Children's Safety Network

Developing Injury-Related Priority Needs and Performance Measures

Injury continues to be the major killer of children and adolescents, and many children with non-fatal injuries are left with a severe, lifelong disability. To reduce child mortality and morbidity and to improve the general well-being of children and adolescents, states need to target intentional and unintentional injuries.

Injury is also a cross-cutting issue that can impact a broad set of priority needs, including substance abuse, infant mortality, domestic violence, child maltreatment, and emergency services for children. Including injury prevention among priority needs and state performance measures can improve child well being and protect investments already made in breast feeding, immunization, developmental screening, and youth development.

Two out of 18 Maternal and Child Health Bureau (MCHB) National Performance Measures (NPMs) focus on injury prevention. They include #10: "The rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children" and #16: "The rate (per 100,000) of suicide deaths among youth aged 15 through 19."

Healthy People 2010 recognizes the importance of injury and violence prevention and includes 39 objectives specifically addressing these issues. In particular, Healthy People 2010 includes the following objective for child death review: Increase the number of states and the District of Columbia where 100 percent of deaths to children aged 17 years and under that are due to external causes are reviewed by a child fatality review team.

Forty states, the District of Columbia, and one territory currently have a state injury performance measure. Ten states and one territory have selected as a performance measure the prevention of child maltreatment, making this the most popular injury-related measure currently in use. Eight states have selected unintentional/intentional injuries, broadly defined, as performance measures, eight states have selected the prevention of injuries and fatalities caused by motor vehicle crashes, and seven states have selected safe sleep and the prevention of Sudden Infant Death Syndrome (SIDS) and suffocation. A complete list of the state injury performance measures from the 2009 Block Grant applications can be found in the Appendix at the end of this publication.

Three Approaches to Developing Priority Needs and Performance Measures

Injury-related priority needs and performance measures can be general, targeted, or integrated.

1. **General** -- A general priority need or performance measure establishes a broad goal for the reduction of injuries in a state.

   Priority Needs:

   Reduce the rate of intentional and unintentional injuries among children and adolescents (North Dakota 2009).

   Improve the safety of the MCH population, including the reduction of intentional and unintentional injuries (Maine, 2009).

   Decrease intentional and unintentional injuries in the maternal, child, adolescent, and children with special health care needs populations (Louisiana, 2009).

   Performance Measures:

   Decrease the death rate for children age 0-18 due to unintentional injury and/or violence (Kentucky 2009).

   Decrease emergency department visits for unintentional injuries per 100,000 children age 1-14 (Arizona, 2009).

   Decrease the percent of deaths in children and youth ages 1-24 due to non-motor vehicle related unintentional injuries (Wyoming, 2009).

   As part of a general approach, consider creating a developmental measure on a new injury-related issue, such as cyber-bullying, for which there is not yet any data. While quantitative measures are preferred, developmental measures are useful to address a new topic.

2. **Targeted** -- A targeted priority need or performance measure identifies a specific injury issue to be addressed and/or a particular MCH population.

   Priority Needs:

   Decrease the incidence of domestic violence among women of childbearing age (Nevada 2009).

   Reduce the incidence of teen suicide (Michigan, 2009).

   Reduce rates of fatal and non-fatal unintentional injury among children and teens, with emphasis on interventions regarding injuries in motor vehicular crashes and home-safety practices (New Mexico, 2009).

   Performance Measures:

   Reduce the number of fire-related deaths that occur among children ages 0-9.

   Reduce the percent of children younger than 18 years maltreated/neglected (Guam, 2009).

   Reduce the rate of adolescent deaths due to motor vehicle crashes when using no seat belt (Kansas, 2009).

3. **Integrated** -- An integrated priority need or performance measure incorporates injury prevention into MCH initiatives or programs.

   Priority Needs:

   Reduce obesity and promote healthy weight by improving bicycle and pedestrian safety.

   Increase the integration of unintentional injury prevention into relevant MCH programs (Massachusetts, 2009).

   Performance Measures:

   Increase the percentage of state births that occur in a hospital that has a comprehensive perinatal education program, including a Shaken Baby Syndrome prevention component.

   Increase the degree to which Title V programs enhance statewide capacity for a public health approach to mental health promotion and suicide prevention for children and adolescents (Minnesota, 2009).

The Children's Safety Network's (CSN) 2008 self-assessment of state MCH efforts to integrate injury prevention found that the most commonly integrated injury issues were:

- Motor vehicle safety
- Domestic/family violence prevention
- Child maltreatment prevention
- Home-related safety

One strategy is to embed injury prevention in another performance measure, such as one related to substance abuse, healthy weight, infant mortality, oral health, or maternal depression. On pages 5-6 of this publication, you will find several examples of how injury prevention components can be incorporated into non-injury-related performance measures and action steps.

Benefits of the Three Approaches

1. General

- Calls attention to the total burden of injury within your state.
- Provides flexibility to address a wide range of injury topics.
- Enables you to respond to the needs of a broad range of stakeholders who might in turn be able to assist you with funding or other resources.
- Creates an opportunity to attract new stakeholders and partners who may bring different resources -- or more resources -- to the table.

2. Targeted

- Focuses attention on an urgent injury problem.
- Assists in building capacity and expertise within a specific injury area.
- Allows focus on services for high-risk and under-served populations.

3. Integrated

- Assures that injury prevention messages and strategies are not addressed in isolation.
- Incorporates injury prevention into larger initiatives.
- Reduces costs.

Identifying Injury-Related Priority Needs

The following are some steps to take to determine your state's injury-related priority needs:

- Review the input provided by injury prevention professionals and advocates.
- Examine priority need and performance measure data for the past 5 years.
- Analyze data to determine what injuries result in the greatest morbidity and mortality.
- Discover or determine persistent injury problems in which there has been limited or no improvement.
- Link injury-related strategies and best practices with other identified MCH priorities.
- Review priority needs to determine if an injury prevention strategy can be included.

Once you have selected your state priority needs:

- Develop specific activities, action steps, and a time frame.
- Determine if there is a need for a state injury and violence-related performance measure.

Developing an Injury-Related Performance Measure

The steps to developing an injury-related performance measure include:

- Identify the injury problem that you want to reduce, as well as the resources that are available or that could be leveraged.
- Determine the MCH population(s) impacted by that injury problem.
- Identify a data source that allows tracking annually. Either quantitative data or qualitative scale can be used to measure progress.

- Using either the general, targeted, or integrated approach, set a clear objective to be accomplished within a specific time frame.
- Define the numerator and denominator that will be used to determine progress on the objective.
- Develop specific activities, action steps, and timelines to address your objective.
- Assign someone to serve as the lead.
- Monitor progress and outcomes and report the results back to stakeholders.

Setting Performance Objectives

States need to set annual objectives for their performance measures. These objectives should be both realistic and challenging. When establishing anticipated outcomes for the injury-related measure, use the most current information available and identify the age group on which to focus. Determine the time frame for accomplishing your objective -- whether the state fiscal year, a calendar year, or some other period.

Defining the Numerator and Denominator for Your Performance Measure

States use a variety of types of data for their performance measures. Some states use national data sets, such as Medicaid, the Youth Risk Behavior Surveillance System Survey (YRBSS) that is administered by the Centers for Disease Control and Prevention (CDC), the MCHB National Survey of Children's Health, or the MCHB National Survey of Children with Special Health Care Needs, while other states may use their own state survey data, vital statistics, child death review data, or hospital discharge data.

Here are 4 examples of performance measures with accompanying numerators and denominators:

Maternal Deaths from Unintentional and Intentional Injuries

- **Sample Performance Measure**: Reduce the number of maternal deaths due to unintentional and intentional injuries.
- **Numerator**: Total number of maternal deaths from unintentional and intentional injuries in a calendar year. (This includes homicides, motor vehicle crashes, and other injuries but does not include deaths as the result of illness.)
- **Denominator**: Total number of maternal deaths in a state from all causes, including those deaths that are not injury-related.

Alcohol-Related Motor Vehicle Crashes

- **Sample Performance Measure**: Reduce the number of injuries and deaths to teens ages 15-19 caused by alcohol-related motor vehicle crashes.
- **Numerator**: Total number of injuries and deaths to teens ages 15-19 caused by alcohol-related motor vehicle crashes during a calendar year.
- **Denominator**: Total number of teens ages 15-19 injured and killed in motor vehicle crashes, including those crashes that are not alcohol-related.

Bicycle Injuries

Nationally, among youth who rode a bicycle in the past year, 85% rarely or never wore a helmet. (Source: Youth Risk Behavior Surveillance System). Review your state's YRBSS results to determine the percentage of youth who do not wear helmets while riding a bicycle.

- **Sample Performance Measure**: Increase the number of youth who always wear a helmet while riding a bicycle.
- **Numerator**: Total number of youth wearing a helmet while riding a bicycle during a calendar year.
- **Denominator**: Total number of youth who responded to the YRBSS question about whether they wear a helmet while riding a bicycle.

Fire-Related Fatalities

- **Sample Performance Measure**: Reduce the number of fire-related deaths to children ages 0-9.
- **Numerator**: Total number of fire-related deaths to children ages 0-9 in a calendar year.
- **Denominator**: Total number of deaths to children ages 0-9 in a state from all causes, including those deaths that are not fire-related.

Selecting or Adapting Performance Measures Already Developed by Other States

Consider using an injury-related performance measure that has been developed by another state. Selecting a performance measure that is already being used by another state makes it easier to make comparisons across states. Or, you can adapt another state's performance measure to meet the specific needs of your state. For states to be able to compare similar performance measures on an annual basis, they must:

- Use the same definitions for terms in the measure
- Use the same data elements
- Assess comparable population groups.

A list of the injury-related performance measures from states' 2009 Block Grant applications is provided in the Appendix below. To find the Detail Sheets for these performance measures, go to: https://perfdata.hrsa.gov/MCHB/TVISReports/MeasurementData/StateMeasures/StateMeasuresMenu.aspx#SPM. Then, click on Search by State for the Current Application Year, choose a state from the drop down menu, and click on the specific performance measure in which you are interested.

For performance measures that are not injury-related, we encourage you to add either a component or an action step that will reduce injury risks. For example:

Performance Measures

- Collaboration with schools, families, and advocacy groups to promote the inclusive participation of Children with Special Health Care Needs (CSHCN) **and to prevent CSHCN from being bullied in their schools and communities**.
- The number of adolescents ages 13-18 who receive services **and screening for intimate partner violence** in school-based health centers.
- The percent of Medicaid-eligible children who receive dental services **and are screened for child maltreatment during dental visits**.*
- The number of counties in a state implementing positive youth development strategies, as well **as providing education about recognizing and responding to the warning signs of suicide**.

  For information about positive youth development strategies, go to the National Clearinghouse on Families and Youth's website at http://www.ncfy.com/.

- Percent of new parents receiving support through home visiting services **that include information about safe sleep environments for infants**.
- Percent of child care facilities that have a nurse consultant to provide health and **safety training**.

Action Steps

- Develop and implement school and community **bullying prevention action plans**.

  For information about bullying prevention, visit the Stop Bullying Now! website at http://stopbullyingnow.hrsa.gov/kids/.

- School-based health centers **screen for intimate partner violence**.

  For information about intimate partner violence among adolescents, visit the National Youth Violence Prevention Resource Center's website at http://www.safeyouth.org/scripts/topics/dateviolence.asp.

- Dental providers are trained to use the PANDA coalition model for **child maltreatment screening**.*
- Provide education about recognizing and responding to the **warning signs of suicide**.

  For information about suicide prevention, visit the Suicide Prevention Resource Center's website at http://www.sprc.org/.

- Nurse consultant provides **safety training** for child care facilities.

  For more information about injury prevention in child care facilities, visit the National Resource Center for Health and Safety in Child Care and Early Education's website at http://nrckids.org/. For safety tips and checklists, visit the Home Safety Council's website at http://www.homesafetycouncil.org/index.asp.

- Include **safe sleep information** in home visits.

  For more information about safe sleep, visit the National Sudden & Unexpected Infant/Child Death & Pregnancy Loss Project's website at http://www.sidsprojectimpact.com/.

*Based on an education and screening model developed by the Prevent Neglect and Abuse through Dental Awareness (PANDA) coalition. For more information about this intervention and how it can be implemented in your state, contact CSN.

Conclusion

Injury is the leading cause of death and disability among MCH populations. In fact, injuries account for more deaths among children ages 0-19 than all other causes combined.

MCH programs already focus on the populations that are at the greatest risk of being injured: low-income families, minorities, rural populations, and children with special health care needs. Addressing injury through the selection of priority needs and performance measures is an effective and efficient way to reduce risk, promote safe practices, and further health-related goals.

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Appendix
2009 Injury-Related State Performance Measures

Unintentional/Intentional Injuries and Deaths

State	Performance Measure
Arizona	Emergency department visits for unintentional injuries per 100,000 children age 1-14.
Georgia	Rate of hospitalizations due to unintentional injuries among children ages one through age four.
Kentucky	Decrease the death rate for children age 0-18 due to unintentional injury and/or violence.
Nebraska	Hospitalization for unintentional injuries (per 1,000) for children and adolescents. Hospitalization for intentional injuries (per 1,000) for children and adolescents (age 1-19).
Nevada	The percent of children and youth ages birth through aged 18 who died from unintentional injuries should be decreased.
North Dakota	The rate of deaths to children age 1-19 caused by intentional and unintentional injuries per 100,000 children.
Virginia	The unintentional injury hospitalization rate for children aged 1-14 per 100,000.
Wyoming	Percent of deaths in children and youth ages 1-24 due to non-motor vehicle related unintentional injuries.

Bullying

State	Performance Measure
Maine	The percentage of elementary schools that have developed and implemented a comprehensive approach to the prevention of bullying in collaboration with the Maine Injury Prevention Program.

Capacity Building

State	Performance Measure
Washington	Strengthen statewide system capacity to promote health, safety, and school readiness of children birth to kindergarten entry.

Child Care Safety

State	Performance Measure
Texas	Percent of licensed child care centers in metropolitan counties that have no deficiencies in operational policies that address health and safety of children.

Child Death Review

State	Performance Measure
Louisiana	Percent of state fetal and infant deaths reviewed by a Feto-Infant Mortality Review (FIMR).
Montana	Percent of state fetal/infant/child deaths reviewed for preventability by local review teams.
New Jersey	The percentage of Regional MCH Consortia implementing community-based Fetal and Infant Mortality Review (FIMR) Teams.
South Carolina	Increase the number of health departments who implemented a review process for fetal and infant deaths.

Child Maltreatment

State	Performance Measure
Alaska	Rate (per 1,000) of substantiated reports of harm to children ages 0 through 18.
Guam	Percent of children younger than 18 years maltreated/neglected.
Illinois	The incidence of maltreatment of children younger than age 18.
Kentucky	Reduce the rate of substantiated incidence of child abuse, neglect, or dependency.
Louisiana	Rate of children (per 1,000) under 18 who have been abused or neglected.
Massachusetts	The percentage of Massachusetts births that occur in a hospital that has an active Shaken Baby Syndrome Prevention Program.
Minnesota	Incidence of determined cases of child maltreatment by persons responsible for a child's care.
New Mexico	Reduce the number of children witnessing violence (exposed to domestic or sexual violence) as expressed by percent of children present at a domestic violence scene.
North Carolina	Number of children affected in substantiated reports of abuse and/or neglect as compared with previous years.
Tennessee	Reduce the incidence of maltreatment of children younger than age 18 including physical, sexual, emotional abuse and neglect to a rate no more than 8 per 1,000.
Wisconsin	Rate per 1,000 of substantiated reports of child maltreatment to Wisconsin children, ages 0-17, during the year.

Domestic Violence

State	Performance Measure
California	The percent of women, aged 18 years or older, reporting intimate partner physical, sexual or psychological abuse in the past 12 months.
Guam	The prevalence of partner violence in adolescent relationships.
Missouri	The incidence of domestic violence per 100,000 population.
New Mexico	Reduce the proportion of women who report being physically abused by husband or partner during pregnancy.
Nevada	The percent of women of child-bearing age who receive screening and assistance for domestic violence should be increased.
Texas	Rate of family violence incidents involving female victims per 1,000 women in Texas.

Firearm-Related Deaths in Youth

State	Performance Measure
Montana	Rate of firearm deaths among youth aged 5-19.

Motor Vehicle-Related Injuries

State	Performance Measure
California	The rate of deaths per 100,000 adolescents aged 15 through 19 years caused by motor vehicle injuries.
Colorado	The motor vehicle death rate for teens 15-19 years old.
Delaware	Decrease the rate of deaths from 33 to 30 to children ages 14 years through age 21 caused by motor vehicle crashes.
Kansas	The rate of adolescent deaths due to motor vehicle crashes when using no seat belt.
Maine	The motor vehicle death rate per 100,000 among children 15 to 21 years of age.
New Hampshire	The rate (per 100,000) of emergency department visits among youths aged 15-19 resulting from being an occupant in a motor vehicle crash.
Wisconsin	Death rate per 100,000 among youth, ages 15-19, due to motor vehicle crashes.
West Virginia	Decrease the number of high school students who never or rarely wear a seat belt when riding in a car driven by someone else.

Safe Environment, Lead Poisoning

State	Performance Measure
District of Columbia	Prevalence of lead levels > 10ug/dL among children through age 6.
Illinois	The prevalence of childhood lead poisoning.
Indiana	The percentage of children age 0 to 7 years with blood lead levels equal to or greater than 10 Micrograms per deciliter.
Iowa	Percent of Medicaid enrolled children ages 9-35 months receiving a blood level test.
Michigan	Increase the percent of Medicaid enrolled children 0-6 years of age who receive lead screening.
New Hampshire	Percent of children age two (24-35 months) on Medicaid who have been tested for lead.
New Jersey	The percentage of children with elevated blood lead levels (>=20 ug/dL).
Ohio	Increase the proportion of children who receive age-and-risk appropriate screenings for lead, vision, and hearing.
Pennsylvania	Percent of children ages 6 years and younger tested for elevated blood lead levels. The percent of tested children ages 6 years and younger with confirmed elevated blood lead levels.
Rhode Island	Percent of children aged less than 6 who live in the core cities and have blood lead levels at or above 10ug/dL.
Vermont	The percent of one year old children who are screened for blood lead poisoning.

Safe Sleep, SIDS, Suffocation

State	Performance Measure
Delaware	The rate of children under age 1 who die as a result of Sudden Infant Death Syndrome (SIDS).
Georgia	Rate of SIDS among African America infants.
Louisiana	Rate of infant deaths due to Sudden Infant Death Syndrome.
Nebraska	Incidence of confirmed SIDS cases (per 1,000 live births) among African American and Native American infants.
New York	Percent of infants who are put down on their backs to sleep.
Pennsylvania	Rate of infant deaths as a result of Sudden Infant Death Syndrome (SIDS) and accidental suffocation and strangulation in bed per 1,000 live births.
South Dakota	The rate (per 1,000 live births) of infants under age one who die as a result of Sudden Infant Death Syndrome.

Self-Inflicted Injuries/Suicide

State	Performance Measure
New York	Hospitalizations for 15-19 year olds for self-inflicted injuries.

Suicide Prevention

State	Performance Measure
Minnesota	The degree to which Title V programs enhance statewide capacity for a public health approach to mental health promotion and suicide prevention for children and adolescents.

Violence Affecting Children and Adolescents

State	Performance Measure
Connecticut	Percent of 9-12 graders who reported being in a fight within the past 12 months.
District of Columbia	Percentage of high school students who were in a physical fight one or more times during the past 12 months.
Massachusetts	The degree to which Pediatric Sexual Assault Nurse Examiner (Pedi-SANE) services have been implemented statewide, as measured on a unique scale from 0-20.

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