Wyoming Nurtures Collaboration Between Infectious Disease Epidemiology and Patient Care

Integrating public health and primary care can both improve quality of care for a population and lower health costs. Both components of the health system share a common goal of health improvement, have similar funding streams and resources, and share many partnerships. If aligned, public health and primary care working together could achieve lasting, substantial improvements in individual and population health in the United States. State and territorial health agencies can make a significant impact in this area by decoding the key elements for successful integration, which can then be shared with others to promote further integration efforts, increase healthcare quality, lower costs, and improve overall population health.

The Wyoming Department of Health (WDH) Public Health Division’s Infectious Disease Epidemiology Program (IDEpi) communicates and coordinates routinely with healthcare providers on recommended treatment, prophylaxis, and mitigation measures for conditions of public health interest.

BACKGROUND
Wyoming is a rural state with a centralized public health structure. The WDH Public Health Division provides detection, treatment, and prevention services that support local public health departments and public health nursing offices. The county health offices are generally small, staffed by state nurses who provide direct care, and have limited capacity to deliver comprehensive public health services.

The IDEpi Program provides infectious disease surveillance and control services throughout the state.¹ Due to historically limited funding at the state level, IDEpi was restricted in its staff support and capacity for epidemiological tracking in response to outbreaks. State communication with healthcare providers, who can provide critical surveillance data on infectious disease issues, was inconsistent, hindering the state’s ability to perform thorough outbreak investigations, case follow-up, and reporting. The state often had to request CDC-led Epi-Aid investigations to respond robustly to outbreaks.

OVERVIEW OF THE INTEGRATION EFFORT
Upon receiving federally-funded Epidemiology and Laboratory Capacity for Infectious Disease (ELC) grants starting in 1999, IDEpi was able to increase its capacity and strengthen its infrastructure. The ELC funding allowed IDEpi to hire and train epidemiologists with an understanding of surveillance issues and outbreak control. State lab facilities were upgraded and additional lab workers were hired to facilitate more robust testing.

Expanding IDEpi infrastructure at the state level supported increased communications and coordination among physicians, hospitals, and local public nurses on infectious disease issues. IDEpi now has the staff capacity to ensure active communication between the state and healthcare providers and the technical capacity to assist providers with lab testing and infectious disease outbreaks. The state approach for coordination with healthcare providers varies based on the disease in question and the disease area. Messaging and communications initiatives have included disseminating physician packets, epi-bulletins,
hotlines, convening joint public health and primary care workgroups, and campaigns to recruit primary care providers to work in CDC sentinel surveillance systems.

Wyoming’s public health response to West Nile virus was a good example of WDH’s increased capacity. During the response, WDH experienced better coordination and communication between its officials and local providers. ELC funding in 2001 and 2002 allowed IDEpi to dedicate epidemiologists and lab technicians for West Nile virus testing and increased the state’s capacity to coordinate with primary care. IDEpi generated physician packets that were delivered to each healthcare provider and hospital in the state. These packets included critical information about the disease and provided testing and lab submission protocols. Healthcare providers were encouraged to use the state public health labs as a resource for free West Nile testing, which was unavailable in private labs. The communication effort and resource sharing were the result of the new interface between WDH and healthcare providers, as well as an improvement in health systems integration. IDEpi received vital surveillance information that informed the public health response while the providers benefited by being able to test patients and provide appropriate treatment.

The public health and primary care collaboration on healthcare-associated infections (HAI) demonstrates another part of the integration work resulting from increased state IDEpi capacity. In 2011, IDEpi convened the Wyoming Infection Prevention Advisory Group (WIPAG), an HAI workgroup that includes leadership from state public health and hospital associations. The workgroup meets monthly by phone and in person once a year to identify priorities and coordinated approaches for HAI prevention in Wyoming. From these discussions, IDEpi was able to generate and provide hospitals with tools to improve HAI rates. The workgroup fosters open lines of communication between public health and providers and reinforces the shared goals of both groups.

RESULTS/BENEFITS
Since receiving ELC funding, IDEpi is able to conduct thorough case investigations and more accurately assess case status and disease exposure. For diseases such as pertussis and foodborne illnesses—where individual follow-up have a great impact—the increased funds and staff have improved the state’s ability to respond to cases reported by providers and implement control measures swiftly. This is largely due to the number of state epidemiologists and public health lab technicians on staff, who provide the capacity to work with primary care providers and public health nurses in following up on reported cases, testing for infectious diseases, and recommending treatment, prophylaxis, and mitigation measures.

INFRASTRUCTURE TO SUPPORT COLLABORATION AND SUSTAINABILITY
Increasing IDEpi staff in Wyoming has contributed to a more robust public health presence and improved communication between public health and primary care providers. IDEpi staff note that healthcare providers now have more of a public health mindset when calling in potential outbreaks or exposures and better understand the capacity state public health can provide around infectious disease issues. This open line of communication is a vital element in the continued collaboration between IDEpi and primary care providers.

ELC funding, which supports IDEpi staff hires and public health lab upgrades, has been a crucial resource in this collaboration effort. WDH is confident that, with continued funding for staff and technical capacity, they can sustain the lines of communication and collaborative efforts that have been established around infectious disease issues.
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