S. 3244/H.R. 5602, *BIO Preparedness Workforce Act of 2021*

Request: Please cosponsor the *Bolstering Infectious Outbreaks (BIO) Preparedness Workforce Act*.

Summary: The legislation establishes a new loan repayment program with two categories of eligibility:

1. Health care professionals who spend at least 50% of their time engaged in **bio-preparedness and response** activities; and
2. Health care professionals who spend at least 50% of their time providing **infectious diseases care** in a shortage designation area, underserved community, or federally funded facility.

A qualified individual will serve for 3 years, or such longer period of time as determined appropriate by the Secretary and the individual. For each year of service, a qualified individual entering a contract with the Secretary may receive up to $50,000 in loan forgiveness. $50 million would be authorized for fiscal years 2023-2027.

Problem: The COVID-19 pandemic exposed gaps and weaknesses in our nation's preparedness for public health emergencies related to infectious disease outbreaks, including insufficient preparedness and response workforce capacity at health care facilities. Infectious diseases (ID) physicians are one key component, and often leaders of health care facility preparedness and response teams. ID specialists are also needed to care for patients with serious infectious diseases and are critical to prevent the spread of infectious diseases. A June 2020 study in the Annals of Internal Medicine found that 208 million Americans live in areas with little or no access to an ID physician.

Data published by Medscape in 2020 indicate that average annual salaries for ID physicians are below all other medical specialties except pediatrics, family medicine, endocrinology and public health, and even below the average salary for general internal medicine, although ID training and certification requires an additional two to three years of study and training. Given that the average medical student debt is $200,000, the ID specialty is a financially infeasible choice for many.

Background Information

Workforce Shortages

The COVID-19 pandemic has severely strained the health care workforce, particularly those most focused on bio-preparedness and response, such as ID physicians. Prolonged, significant additional work (both direct patient care and programmatic response activities) in an environment of health risks, uncertainty, and overwhelming loss of patient lives has contributed to severe burnout among physicians, nurses, laboratory professionals and others, leading some to consider early retirement and threatening the future of this critical workforce.

In particular, the ID physician workforce was under serious strain even before the pandemic. The number of applicants to ID fellowship training programs declined by 21.6% from 2011-2016. The following years saw only modest improvements that quickly plateaued. In 2020, only 75% of infectious diseases training programs were able to fill all their slots, while many other internal medicine subspecialties (cardiology, rheumatology, gastroenterology, hematology, oncology, pulmonology, and critical care) were able to fill from 96% to 100% of their training programs. Initial 2021 data indicate increased interest in medical careers, likely due to the pandemic, but experts warn that this interest may wane, and we are unlikely to effectively address longstanding workforce challenges without addressing medical student debt. Financial concerns are a chief barrier to pursuing a career in ID.

Value of Bio-preparedness and Infectious Diseases Workforce

The value of a strong bio-preparedness workforce that can mount rapid, effective responses cannot be understated. Trained staff in health care facilities (including physicians, clinical pharmacists, physician assistants, advanced practice registered nurses, and laboratory professionals) are needed to develop and update response and surge capacity plans and protocols; collaborate with state and local health departments; train health care facility personnel; purchase and manage equipment (such as PPE) for bio-emergencies; execute readiness assessments; repurpose areas of a health care facility to manage patient influx; communicate with the public; perform infection prevention and control; and conduct antimicrobial stewardship to ensure that treatments for infectious diseases are used appropriately the yield optimal patient outcomes.

Infectious diseases physicians provide value, particularly for the most seriously ill patients. Studies have indicated that infectious diseases physician care of patients with serious infections is associated with improved patient outcomes. Early intervention by an ID physician for hospitalized patients with serious infections is associated with significantly lower mortality and readmission, shorter hospital and ICU length of stay, and lower Medicare costs. ID physicians are essential components of teams caring for patients receiving transplants or cancer chemotherapy. Antibiotic stewardship programs implemented by multidisciplinary teams including ID physicians and ID trained pharmacists have been found to improve cure rates, reduce adverse events, lower health care costs, and decrease inappropriate antibiotic use that drives antibiotic resistance. Antibiotic resistance further compromises our preparedness by diminishing our arsenal of treatments for secondary infections that typically complicate pandemics and other mass casualty events.

The infectious diseases workforce is central to preventing, treating and eventually stopping ongoing public health threats, including HIV, viral hepatitis and bacterial and fungal infections that are on the rise due to the opioid use and other substance use epidemics. Workforce shortages are limiting our ability to control these persistent epidemics. A study of the HIV workforce conducted in 14 southern states found that more than 80% of those states' counties had no experienced HIV clinicians, with the disparities greatest in rural areas. A robust HIV workforce is critical to ending the HIV epidemic in the United States, which is for the first time an achievable and realistic goal. In addition, expanding clinical workforce capacity for viral hepatitis was recently identified as a key element of the Department of Health and Human Services *Viral Hepatitis National Strategic Plan for the United States: A Roadmap to Elimination 2021 – 2025.*

Supporting Organizations (Updated November 11, 2021): AIDS Action Baltimore, AIDS Foundation Chicago, AIDS Institute, AIDS United, American Academy of HIV Medicine, American Association for the Study of Liver Disease, American College of Clinical Pharmacy, American Dental Association, American Hospital Association, American Institute of Dental Public Health, American Medical Association, American Society for Clinical Laboratory Science, American Society for Microbiology, Association for Professionals in Infection Control and Epidemiology, Association of Nurses in AIDS Care, CARES of Southwest Michigan, Cascade AIDS Project, Georgia Equality, GLMA: Health Professionals Advancing LGBTQ Equality, HIV AIDS Alliance of Michigan, HIV Dental Alliance, HIV + Hepatitis Policy Institute, HIV Medicine Association, Infectious Diseases Society of America, Johns Hopkins Center for Health Security, Latino Commission on AIDS, Music City PrEP Clinic, National Black Gay Men's Advocacy Coalition, National Hispanic Medical Association, National Medical Association, National Rural Health Association, National Viral Hepatitis Roundtable, National Working Positive Coalition, Pediatric Infectious Diseases Society, Physician Assistant Education Association, Ryan White Medical Providers Coalition, San Francisco AIDS Foundation, Society for Health Care Epidemiology of America, Society of Infectious Diseases Pharmacists, Tufts Medical Center, University of Wisconsin Health System, University of Wisconsin School of Medicine and Public Health, Valley AIDS Council, Vivent Health, Wisconsin Hospital Association, Wisconsin Medical Society.

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