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PERSPECTIVES

The Epidemic Intelligence Service: An exciting opportunity for pharmacists to improve population health

The pharmacy profession plays a vital role in sustaining and advancing population health. Pharmacists' unique knowledge of the medication use system is crucial in the development and implementation of public health prevention strategies and interventions. These include dispensing medications and administering vaccines, developing clinical treatment guidelines for both infectious and chronic diseases, and educating the public on pharmaceuticals and health-related topics.¹ Many pharmacists may not be aware of opportunities to become involved with public health initiatives or are sometimes overlooked as potential collaborators. One distinguished avenue for pharmacists to enter public health is through the Epidemic Intelligence Service (EIS) at the U.S. Centers for Disease Control and Prevention (CDC).

CDC's EIS program was established in 1951 as a highly competitive 2-year fellowship in applied epidemiology.² EIS trains disease detectives to respond to outbreaks, other public health crises, and long-standing health challenges domestically and overseas. Eligible applicants include physicians, veterinarians, nurses, physician assistants, doctoral-level scientists, and doctoral-level health professionals, including pharmacists. Successful EIS applicants are matched on the basis of their interest, expertise, and experience with CDC centers or within state, local, or tribal health departments. EIS officers have contributed to improving population-level health through outbreak investigations, disease surveillance, communication with collaborators and the public, and state, federal, tribal, and international partnerships. Historic contributions from EIS officers include participation in smallpox and polio eradication efforts, controlling the global and domestic human immunodeficiency virus epidemic, and mitigating Ebola outbreaks in West Africa.

The recent severe acute respiratory syndrome coronavirus-2 disease pandemic has exemplified the role pharmacists can

play in disease outbreaks and public health responses and has fueled a desire among many young pharmacy professionals to work in the realm of public health. Pharmacists have answered the call to serve during this global emergency in areas ranging from testing and vaccine administration to addressing supply chain concerns. In addition, pharmacists are regularly on the forefront of the development of investigational new drug protocols for therapies provided only through CDC. Therefore, it is important to build upon and expand awareness of public health training opportunities for pharmacists beyond traditional degree-based programs. CDC's EIS program graduated 8 pharmacists in its 70-year history before the current 2021 class. This current EIS class includes 4 pharmacists, which is a record number. The current class is a few months into their fellowship and is exploring what the next 2 years hold for them. Examples of their current activities are provided in Table 1. More information on the CDC's EIS program can be found online at <https://www.cdc.gov/eis/>.

As the world addresses emerging and re-emerging diseases, the pharmacy profession can proactively pursue opportunities to improve public health. Pharmacists are uniquely qualified to use their knowledge in medication use and regulatory processes to expand implementation strategies surrounding public health initiatives. Training through the EIS program can equip future pharmacy leaders and researchers to make substantial contributions to optimize population health and strengthen a depleted public health workforce.^{3,4}

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Table 1
Activities of current EIS pharmacist officers

CDC division	Activities
Division of Foodborne, Waterborne, and Environmental Diseases	<ul style="list-style-type: none"> - Evaluating coccidioidomycosis and histoplasmosis surveillance systems - Developing an inaugural annual endemic mycoses report - Investigating COVID-19–associated mold infections
Division of Health and Nutrition Examination Surveys	<ul style="list-style-type: none"> - Analyzing nationally representative data to better understand how patterns of prescription medication use are related to health characteristics and outcomes - Delivering presentations on access and analysis considerations of CDC data - Contributing to surveillance and programmatic activities
Division of High Consequence Pathogens and Pathology	<ul style="list-style-type: none"> - Developing parameters regarding dog importation regulation from rabies–endemic regions - Analyzing a vaccine safety and efficacy study - Developing clinical guidance for medical countermeasures related to orthopoxviruses
Division of Parasitic Diseases and Malaria	<ul style="list-style-type: none"> - Designing and conducting global field studies - Consulting with health care providers, making recommendations on diagnoses, management, and prevention of diseases - Evaluating surveillance systems and providing programmatic support for mass drug administration

Abbreviations used: CDC, Centers for Disease Control and Prevention; COVID-19, coronavirus disease 2019; EIS, Epidemic Intelligence Service.

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