



Science In Our Lives

How Chemistry Saves Children's Lives

(NAPSA)—America's children are healthier today than ever before, according to the U.S. Centers for Disease Control and Prevention and other health experts.

One important indicator: Life expectancy has nearly doubled in the past 100 years and continues to rise. Today's newborns can expect to live into their 80s, whereas in the early 1900s many died before reaching the age of five.

Many of the childhood diseases that were common years ago—such as measles and mumps, rubella and polio, cholera and dysentery—have been almost totally eliminated. Meanwhile, mortality rates of children under five—another important measure—have decreased dramatically.

What has led to these big improvements in children's health? There are many answers. But primarily, it has been the dedicated work over many years of individual scientists, chemists and medical doctors, engineers and hygienists. They have developed new vaccines and cures for what were once fatal diseases. They have developed fertilizers to increase our food supply, insecticides to protect it and preservatives to keep it fresh; disinfectants and sanitation to protect our homes, schools, hospitals and eating places; and antibacterial soaps and other items of personal hygiene.

A major development of the last century was pasteurized milk, named for Louis Pasteur, the French chemist who developed the process for killing disease-causing bacteria in milk and other liquids. Another was the development of penicillin and other antibiotics by British scientists in World War II.



But perhaps the greatest public health development of all time was the discovery in 1914 that you can purify drinking water by adding small amounts of chlorine, a process that has saved millions of children's lives throughout the world by eradicating waterborne diseases, such as cholera and typhoid fever. The system was developed by civil engineer Abel Wolman and chemist Linn Enslow of the Maryland Department of Health in Baltimore.

We are fortunate in the United States that modern chemistry, medical science and widespread vaccination have reduced and in many cases eliminated once-fatal childhood diseases. But it is not the same everywhere. According to UNICEF, as many as 2 million children in developing countries die each year from consuming contaminated water and food. And in Africa, more than a million children die each year from malaria. There is still much work to be done.

Among its initiatives on children's health, the American Chemistry Council funds studies to expand understanding of how chemicals interact with the environment and with human health. To learn more about how chemistry is essential to children's health, visit the American Chemistry Council at www.americanchemistry.com.