

VACCINE PREVENTABLE DISEASES WHAT IS THE PUBLIC HEALTH ISSUE?

Approximately 42,000 adults and 308 children in the United States die annually from vaccine-preventable diseases or their complications¹. ACIP routinely recommends vaccination against 17 2 vaccine-preventable diseases that in the past caused great suffering, disability and premature death. Each day 11,000 babies are born in the United States needing up to 28 vaccinations before they are two years old. The development of new vaccines creates opportunities for better health and adds difficult challenges for immunization programs. Improvements in technology, such as the development of vaccine combinations, add complexity in the scheduling of immunizations and increase the costs of financing for new vaccines.

WHAT HAS CDC ACCOMPLISHED?

CDC provides national leadership to reduce disability and death from diseases that can be prevented by vaccination. Through the continuing work of CDC vaccination programs, especially the Section 317 Grant Program and the Vaccines for Children Program, outstanding progress has been made in coverage levels for children up to two years of age.

An economic evaluation of the impact of seven vaccines (DTaP, Td, Hib, polio, MMR, hepatitis B, and varicella) routinely given as part of the childhood immunization schedule found that the vaccines are tremendously cost-effective. Routine childhood vaccination with these seven vaccines prevents over 14 million cases of disease and over 33,500 deaths over the lifetime of children born in any given year, resulting in annual cost savings of \$10 billion in direct medical costs and over \$40 billion in indirect societal costs.

The introduction of new vaccines into the complex childhood immunization schedule is a significant program achievement. Over the last two years, an unprecedented number of new vaccination recommendations for adolescents have been made by CDC's Advisory Committee on Immunization Practices (ACIP). In 2005, ACIP recommended that adolescents should receive meningococcal conjugate (MCV4) vaccine routinely, as well as tetanus, diphtheria, and acellular pertussis (Tdap) vaccine. In 2006, ACIP recommended routine human papillomavirus vaccine (HPV) vaccination for girls 11-12 years of age. Catch up vaccination is recommended for all females up to 26 years old. Tdap, and meningococcal vaccines are also routinely recommended for some adults. Additionally, a vaccine against herpes zoster (shingles) was licensed in 2006 and routinely recommended for adults 60 years of age and older.

In March 2005, CDC announced a major public health milestone, the elimination of rubella virus in the U.S. This remarkable achievement is a tribute to having a safe and effective vaccine and a successful immunization program. In spite of this remarkable achievement, the US must continue its vigilance against rubella and CRS to ensure the elimination of rubella is maintained.

WHAT ARE THE NEXT STEPS

CDC is committed to improving the health of all Americans and individuals internationally through vaccination by:

- Extending the success of domestic childhood immunization programs to the adolescent and adult populations
- Increasing and sustaining vaccine coverage levels in all populations for all recommended vaccines
- Assisting partners in implementing proven strategies for immunization by focusing efforts to increase vaccination in areas with low coverage levels
- Assuring adequate supplies of vaccine
- Continuously improving vaccine safety efforts working with partners and other agencies.

¹These estimates do not include deaths related to HPV related cancers.

²Children, adolescents and adults are routinely recommended to be vaccinated against 17 vaccine preventable diseases: hepatitis B, diphtheria, tetanus, pertussis, Haemophilus influenzae type B, polio, measles, mumps, rubella, varicella, meningococcal disease, pneumococcal disease, influenza, hepatitis A, rotavirus, human papillomavirus, and herpes zoster (shingles).

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