



CDC at Work

Designing an Integrated Surveillance System in Rhode Island



Today, the United States spends more on health than any other nation. One reason is that the cost of disease care is high. The later we intervene, the more expensive the intervention, in both personal and financial terms. Disease surveillance systems can help detect disease early so that public health officials can act quickly to prevent disease from spreading. However, older surveillance systems that were developed without the latest technology and independent of each other may hinder state health departments from collecting accurate and timely data.

Such was the case in Rhode Island, which was struggling to integrate its three surveillance systems, including its paper-based disease surveillance activities. The problem was that each system reported data differently, resulting in fragmented information that slowed decision making at critical moments. To ensure that its new electronic system would provide comprehensive, integrated information, in 2006, the Rhode Island Department of Health asked CDC's Public Health Informatics Fellowship Program (PHIFP) to evaluate its databases and recommend strategies for designing the system.

Fellows from PHIFP developed a road map for integrating Rhode Island's three surveillance systems into one electronic system for collecting, analyzing, and

reporting data, and provided short-term and long-term recommendations for addressing challenges. As a result of the fellows' work, the Rhode Island's Department of Health learned how to design and implement a comprehensive surveillance system that anticipates potential problems, integrates data from several sources, and provides timely information to inform decision making. Additionally, while evaluating Rhode Island's system, fellows identified potential system design pitfalls and learned lessons they have begun sharing with other states.

CDC's surveillance assistance to the Rhode Island Department of Health is just one example of the work of CDC fellows in programs like PHIFP. CDC funds fellowships that recruit and train approximately 200 epidemiologists, economists, informaticians, physicians, and leaders into the field of public health each year. More than 70 percent of these fellows remain in public health after graduation, working at the federal, state, and local levels to prevent and detect disease, and prepare for threats before people become sick or injured.

A Rhode Island Department of Health employee enters data into one of the Department's databases.



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