



Ten Great Public Health Achievements

During the 20th century, life expectancy at birth among U.S. residents increased by 62%, from 47.3 years in 1900 to 76.8 in 2000, and unprecedented improvements in population health status were observed at every stage of life. In 1999, MMWR published a series of reports highlighting 10 public health achievements that contributed to those improvements. This report assesses advances in public health during the first 10 years of the 21st century. Public health scientists at CDC were asked to nominate noteworthy public health achievements that occurred in the United States during 2001--2010.

Occupational Safety

Significant progress was made in improving working conditions and reducing the risk for workplace-associated injuries. For example, patient lifting has been a substantial cause of low back injuries among the 1.8 million U.S. health-care workers in nursing care and residential facilities. In the late 1990s, an evaluation of a best practices patient-handling program that included the use of mechanical patient-lifting equipment demonstrated reductions of 66% in the rates of workers' compensation injury claims and lost workdays and documented that the investment in lifting equipment can be recovered in less than 3 years. Following widespread dissemination and adoption of these best practices by the nursing home industry, Bureau of Labor Statistics data showed a 35% decline in low back injuries in residential and nursing care employees between 2003 and 2009.

The annual cost of farm-associated injuries among youth has been estimated at \$1 billion annually. A comprehensive childhood agricultural injury prevention initiative was established to address this problem. Among its interventions was the development by the National Children's Center for Rural Agricultural Health and Safety of guidelines for parents to match chores with their child's development and physical capabilities. Follow-up data have demonstrated a 56% decline in youth farm injury rates from 1998 to 2009 (NIOSH, unpublished data, 2011).

In the mid-1990s, crab fishing in the Bering Sea was associated with a rate of 770 deaths per 100,000 full-time fishers. Most fatalities occurred when vessels overturned because of heavy loads. In 1999, the U.S. Coast Guard implemented Dockside Stability and Safety Checks to correct stability hazards. Since then, one vessel has been lost and the fatality rate among crab fishermen has declined to 260 deaths per 100,000 full-time fishers.

The other nine included:

1. Vaccine-Preventable Diseases
2. Prevention and Control of Infectious Diseases
3. Tobacco Control

4. Maternal and Infant Health
5. Motor Vehicle Safety
6. Cardiovascular Disease Prevention
7. Cancer Prevention
8. Childhood Lead Poisoning Prevention
9. Public Health Preparedness and Response

Conclusion

From 1999 to 2009, the age-adjusted death rate in the United States declined from 881.9 per 100,000 population to 741.0, a record low and a continuation of a steady downward trend that began during the last century. Advances in public health contributed significantly to this decline; seven of the 10 achievements described in this report targeted one or more of the 15 leading causes of death. Related Healthy People 2010 data are available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5_addinfo.htm. The examples in this report also illustrate the effective application of core public health tools. Some, such as the establishment of surveillance systems, dissemination of guidelines, implementation of research findings, or development of effective public health programs, are classic tools by which public health has addressed the burden of disease for decades.

Although not new, the judicious use of the legal system, by encouraging healthy behavior through taxation or by shaping it altogether through regulatory action, has become an increasingly important tool in modern public health practice and played a major role in many of the achievements described in this report. The creative use of the whole spectrum of available options, as demonstrated here, has enabled public health practitioners to respond effectively. Public health practice will continue to evolve to meet the new and complex challenges that lie ahead.

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