

KIDS COUNT Indicator Brief

Reducing the Child Death Rate

The Annie E. Casey Foundation

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During the 20th century, breakthroughs in medicine and sanitation sharply reduced child mortality. The steepest drop came between 1960 and 1990, largely due to advances in the prevention and treatment of infectious diseases (HHS, 1997). During this period, the death rate fell by 57 percent for children aged one to four, and by 48 percent for children aged five to 14 (National Bureau of Economic Research, 2001). By the century's end, infection was no longer the most serious threat to children's well-being.

Not all segments of the population have benefited equally, however. To a large extent, the racial and ethnic disparities in child mortality that prevailed early in the last century have persisted, with African American children bearing more than twice the risk of white children. Research has not uncovered all the reasons for these disparities, but they appear to have more to do with the structural conditions of whole communities than with susceptibilities or behaviors of particular individuals (FIFCFS, 1998).

This *KIDS COUNT Indicator Brief* considers strategies to address both the larger socioeconomic forces and some of the specific hazards that threaten the well-being of children ages 1 to 14:

- **Protect Children's Health and Safety by Strengthening Communities**
- **Ensure that Children Have Safe Places to Live, Learn, and Play**
- **Support Parents and Families in their Caretaking Roles**
- **Focus Intensively on Motor Vehicle Safety**
- **Target Other Leading Safety Hazards**
- **Address Adult Behaviors that Endanger Children**

1. Protect Children's Health and Safety by Strengthening Communities

A convergence of research from several fields, notably social epidemiology, lends support to the notion that children do better when their families thrive, and families do better in communities that offer economic opportunity, strong social networks, and responsive human services

- **Build on promising research to expand knowledge of the linkages between community conditions and children’s health outcomes.** A growing body of scientific evidence is confirming what many Americans have always suspected: healthy communities are associated with healthy outcomes for children, while communities that are disorganized and have few resources tend to produce poor outcomes (Kubisch, 1996). Recently the National Institutes of Health undertook an ambitious effort to understand the pathways that lead from adverse conditions to poor health. Scientists explored the links among the biological, social, and behavioral worlds, in an effort to understand how forces like economic hardship, racial discrimination, and segregation affect the likelihood that various groups of adults and children will suffer ill health, have accidents, or die. They sought a fuller explanation for why residents in some neighborhoods fare worse than similar people who live elsewhere. One promising approach, made possible by new Geographic Information Systems (GIS) technology, involves mapping environmental “hot spots” for disease and mortality. Data on health outcomes can now be linked to local-level and even address-level factors, such as unemployment statistics, building code violations, the number of liquor stores in the area, etc. With these new research tools, researchers will be better able to identify factors that undermine or promote children’s health and safety. Another approach to learning more about how community conditions affect health outcomes is to conduct social experiments. An example is the Moving to Opportunity program, implemented in five cities by HUD. This program distributed housing vouchers to randomly selected residents of housing projects, allowing them to move to neighborhoods with greater resources. The idea is to study the effects of dispersing concentrated poverty. Early results from the Boston Moving to Opportunity project showed that children who were taken out of very distressed neighborhoods had a significantly lower prevalence of injuries and asthma attacks and scored more highly on several indices of personal well being (Singer and Ryff, 2001).
- **Incorporate new understandings of these linkages into community-building efforts.** Research shows that children and families living in tough neighborhoods fare better when strong institutions (such as employers, faith institutions, block associations, or active schools) create places for people to gather and help to strengthen the community’s social fabric (Ellen & Turner, 1997). It seems that strong social networks can literally save lives. For example, in neighborhoods where adults share a vision of community life, are willing to engage with others, and have a sense of ownership of public space, rates of violent crime are low (Earles & Visher, 1997; Sampson, Raudenbush & Earles, 1997; Travis, 1997). As researchers shed additional light on the linkages between community conditions and child well-being, existing programs to support families and strengthen communities can be reconsidered and improved.

- **Design strategies for safeguarding children that reflect local realities and cultural diversity.** Injury prevention is not a one-size-fits-all project. Some groups have made headway on longstanding safety issues by consulting with community-based organizations and conducting focus groups among residents. An example is the challenge of increasing car seat use by Hispanic families. Researchers report a significantly higher death rate from motor vehicle crashes for Hispanic than for non-Hispanic children (U.S. Department of Transportation, 2001). Focus group research has shown that Hispanic parents feel safer and more nurturing when they hold young children in their laps rather than relying on car seats to protect them. Collaborative public information efforts by government agencies, Hispanic advocacy groups, and private insurers have resulted in bilingual public information campaigns about the importance of seatbelts for children that have begun to make a difference. Cultural as well as linguistic barriers need to be addressed. A creative solution that sprang from community brainstorming was asking priests to bless car seats--an “intervention” that is helping to promote passenger safety (National Latino Child Institute, 2001).

2. Support Parents and Families in their Caretaking Roles

In recent decades, accidental injury has become the greatest danger to children, causing more than half of all childhood mortality (Population Reference Bureau, 2001; National Library of Medicine, 2001). States and communities can take many steps to strengthen consumer protection and create safer public spaces. Better products and stronger legislation can help to protect children, but they do not take the place of informed, responsible adults who are able to look after children’s health and safety. In recent decades, national and local regulations requiring better safety labeling, child safety seats in automobiles, residential smoke detectors, and window guards markedly lowered the child mortality rate. But because some parents have more access to this information than others, the safety gap between children of more and less educated parents has actually widened (Francis, 2001).

- **Expand family support and parent education initiatives, and increase attention to safety within those programs.** Expanding family support, home visitation, and parent education initiatives can strengthen parents’ ability to safeguard their children and to act as effective advocates or “brokers” for their children’s receipt of community services. Programs aimed at helping parents look after their children’s health and safety need to extend beyond the first year of life, recognizing youngsters’ vulnerability throughout childhood.

- **Involve parents and other community members in planning health services.** Researchers say that difficulties in immunizing young children and identifying those with special needs stem in part to a lack of parental involvement in the design and implementation of health services (Brooks-Gunn, 1996). This is especially true in low-income neighborhoods. Programs that aim to identify young children at risk for illness or injury and refer them for appropriate services are effective only when they engage parents.
- **Create accessible health-and-safety-related materials in a variety of media, and to distribute them in places where families are likely to be receptive to them.** Today, more safety information is available to parents than ever before, thanks to mandatory safety labeling, safety-oriented websites, public service announcements, and more coverage of safety in parenting manuals. For example, the amount of safety information in Dr. Benjamin Spock’s popular manual of baby and child care more than quadrupled from 1957 to the present (National Bureau of Economic Research, 1999). But isolated families, immigrant parents, or those with low literacy levels may not benefit fully from these materials. Closing the safety gap will require intensive efforts to give all families access to the information and support they need, in a variety of media and languages. Examples of effective strategies include well targeted public service announcements on television and radio; wide distribution of informative videos to new parents in childbirth classes, clinics, and hospitals; and distribution of safety and health information in frequently visited stores or fast food restaurants.

3. Ensure That Children Have Safe Places to Learn, and Play when they are Away from Home

Ensuring that people have safe public spaces in which to gather is essential to expanding or reinforcing social networks in communities. It is also a key strategy for safeguarding children.

- **Improve playground availability and safety.** Playgrounds and recreation areas can help keep children off the streets and away from traffic. But these areas are not always the safe havens that parents hope for. In 2000, a national survey of playground safety found that hard surfaces, equipment that is too high, openings that can entrap children, and swings that are too close together pose serious threats at a majority of public playgrounds. Some 170,100 children require hospital emergency room treatment each year because of playground accidents – most often falls. Safe equipment and construction are crucial, but so is close supervision (Fise, Morrison & Weintraub, 2000).
- **Take steps to guarantee health and safety in child care settings.** Many parents worry about their children’s safety in early care and education settings. In too many cases, their concerns are warranted. In 1997, about 31,000 children under the age of five were treated in U.S. hospital

emergency rooms for injuries in early care and education settings (U.S. Consumer Product Safety Commission, 1997). While injured children represent only a small percentage of those in non-parental care, the number is much too high considering that most of these injuries are preventable. Parents can play a role in monitoring safety, but policymakers also have a role to play. The CPSC reviewed state licensing requirements for child care, and found that most of the hazards addressed in the study were not covered. For example, many states did not require day care centers to use cribs that meet federal regulations or voluntary safety standards.

- **Expand parents’ access to the tools and information needed to monitor child care safety.** A study by the U.S. Consumer Product Safety Commission (CPSC) looked at 220 licensed child care settings across the nation, including both child care centers and family child care homes, and found that two-thirds of them had at least one safety hazard (unsafe cribs or bedding, unsafe playground surfaces, windows without child safety gates, window blind cords, drawstrings in children’s clothing, or recalled children’s products). And these were *licensed* programs. Parents can help to protect their children by asking providers to resolve any and all safety problems, using checklists available from many resource and referral (R&R) agencies, or from the U.S. Consumer Product Safety Commission. Parents have an even more important role to play in monitoring safety in unregulated child care settings.
- **Encourage home-based providers to seek licensing, and create support systems for “informal” providers.** Many parents assume that all child care providers have to meet some kind of health or safety standards, but in fact, millions of children are cared for by providers who are exempt from all regulation. Providers are more likely to seek licensing, or to stay in business despite regulation, if they feel that they benefit from their new status. One solution is to create networks that help family child care providers meet regulatory standards, and provide other advantages. Some networks are sponsored by states or cities, but businesses can also create child care networks linking their employees’ child care providers. Employers who want to create such a network can now turn to organizations (for-profit or not-for-profit) specializing in this area. Community-based child care resource and referral services are natural centers for family child care providers. In addition to matching families with providers in their communities, R&R’s provide a wide range of support services both to families and providers. They frequently offer training to child care providers.
- **Link child care providers with medical homes.** Providers need to have a medical contact for every child in their care. Many health experts believe that the providers themselves need to have an ongoing relationship with a pediatrician or clinic that can become a “medical home” for the

program. The American Academy of Pediatrics and the National Association of Pediatric Nurse Associates and Practitioners have urged their members to “adopt” an early care and education program (Tonniges 1997).

4. Focus Intensively on Motor Vehicle Safety

Motor vehicle injury is the leading cause of accident-related child mortality. Riding without appropriate restraints (seat belts or properly installed child safety seats) is the greatest risk factor for death and injury among child occupants of motor vehicles. Approximately 40 percent of children under the age of five ride unrestrained, placing them at twice the risk of death and injury as those riding restrained (National Center for Injury Prevention and Control, 1999).

- **Foster the use of seat belts.** The American Academy of Pediatrics recommends that all children who are passengers in motor vehicles should use the restraint device offering maximum protection for their size and age. No matter which restraint device is used, children should ride in the back seat. All 50 states have child occupant protection laws; however, these laws vary widely in their age requirements, exemptions, enforcement procedures, and penalties. Safety studies have shown that in states where officers may stop and ticket drivers for seat-belt violations, there are lower fatality and injury rates (National Highway Traffic Safety Administration, 1999).
- **Encourage the proper use of child safety seats.** The proper use of child car seats saves lives, but safety experts estimate that most (80 percent) of children who are placed in child safety seats are improperly restrained. Most public health departments can provide instructions on the proper use of child car seats. In addition, many provide car seats to economically disadvantaged parents free of charge, have a loaner program, or make them available for purchase on a sliding-fee scale (National Center for Injury Prevention and Control, 1999). In February 2000, the Centers for Disease Control and Prevention recommended that states also require the use of belt-positioning booster seats in conjunction with vehicle lap/shoulder belts for small children who have outgrown their car seats.
- **Promote the use of bicycle helmets.** If all bicycle riders wore safety helmets, 500 bicycle-related deaths would be prevented every year (Bicycle Helmet Safety Institute, 1999). Helmets significantly decrease the risk of head injuries (Rivara, 1997), but only about 18 percent of cyclists in the US use

helmets all or most of the time (Rodgers, 1995). Fewer than 20 states have a statewide helmet use law. These laws vary by age affected, penalty and type of enforcement (NSKC, 1996).

5. Address Other Leading Safety Hazards

Safety experts believe that as many as 90 percent of unintentional injuries could be prevented (National Safe Kids Campaign, 1998).

- **Increase water safety.** Drowning is the second leading cause of unintentional injury-related death among children under age 15, and the leading cause among children between the ages of one and five (NCIPC, 1998). Childhood drownings and near-drownings can happen in a matter of seconds and typically occur when a child is left unattended or during a brief lapse in supervision (NSKC, 1999). States and communities can make swimming pools safer by passing laws requiring fencing around residential swimming pools. Older children are more likely to drown in open water sites, such as lakes, rivers and oceans. In these locations, lifeguards, personal floatation devices (such as life preservers) and water safety instruction offer the best protection. Boating safety is also important. It has been estimated that 85 percent of boating-related drownings could have been prevented if the victim had been wearing a life preserver (NCIPC, 1998). Many states do not yet have boating safety laws requiring children to wear personal flotation devices at all times when on boats or near open bodies of water.
- **Prevent deaths from fires, burns and smoke inhalation.** Child deaths from fire and flame injury have declined in recent years. However, when home fires do occur, children (especially young children) continue to be at the highest risk of death and injury (NSKC, 1998). In 1997, across the nation, fires took the lives of 631 children ages one through 14 (NCIPC, 2000). The chances of dying in a residential fire are cut in half when a smoke alarm is present. As of 1995, the great majority of homes in the United States had at least one smoke alarm, but in almost three-quarters the smoke detector(s) did not work, usually due to rundown batteries (National Center for Injury Prevention and Control, 1998). Currently, seven states have no comprehensive smoke alarm laws, and many more have limited laws covering specific categories of housing such as new buildings or multi-occupancy dwellings.

- **Prevent deaths caused by airway obstructions.** In 1997, 280 children ages 1 through 14 died of suffocation (NCIPC 2000). Most were under the age of five (NSKC, 1998). Families and child care providers need more information about how to prevent suffocation, choking, and strangulation.
- **Prevent deaths from firearms.** According to the Centers for Disease Control, the rate of firearm death of children under age 15 is significantly higher than in other industrialized nations. About one-third of states have passed laws that hold gun owners criminally liable if children use their loaded weapons to harm themselves or others; such laws have been shown to reduce child mortality (Cummings et. al., 1997). State safe storage laws and safety devices (childproof gunlocks and load indicators) have been shown to significantly reduce unintentional firearm deaths. A national gun policy survey found that 88 percent of Americans support laws requiring all new handguns be childproofed (NSKC, 1998).

6. Focus on Adult Behaviors that Endanger Children

- **Expand mental health services for families, including alcohol and drug treatment programs.** Direct approaches to improving children's health and safety are not always sufficient. For example, in the eighties most parents complied with laws in all 50 states mandating child restraints in cars, but the number of car accident fatalities for child passengers under age five actually increased. Researchers point to the fact that children are spending more time in cars (Lewit and Baker, 1995). But it is also true that most of the fatalities resulted when at least one driver involved in the accident had been drinking (Friedrich, 1999). Such calamities can only be prevented with more effective alcohol prevention and treatment programs for adults.
- **Strengthen efforts to prevent child abuse and neglect.** It is estimated that one thousand children die every year in the U.S. from child abuse and neglect (CWLA, 1999). The number may actually be higher, however. Interpreting trends in child abuse deaths remains difficult because of reporting gaps and different state methodologies for investigating and substantiating the cause of death. One study has suggested that each year, about 85 percent of deaths from child abuse or neglect are misclassified as accidental (Lewit and Baker, 1995). Successful preventive interventions include parenting education, especially for teen parents; respite care for families at-risk; support groups and

networking for teen mothers; better detection and intervention training for social workers and health care providers; and more effective long-term tracking of patterns of abuse within families.

In conclusion, while it is important to target specific accidents and illnesses, many children today are threatened less by particular diseases or safety hazards than by economic and social forces that affect the communities in which they live. In the long run efforts to reduce the child mortality rate will have to both focus on accident prevention and take into account the larger forces, including poverty, racial discrimination, and segregation, that threaten children's well-being and make some groups of children more vulnerable than others to illness or injury.

References:

- Anderson, R.N.; Kochanek, K.D.; Murphy S.L. (1997). Report of final mortality statistics, 1995." *Monthly vital statistics report* 45, 11(2 Suppl).
- Annest JL, Mercy JA, Gibson DR, Ryan GW. (1995) National estimates of nonfatal firearm-related injuries: Beyond the tip of the iceberg. *JAMA*, 273:1749-54.
- Bicycle Helmet Safety Institute (1999)
- Brooks-Gunn, J. (1996) Big-city kids and their families: Integration of research and practice. In A.J. Kahn and S.B. Kamerman, eds. *Children and their families in big cities: Strategies for service reform*. New York: Columbia University School of Social Work.
- Budman, M.V., Powell, K.E., Everett S.A., Anderson M.A., Bolen J.C. & Sleet, D.A. (1999). The prevalence of injury prevention activities in American schools. *Journal of health education*; 30:S34-S41.
- Centers for Disease Control and Prevention (1999). Nonfatal and fatal firearm-related injuries - United States, 1993-1997. *MMWR*;48:1029-1034.
- Centers for Disease Control and Prevention. (1995). Injury-control recommendations: Bicycle helmets. *Morbidity and Mortality Weekly Report* 1995; 44(RR-1): 1-17.
- Child Trends. (1999). A century of children's health and well-being. Child Trends research brief. Available at www.childtrends.org.
- Child Welfare League of America (1999). State child welfare agency survey. Washington, D.C.
- Cummings, P., Grossman, D.C., Rivara, F. & Koepsell, T. (1997). State gun safe storage laws and child mortality due to firearms. *JAMA*, 278:1084-1086.
- Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (1997). Trends in the well-being of America's children and youth. Available at aspe.os.dhhs.gov.

Ellen & Turner (1997)

Federal Interagency Forum on Child and Family Statistics. (1998). America's children: Key national indicators of well-being. Available at www.childstats.org.

Finvers K.A., et al, (1996), The effect of bicycling helmets in preventing significant bicycle-related injuries in children. *Clinical Journal of Sport Medicine*, 6(2):102-107.

Fise, M.E., Morrison, M.L., and Weintraub, R. (2000). *Playing it safe: A fifth nationwide safety survey of public playgrounds*. U.S. Public Interest Research Group and The Consumer Federation of America

Francis, D. R. (2001). *National Bureau of Economic Research Digest*. Reducing accidents is key to lower child mortality. Available at www.nber.org.

Friedrich, M. J. (1999). Report documents causes of child death. *Journal of the American Medical Association* 282 (20, 24).

Hoyert, D.L.; Kochanek K.D., & Murphy S.L. (1999), Deaths: Final data for 1997. *Monthly vital statistics report*, 47(9).

Kubisch, A.C. (1996). On the term community: An informal contribution. In A.J. Kahn and S.B. Kamerman, eds. *Children and their families in big cities: Strategies for service reform*. New York: Columbia University School of Social Work.

Lewit, E. M. and Baker, L. S. (1995). Child indicators: Unintentional Injuries. *The Future of Children* 5 (1).

Minnesota Advocates for Human Rights. (2001). Children's human rights program--Global child survival: A human rights Priority v. case study: United States of America. Available at www.mnadvocates.org.

Moore M.H. & Tonry, M. (1998), Youth violence in America. In: Tonry M., Moore M.H., eds. *Crime and justice: A review of the research*. Vol 24. Chicago, IL: The University of Chicago Press.

National Bureau of Economic Research (1999). Reducing accidents is key to lower child mortality. Accessed 6/01/01 from www.nber.org/digest/dec99/glied.html.

National Center for Injury Prevention and Control. (1998). National summary of injury mortality data, 1981-1997. Atlanta, GA: Centers for Disease Control and Prevention.

_____ (1999)

_____ (2000)

National Latino Child Institute (2001)

National Highway Traffic Safety Administration (1999)

National Library of Medicine. (2001). Medline plus. Death among children and adolescents. Available at www.nlm.nih.org.

National Safe Kids Campaign (1996)

_____ (1998)

Population Reference Bureau and Social Science Data Analysis Network (AmeriStat). (2001) A century of progress in infant and child survival. Available at www.ameristat.org.

Rivara, F.P. et al (1997). Injuries involving off-road cycling, *Journal of family practice*. 44(5):481-5.

Rodgers, G.B. (1995). Bicycle helmet use patterns in the United States: A description and analysis of national survey data. *Accident analysis and prevention*, 27(1):43-56.

Sampson, Raudenbush, & Earles (1997)

Singer, B. H and Ryff, C. D. (2001). *New horizons in health: An integrative approach*. Washington, D.C. National Academy Press

Sullivan, L. W. (1999). Health and the American child. WHO Global symposium on violence and health. Washington, D.C.: Public Health Policy Advisory Board.

Travis (1997)

Tonniges (1997)

U.S. Bureau of the Census (1999), *Estimates of the population of state by age, sex, race and Hispanic origin: 1990 to 1998*. Washington, D.C.

U.S. Consumer Product Safety Commission (1997)

U.S. Department of Transportation. (2001). Preventing injuries in Hispanic communities. Accessed 8/10/01 at www.nhtsa.dot.gov/safecommunities/ServiceCenter/scnews/features4.html

For more information:

Child Welfare League of America

440 First Street, NW, Third Floor

Washington, DC 20001-2085

Tel. (202) 638-2952

www.ncwla.org

The National SAFE KIDS Campaign

1301 Pennsylvania Ave, NW, Suite 1000

Washington, DC 20004-1707

202-662-0600

<http://www.safekids.org>

National Center for Injury Prevention and Control

4770 Buford Highway NE

Atlanta, GA 30341-3724

(770) 488-1506

www.cdc.gov/ncipc

National Center for Health Statistics

Division of Data Services

Hyattsville, MD 20782-2003

(301) 458-4636

<http://www.cdc.gov/nchs/>