Indicator (Actual Result)</th>
<th>Year Reported</th>
<th>Objective (For the Year Reported)</th>
<th>FY 2007 Objective (Goal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>The number of mothers in the State who exclusively breastfeed their infant at hospital discharge.</td>
<td>Number of occurrent births in the State in the calendar year.</td>
<td>88.8*</td>
<td>2001</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>Idaho</td>
<td>13,886</td>
<td>18,388</td>
<td>74.3</td>
<td>2002</td>
<td>72.7</td>
<td>79</td>
</tr>
<tr>
<td>Oregon</td>
<td>See Notes...</td>
<td></td>
<td>70</td>
<td>2002</td>
<td>71</td>
<td>74</td>
</tr>
<tr>
<td>Washington</td>
<td>67,973</td>
<td>77,242</td>
<td>88</td>
<td>2001</td>
<td>90.5</td>
<td>93.5</td>
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<tr>
<td></td>
<td>See Notes...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Health Systems Capacity Indicator 05B

Infant deaths per 1,000 live births

Every State reports on nine Health System Capacity Indicators. This table displays data from one of these indicators. Adverse health outcomes such as low birth weight disproportionately affect the poor. Comparison of State Medicaid and SCHIP populations to State populations is important to monitor their impact on eliminating these disparities.

You organized your results by the following criteria:

<table>
<thead>
<tr>
<th>States and/or Regions of Interest:</th>
<th>HRSA Region 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort By:</td>
<td>State, Ascending</td>
</tr>
<tr>
<td>Results Returned per Screen:</td>
<td>All</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Reporting Year</th>
<th>Data Source</th>
<th>Medicaid</th>
<th>Non-Medicaid</th>
<th>All</th>
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</thead>
<tbody>
<tr>
<td>Delaware</td>
<td>2000</td>
<td>payment source from birth certificate</td>
<td>9.8</td>
<td>6.5</td>
<td>8.4</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>2001</td>
<td>Other</td>
<td>6.4</td>
<td>4.2</td>
<td>10.6</td>
</tr>
<tr>
<td>Maryland</td>
<td>2000</td>
<td>matching data files</td>
<td>10.7</td>
<td>6.6</td>
<td>7.2</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>2001</td>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>7.2</td>
</tr>
<tr>
<td>Virginia</td>
<td>2001</td>
<td>payment source from birth certificate</td>
<td>11.1</td>
<td>6.4</td>
<td>7.4</td>
</tr>
<tr>
<td>West Virginia</td>
<td>2001</td>
<td>payment source from birth certificate</td>
<td>8.5</td>
<td>6.1</td>
<td>7.3</td>
</tr>
</tbody>
</table>

6 Records Found


<table>
<thead>
<tr>
<th>State</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Indicator (Actual Result)</th>
<th>Year Reported</th>
<th>Objective (For the Year Reported)</th>
<th>FY 2007 Objective (Goal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin</td>
<td>491</td>
<td>69,012</td>
<td>7.1</td>
<td>2001</td>
<td>6.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Ohio</td>
<td>1,153</td>
<td>151,140</td>
<td>7.6</td>
<td>2001</td>
<td>7</td>
<td>6.8</td>
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<td>Minnesota</td>
<td>358</td>
<td>66,617</td>
<td>5.4</td>
<td>2001</td>
<td>5.9</td>
<td>5.9</td>
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<tr>
<td>Michigan</td>
<td>1,038</td>
<td>128,624</td>
<td>8.1*</td>
<td>2002</td>
<td>7.4</td>
<td></td>
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<tr>
<td>Indiana</td>
<td>652</td>
<td>86,122</td>
<td>7.6</td>
<td>2001</td>
<td>7.2</td>
<td>6.6</td>
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<tr>
<td>Illinois</td>
<td>1,379</td>
<td>184,022</td>
<td>7.5</td>
<td>2001</td>
<td>8.2</td>
<td>7.3</td>
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</table>

6 Records Found
<table>
<thead>
<tr>
<th>State</th>
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<th>Year Reported</th>
<th>Objective (For the Year Reported)</th>
<th>FY 2007 Objective (Goal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>819</td>
<td>66,587</td>
<td>1.2</td>
<td>2001</td>
<td>1</td>
<td>0.9</td>
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<tr>
<td>Wisconsin</td>
<td>885</td>
<td>69,012</td>
<td>1.3</td>
<td>2001</td>
<td>1</td>
<td>0.9</td>
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<td>1,227</td>
<td>86,122</td>
<td>1.4</td>
<td>2001</td>
<td>1.3</td>
<td>1.3</td>
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<tr>
<td>Ohio</td>
<td>2,318</td>
<td>151,140</td>
<td>1.5</td>
<td>2001</td>
<td>1.4</td>
<td>1.4</td>
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<tr>
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<td>2,875</td>
<td>184,022</td>
<td>1.6</td>
<td>2001</td>
<td>1.7</td>
<td>1.5</td>
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<tr>
<td>Michigan</td>
<td>2,070</td>
<td>128,624</td>
<td>1.6*</td>
<td>2002</td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

6 Records Found
<table>
<thead>
<tr>
<th>State</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Indicator (Actual Result)</th>
<th>Year Reported</th>
<th>Objective (For the Year Reported)</th>
<th>Objective (Goal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>Number of live births with reported first prenatal visit during the first trimester (before 13 weeks’ gestation) in the calendar year.</td>
<td>151,140</td>
<td>85.8</td>
<td>2001</td>
<td>87</td>
<td>88.5</td>
</tr>
<tr>
<td>Minnesota</td>
<td>54,090</td>
<td>63,916</td>
<td>84.6</td>
<td>2001</td>
<td>87.1</td>
<td>90.5</td>
</tr>
<tr>
<td>Michigan</td>
<td>107,926</td>
<td>128,624</td>
<td>83.9*</td>
<td>2002</td>
<td>85.9</td>
<td>86.3</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>57,747</td>
<td>69,012</td>
<td>83.7</td>
<td>2001</td>
<td>84.1</td>
<td>85.7</td>
</tr>
<tr>
<td>Illinois</td>
<td>150,690</td>
<td>184,022</td>
<td>81.9</td>
<td>2001</td>
<td>81</td>
<td>85</td>
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<tr>
<td>Indiana</td>
<td>67,835</td>
<td>86,122</td>
<td>78.8</td>
<td>2001</td>
<td>78.4</td>
<td>81</td>
</tr>
</tbody>
</table>

6 Records Found
Successes

- National system built on State reporting
- Tracking achievement, or lack of it, over time
- Peer pressure for quality data
- Easy access for policy makers and public over the internet
Successes

- Capacity for provisional and final data
- Use of notes for data explanations
- Ease of electronic application and of timeliness of posting the data
- Access and importance of feedback and use by states
Challenges

- Consistency and availability of the data from year to year and from state to state

- Timeliness of vital records data, i.e., Infant death

- States’ worries about ranking and comparing

- How often to update data during the year
“Never, ever, think outside the box.”
A SMALL ADVANCE EVERY DAY

WILL EVENTUALLY TOTAL MUCH LESS THAN A BIG ADVANCE EVERY DAY.
Contact Information

Peter C. van Dyck, MD, MPH
pvandyck@hrsa.gov

Data Site
https://performance.hrsa.gov/mchb/mchreports
The 18 National Performance Measures

1) the percent of state SSI beneficiaries less than 16 years old receiving rehabilitative services from the state children with special health care needs (CSHCN) program.

2) the degree to which the state children with special health care needs (CSHCN) program provides or pays for specialty and subspecialty services, including care coordination, not otherwise accessible or affordable to its clients.
The 18 National Performance Measures

3) the percent of children with special health care needs (CSHCN) in the state who have a “medical/health home.”

4) percent of newborns in the state with at least one screening for each of PKU, hypothyroidism, GALACTOSEMIA, HEMOGLOBINOPATHIES (e.g., The sickle cell diseases) (combined).
5) percent of children through age 2 who have completed immunizations for measles, mumps, rubella, polio, diphtheria, tetanus, pertussis, haemophilus influenza, hepatitis b.
6) the birth rate (per 1,000) for teenagers aged 15 through 17 years.
7) percent of third grade children who have received protective sealants on at least one permanent molar tooth.
The 18 National Performance Measures

- 11) percent of children with special health care needs (CSHCN) in the state CSHCN program with a source of insurance for primary and specialty care.
- 12) percent of children without health insurance.
- 13) percent of potentially MEDICAID-eligible children who have received a service paid by the MEDICAID program.
14) the degree to which the state assures family participation in program and policy activities in the state CSHCN program.

15) percent of very low birth weight live births.

16) the rate (per 100,000) of suicide deaths among youths 15-19.
Provide National Leadership for Maternal and Child Health by creating a shared vision and goals for MCH, informing the public about MCH needs and issues, modeling new approaches to strengthen MCH, forging strong collaborative partnerships, and fostering a respectful environment that supports creativity, action, and accountability for MCH issues.
Eliminate health disparities in health status outcomes, through the removal of economic, social and cultural barriers to receiving comprehensive timely and appropriate health care.
MCHB Strategic Plan Goals

· To assure the highest quality of care through the development of practice guidance, data monitoring, and evaluation tools; the utilization of evidence-based research; and the availability of a well-trained, culturally diverse workforce
To facilitate access to care through the development and improvement of the MCH health infrastructure and systems of care to enhance the provision of the necessary coordinated, quality health care.