

GAO

Testimony

Before the Senate Committee on Finance
Subcommittee on Health for Families and
the Uninsured

For Release on Delivery
Expected at
10:00 a.m.
Monday
June 1, 1992

CHILDHOOD
IMMUNIZATION

Opportunities to Improve
Immunization Rates at
Lower Cost

Statement of Mark V. Nadel, Associate Director, National and
Public Health Issues, Human Resources Division



054514 / 146770

SUMMARY

Childhood immunization is one of the most effective means of health promotion and disease prevention. It could avert the costs of treatment for preventable diseases and save as much as \$14 for every \$1 invested. Yet GAO found that the average preschool full immunization rate among the states was 59 percent in 1990, and according to the Centers for Disease Control (CDC) only about one-third of all urban preschool children are fully immunized.

GAO found that states could save millions of dollars, in the aggregate, through a more efficient Medicaid vaccine purchase and reimbursement strategy. Specifically:

- Nineteen states saved money by directly purchasing lower cost vaccines for Medicaid providers through CDC contracts rather than at the commercial price, which can be up to five times higher than the CDC price. States would have saved over \$14 million in 1991 alone by purchasing all vaccines for Medicaid through CDC.
- Substantial savings could be achieved if states required the use of combined vaccines rather than providing Medicaid reimbursement for individual injections of single-antigen vaccines.

However, states told GAO that funding for purchasing and distributing CDC contract vaccines is a major barrier. And a system to handle, store, and distribute vaccines entails added costs while also expanding the traditional public health role.

Educating parents about the importance of maintaining full immunization schedules, identifying children needing immunization and reaching those children are key elements of an effective immunization strategy.

- GAO found that states with statewide integrated tracking, outreach, and education systems had higher immunization rates than those that did not--66 percent compared to 58 percent.

The states with the best results, Vermont (84 percent) and Massachusetts (79 percent), not only had integrated tracking systems, but also supplied certain vaccines free to all providers.

In conclusion, lowering state Medicaid vaccination costs through more cost-effective vaccine payment policies could save millions which could be rechanneled to improve the effectiveness of state immunization programs, including developing or enhancing a tracking, outreach, and education system.

Mr. Chairman and Members of the Committee:

I am pleased to be here today to discuss our work on childhood immunization. At the request of the Senate Committee on Finance, GAO studied how the states and the federal government can improve the immunization rate in the United States through more efficient and effective programs. Specifically, we examined (1) ways to reduce Medicaid costs for immunizing children and (2) strategies to improve preschool immunization rates to ensure all preschool children receive vaccinations. Our complete report will be issued later this year. This morning I will discuss our preliminary findings.

In brief, we found that the states could save millions of dollars, in the aggregate, through a more efficient Medicaid vaccine purchase and reimbursement strategy. States can also improve their immunization rates by establishing or improving tracking, outreach, and education systems.

BACKGROUND

Although the Public Health Service had a goal of immunizing 90 percent of preschool children by 1990, the United States has one of the lowest rates in the Western Hemisphere for preschool immunizations against such diseases as measles, mumps, and polio. In 1990--less than one decade after the United States had nearly eliminated measles from within its borders--this nation reported over 27,000 measles cases and 89 resulting deaths. Unvaccinated preschool children accounted for nearly half of these measles cases and 55 percent of the deaths. Failure to vaccinate preschool children has been largely attributed to inadequate access to preventive health care services and the increased cost of vaccines.

Childhood immunization is one of the most effective means of health promotion and disease prevention. Immunization against childhood diseases averts the costs of treatment for preventable diseases and saves as much as \$14 for every \$1 invested. Nevertheless, based on information that the states provided to us, the average preschool full immunization rate among the states is 59 percent. The Centers for Disease Control (CDC), which studied immunization rates in selected states and cities, believes the overall national immunization rate is actually lower and points out that only about one-third of all urban preschool children are fully immunized. The Public Health Service and the American Academy of Pediatrics recommend that all children be vaccinated against measles, mumps, and rubella; oral polio; diphtheria, pertussis, and tetanus; hemophilus influenza type b; and perinatal hepatitis by 2 years of age.

About half of American children are vaccinated by private physicians and half by public providers such as community health centers. In either case, Medicaid may reimburse for eligible

children. As a result of recent program expansions, preschool children with family incomes up to 133 percent of the federal poverty level are potentially eligible for Medicaid--this group now accounts for about one-third of all preschool children.

Financial support for state immunization programs also comes through CDC activities. CDC is responsible for providing leadership and direction in the prevention and control of preventable childhood diseases. To help meet this responsibility, it provides technical assistance and grants to state and local health agencies for planning, developing, and conducting childhood immunization programs. CDC grants in fiscal year 1991 totalled \$182 million. To achieve cost savings in immunization programs, CDC has contracted for the bulk purchase of vaccines for state and local health agencies. CDC's contract price is substantially lower than private-sector prices for vaccines because manufacturers have agreed to lower prices in order to make the vaccines available to poor children.

Health agencies have used CDC grants to acquire vaccines at reduced cost for about half of the public-sector needs. State and local health agencies may also buy vaccines through the CDC contract with their own funds. Health agencies that purchase such vaccines and distribute them to Medicaid health care providers may be reimbursed for the vaccines' cost by state Medicaid programs.

To meet our review objectives, we administered questionnaires on immunization practices and vaccine reimbursement costs to all state health and Medicaid officials. Only one state did not respond to our survey. We also examined innovative childhood immunization programs in Massachusetts, Illinois, and Arkansas. Finally, we met with CDC and Health Care Financing Administration officials to obtain programmatic information.

STATE MEDICAID PROGRAMS COULD SAVE ON VACCINATION COSTS

Most state Medicaid programs could save money if low-cost vaccines acquired through CDC contracts were made available to health care providers who administer vaccinations to poor children. Currently, state and local health departments can purchase low-cost vaccines through CDC's bulk-purchase contracts with manufacturers. Generally, these health departments distribute these vaccines to public health providers, such as public health clinics. In about half the states, these clinics are the major source of Medicaid immunization services.

Vaccine Replacement Programs Can Yield Substantial Savings

States can also purchase vaccines acquired through CDC contracts for running vaccine replacement programs for all

providers to use for their Medicaid patients. As of May 1991, public health agencies in nine states purchased vaccines through CDC contracts and supplied them free to those Medicaid providers who wanted to obtain their vaccines in this manner.¹ In these states, Medicaid programs reimburse the health departments for the lower cost vaccines and save money by reimbursing for vaccines at the CDC contract price rather than the regular commercial price. Illinois, for example, saved over \$1.5 million in 1991 by reimbursing this way. Even in these nine states, however, not all Medicaid providers take advantage of this opportunity. For those who do, health departments replace the Medicaid providers' supply of vaccines with vaccines purchased through CDC contracts.

Ten additional states purchase the low-cost vaccines from CDC and distribute them free to all providers, for both Medicaid and non-Medicaid use, a practice referred to as a universal vaccine distribution system.

In the other 30 states that responded to our survey, low-cost vaccines are not supplied to all private Medicaid providers. In most of these states, Medicaid reimbursements for vaccines are based on private-sector vaccine costs, which are considerably higher than costs under the CDC contracts. For example, the private-sector price for oral polio vaccine is almost five times greater than the CDC contract price. The private-sector price for hemophilus influenza type b vaccine is almost three times more expensive than the CDC contract price.

Thirty-two state Medicaid programs provided GAO with information on the number of vaccines for which they reimbursed providers in 1990. Had these vaccines been acquired at the CDC contract price rather than the private-sector price, Medicaid programs in those states would have saved \$14.2 million.

States Face Barriers to Wider Use of Bulk-Purchase Vaccines

States told us that funding for purchasing and distributing CDC contract vaccines to Medicaid providers is a major barrier to establishing a vaccine replacement program. First of all, Medicaid will reimburse health departments for the costs of vaccines only after they have been administered to children. Therefore, the states must first come up with enough money to purchase the initial supply of vaccines. Even though making the initial purchase of vaccines would be a one-time cost (since subsequent vaccine purchases would be reimbursed), most states told us that funding the initial outlay is a significant hurdle.

¹A month later, one of these states discontinued its vaccine replacement program because of funding constraints.

Nonetheless, this initial expenditure would be more than offset by recurring Medicaid savings while benefitting children's health.

Secondly, establishing and maintaining a system to handle, store, and distribute vaccines to private Medicaid providers entails additional expenditures. Creating such a system also expands the traditional public health role, and some state health departments are reluctant to get involved in what they perceive as a wholesale distribution system.

Even when states have vaccine replacement programs, not all private providers participate in the replacement programs because there are also barriers to individual physician participation. These include delays for vaccine replacement, the administrative burden of keeping separate records for public and private vaccines, and what some see as inadequate Medicaid reimbursement for vaccine administration.

Use of Individual Rather Than Multiple Vaccines Results in Higher Medicaid Costs

Further savings of Medicaid funds could be achieved if states required the use of combined vaccines rather than reimbursing individual injections of single-antigen vaccines. Combined vaccines provide protection against multiple diseases, such as measles, mumps, and rubella, whereas single-antigen vaccines protect against only one disease. Except during a disease outbreak, the Public Health Service's and the American Academy of Pediatrics' immunization guidelines recommend the use of a combined measles, mumps, and rubella vaccination for routine immunizations of preschool children. At least 36 state Medicaid programs, however, routinely paid for single-antigen vaccinations.

According to CDC officials, medical justification for using a single- rather than combined-antigen vaccine for preschool children should be rare. A substantial number of single-antigen injections may have been given wastefully as seen in a New York State Health Department analysis of 1989 Medicaid claims. In that study, the health department concluded that single-antigen vaccines were inappropriately administered in 45 percent of the 23,885 immunizations given in private physicians' offices to children between the ages of 1 and 4. Because of this practice, opportunities were lost for achieving full immunization of these preschool children, and immunization costs increased. Based on our survey results, the average Medicaid reimbursement for the three single-antigen vaccines is 60 percent higher than the reimbursement for the combined vaccine.

BETTER TRACKING, OUTREACH, AND EDUCATION
CAN IMPROVE IMMUNIZATION LEVELS

Although it is possible to reduce Medicaid expenditures for vaccinations, such savings alone will do little to improve preschool immunization levels unless the funds are rechanneled to more proactive immunization programs. Public health departments need to educate parents about the importance of completing the full immunization schedule, as well as to identify and reach preschool children in need of immunizations. According to CDC these activities are key elements of an effective immunization program.

Our analysis of immunization data that states provided indicates that states with statewide integrated tracking, outreach, and education systems are twice as likely to have greater success in immunizing children. However, only 12 states have integrated statewide tracking, outreach, and education systems. Immunization rates in these states are generally higher than rates in states that do not have such integrated systems; their median immunization rate for preschool children was 66 percent compared with 58 percent in the other states.² Five of these states had rates that ranged from 72 percent to 84 percent. In addition to having integrated systems, the two states with the highest rates--Vermont (84 percent) and Massachusetts (79 percent)--supplied certain of the vaccines free to all health care providers, which also may have contributed to the high rates.

While states that have statewide integrated tracking, outreach, and education systems do better than states that do not have such systems, immunization rates for preschool children in almost all states are still well below the Public Health Service's 1990 goal of 90 percent. In most states, tracking, outreach, and education activities have serious limitations. Tracking systems often do not maintain a complete record of newborns, outreach is generally limited to mail notices with no personal contacts, and educational materials on childhood immunizations frequently are not disseminated and explained to new mothers at the time they leave the hospital as suggested by CDC.

State health department officials told GAO that a number of challenges exist to establishing an effective tracking and outreach system. These include:

- limited state, local, and federal funding for computer equipment and staff;
- difficulties in obtaining birth records in a timely manner; and

²This percentage is based on 11 of the 12 states that provided us with immunization rates.

-- privacy issues inherent in maintaining and using centralized files containing confidential health information.

CONCLUSION

There is wide agreement that immunization rates should be dramatically increased. Although funding is a barrier to better vaccination programs, states could lower their Medicaid vaccination costs by adopting more cost-effective vaccine payment policies. Savings on vaccine costs could allow states to use their limited financial resources to improve the effectiveness of their immunization programs, including developing or enhancing a tracking, outreach, and education system.

* * * * *

This concludes my prepared statement; I will be happy to address any questions you may have.