COMMENTARY

ON IMMUNIZATION REGISTRIES

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Optimal Disease Prevention Using Vaccination Depends on a System

In their two scientific contributions in this issue of *PHR,* Bolton et. al. are nothing short of heroic in their efforts to estimate vaccination coverage in children. But why are we still relying on heroic researchers to use surveys, retrospective medical reviews, and even vaccination cards to monitor coverage? The work of Bolton and his co-authors should convince every reader how futile it is to depend on this conglomeration of tools to understand the success of current immunization programs. Instead, the national immunization program should require registries and, once they are in place, reward states for improvements made in the fraction of their child population fully vaccinated on time.

The White House had it right at the start of the health care reform debate over five years ago. Vaccinating children systematically could be a first step toward an effective national system of medical care. Had health care reform resulted in universal coverage, every child would have an identifiable provider. Each provider, be it a health plan, doctor, or nurse could be held accountable for knowing the immunization status of each enrolled child and for using every visit as an opportunity to bring a child up-to-date.

This approach has already been tested in the United Kingdom, where it produced rapid success. GPs delivered all hands-on services, and the Department of Health provided information systems, guidance, and an indispensable ingredient: monetary rewards for achieving coverage goals practice by practice. As every child is on some GP's list, it took only a few short years to increase coverage in England and Wales from under 70% to more than 90%.[1] Then the Department of Health increased the target from 90% to 95%. The UK leads the world in vaccination coverage rates, and morbidity and mortality from vaccine-preventable diseases are approaching the lowest attainable levels.

The White House had hoped to create a national system for vaccine purchases and use it to trace the use of vaccines, dose by dose and child by child. But the vaccine proposal died in the early days of health care reform and then health care reform itself failed. When the 103rd Congress did enact vaccine legislation, it contained no provision for systematic tracking of vaccine coverage.

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In the absence of a national system, systematic tracking opportunities linked to medical care systems remain. Health plans, with their growing enrollments, provide one opportunity and Medicaid another. Both health plans and Medicaid managed care plans could create mechanisms to reward practitioners for achieving up-to-date vaccination in populations, not simply individuals. Neither opportunity has been fully exploited. For fear of comparison with fee-for-service practitioners, for whom no reliable data are available, the American Association of Health Plans has argued for a minimal standard—that their plans should be rated on coverage only for those enrollees who have been in the plan long enough to complete the immunization schedule at the normal pace. In general, state Medicaid plans, including the one in Arizona, where every Medicaid recipient is enrolled in a health plan, have not developed a population standard for vaccination or rewarded achievement.

In 1998, as the states of Maine and New Hampshire go on-line with their Internet-based ImmPact immunization registry, we are reminded how important registries can be. (See Box.) The United States may not have a universal system of medical care, but we can establish a system of immunization registries to hold ourselves accountable for protecting every child from preventable diseases. And we can aggregate the data and use population denominators for health plans and Medicaid programs. Among the available tools, surveys may represent the least productive of our continuing investments to understand and improve immunization programs. The investment in registries produces data that are current and inform us what vaccinations are needed for real children; surveys do neither.

Reference

1. Salisbury DM, Some issues related to the practice of immunization. Int J Infect Dis 1997;1:119-24.

ImmPact: A Web-based Immunization Registry

In September 1998, the Maine and New Hampshire health departments launched ImmPact, a bi-state Web-based immunization registry. ImmPact will make it possible for physicians in the two states to enter and maintain their immunization records electronically. The Centers for Disease Control and Prevention and the Health Care Financing Administration contributed generously to funding development of the system.

When in-house software development at CDC fell behind, a contractor, Sapient Corporation of Cambridge, Massachusetts, took over to complete the project. The company worked with physicians, pediatric nurses, and staff from the state public health agencies to design special software. In addition, managed care plans, legislators, and parents were asked to comment on the evolving system.

The ImmPact software resides in the health departments' computers and can be found at special websites, obviating the need to install and maintain software in physicians' offices and clinics. The Web-based system also offers a flexible security system, permitting only the appropriate individuals to have access to confidential information.

ImmPact has broad functional capacity:

- Provides practitioners with current immunization status on their patients.
- Tracks vaccine use and manages ordering and shipping.
- Finds children overdue for vaccines, practice by practice.
- Provides coverage information to public health officials for outbreak control and outreach targeting.
- Generates practice-specific immunization rates.
- Provides Medicaid EPSDT (Early Periodic Screening, Diagnosis, and Treatment) guidance—screening and schedules—for use by practitioners and public health staff.
- Permits public health officials to target uninsured children for enrollment in Medicaid and the Children's Health Insurance Program.

Unexpectedly, primary care providers have welcomed access to the Internet, which many previously lacked, including the ability to communicate with their public health agency, with great enthusiasm—an unplanned and happy consequence of ImmPact.

For more information about ImmPact, contact Jude Walsh in Maine by telephone at 207-287 5716 or e-mail <jude.e.walsh@state.me.us> or Paula Rosenberg in New Hampshire by telephone at 603-271-4485 or e-mail <prosenbe@dhhs.state.nh.us>.