

Commentary on “Strengthening Rural States’ Capacity to Prepare for and Respond to Emerging Infectious Diseases, 2013–2015”

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Pathogenic microbes can be resilient, dangerous foes. Although it is impossible to predict their individual emergence in time and place, we can be confident that new microbial diseases will emerge.

— Institute of Medicine, *Emerging Infections: Microbial Threats to Health in the United States*

In response to the sentinel Institute of Medicine report on emerging infectious diseases,¹ the Centers for Disease Control and Prevention (CDC) published a national strategy for infectious disease prevention in 1994² and created the Emerging Infection Program (EIP) in 1995. As part of the Emerging Infection Program, the Epidemiology and Laboratory Capacity (ELC) for Infectious Diseases Cooperative Agreement provides funding to regional health departments for infectious disease prevention, surveillance, rapid response, and containment. The ELC represents one of the key strategies of the CDC to strengthen local resources to counter infectious disease threats in the states and territories of the United States.

Success reports from ELC awardees in rural public health departments in 14 states of the United States are detailed in the article by Santibañez and colleagues in this issue of the *Southern Medical Journal*.³ These narratives describe the remarkable efforts of rural health departments to combat foodborne illness, vaccine-preventable diseases, vector-borne diseases, and zoonoses. A wide array of disease-specific activities are presented, including rabies detection in Alaskan wolves, response to a mumps outbreak at the University of Iowa, curtailment of a *Salmonella poona* outbreak, and mosquito surveillance in West Virginia. The varied nature of the reports reflects the heterogeneity of the rural United States, where agriculture, human life,

and the natural world intersect. The ELC recognizes the diversity of rural public health needs and provides funding for flexible epidemiologists. As the job title implies, this individual is capable of a broad scope of practice, including outbreak investigation and response, infectious disease surveillance, education, and outreach to local stakeholders. In fiscal year 2014, the ELC allocated \$6 million to support flexible epidemiologists, and these individuals were crucial to many of the success narratives in the report by Santibañez et al.³

In 1998 the CDC released an updated prevention plan for emerging infectious diseases.⁴ The four goals of this plan are surveillance and response, applied research, infrastructure and training, and prevention and control. In recent years there has been an increase in vector-borne disease,⁵ an increased virulence of food-borne pathogens,⁶ and new cases of rodent-borne illness in the setting of disastrous flooding.⁷ The success stories in the report by Santibañez and colleagues³ correspond to these four goals and arouse a sense of optimism regarding the readiness of the US public health system to respond to emerging contagions. This optimism is quickly dampened, however, given the precarious nature of federal funding for public health programs, including the ELC.

Since 2010, the ELC has received considerable support from the Prevention and Public Health Funds (PPHF), which was created under section 4002 of the Patient Protection and Affordable Care Act (PL 111-148). In fiscal year 2017, the PPHF provided the ELC with \$40 million.⁸ The proposed 2019 budget eliminates PPHF funding and proposes that these programs be backfilled through discretionary budget authority.⁹ A prescription for an epidemic involves not only a pathogen finding a naïve set of hosts but also a breakdown of public health infrastructure to recognize, respond, and contain the outbreak. Infectious diseases are a constant and enduring threat to human civilization; the best weapon against them is steady preparation. If we want our public health system to counter infectious diseases whenever and wherever they emerge, then we must advocate for consistent funding for these vital programs.

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