The Public Health Service Action Plan to Improve Access to Immunization Services

THE INTERAGENCY COMMITTEE TO IMPROVE ACCESS TO IMMUNIZATION SERVICES

The Committee was established in January 1990 by Dr. James O. Mason, Assistant Secretary for Health, to develop an Action Plan to improve the nation's access to immunization services and to monitor and catalyze its implementation. The following persons, members of the Committee, participated in preparing the Action Plan.

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Synopsis

The Public Health Service's Interagency Committee to Improve Access to Immunization Services (ICI) has responsibility for improving the immunization protection of the nation's children and other vulnerable populations. ICI's Action Plan to Improve Access to Immunization Services sets 14 goals with 120 action steps for improving immunization services nationwide by (a) increasing coordination among Federal health, income, housing, education, and nutrition programs; (b) reducing policy and management barriers that limit access to delivery systems, and (c) strengthening the delivery infrastructure. To accomplish the goals of the plan, there is a $72.0 million increase in funding appropriated in fiscal year 1992 specifically for this purpose. The President's Budget for fiscal year 1993 includes a $24.5 million increase for continued program implementation. The additional resources will be used to address delivery and access problems, which have been determined to be the primary factors limiting immunization for many children.

THE PUBLIC HEALTH SERVICE (PHS), through its National Vaccine Program Office (NVPO), chairs and provides staff support to the Interagency Committee to Improve Access to Immunization Services (ICI).

ICI members include representatives from the Department of Health and Human Services (DHHS) agencies and offices with responsibilities for implementing the Plan. They are from the Office of the Assistant Secretary for Health, with its Office of the Surgeon General and Office of Minority Health; the Centers for Disease Control; the Health Resources and Services Administration; the Indian Health Service; the Health Care Financing Administration; and the Administration for Children and Families. The Committee includes liaison representatives of the Department of Agriculture's Special Supplemental Food Program for Women, Infants, and Children; the Department of Education; and the Department of Housing and Urban Development's Program for Indian and Public Housing.

ICI's Action Plan to Improve Access to Immunization Services assesses the status of immunization services nationwide, sets goals for providing immunization services for at-risk populations, and details

the steps needed to accomplish them (*1*). The plan has 14 goals with 120 action steps for improving immunization services nationwide by

- increasing coordination among Federal health, income, housing, education, and nutrition programs,
- reducing policy and management barriers to make delivery systems more accessible, and
- strengthening the delivery infrastructure.

ICI developed the Plan in response to the DHHS Secretary's Program Directions (*2*). Direction 8 provides for increased access to immunization services for children from birth to 5 years of age and emphasizes services for high-risk and hard-to-reach populations. Direction 9 directs PHS agencies to develop new approaches to raising the immunization coverage of minority populations at high risk. The plan also responds to recommendations for improving access to immunization services presented in the report of the National Vaccine Advisory Committee (NVAC), "The Measles Epidemic: The Problems, Barriers and Recommendations" (*3*).

Many of the activities described in the Plan require no additional resources and are either planned or already being implemented. The Plan provides for new initiatives and for expanding many existing activities. Those that require additional funding for this year have been covered by the additional $72.0 million already appropriated in fiscal year 1992 specifically for this purpose. Further funding of $24.5 million needed to implement fully the Plan's requirements for fiscal year 1993 has been included in the President's budget request. This would provide for a total increase of $96.5 million over these 2 years. The additional resources will be used to further progress toward the goals in the Plan by focusing on delivery and access problems, the primary factors limiting immunization for many children.

While the potential of emerging biotechnology to improve existing vaccines and to develop new ones is great, our primary health care delivery system is encountering difficulties in immunizing all children. In many areas, segments of the population continue to experience diminished health status, particularly the most vulnerable populations—the very young, the elderly, and those of low socioeconomic status—face increased risks for vaccine-preventable diseases.

Immunization coverage may be regarded as incomplete when an insufficient percentage of the total population is immunized or when significant numbers of critical segments of the population, such as children or the elderly, lack partial or complete immunization protection.

Current recommendations call for a child to receive eight different vaccines or toxoids (many in combination form and all requiring more than one dose) in a total of five visits for immunization between birth and school entry. The basic immunization schedule of the U.S. Public Health Service's Immunization Practices Advisory Committee (ACIP) is summarized in the table.

An estimated 40 to 50 percent of the nation's children have received a full series of individual immunizations by their second birthday; however, the proportion who have received the full course of all immunizations is doubtless lower. There are marked variations around the country. In particular, immunization levels among poor, inner-city children may be substantially lower. A survey in early 1990 of kindergarten and first-grade public school students in eight inner city areas (Boston, MA; Bronx, NY; Cleveland, OH; Houston, TX; Jersey City, NJ; Phoenix, AZ; Pittsburgh, PA; and Seattle, WA) revealed that, although more than 95 percent had received measles vaccine by the time of school entry, only 51 to 81 percent, depending on the city, had received the vaccine before their second birthday. Some had been vaccinated only shortly before entering school to comply with school immunization requirements and thus had been at risk of disease for several years.

The measles epidemic is cause for serious concern. But measles, being the most contagious of the vaccine-preventable diseases, is also an indicator that signals a failure in the vaccine delivery system. Given low immunization levels among young children, it is reasonable to suspect that there are substantial numbers of children who are now also susceptible to pertussis, poliomyelitis, mumps, and rubella. Likewise, Hemophilus type b disease, which is now preventable by vaccination, continues to be a serious problem.

Many reasons for incomplete immunization coverage may be found within the health care system, which itself may create policy and administrative barriers to immunization. The health care system frequently fails to take advantage of opportunities to provide vaccines to at-risk persons, particularly children, during regular visits to health care facilities. Barriers which inhibit access to immunization result from insufficient State and local resources, leading to inadequate levels of nursing staff and inconvenient clinic hours and locations. Such barriers are compounded by health care providers' lack

Recommended child vaccination schedule of the Public Health Service's Immunization Practices Advisory Committee

Age	DTP[3]	Polio-myelitis[4]	MMR[5]	HIB[1]		HBV[2]	
				Option 1	Option 2	Option 1	Option 2
Birth	...	...	...	...	...	X	...
1–2 months	...	...	...	...	...	X	X
2 months	X	X	...	X	X	...	...
4 months	X	X	...	X	X	...	X
6 months	X	...	...	X	...	...	...
6–18 months	...	...	...	...	...	X	X
12 months	...	...	...	...	X	...	...
15 months	[6]X	[6]X	[7]X	X	...	...	...
4–6 years[8]	X	X	[9]X	...	...	...	...

[1] HIB = *Hemophilus* b conjugate vaccine. HIB vaccine is given in either a 4-dose schedule (option 1) or a 3-dose schedule (option 2), depending on the type of vaccine used.

[2] HBV = hepatitis B vaccine. HBV can be given simultaneously with DTP, poliomyelitis, MMR, and *Hemophilus* b conjugate vaccine at the same visit.

[3] DTP = diphtheria, tetanus, and pertussis vaccine, combined.

[4] Poliomyelitis vaccine may be live oral polio vaccine in drops (OPV) or killed (inactivated) polio vaccine by injection (IPV).

[5] MMR = measles, mumps, and rubella vaccine, combined.

[6] Many experts recommend this vaccine at 18 months of age.

[7] In some areas, this dose of MMR vaccine may be given at 12 months.

[8] Before school entry.

[9] Many experts recommend this dose of MMR vaccine be given at entry to middle or junior high school.

of knowledge about valid contraindications for vaccination.

The goals and objectives in the plan provide a substantive response to these diverse needs by focusing on more interactive relationships between health, income, housing, educational, and nutritional programs. However, if we are to successfully effect changes in the immunization system, the nation must make a renewed commitment and accept this shared responsibility. Responsibility is shared by Federal, State, and local governments; the private sector; the medical community; and by individual families.

The Plan recognizes the need to link every child to a primary health care system with immunization as an integral part of that system. The Plan reflects the Department's commitment to achieve universal immunization coverage. The Plan's goals and objectives are viewed not as rigid obligations, but as dynamic guides to be altered to fit changing conditions and levels of understanding of the problems at hand.

The Immunization System

The nation's immunization services are provided through an integrated system, with the Federal, State, and local governments; the private sector; and voluntary organizations playing important roles. About half the children receive immunization provided by the public sector, often as a specific, categorical service independent of other preventive care services. Their parents do not pay for the vaccines received, which at public sector prices are estimated to total $113.20, but they may pay a small administrative fee, usually about $5. Such children are likely to be members of racial or ethnic minorities and socio-economically disadvantaged.

Other children are immunized by private physicians as part of their overall well-child preventive care. Their parents either pay for the service or have it paid for by third-party reimbursement mechanisms. The private-sector prices for the vaccines each child should receive are estimated at a total of $230.39, with an estimated cost per physician visit of $15; the total for full immunization would be $464.39.

Since the passage of the Vaccination Assistance Act of 1962, a Federal grant program has provided financial and technical assistance to supplement State and local health department efforts to provide immunization through public sector agencies. Grant funds typically provide about half of the cost of public sector vaccination, about one-quarter of the national total.

The level of funding for this program has increased dramatically in the past 16 years, from $5 million in fiscal year 1976 to the 1992 fiscal year appropriation of $259 million. The striking increases are largely a response to dramatic increases in vaccine prices and the introduction of new vaccines. This has occurred in spite of the establishment of the National Vaccine Injury Compensation Program, which has had a moderating effect on increases in vaccine prices and malpractice suits, and therefore improved the availability of vaccines. Grant funds have not paid for the actual administration of vaccine; this typically comes from local or State health department funds, although some funds from the Federal Prevention Services Block Grant, Maternal and Child Health Block Grant, or Medicaid may be used.

The Problem

Substantial numbers of preschool children are not being immunized. Immunization levels have been chronically low, particularly in some cities where resources for vaccine delivery are inadequate. Low levels are believed to have contributed to the present measles epidemic. Other reasons for low immunization rates are within the health care system, which itself may limit access to immunization services and may fail to use opportunities to provide vaccines to at-risk persons during regular visits to health care facilities.

Barriers to successful immunization are of four key types. Each can be addressed within the context of the current primary health care system. They are

- missed opportunities for administering vaccines,
- resource shortfalls in the health care delivery system,
- inadequate access to care, and
- incomplete public awareness and lack of public demand for immunization.

As a nation, we have fallen short of clear and achievable goals in areas where specific means for preventing diseases exist. Children have died of measles as a result of being unvaccinated. During 1989, 18,189 measles cases and 41 deaths were reported, the largest number since 1978. The toll was more than 10 times the all-time low of 1,497 cases reported in 1983. In 1990, the number of measles cases rose to 27,786, with an estimated 89 deaths. This measles epidemic caused the largest annual number of reported deaths from measles in more than two decades, and caused morbidity in thousands of others, all fully preventable. These children usually are in medically unserved and under-served groups, such as inner-city minority populations.

Perhaps most disturbing is that the NVAC report on measles shows that the measles epidemic is indicative and predictive of other immunization problems in our primary health care delivery system. These problems typically fall into the following broad categories.

Lack of community awareness and demand for services. Reports indicate that in some communities parents may be isolated from the health care system and may have only a limited appreciation of the importance of beginning immunization in infancy. Lack of information about the importance of immunization has reduced the demand for services, resulting in low levels of immunization coverage.

Health delivery system barriers. Although the total Federal resources being provided for immunization are considerable, and publicly funded clinics provide an essential source of preventive care for low-income families, many clinics lack the resources to serve adequately all families in need of service. Many immunization programs across the country have inadequate resources, leading to insufficient clinic staff, inadequate clinic hours, and few or inconvenient locations to be able to reach successfully the populations they are expected to serve. Many insurers do not cover vaccinations, forcing physicians and other health care providers to pass on costs to parents or to refer the parents to already overtaxed public clinics.

The failure to vaccinate adequately many children currently enrolled in public assistance programs suggests that many of the potential benefits gained by recent expansions in Medicaid eligibility to a much larger group of poor or near-poor pre-schoolers may not be realized unless steps are taken to assure that immunization is an integral component of primary health care activities.

An epidemic of a vaccine-preventable disease among unvaccinated children causes concern about our capacity to deliver vaccines. There is evidence of long-standing difficulty in reaching certain high-risk populations. There have been recent reports of a deterioration of the immunization delivery system, particularly in the inner cities. This situation has produced accumulations of large numbers of very young, unprotected persons.

Participation of health care providers. Physicians, nurses, and other health care providers, including midwives, have a key role in influencing attitudes of patients regarding appropriate immunization. Shaping the attitude and future practices of these health care providers is critical to ensuring that they offer appropriate counseling and information about immunization to their patients. This is relevant since some studies have shown that in spite of widespread communications and product advertising among physicians, their acceptance of vaccines, particularly new ones, can be quite slow.

Improved coordination. Maintaining and extending control of infectious diseases through immunization is an important national objective. Additional action is required at all levels of the public sector, including Federal, State, and local governments. Im-

proved coordination is needed in the private sector among physicians, health insurance companies, and parents. All sectors of society are partners that share the responsibility for insuring that all of the nation's children, especially those most in need, are appropriately immunized.

In implementing the Plan, the Secretary has reaffirmed the Department's immunization and infectious disease control priorities for the nation. As described in "Healthy People 2000" (*4*), one goal is to increase childhood immunization levels to at least 90 percent of the 2-year-old children by the year 2000. Other goals for the year 2000 are to eliminate measles, diphtheria, poliomyelitis, rubella, and tetanus and to substantially reduce the cases of pertussis and mumps.

Under the Plan, remedies in a multifaceted approach include removing administrative and policy barriers, improving access to services, offering incentives to raise the priority of immunization among those providing health care services, and helping providers to understand contraindications for immunization and to recognize opportunities to offer vaccines. More opportunities to deliver immunization may be in child care settings and in programs such as the Special Supplemental Food Program for Women, Infants, and Children (WIC), and Aid to Families with Dependent Children (AFDC).

The strength of the Plan is its diversity of approaches in the delivery of immunization services. It recognizes the need to assure that safe and effective vaccination services are available for the general population, as well as the widely disparate immunization needs of especially vulnerable populations, such as the very young, women of reproductive age, and members of minority groups, who will require more attention.

The main thrust of the Plan is action. Commitments have been made to undertake specific activities and make significant progress within the next 4 years. The Plan includes ambitious goals, balanced with the need to define realistic expectations, within available resources, and defined needs for additional resources as necessary. Through the combined authorities, programs, and resources of the participating agencies and departments, the Federal Government can provide the necessary leadership and framework for bringing about lasting improvements in the nation's immunization system.

Estimated Costs

The Plan draws on the expertise and resources of Federal agencies and departments and provides programmatic initiatives in keeping with their missions. Many of the activities identified in the Plan require no additional resources and are already implemented or planned. Some require very little funding. Others require significant additional funding. Those that require additional funding for this year have been covered by the additional $72.0 million already appropriated in fiscal year 1992 specifically for this purpose. Further funding of $24.5 million needed to implement fully the Plan's requirements for fiscal year 1993 have been included in the President's budget request. This would provide for a total increase of $96.5 million over these 2 years. Firm estimates for outlying years for these activities are uncertain at this time. The results of the Infant Immunization Initiatives and various demonstration projects will help identify optimal delivery mechanisms for immunization services. The results of these studies are expected to be available beginning in 1993.

With the implementation of the Plan, we may expect measurable progress in immunization levels within the next few years. However, because the Plan is a long-term solution to the control of vaccine-preventable diseases, its full impact will not be achieved until the end of the decade.

Goals of the Plan

The Interagency Committee identified 14 goals in implementing the NVAC Measles Report recommendations and the elements of the Secretary's Program Directions 8 and 9. Major implementing activities are shown in an accompanying box. The 14 goals that follow represent high yield investments in the nation's children, not merely budget costs. The cost to the nation of not implementing the program would be much more expensive.

Improving the availability of immunization

1. Continue financial support to State and local health departments, community and migrant health clinics, health care programs for the homeless, and health care in housing projects to assure the availability of immunization services. Establish new policies to assure that resources are used to improve immunization delivery rather than to substitute for current State and local efforts.

2. Work with insurers to increase coverage of immunization as part of their basic health benefits package and work with managed health care systems, including health maintenance organizations, to provide routine vaccination services. Facilitate cooperation among State and local health departments and Medicaid agencies in acquiring vaccines at the

Agency Actions and Activities to Implement the Action Plan of the PHS Interagency Committee to Improve Access to Immunization Services

Administration for Children and Families (ACF)

1. Adopt in the Program Performance Standards for Head Start programs serving infants, toddlers, and pregnant women a requirement that these programs must provide or arrange for completing all immunizations recommended by the Public Health Service's Advisory Committee on Immunization Practices.

2. Participate with Centers for Disease Control in up to five immunization demonstrations designed to increase immunization coverage among those from birth to 5 years of age who are participating in the Aid to Families with Dependent Children (AFDC) program.

3. Issue regulations under the Child Care and Development Block Grant to assure that there are requirements in effect relating to the prevention and control of infectious diseases, including immunization.

4. Require that programs have in place a system to monitor adherence to immunization requirements for all children in child care provided under the Child Care and Development Block Grant.

5. Develop and distribute to all Head Start grantees, delegates, and Parent-Child Centers information on the expanded Medicaid eligibility, including immunization services available under the Early and Periodic Screening, Diagnostic, and Treatment Program.

6. Encourage Head Start programs to actively assist families in the Medicaid enrollment process.

7. Develop and implement a plan for maintaining adherence to Child Care and Development Block Grant statutory and regulatory provisions relating to prevention and control of infectious diseases.

Centers for Disease Control (CDC)

1. Develop and distribute "Minimum Program Standards for Immunization" to all public sector clinics, including community and migrant health centers.

2. Revise the immunization grant program announcement to require that grantees adopt the set of standards as a means of evaluating public sector clinics.

3. Develop and distribute guidelines and award grants through States to up to 60 cities with documented morbidity or low vaccination coverage levels.

4. Stimulate all immunization grant projects to adopt and implement the compulsory two-dose measles requirement and monitor the progress of implementation.

5. Complete six demonstration projects (to be carried out with State and local immunization grantees) designed to evaluate different approaches to raising immunization coverage. Complete three projects designed to develop new approaches to measuring immunization coverage.

6. Enhance local demand for immunization services through the use of culturally sensitive, linguistically appropriate materials.

7. Invite private and public sector groups interested in working to improve immunization coverage to join the Healthy Mothers, Healthy Babies Coalition devoted to health education, health information, and health advocacy activities.

8. Develop and distribute guidelines and award grants to State immunization programs.

9. Develop and pilot test methods of measuring immunization coverage based on registration of all children from birth certificate information and reporting of vaccinations by all providers to a central data bank.

Health Care Financing Administration (HCFA)

1. Enhance program activities in order to increase participation of eligible children in Medicaid's comprehensive Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) Program to 80 percent by 1995.

2. Conduct an EPSDT Program management review in every State. Include immunization patterns for managed or continuing care, acquisition of vaccines for Medicaid providers priced at CDC contract prices, methods of tracking children in need of immunization, and practices related to reimbursement of health care providers for immunization services.

3. Develop and issue an updated Guide to Vaccine Acquisition (using the CDC contract and distribution system) to EPSDT Program providers.

4. Provide technical assistance to improve and support immunization through EPSDT.

5. Encourage cooperative working relationships among State Medicaid agencies and health departments.

6. Explore methods by which States can track and report immunization status in EPSDT Program management.

Health Resources and Services Administration (HRSA)

1. Modify the Maternal and Child Health (MCH) Block Grant guidance for States to specifically focus on plans and activities to improve State immunization status. State's annual reporting requirements will be modified to provide a specific focus on immunization.

2. Work with the Centers for Disease Control (CDC) and State health officers to conduct regional workshops for State MCH directors; directors of the Special Supplemental Food Program for Women, Infants, and Children (WIC); immunization directors; and Medicaid (EPSDT) directors to facilitate State strategies for improving the delivery and financing of immunizations.

3. Encourage Community and Migrant Health Centers (C/MHCs) to develop strategies to increase vaccination rates among at-risk populations. Such efforts include streamlining procedures for immunization immediately before the start of the school year and the influenza season and procedures for providing immunizations at community sites, such as day-care centers, WIC local clinics, and schools.

4. Identify the States with particularly impressive immunization program activities and disseminate information on their programs. States that appear deficient in immunization activities will be identified for special technical assistance.

5. Increase efforts to monitor and help assure that C/MHC providers are informed of valid contraindication for vaccination, the advantages of the simultaneous administration of vaccines, and the advantages of the two-dose measles vaccination regime.

6. Provide increased capacity to deliver immunization services through Community Health Centers, Migrant Health Centers, Homeless Health Centers, and Housing Project Health Centers.

7. Recruit capable volunteers working with national organizations, such as the former Volunteers in Service to America (VISTA) and local community groups and others to serve in clinics or immunization sites in clerical and nursing support roles.

8. Review policies of the C/MHCs and MCH programs to identify ways to facilitate immunization via effective triage and appointment systems.

9. Use the Association of Maternal and Child Health Programs (AMCHP) network and Department of Health and Human Services' Regional Offices to determine immunization practices in local programs supported through the MCH Block Grant. The assessment will include a determination of whether appointments are required, who approves immunization of children, and whether there is a fee.

10. Work with the AMCHP network and other national and regional programs to disseminate the "Minimum Program Standards for Immunization Practice" being developed by CDC.

11. Encourage State and local governments to enact legislation to mandate appropriate immunization of children prior to enrollment in licensed day care centers.

12. Promote immunization services and education among 15 Health Start communities and undertake a national education campaign on pregnancy and infant health issues, including immunization.

Indian Health Service (IHS)

1. Institute policies and program guidelines to assure that every IHS service unit will achieve 90 percent immunization levels among those 3 to 27 months of age.

2. Require IHS Areas to have a disease control plan (with emphasis on vaccine preventable diseases) that provides for disease surveillance and outbreak control activities. The plan is to be agreed to by Federal, State, county, and tribal health departments.

3. Require IHS Areas to assess its current Hepatitis B virus (HBV) immunization activities and implement policies and procedures ensuring prenatal HBV screening and vaccination of infants at risk.

4. Require IHS Areas to obtain baseline serologic information on its service population to determine the level of HBV risk in the area.

5. Require IHS Areas to review current immunization policy and to implement appropriate revisions to include directives on pneumococcal and influenza immunization of high risk patients.

6. Assure that IHS service units have a register of infants, children, and adults who are at high risk for complications of pneumococcal or influenza infections. Based on the register, IHS service units will conduct prevention programs that ensure that high risk patients receive pneumococcal and influenza vaccines on a timely basis.

7. Assure that IHS Areas implement pneumococcal and influenza immunization programs for all clients who are at risk.

National Institutes of Health (NIH)

1. Fund research studies of the differences between host responses to natural disease and to vaccination. Support studies of the mechanisms of the immunosuppression and

autoimmune encephalomyelitis that attend cases of acute measles.

2. Support basic and clinical research to identify the measles virus components required for induction of long-lasting humoral and cellular immunity.

National Vaccine Program Office (NVPO)

1. Assist the Centers for Disease Control in the development of the framework for a public information campaign on immunization.

Office of the Assistant Secretary for Health

1. Provide public visibility to immunization issues, particularly as they relate to the preschool-age child *(Office of the Surgeon General).*

2. Continue to identify programs for collaboration between the Department of Health and Human Services and the Department of Education related to infant and early childhood health and education, as part of the health component of the First National Education Goal *(Office of the Surgeon General).*

3. Co-chair with the Centers for Disease Control the Immunization Education and Action Committee of the Healthy Mothers, Healthy Babies Coalition *(Office of the Surgeon General).*

4. Facilitate the distribution of information materials on immunization to minority community organizations, State offices of minority health, minority health professional organizations, and local and private groups serving minority populations *(Office of Minority Health).*

Department of Housing and Urban Development (HUD)

1. Improve the access and delivery of immunization services to economically disadvantaged and minority children living in public housing. Improve coordination among public health clinics, hospitals, and other health care providers; the Head Start Program; public and Native American housing child care centers and WIC clinics (Special Supplemental Food Program for Women, Infants, and Children); and Resident Management Corporations (RMC), resident councils, and other residents' entities.

2. Improve the immunization status of medically underserved infants, economically disadvantaged preschool children, and at-risk youth in public and Native American housing. Identify barriers to immunization and initiate corrective measures to increase residents' awareness and access to service for children who are clients.

Department of Agriculture (USDA)

1. Conduct demonstration projects, in conjunction with the Centers for Disease Control (CDC), to explore various mechanisms for increasing immunization rates among WIC clinic (Special Supplemental Food Program for Women, Infants, and Children) participants.

2. Assess immunization levels of WIC clients in various types of WIC clinic settings.

3. Actively pursue with CDC a "pay per shot" immunization delivery system. Currently, immunizations are not a reimbursable administrative cost for WIC.

4. Expand the Illinois immunization assessment model to another State. This model uses an integrated computerized system to determine immunization levels of children served through the WIC Program and in various public health care settings.

5. Assess immunization levels of WIC participants in 10 sites in various types of WIC clinic settings.

6. Encourage State WIC directors to establish regular liaison and ongoing coordination efforts with State immunization program managers.

Department of Education (DoE)

1. Coordinate efforts with Health Resources and Services Administration's Bureau of Health Care Delivery and Assistance to provide priority services to migrant children to ensure that all appropriate health screening, including immunization, and diagnostic tests are performed.

2. Adopt, where feasible, common health records, including those for immunization, and a system to facilitate the continuity of services and the accurate transfer of health data.

3. Distribute health education publications and resources, including immunization and other preventive health services, directed to the children of migrant farm workers.

Federal contract price and facilitate efficiencies in the distribution to Medicaid providers.

3. Assure that States and communities make full use of the opportunities presented through Medicaid and its child health component, the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) Program. EPSDT is required to provide immunizations appropriate to the child's age and health history.

4. Assure that health departments reach out to volunteer groups and community-based organizations to build grassroots support for adequate resources for immunization and to enhance local requests for immunization and to increase the priority of immunization. Intensify national and community-level efforts to build public awareness of the importance of preschool immunization and the efficacy and safety of vaccines.

Improving management of immunization delivery

5. Establish a formal set of minimum "Standards for Immunization Practice."

6. Establish an ongoing Interagency Coordinating Committee on Access to ensure high immunization levels for the clients served through their respective programs. Immunization coverage would be used by the Committee as one major indicator of the quality of services delivered. Periodic reports of the Committee's activities would be made to the Secretary of Health and Human Services and Congress.

7. Establish coordinated systems to support the determination of the immunization status of WIC (Special Supplemental Food Program for Women, Infants, and Children) and AFDC (Aid for Families with Dependent Children) recipients, particularly in urban areas. Incompletely immunized children would be referred for vaccination with appropriate followup or vaccinated on-site in WIC or AFDC clinics or offices. Assure that each immunized child is linked to a primary care system for acute and comprehensive care.

8. Assure Federal collaboration with major health care provider organizations to develop policies among their members to facilitate immunization delivery.

9. Assure that State and local governments have legislation mandating appropriate immunizations for children prior to enrollment in licensed day care centers.

Ongoing measurement of immunization status

10. Establish a national system for the annual assessment of immunization coverage. Immunization coverage assessments would be required in all States, particularly for high-risk populations and in urban and rural areas.

Other measles prevention needs

11. Fully implement the two-dose measles immunization schedule and move toward implementing a uniform pediatric vaccination schedule.

12. Explore the establishment of a rotating fund for outbreak control so that funds for that purpose can be immediately available.

Need for new information

13. Conduct additional studies on operations and outcomes of immunization programs. Such studies will help in designing cost-effective measures to improve vaccine coverage; in understanding major barriers to full immunization among preschool children, particularly those in minority populations in inner cities; and in understanding cognitive barriers encountered by families of unimmunized children. Adequate information from laboratory and epidemiologic studies should be available to address the problems of vaccine-preventable diseases in highly vaccinated populations and diseases among young children.

Improve coordination with the private sector

14. Improve coordination and collaboration between the public and private sectors in the delivery of vaccines.

References

1. Public Health Service, Office of the Assistant Secretary for Health: Action plan to improve access to immunization services. National Vaccine Program Office, Interagency Committee to Improve Access to Immunization Services. U.S. Government Printing Office, Washington, DC, 1992.
2. Department of Health and Human Services, Office of the Secretary: Departmental program directions. Washington, DC, 1990.
3. Public Health Service, Office of the Assistant Secretary for Health: The measles epidemic: the problems, barriers and recommendations. National Vaccine Advisory Committee, Washington, DC, 1991.
4. Public Health Service, Office of the Assistant Secretary for Health: Healthy people 2000: national health promotion and disease prevention objectives. DHHS Publication No. (PHS) 91-50212. Office of Disease Prevention and Health Promotion. U.S. Government Printing Office, Washington, DC, 1990.