



PROGRESS REVIEW

Immunization and Infectious Diseases

DEPARTMENT OF HEALTH & HUMAN SERVICES ■ PUBLIC HEALTH SERVICE ■ October 31, 1996

In a review of progress on HEALTHY PEOPLE 2000 objectives for immunization and infectious diseases, the Centers for Disease Control and Prevention reviewed 8 of the objectives in this priority area:

20.1 In general, significant progress has been made in that, for 1995, 7 vaccine-preventable diseases were at all-time record low levels. The year 2000 target to reduce indigenous cases of vaccine-preventable diseases to 0 cases was met in 1995 for both diphtheria among people 25 and younger and for polio (wild-type virus). 1995 data for diseases for which the target is 0 cases indicate the following: 5 cases of tetanus among people aged 25 and younger (up from the 1988 baseline of 3); 309 cases of measles (down from the baseline of 3,396); 128 cases of rubella (down from the baseline of 225); and 6 cases of congenital rubella syndrome (no decline from the baseline). Cases of mumps have steadily declined from the baseline of 4,866 to 906 in 1995, but the target of 500 has not yet been reached. Cases of pertussis have shown a marked increase from the baseline of 3,450 to 5,137 in 1995. The target is 1,000 cases.

20.2 In 1993, the most recent year with complete data, the 3-year average was 15.7 deaths per 100,000 total population from epidemic-related pneumonia and influenza among people aged 65 and older. This meets the year 2000 target of 15.9 deaths per 100,000.

20.3 In 1995, 33 cases of hepatitis A were reported per 100,000 total population, the same number as in the 1987 baseline year. The year 2000 target is 16.1. For hepatitis B, the number of cases per 100,000 declined from 63.5 in 1987 to 22.9 in 1995, thus surpassing the target of 40 cases. The target (13.7) has also been exceeded for hepatitis C, cases of which declined from 18.3 per 100,000 in 1987 to 3.7 in 1995.

20.4 Tuberculosis incidence in the total population was reported as 8.7 cases per 100,000 people in 1995, a decline from the 1988 baseline of 9.1. The year 2000 target is 3.5 cases per 100,000. In special populations, the number of cases among Asians and Pacific Islanders has increased from 36.3 (per 100,000) in 1988 to 45.9 in 1995. The target is 15 cases. In other groups, the number of cases per 100,000 has held

steady or declined slightly—from 28.3 in 1988 to 23.9 in 1995 for Blacks; from 18.3 in 1988 to 18 in 1995 for Hispanics; and from 18.1 in 1988 to 16.5 in 1995 for American Indians/Alaska Natives. The target number of cases per 100,000 for these three groups is 10, 5 and 5, respectively.

20.10 For people aged 65 and older, there were 71.3 days of restricted activity related to pneumonia per 100 people in 1994, a marked

increase over the 1987 baseline year, when there were 19.1. The year 2000 target is 15.1 days. For children aged 4 and younger, there were 39.5 such days per 100 in 1994, compared with 29.4 in 1987. The target is 24 days.

20.11 For the annual period ending in June 1995, immunization coverage levels for children aged 19-35 months were at record high levels. Antigen-specific rates have shown striking progress since 1992. In 1995, 75 percent of children aged 19-35 months had received 4DPT/3Polio/1MMR, the basic immunization series for infectious diseases.

Hepatitis B immunization levels in infants of antigen-positive mothers increased from 40 percent in baseline year 1987 to 78 percent in 1994. For occupationally exposed workers, the increase was from 37 percent in 1989 to 67 percent in 1994. The year 2000 target is 90 percent for each of these population groups.

In 1994, 30 percent of non-institutionalized high-risk populations had received pneumococcal immunizations, an increase from 15 percent in baseline year 1987. For Blacks aged 65 and over, the pneumococcal immunization levels were 15 percent in 1994 and 6 percent in 1987. For Hispanics aged 65 and over, the

levels were 14 percent in 1994 and 11 percent in 1987. The target is 60 percent for each of these population groups. The level of influenza immunizations among non-institutionalized high-risk populations increased from 33 percent in 1989 to 55 percent in 1994. For Blacks aged 65 and over, the increase over the same time span was from 20

HIGHLIGHTS

- Record lows occurred in 1995 for the incidence of 7 vaccine-preventable diseases—diphtheria, tetanus, polio, measles, rubella, mumps and *Haemophilus influenzae* (under 5 years of age.)
- Measles was transiently eliminated from the U.S. in 1993. Since then, all recorded cases have been directly or indirectly imported.
- The incidence of pertussis has risen in the 1990's and, by 1995, was 5 times the year 2000 target. A rapid, reliable diagnostic test is needed.
- The emergence of drug-resistant strains of bacteria is closely linked to indiscriminate use of antibiotics. Twenty to fifty percent of physicians in focus groups are concerned about the over-prescription of these drugs.
- Hepatitis B incidence among injecting drug users declined 77 percent since the 1980's. Needle exchange programs may have been a factor.
- The year 2000 target for reducing the incidence of hepatitis C has been exceeded. Screening of blood supplies played a major role in the reduction.
- Annually, deaths from pneumococcal infections and influenza exceed the number of deaths from breast cancer or HIV/AIDS.
- Pneumococcal and influenza immunization rates for elderly Blacks and Hispanics are only half those for the older population as a whole—a disparity that has not changed in the past 7 years.
- Tuberculosis infects one third of the world's population and has become the leading killer of young adults worldwide, a problem made worse by sporadic outbreaks of drug-resistant strains of the bacillus.
- Vaccines against cervical cancer and cancer of the esophagus are in development and should be available early in the next century.
- Endemic dengue fever in Cuba has now spread throughout the Americas and threatens to become a significant problem for the U.S. There is no vaccine.

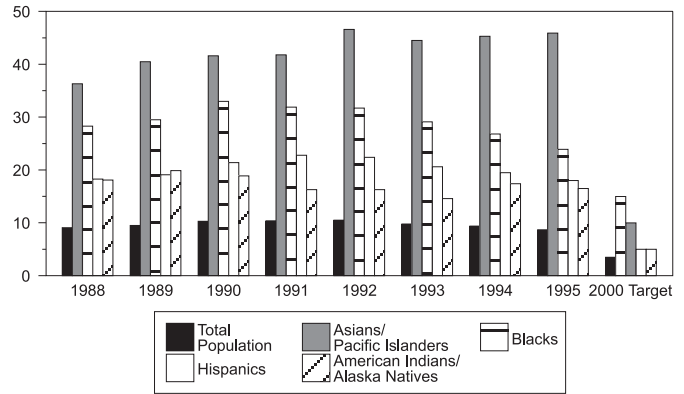
Comparison of Maximum and Minimum Morbidity of Selected Vaccine Preventable Diseases

	Maximum Cases	Baseline 1988 Data	1995 Cases	Target 2000
Congenital Rubella Syndrome	20,000 ¹	6	6	0
Measles	894,134 (1941)	3,396	309 ²	0
Mumps	152,209 (1968)	4,866	906 ²	500
Polio (paralytic)³	21,269 (1952)	0	0 ²	0
Rubella	57,686 (1969)	225	128 ²	0
Diphtheria	206,939 (1921)	1 ⁴	0 ²	0
Tetanus	1,560 (1923) ⁵	3 ⁴	5 ⁴	0
Pertussis	265,269 (1934)	3,450	5,137	1,000

¹Estimated cases for 2 year period 1964-1965 ²Record low cases ³Caused by wild virus ⁴≤ 25 years of age ⁵Mortality
Source: Centers for Disease Control and Prevention/National Immunization Program

Tuberculosis Incidence

(per 100,000)



Data Sources: Tuberculosis Morbidity Data, CDC, National Center for Prevention Services, Division of Tuberculosis Elimination

percent to 39 percent. For Hispanics aged 65 and over, the increase was from 28 percent to 38 percent. For each of these population groups, the target is 60 percent.

20.16 In 1992-93, 48 percent of public health departments provided pneumococcal immunizations; 91 percent provided influenza immunizations; and 77-85 percent provided tetanus/diphtheria immunizations. The 1990 baselines are 37, 60, and 70 percent, respectively. 77 percent provided hepatitis immunizations in 1992-93, the baseline period. The year 2000 target is 90 percent for each.

20.18 There has been a slight decrease, from 66.3 percent in baseline year 1987 to 65.3 percent in 1993, in the proportion of people found to have tuberculosis who completed a course of preventive therapy. The year 2000 target is 85 percent.

PARTICIPANTS

Advisory Council on Elimination of Tuberculosis
Administration for Children and Families
Administration on Aging
Alabama Department of Public Health*
American Academy of Pediatrics
American Association of Health Plans
Baylor College of Medicine
Centers for Disease Control and Prevention
Congress of National Black Churches
Food and Drug Administration
Health Care Financing Administration
Health Resources and Services Administration
Indian Health Service
Infectious Diseases Society of America
National Coalition for Adult Immunization
National Coalition of Hispanic Health and Human Services Organizations
National Institutes of Health
New York State Department of Health
Office of Disease Prevention and Health Promotion
Office of Minority Health
Office of Public Health and Science
Pan American Health Organization
Public Health Service Region V
University of Alabama**
Vermont State Public Health Laboratory

* Also representing the Association of State and Territorial Health Officials
** Also representing the American Society for Microbiology

FOLLOW-UP

- Identify children and adults who are not adequately immunized and target immunization efforts accordingly, focusing particular attention on minority populations in the action plan.
- Evaluate immunization registries, addressing issues of privacy and confidentiality of information, particularly interstate transfer of data. Project costs for developing and maintaining "real-time" registries.
- Identify States that currently have child immunization registries in place, distinguishing the extent to which the registries encompass both public and private providers and whether they are statutory or voluntary.
- Prepare a summary of the state of the art of immunization registries, identifying the extent to which immunization data are being linked to other important services for children, such as lead screening and other clinical preventive services.
- Pattern adult immunization strategies on successful efforts to bring childhood immunizations into community centers.
- To combat emerging strains of drug-resistant infections, undertake additional efforts with practicing professionals to educate the public about the overuse of antibiotics.
- From both a domestic and a global perspective, report on the capacity of the public health infrastructure to respond to emerging threats to health, addressing surveillance, research, and laboratory capabilities.
- Work toward developing 2010 objectives for immunizations and infectious diseases that are relevant to the public, professionals, and the public health community.



Philip R. Lee

Philip R. Lee, M.D.
Assistant Secretary for Health