

Immunization Policies and Funding in Washington State

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ABOUT WASHINGTON

Washington State is the 15th most populous state in the nation with 5.7 million residents living in an area of 68,139 square miles. This is a significant increase in population since 1990, when Washington had 4.9 million people, and ranked 18th in the country. In Washington State, 25.9% of the population is under the age of 18 (1.5 million), which is slightly lower than the national average of 26.8% (U.S. Census), and 11.5% of the population is over age 65, again lower than the national average (12.7%). The population in Washington State is disproportionately white. Based on Washington State Department of Health (DOH) data, 82.3% of the population is non-Hispanic white, 6.2% Hispanic, 6.1% Asian/Pacific Islander, 3.5% black, and 1.9% Native American. The 1998 birth cohort of 79,640 was more diverse: 70.9% non-Hispanic white, 12.6% Hispanic, 6.8% Asian/Pacific Islander, 3.7% black, and 6% other.

The terrain and climate of Washington divide the state into a rainy western third and a drier eastern two-thirds by the Cascade Mountain Range. Western Washington industries depend on forests, fisheries, and imported raw materials and have thriving computer software and aerospace industries. Eastern Washington is mainly agricultural, producing wheat, irrigated crops, and livestock. Eighty-two percent of the population in this state lives in metropolitan areas, principally in western Washington along Puget Sound. Three neighboring counties in western Washington account for 52% of the state's population, and include metropolitan Seattle and Tacoma, the state's largest cities. Spokane, the largest county in eastern Washington, has a population of 406,500, or 7.4% of the state's population (Washington State Department of Health, Center for Health Statistics).

Politically, Washington is unique in that it has a progressive tradition yet no state income tax; it relies instead on state sales and property taxes. The political climate has been described as socially liberal and fiscally conservative; however, more recent elections have been dominated by popular support of conservative agendas (decreasing state and local taxes and anti-affirmative action laws). In 1994, the state passed a ballot referendum, Initiative 601, that constrains the rate of growth of total state spending out of the general fund to inflation plus population growth (roughly 4% per year from 1995 to 1997). It remains to be seen how this will affect health programs specifically, but it is clear that recent growth rates for Medicaid and other health programs will not be able to be sustained under this initiative (Urban Institute).

In November 1999, Washington voters approved an initiative limiting the vehicle excise tax to a flat \$30 per year (I-695). Because Washington does not have a state income tax, the vehicle

excise tax provided a large portion of the tax revenue to local health departments to cover operating expenses and local health initiatives, as well as providing funding for transportation and schools. The impact of this loss of approximately \$175 million in tax revenue per year is unclear but is estimated to be substantial. The state immunization program will be unable to rely on additional local funds for immunization-related activities.

Washington's economy is currently very strong. The unemployment rate fell from 8.4% in January 1993 to 4.3% in August 1999 (Washington State Employment Security Department). The computer software and aerospace industries are fueling part of the growth in the state's economy. Economic growth has increased resources available for both private and public purposes and contributed to a lower than average poverty rate. The median household income in 1996 was \$36,676 (rank, 19; U.S., \$35,492). Of its population, 11.9% was living below poverty level (rank, 24; U.S., 13.7%) (U.S. Census). The median income for families with children in 1996 was \$42,700 (\$39,700 for the U.S. as a whole). Of Washington children, 13.1% are living in poverty (compared to 20% for the U.S. as a whole) (State of Washington's Children), only 5% of children live in extreme poverty (<50% poverty level) (compared to 9% in the U.S.) (Kids Count).

Washington has a low rate of uninsurance by national standards (12.9% of the nonelderly population, compared with 15.5% nationally) and compares favorably across a broad array of health status and outcome indicators (Urban Institute). Only 9% of children under the age of 18 have no health insurance, compared with 14% nationally. The percentage of children covered by Medicaid or public sector health insurance is consistent with the national average of 25%. The state has lower than average rates of low-birth-weight deliveries and teen pregnancies, and has lower than average infant, child, and teen mortality rates. In 1998, 81% of Washington State's children under 2 years of age were fully immunized, up from 74% in 1994 and slightly better than the national average of 78% (Table 1). On one index of overall child health and well-being, Washington ranks 20th among the states (Kids Count).

HEALTH CARE ENVIRONMENT

Washington currently covers 28% of the entire state population of children (455,000 children) in state-subsidized health care programs. Washington has employed four strategies to provide health coverage to its children. These include major Medicaid expansion, implementation of the state subsidized Basic Health Plan (BHP), comprehensive health insurance reforms, and Medicaid outreach initiatives. These programs were all in place prior to the federal Children's Health Insurance Program (CHIP) legislation. In addition, the Health Care Financing Administration (HCFA) recently approved Washington State's Children's Health Plan application for

TABLE 1. Immunization Rates for the 4:3:1 Series for Washington State and King County, CY 1995–1998

	1994	1995	1996	1997	1998
Washington State	74% ± 4.9%	78% ± 4.2%	79% ± 3.5%	79% ± 3.2%	81% ± 3.8%
King County	79% ± 6.3%	83% ± 4.6%	82% ± 4.1%	77% ± 4.6%	87% ± 4.6%

NOTE: CY = Calendar Year.

SOURCE: National Immunization Survey.

Title XXI funds (State Children's Health Insurance Program—SCHIP). This plan was to be implemented in early 2000.

In 1993, Washington State enacted legislation to implement comprehensive health reform. The goal of this legislation was universal health care coverage. Major portions of the law were repealed in 1995, following the collapse of federal health care reform efforts. However, the state did retain comprehensive insurance reforms on limiting preexisting conditions to 3 months and requiring health carriers to guarantee portability and reissuance. Funding was provided to expand state-subsidized BHP coverage and children's Medicaid coverage. Additionally non-subsidized Basic Health Plan coverage was implemented through the Health Care Authority.

Medicaid

Washington has been a national leader in improving access to health care for children. Medicaid has been the fastest-growing component of Washington State's budget in recent years, increasing from 9 to 13.4% of the state's general fund expenditures between 1991 and 1995. Washington's Medicaid program insured 12% of Washington's nonelderly population in 1995 and 58% of its population below the federal poverty level (FPL). Washington has relatively generous Medicaid eligibility limits, especially for pregnant women and children. In 1989, Washington implemented its "First Steps Program" to improve birth outcomes. This included expanded Medicaid coverage to pregnant women and infants in households up to 185% of FPL. In 1991, children's health coverage was made available to all children up to age 18 residing in households with income up to 100% of FPL. This program was converted to Medicaid in 1992, and eligibility was expanded to include children up to age 19. In 1994, Medicaid coverage was expanded to 200% of FPL for children through age 18. Prior to the enactment of CHIP in 1997, Washington was one of only four states with Medicaid coverage at or above 200% FPL. In 1996, the Urban Institute estimated that 24% of the children in Washington were enrolled in Medicaid, 62.8% had employer-provided insurance, and 7.2% had other sources of insurance; 5.9% of the children were uninsured (compared with 10.4% nationally). Medicaid paid for 42% of the births in the state in 1995.

During fiscal year (FY) 1998, more than 690,000 Washington State residents received coverage through the federal-state Medicaid program: 77.3% of the enrollees were low-income pregnant women, children in low-income families, or members of families receiving Temporary Assistance for Needy Families (TANF); 60% of the Medicaid enrollees were children. By the end of the 1997-1999 biennium, it was estimated that the Medical Assistance Administration (MAA) would provide coverage to 514,000 children (32% of the state's children). While the state has been resistant to cutting Medicaid, there is general recognition that in the long term, Medicaid spending growth must be curtailed, because state expenditures for any given fiscal year are limited.

Enrolling beneficiaries in managed care plans is one tactic the state has pursued. The MAA began contracting with health maintenance organizations (HMOs) in pocket communities in 1986. In 1994, the state mandated that the MAA begin phasing in Medicaid managed care state-wide. Currently, the majority of Medicaid recipients are enrolled in the state's Medicaid managed care program called Healthy Options. Of Medicaid enrollees eligible for Healthy Options, 80% are enrolled in the managed care plan (66.4% of total Medicaid enrollees). The remainder have been granted exemptions from Healthy Options because of complex medical conditions or large distances to travel to a contracted provider and have their care provided by traditional fee for service.

Medicaid managed care plans are audited annually by an outside organization. For calendar year 1998, plan-specific results were published in a statewide Health Plan Employer Data and Information Set (HEDIS) report as a result of the governor's quality improvement initiative. The 1999 Washington State HEDIS report found that reported immunization rates varied widely by health plan for both commercial and Medicaid populations. While measurement was likely imperfect, and particular health plans' data collection systems are not well maintained, the perception of officials in the Washington State Department of Health Immunization Program (IP) is that these results reflect true discrepancies in immunization rates between health plans and insurance populations. To be counted in this report, the child had to be enrolled continuously in the health plan for 12 months prior to data collection. The immunization rates in this report included a rate for children up-to-date on immunizations by age 2 for 4 DTaP/DTP (diphtheria and tetanus toxoids and acellular pertussis vaccine, or diphtheria–tetanus–pertussis vaccine), 3 OPV/IPV (oral poliovirus vaccine, or inactivated poliovirus vaccine), 1 MMR (measles–mumps–rubella), 2 Hib (*Haemophilus influenzae* type b), and 2 hepatitis B, and an adolescent immunization rate. The adolescent rate reported the percentage of adolescents in the health plan whose thirteenth birthday was in the reporting year and who had received a second dose of MMR and hepatitis B. Despite wide variation in individual health plan levels, all plans had shown improvements in immunization rates from the 1998 report. Most striking were the differences between commercially insured children and children on Medicaid in all of the immunization measurements: Medicaid children had a 10–15 % lower rate (Table 2).

Basic Health Plan

In 1988, Washington implemented the BHP to provide state-subsidized managed care health coverage to low-income persons. The program is aimed primarily at uninsured, low-income working families. Enrollees pay a sliding-scale premium based on their income level. The program operates on managed competition principles and contracts with almost all of the managed care plans used by Medicaid and the public employees health benefits plan. The BHP provides a safety net of coverage for women and children who may cycle in and out of Medicaid eligibility as a result of health status or income fluctuations. Until Medicaid was expanded to 200% of FPL in 1994, BHP offered subsidized coverage to both children and their families up to 200% FPL. Currently, parents of 80,000 Medicaid-covered children receive their health insurance through the Basic Health Plan. In addition, the BHP now offers nonsubsidized coverage to individuals or employers above 200% FPL.

TABLE 2. Immunization Rates for 2-Year-Olds and 13-Year-Olds by Individual Insurance Plan and Type of Insurance from the 1999 Washington State HEDIS Report

	Commercial		Medicaid	
	Range (%)	Median (%)	Range (%)	Median (%)
4:3:1 plus at 2 years	52.2–88.3	72.5	37.7–74.5	57.9
Second MMR by age 13	51.6–87.8	65.1	33.4–72.7	60.0
Hepatitis B by age 13	10.5–55.5	27.1	5.5–36	17.0

Children's Health Insurance Program

In September 1999, HCFA approved Washington State's Children's Health Plan application. This plan will offer comprehensive health coverage to children through age 18 who reside in households with incomes between 200 and 250% of FPL. Because Washington State already had Medicaid eligibility up to 200% FPL, state officials expect only 5,000–10,000 more children to be enrolled in CHIP. CHIP is a nonentitlement program, with coverage offered within available state funds appropriated by Washington's legislature. Families will be required to pay modest premium and copayments for coverage. CHIP benefits will be the same as the state's Medicaid program for children. The program will utilize the state's Medicaid managed care delivery system. It will employ Medicaid income eligibility criteria. However, CHIP eligibility and enrollment requirements and process will be different. The Medical Assistance Administration will administer the CHIP program. The MAA was scheduled to start taking CHIP applications in January 2000, with service delivery beginning in March 2000.

Other Programs

Washington State also offers "gap-filling" programs to support health care for needy populations. These programs include the following: (1) medical assistance programs for general assistance clients; (2) refugee assistance, which provides Medicaid-type coverage to refugees; (3) the Medically Indigent Program, which provides emergency reimbursement for uninsured people with high medical expenses incurred in hospitals; and (4) the State Children's Health Program, which provides Medicaid-type coverage to children in households under the FPL who are not otherwise eligible for Medicaid—essentially undocumented immigrant children. The total number of people served in these programs is modest, 28,000 in 1996, but continues to grow. Although in principle these programs would be described as state funded, they are largely supported by additional federal funds earned by the state's Disproportionate Share Hospital Program.

VACCINE FINANCING AND VACCINE ADMINISTRATION FEES

Universal Vaccine Distribution Program

Washington has been a universal vaccine distribution (UVD) state since 1990; therefore the purchase of vaccines has been predominantly public in the past decade. The current UVD agreement is not a state statute and is based solely on a year-to-year budget agreement between the Washington State Health Department and state legislators. Implementation of the federal Vaccines for Children (VFC) program in 1994 increased the ability of the state to purchase and distribute vaccine, and helped increase provider participation in the UVD program. Currently, most providers of childhood immunizations in the state participate in UVD. Under the UVD program, public vaccine purchase is currently funded by the following sources: VFC (48%), state general funds (31%) and federal Section 317 (21%).

The Federal Vaccines for Children Program

The VFC program is administered jointly by the IP and the MAA. When the Advisory Committee on Immunization Practices (ACIP) approves a vaccine for inclusion in the VFC program, the state initiates a systematic process to determine when and if the vaccine will be included in the state's UVD program. This process can take up to 18 months. The first step in the process

involves taking the new federal vaccine recommendations to the state Vaccine Advisory Committee for its recommendation for the State of Washington. Once the vaccine is approved for inclusion in the UVD program, a request is made for additional state funds to purchase the vaccine for non-VFC children. Therefore, a new vaccine for which VFC children are eligible may not be available from the state for up to 1½ years. To remain in compliance with the VFC program, Medicaid reimburses providers for purchasing the vaccine at market cost and administering the vaccine until it is available through the UVD program. The increased cost of providing vaccines to VFC-eligible children during this waiting period is substantial and of concern to the MAA.

Provider Participation and Perceptions

Private providers were the mobilizing force in Washington's becoming a UVD state in 1990. Most providers participate in the program because they receive free vaccine from the state through their local health jurisdictions (LHJs) and are able to charge up to a \$10 administration fee per immunization. For the past few years, providers have been advocating for an increase in this administration fee to better offset the increasing costs of vaccine administration. As of December 1, 1999, the administration fee had been increased to \$15.60 per dose. Interestingly, HCFA recommended the \$15.60 figure in 1995, but the state only recently approved this increased fee. Medicaid reimburses \$5.00 per dose to providers for an administration fee, and this summer also approved a charge for immunizations of \$8.00 per visit for providers who are reimbursed by fee for service, mostly public health clinics and some community clinics.

The UVD program covers the same vaccines covered by VFC, although with a lag time in approving new vaccines as mentioned above. Any provider who signs the Outside Provider Agreement to Receive Public Purchased Vaccine (thereby agreeing to follow guidelines) can receive vaccine. LHJs process the agreements annually from providers and forward them to the state.

VACCINE DISTRIBUTION

The UVD program distributes vaccines from the state office to LHJs, who then distribute them to public and private providers. Initially, this mode of distribution was problematic because some LHJs (including Seattle–King County [SKC]) required providers to come to the local health department office to receive the vaccine. In addition, the distribution and storage of vaccine in LHJs overwhelmed staff and created significant space limitations. Because of provider dissatisfaction and distribution and storage limitations, the SKC office began contracting with an outside company to inventory and distribute vaccines to providers' offices, while maintaining and improving quality assurance and assessment activities. This model may be used in other counties in the future.

STATE IMMUNIZATION POLICIES AND PROGRAMS

Public Sector Provision of Immunization Services

Delivery of vaccine has changed substantially in the past decade. As late as 1994, the delivery of vaccines in Washington State was 80% public and 20% private practice. In 1999, 20% of vaccines were provided by public sources and 80% were private. This change in Washington State vaccine delivery from public to private has coincided with the changing role of public

TABLE 3. Number of VFC Provider Sites in Washington, CY 1995–1999

	1995	1996	1997	1998	1999
Public	264	205	206	206	N/A
Private	855	909	910	907	N/A

NOTE: CY = calendar year; N/A = not available.

SOURCE: These numbers have been self-reported by local health jurisdictions for their own areas. Washington will have statewide data from a newly developed database in January 2000.

health from direct service provision to assurance, policy development, and assessment. Although the reported number of public and private VFC provider sites has not changed substantially over the past 5 years (Table 3), two midsized LHJs are no longer providing immunizations directly, and the local public health system is moving away from direct service provision. With the recent passage of I-695 (vehicle excise tax decrease accounting for \$175 million per year loss in revenue), it is possible that LHJs will move more rapidly out of providing immunizations and other health care services directly.

Medicaid delivery of immunization services has changed from fee-for-service reimbursement to almost exclusively managed care capitation. The MAA estimates that 96% of children enrolled in Medicaid are enrolled in the capitated managed care plan Healthy Options.

Coordination with Medicaid

In 1994, when the federal Vaccines for Children program was initiated, the state Medicaid program considered participation in vaccine distribution. This initially caused concern in the state's Immunization Program, which is part of the DOH. The IP had been solely responsible for vaccine distribution up to 1994 and, because Washington has been a UVD state since 1990, had done the majority of vaccine distribution in the state in conjunction with LHJs. The regional office of HCFA facilitated a meeting between the two offices, and an immunization workgroup was formed. This workgroup has expanded to include health insurance providers, LHJs, private physicians, and community health clinic providers. Since the formation of the workgroup, both the immunization program and the MAA immunization coordinator feel that the relationship between the two departments has been excellent, with good collaboration and coordination of efforts.

Recently, the IP and MAA have collaborated around the CHIP application and implementation of the CHIP program. Early collaboration before the application was submitted allowed the IP to ensure that CHIP vaccines would be able to be purchased at the federal contract discount price. Both the IP and the MAA see the administration of VFC and CHIP as a collaborative effort between the two state agencies. The Immunization Program sees further opportunities for collaboration in the areas of changing provider practices and quality improvement.

As a partner in VFC, Medicaid has assumed responsibility for monitoring the immunization rates of Medicaid children. This is done through contract requirements with the managed care plans providing services. When Medicaid shifted to managed care, a new data system was not created simultaneously that would allow providers to simplify paperwork, including reports. A new data system has been developed but is not yet in place and will be primarily for billing purposes. The new system will not track specific immunization data. In addition, the IP feels that it has been difficult to get Medicaid to support the development of the statewide immunization

registry, CHILD Profile. Substantial support is now in place through the Medicaid administrative match, but this support became available only in the past year, once the national Medicaid office sent out a letter stating that helping with immunization registries was an allowable Medicaid administrative cost. This letter was in response to another state's initiative, but it allowed the Washington MAA office to feel comfortable supporting the state registry. Both MAA and IP staff expressed the view that there needs to be more cross-regional communication among the various public programs initiated and maintained at the national level.

Coordination with the Women, Infants, and Children Program (WIC)

Prior to the congressional mandate in 1995, there was no formal collaboration between WIC and the immunization program at the state level. There was independent local collaboration in some LHJs prior to 1995, and many of these local relationships still exist. In 1996, when Congress mandated WIC involvement in immunization screening, the Washington State Immunization Program approached the state WIC program about how to best perform this mandated activity. The Centers for Disease Control and Prevention (CDC) told the state IPs that WIC immunization-related activities should be performed and that the IPs should spend up to 10% of their Immunization Action Plan (IAP) grant funds on WIC-related immunization activities. However, there was no mandate that the 10% go to the WIC program directly to help finance these new activities. In Washington State, the IP and state WIC program contracted with five local WIC programs to perform the mandated immunization-related activities.

The mandated collaboration between WIC and the IP was not seamless but has worked intermittently after the initial start-up period. In 1996, the WIC program already had plans and a budget that did not include mandated immunization activities. The IP was reluctant to contract with WIC because its 1996 contracts were already in place. At the state level, these difficulties were soon resolved and a working relationship began. Local WIC offices in the State of Washington are managed by a number of organizations. Only 50% of offices are run out of the local health departments, while other contractors include schools, nonprofit organizations, and community action programs. The IP and WIC decided to target five LHJs with large pockets of need instead of targeting the entire state at a more superficial level. Because of the lack of success of two programs and budget cuts, the state decided to discontinue funding activities through WIC in Snohomish and Everett Counties shortly after the programs were initiated. For the past 2 years, the IP has funded three WIC programs in Yakima, King County, and Spokane. Although administered differently in all three counties, the local WIC offices feel that clients benefit from immunization screening and appreciate the service if timely feedback on their child's immunization status is maintained.

The WIC program has just finished implementing a statewide database called CIMS (Client Information Management System). This database has taken longer than expected to implement. Ideally, both WIC and the IP would like to develop a linkage module between CIMS and CHILD Profile (the state IP's registry). This linkage has been delayed because of the delay in implementation of CIMS, technical discrepancies between the two databases, and the lack of memory available on computers while running CIMS, which is computer based (CHILD Profile is on a mainframe and web based). Additionally, the development of a linkage program has been delayed because of Section 317 financial assistance (FA) funding cuts. When funding decreased, money was taken from the linkage budget to help continue to fund local WIC programs. Perhaps the most important barrier to linkage has been concern at the state WIC office about the legality of linking client databases in terms of confidentiality laws.

The WIC office was particularly concerned about the “disincentive” approach favored by some staff in the state IP and the CDC. This approach would issue food vouchers monthly rather than every other month until the client is compliant with bringing in immunization histories and having children up-to-date on immunizations. This approach has been successful in the short term in a few locations nationally. WIC questioned the long-term impact on the relationship between this high-risk population and local WIC offices. Anecdotally, it was particularly concerned about a statement overheard at a hunger program focus group where a parent reportedly stated that she didn’t go to WIC for help because of the need to have the immunization records of her children.

The WIC office sees its job as improving the health of children and values the role of immunizations in attaining this goal. It feels that it needs more latitude to implement immunization screening programs to fit with the unique relationship WIC has with the community and also needs money to implement these programs. The WIC office feels that the WIC program in Washington State has made a difference in the immunization rate; however, it is unclear how great a difference it has actually made. Finally, the federally mandated data reports are extremely time intensive and costly, and the money would be better spent directly referring children to immunization clinics.

From the Immunization Program perspective, inadequate funding of WIC programs has hampered the relationship with WIC. Two major limitations to successful collaboration were identified. First, the delay in integrating the WIC computer database with CHILD Profile has made tracking difficult despite adequate screening of paper records. Second, WIC has been resistant to “disincentive” programs to increase compliance with immunization screening (voucher system), despite proven efficacy. The IP feels that WIC has been able to reach underimmunized children more effectively and rapidly than other safety net programs. The immunization screening at WIC requires staff time and training and needs additional funding to support these activities if the program is to continue.

IMMUNIZATION REGISTRIES AND PROVIDER REPORTING

Background

In 1992, acknowledging federal, state and local interest, the Snohomish Health District (SHD) and the Seattle–King County Department of Public Health (SKCDPH) applied for and received a 1-year pilot project proposal and then were awarded a 4-year Robert Wood Johnson Foundation (RWJF) grant to implement an All Kids Count project. At the same time, SKCDPH was also developing a parent-targeted health promotion project to address local and state desire for a system to improve the health status of young children. Based on common goals and interests, these two LHJs combined their immunization tracking and health promotion activities into one database called CHILD Profile. CHILD Profile expanded to Island and Kittitas Counties in 1995. The immunization tracking system was adopted by the state DOH as its model and has been marketed throughout the state since 1997, while the health promotion component expanded statewide for all new births in Washington State on July 1, 1998.

The ultimate goal of CHILD Profile is to provide a comprehensive statewide system to monitor and improve the health status of children. Staff in the two LHJs evaluated the variety of reasons for low utilization of preventive health services. Washington State had previously taken steps to reduce financial barriers and lack of health insurance through insurance reforms and expanded Medicaid eligibility. Additional barriers to adequate well-child care included parent’s lack of knowledge about the importance of well-child exams and immunizations, as well as how

to access appropriate care, and health care provider's lack of easy access to a child's complete immunization history. The two central components of CHILD Profile are as follows: (1) a comprehensive immunization tracking system and (2) a parent-oriented health promotion program.

System Components

CHILD Profile consists of a core database, which is the starting point for immunization tracking and the dissemination of health promotion materials. The SKCDPH receives an electronic file containing the public portion of the birth certificate. This information is used to generate the demographic record of each child in the CHILD Profile core database.

CHILD Profile health promotion materials provide parents with health, safety, and development information specific to their child's age. The parents of each new baby get a CHILD Profile packet from their birthing facility. From birth to age 6, parents receive mailings at appropriate intervals that provide information about well-baby checkups, immunizations, safety, growth and development, and other parenting tips. Currently, all materials are available in English and Spanish, and some are available in additional languages. These mailings also include a toll-free number parents can call for help in accessing health care, answering CHILD Profile questions, or requesting materials in another language.

The immunization tracking system is an automated registry designed to contain immunization records on all children in the state. Utilizing demographic data from the core birth registry database, CHILD Profile is a population-based, on-line system that links public and private immunization providers in order to ensure complete immunization histories for children. CHILD Profile provides immunization histories for patients, generates lists and mailing labels for patients past due for immunizations, produces vaccine accountability reports, and helps in providing data for clinical assessment reports such as CASA (Clinical Assessment Software Application) and HEDIS. With a computer, providers can easily connect to CHILD Profile via modem, network, or the Internet.

Private–Public Partnership

CHILD Profile is owned and operated by the SKCDPH and the SHD, in collaboration with the Washington State Department of Health. Marketing and development of associated software applications are shared with Health Information Institute, a private company with whom CHILD Profile has a nonexclusive marketing agreement. CHILD Profile is funded in part by local, state, and federal funds and by All Kids Count (RWJF). For long-term sustainability, operating costs are shared with participating providers, local health jurisdictions, and health plans through fee-for-service arrangements. Providers are charged for each child under age 6 for whom they are the primary provider.

When a contract is signed with CHILD Profile, providers report an initial count of children under age 6 in their practice, with annual updates thereafter. This number forms the basis for calculating a quarterly charge. To encourage uptake of the registry, fees are prorated based on the percentage of children under age 6 in the county with immunization records in the database. Currently, fees range from \$0.13 per child quarterly for <50% of children in county with immunization records in the system to \$0.39 per child quarterly for providers in counties with >75% of children with immunization records in the system.

Provider Participation

Uptake of CHILD Profile has varied by county and type of provider. As of October 1, 1999, 71% of children under age 6 in the entire state had demographic records in CHILD Profile and 28.6% of all children in the state had records with immunization data in CHILD Profile (41% of children with demographic information in the database).

In the five counties for which detailed data are available (King, Snohomish, Island, Thurston, and Mason), 98–100% of resident children ≤ 24 months of age have demographic information in the registry, with approximately 80% of births entered into the registry by 42 days after birth. The percentage of children ≤ 24 months of age with an immunization event in the registry is 30% overall in the five counties. In the first six months of 1999 in the five counties, 72–84% of public providers were participating in the registry, whereas between 16 and 32% of private provider sites were enrolled in the registry and between 12 and 31% actually submitted data over the six-month period (January–June 1999) (All Kids Count survey, July 1999).

It is clear that private provider representation will have to increase significantly for the registry to be useful. CHILD Profile has a strategic planning process under way to determine how best to increase provider participation in the registry and how to pay for the registry. Private providers and the state chapter of the American Academy of Pediatrics have expressed an unwillingness to use the registry on a fee-for-service basis.

Cost of Registry

Funding for CHILD Profile comes from local, state, and federal sources, as well as private foundations and fee-for-service contracts (see Table 4). In the year 2000 budget, 38.7% of the \$3.5 million estimated costs will be from state sources; 34.8% will be from federal sources including Section 317 funds, VFC, and Medicaid administrative match; and the remainder from private and other sources.

The state DOH is committed to seeing both the immunization registry component and the health promotion component of CHILD Profile succeed; however, the state’s contribution to the registry component will be difficult to maintain due to increasing funding constraints. In the last

TABLE 4. Sources and Funding (dollars) for CHILD Profile (Immunization Registry and Health Promotion Program Combined)

Source of Funds	1997	1999	2000
Section 317	795,288	244,226	573,606
VFC	Total federal	55,576	62,604
Other federal (Maternal and Child Health, Medicaid administrative match)		583,941	607,000
State source funds	882,049	1,203,257	1,383,083
Local	468,745	88,606	79,398
Fee for service	635	19,999	35,000
Private foundations	91,075	274,096	11,751
Other	RWJ, other	433,628	818,859
Total	2,237,157	2,903,329	3,571,301

SOURCE: Information provided by CHILD Profile, Seattle–King County Health Department, and Snohomish Health Department.

TABLE 5. Immunization Component of Registry Expenditures, by State Biennium July 1993–June 1999

	July 1993– June 1995	July 1995– June 1997	July 1997– June 1999
Funds spent on registry	Unknown	\$754,815	\$935,438

NOTE: Excludes health promotion activities.

biennium, the DOH contributed \$935,438 of state infrastructure funds to the registry (approximately 9.5% of total infrastructure funds) (Table 5). The state DOH is committed to having the registry succeed but needs to find alternative ways to finance the registry including contributions from the private sector. The state Medicaid program is also committed to having the registry succeed but is more interested in supporting the health promotion component. The MAA has no plans to mandate provider participation in the registry for providers who administer vaccines to children on Medicaid and has no plans to mandate that the contracted health plans for Medicaid managed care (Healthy Options) participate in the registry.

Immunization Enforcement and Surveillance

There is a small but growing antivaccine movement in Washington State. The state has three of the major antivaccine websites. State law allows three exemptions for required school attendance immunizations including medical exemptions, religious beliefs, or philosophical objections to vaccines. Some rural counties in the state are reporting a 5% or greater rate of exemptions, although overall the rate of waivers in Washington is less than 3%. However, the philosophical exemption has an effect on reported immunization rates. People can come to WIC and claim to be opposed to vaccinating their children to avoid bothering with bringing in the required records. This same concern has been raised with school immunization records, likely resulting in an overestimate of true philosophical objections and an underestimate of the immunization rate for these populations of children. As a disincentive for waiving immunizations, parents are informed that their children will be excluded from schools when outbreaks of vaccine-preventable diseases occur in the community.

When the VFC program was introduced in 1993, Washington State argued that as a universal vaccine distribution state, undue burden would be placed on providers if they had to screen each patient for VFC eligibility criteria before administering vaccine. VFC vaccine has been provided to the state based on state estimates of the percentage of eligible children in the five VFC categories. The largest group of VFC-eligible children, those enrolled in Medicaid, was not accurately estimable based on state data. Based on new federal accountability requirements introduced in 1998, the state began an annual 30-day benchmarking process to better document the proportion of VFC-eligible children immunized at the provider level. Data are collected at every provider site in the state that administers publicly purchased vaccine. These data will help justify the current VFC percentage eligible (52%) and thus provide funding at 52% of the total vaccine doses needed.

ADULT IMMUNIZATION POLICIES AND PROGRAMS

The state does not provide publicly funded vaccines for adults; however, many LHJs purchase and administer influenza and pneumococcal vaccines for adult populations in their communities, which are reimbursed by Medicare for seniors and by Medicaid and other payers for persons of all ages with chronic disease. Local health departments are active in promotion of adult immunizations—again, predominantly influenza, and to a lesser extent, pneumococcal vaccine. LHJs develop relationships with local health organizations, pharmacies, visiting nurse associations, and other providers of adult immunizations to facilitate adult immunization programs in the community (e.g., workplaces, grocery stores). An important goal of the state adult immunization program is to eventually develop the means for population-based assessment of adult immunizations. With recent funding cuts due to I-695 (the vehicle excise tax), it is likely that the involvement of LHJs in adult immunization programs will diminish unless additional or alternative funding becomes available.

According to a 1997 survey conducted by the CDC and the DOH, immunization coverage rates of adults age 65 and older for influenza and pneumococcal disease are 70 and 52%, respectively. This is a slight increase from 1995 estimates of 66% for influenza vaccine and 46% for pneumococcal vaccine. Washington State officially began its adult immunization program in August 1998. The primary role of this program thus far has been community and provider outreach regarding the importance of influenza and pneumococcal vaccines in at-risk populations. Its role is one of technical assistance, promotional materials, and assessment of adult immunization practices and beliefs. Currently, the adult immunization coordinator is focusing on establishing relationships with stakeholders such as the American Lung Association and the American Diabetes Association to coordinate activities around promotion of adult immunizations, particularly influenza and pneumococcal vaccines. The program is also involved in a survey of nursing home facilities in the state to determine their current practices around administration of influenza and pneumococcal vaccines to their residents. There is no state mandate that licensed facilities (nursing homes or hospitals) administer vaccines to at-risk adult populations.

STATE AND FEDERAL FUNDING FOR IMMUNIZATION PROGRAM

See Tables 6 through 9.

Direct Vaccine Purchase

State money that comes into the IP goes mostly to vaccine purchase, the primary intent of legislation (Table 7). A small percentage goes to management salaries, communication, and community and migrant health assessment activities. The state currently funds 31% of pediatric vaccine purchase. The VFC program provides an additional 48% toward vaccine purchase. An estimated 48% of children in the state meet criteria for VFC eligibility (Table 8). Section 317 currently accounts for only 21% of vaccine purchases.

Vaccine Infrastructure

Overall funding for vaccine infrastructure declined markedly from 1995, more than \$9 million, to 1999, slightly more than \$4 million. This decline is due directly to the decline in Section

TABLE 6. Expenditures for Publicly Purchased Vaccines, July 1995–June 1999 (dollars)*

Source of Funds	July 1995– June 1996	July 1996– June 1997	July 1997– June 1998	July 1998– June 1999
State source funds	3,534,481	3,981,047	5,245,725	7,081,726
Section 317	2,749,452	5,524,114	4,699,190	3,042,653
VFC	3,370,701	6,490,430	6,819,056	6,779,216

*Vaccines are considered an expenditure when distributed, not when purchased.
SOURCE: Monthly distribution reports for each state fiscal year.

TABLE 7. State Source Spending on Vaccines, July 1991 through June 1999 (dollars)

State Source Spending (per biennium)	July 1991– June 1993	July 1993– June 1995	July 1995– June 1997	July 1997– June 1999
Vaccine purchases	8,250,191	7,125,319	7,492,280	6,893,412
Personnel expenses	129,764	42,119	0	66,179
Contracted expenses (personnel services)	82,816	0	199,994	174,668
Aid to county funding (consolidated funding)	263,365	0	0	0
Other contracts or grants (commu- nity migrant health centers)	70,000	1,155,327 ^a	143,749	423,378
Other operating expenses	0	129,048	8,155	181,139
Equipment and capital outlay	0	765	0	0

^aOne-time allotment from Health Reform Act funding.

TABLE 8. Number of Children <19 Years of Age Who Receive Publicly Purchased Vaccine, by VFC Eligibility Category, CY 1995–1999

Eligibility Category	1995	1996	1997	1998	1999
Medicaid	282,781 (19.4%)	332,033 (22.0%)	354,860 (23.0%)	416,453 (26.0%)	542,130 (33.7%)
Uninsured	273,726 (18.8%)	168,289* (11.0%)	147,644 (10.0%)	157,309 (10.0%)	155,180 (9.7%)
Native American	16,257 (1.0%)	30,901* (2.0%)	30,901 (2.0%)	41,954* (3.0%)	42,351 (2.6%)
FQHC	63,631 (4.4%)	0* (0.0%)	0* (0.0%)	0* (0.0%)	32,287* (2.0%)
Non-VFC (state source)	823,280 (56.4%)	983,527 (65.0%)	1,003,441 (65.0%)	969,316 (61.0%)	836,513 (52.0%)

*Variations are due to changes in methods of calculation.

NOTE: CY = Calendar year; FQHC = federally qualified health center.

SOURCE: Population estimates reports to CDC based on state census population estimates from the previous year.

TABLE 9. Immunization Funding Summary for Infrastructure, CY 1994–1999 (dollars)

	1994	1995	1996	1997	1998	1999
Section 317 FA	4,833,714	8,575,806	6,769,621	4,983,227	4,511,106	2,359,029
State revenue ex- penditures	663,629	351,857	351,857	351,857	422,682	211,341
VFC FA	60,543	284,878	212,619	142,619	870,355	1,459,283

NOTE: CY = Calendar Year.

SOURCE: Notice of Grant Awards (federal), AFRS expenditures (state).

317 funds. Infrastructure funds from the VFC program are increasing—however not enough to compensate for Section 317 losses. In 1995, the VFC program accounted for 3% of the total infrastructure funds (\$284,878). In 1999, the VFC program accounted for 38% of the total infrastructure funding (\$1,459,283) (see Table 9).

VFC FA has significantly different requirements and more limited uses than Section 317 FA. Programs and public awareness campaigns at both the state and the local levels that were funded by Section 317 FA have not been protected from budget cuts, despite increasing VFC funds.

In the Seattle–King County LHJ, even more dramatic funding cuts have occurred because of the elimination of Seattle as a separately funded urban center grantee by the CDC. Funding for this LHJ has decreased more than 65% in the past few years for basic infrastructure program activities initiated under the federal IAP. The SKC immunization program has been stripped down to core services, with outreach, public awareness campaigns, and direct immunization services eliminated. The primary functions at this LHJ currently are distribution of vaccine, maintaining CHILD Profile, and providing technical assistance to providers. The long-term impact of these funding cuts on immunization rates in King County is unknown.

PROGRAM PRIORITIES AND FEDERAL FUNDING CONSTRAINTS

Comparison of the 1998 National Immunization Program core functions grant award amount with the FY 2000 grant application shows substantial decreases in the amount of funding requested for public and professional information and education, WIC linkages, outreach, program management, and partnerships. The 1998 Section 317 total amount for infrastructure was \$4,413,566. The amount requested for total FA in 2000 was \$4,076,330 (approximately 17% higher than the amount actually awarded, although the exact amount awarded is not yet available). In 1998, 12.7% of the \$4 million went toward public and professional information and education, whereas in the 2000 application, 7% of the budget requested was for information and education. Given that the amount awarded was less than the amount requested in 2000, there has been more than a 50% decrease in funds available for public and professional information and education. Likewise, the amount requested for 2000 for outreach was \$42,061 (1% of total), while in 1998, \$156,027 was available for outreach (3.5% of total). The amount requested to support WIC linkages in 2000 shows a less dramatic, although still significant, decline from 1998 (\$198,723 vs. \$268,626). Finally, there were substantial cuts in funding for program management and Section 317 vaccine management, mostly in personnel. There have been increases in the amount requested in 2000 for population-based assessment and vaccine surveillance, as well as increases in the amount requested

TABLE 10. Comparison of Funds Spent and Carried Over, CY 1992–1998 (dollars)

	1992	1993	1994	1995	1996	1997	1998
FA funds spent	2,099,165	2,204,982	2,660,870	4,804,635	6,480,408	4,380,095	3,688,415
FA funds carried over	440,208	334,391	2,459,267	4,194,395	1,851,713	745,751	412,658

NOTE: CY = Calendar year.

SOURCE: Final FSRs.

to support the adult immunization program and the immunization registry, which is now statewide. Because these are the state's funding requests and not awards, it is not clear what these increased requests will translate to in terms of dollars awarded. There may be no increase in actual dollars available to support these components of the Immunization Program; however, these components are clearly priorities of Washington's IP in light of decreased overall funding.

Officials in the state IP had a number of concerns regarding recent federal funding cuts. In terms of the ability of Washington to remain a UVD state, officials felt that it would have to re-define what "universal" means, with some priority ranking for new vaccines. The current universal vaccine distribution agreement is not a state statute and is based solely on a year-to-year budget agreement between the DOH and state legislators. Some possible solutions to funding vaccine purchase include a vaccine tax at the state level, mandating insurance benefits to create a vaccine pool, and exploring public-private partnerships.

Over the past 8 years, there have been tremendous fluctuations in federal support of vaccine infrastructure due predominantly to changes in Section 317 funds (Table 10). In 1992, when infrastructure money first became available, Washington allocated the majority of the money to LHJs to hire more nurses to provide immunizations and to establish night and weekend clinics. This money went to building capacity to deliver immunizations and to increase public awareness through campaigns. The decreases in 317 funds have led to decreases in funding these services in the LHJs. The programs have cut the public awareness campaigns, and the funding to community migrant health centers has decreased. The money provided to LHJs for immunization-related activities has not changed much in total amount, as increased money from the VFC program has gone to the LHJs. The services provided with VFC funds have different requirements, however. These include site visits to public and private providers, benchmarking, provider satisfaction surveys, and educational programs.

As funding is further diminished, it will be difficult to sustain the infrastructure that has been established. In addition to severely limiting public awareness campaigns and immunization clinics, the IP stands to lose capacity that has been built in other areas. Funding cuts will compromise private sector participation in the simplified immunization system, and this will eventually erode coverage rates. In addition, decisions will have to be made more rapidly about which vaccines are core vaccines and which are not. The number of vaccines recommended is rapidly increasing while funding is rapidly decreasing. The 17% funding cut experienced for 2000 will be taken at the state level in order to maintain funding to LHJs. The program anticipates cuts in public awareness campaigns, contributions to WIC, and possibly contributions to the immunization registry.

From the perspective of the state IP, immunization rates have increased to acceptable—but still not ideal—levels, and funding to support immunization is being reduced. This erodes public trust in what government can accomplish. The roller coaster of funding is detrimental to public trust in government and to Immunization Program trust in federal government. Congress needs to

commit to the advancement of child health, and immunizations are an important component of child and adult well-being. To ensure that progress made over the past decade is maintained, there must be stability in federal funding. In addition, the federal government needs to act in partnership with the states to create stability in overall funding and create sustainability in their immunization programs. Systems capacity has to be built and maintained in order to successfully immunize children, adolescents, and adults.

In addition, for the past few years, the CDC has cut Section 317 funds early in the year and then found money in September to distribute for use by December. This is nearly impossible for the state to manage, because budgetary changes that late in the year cannot be implemented. This could probably be anticipated by the CDC and managed better.

The state health officer felt that CDC should increase collaboration with other human service partners, such as the Maternal and Child Health Program, who have a major role in childhood immunizations.