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June 10, 2021

The Honorable Patty Murray Chair Committee on Health, Education, Labor and Pensions United States Senate Washington, D.C 20510 The Honorable Richard Burr Ranking Member Committee on Health, Education, Labor and Pensions United States Senate Washington, D.C 20510

Dear Chair Murray and Ranking Member Burr:

On behalf of the Infectious Diseases Society of America (IDSA), thank you for collaborating to develop bipartisan legislation to strengthen our nation's public health infrastructure and medical preparedness and response capabilities. We are pleased to offer policy recommendations for your consideration as you develop this legislation, and we would welcome the opportunity to work with you on these critically important issues. To prepare for future pandemics and other medical preparedness and response, the U.S. needs to address the infectious diseases workforce shortage and support the development of novel antibiotics. To accomplish this, we strongly recommend the creation of a new loan repayment program to support the bio-preparedness and infectious diseases workforce, and inclusion of the *Pioneering Antibiotic Subscriptions to End Upsurging Resistance (PASTEUR) Act* to strengthen the antibiotic pipeline and antibiotic stewardship.

IDSA represents more than 12,000 infectious diseases physicians, scientists and other public health and health care professionals specializing in infectious diseases. Our members care for patients with serious infectious diseases, including COVID-19, HIV, viral hepatitis, infections caused by antimicrobial resistant pathogens and infections associated with the opioid epidemic. We are on the front lines of the COVID-19 pandemic response, designing and updating infection prevention, diagnostic testing and patient management protocols; collaborating with state and local health departments on communications and mitigation efforts; leading health care facility responses; and conducting research to develop new tools for the prevention, diagnosis and treatment of COVID-19.

We offer the following comments and proposals in response to your April 29 outline:

Strategies for strengthening and modernizing federal public health and medical preparedness and response systems and programs, including infrastructure, to better support states, localities and Tribes.

Proposal: Establish a new bio-preparedness and infectious diseases 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; or
- 2. Health care professionals providing infectious diseases care in a shortage designation area or federally funded facility.

Health care and public health professionals are a critical component of our medical and public health preparedness infrastructure, and infectious diseases (ID) physicians often serve as leaders of health care facility preparedness and response teams. ID specialists are also needed to ensure continuous health care services during a public health emergency for individuals with or at risk of infectious diseases, such as HIV, viral hepatitis, bacterial or fungal infections associated with the opioid epidemic and infectious diseases associated with transplantation or cancer chemotherapy. 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.

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 (e.g., 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. Data published by Medscape in 2021 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, even though 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.

Proposal: Reauthorize and Strengthen the Public Health Workforce Loan Repayment Program: Section 776 of the Public Health Service Act (PHSA) established a loan repayment program to ensure an adequate supply of public health professionals who agree to serve two years in a local, state or Tribal health department. The program's authority lapsed in 2015 and was not funded. This program would be helpful to ensure critical public health activities, including surveillance, vaccination campaigns, public communication and other efforts are properly staffed. We support the *Strengthening the Public Health Workforce Act* (S. 3737, introduced by Sens. Smith and Booker in the 116th Congress), which would accomplish these goals.

Proposal: Enhance NIH/NIAID Physician-Scientist Training: The National Institutes of Health (NIH) and National Institute for Allergy and Infectious Diseases (NIAID) are critical sources of funding to support the training of ID physician scientists. IDSA is engaging with NIAID to strengthen training. We encourage the committee to direct NIAID to enhance ID physician-scientist training programs, including by providing more resources for mentorship, greater opportunities for clinicians in non-academic settings to participate in clinical trials and more funding to support early-stage investigators, particularly from underrepresented groups. We also encourage the committee to authorize additional funding to address these goals.

Proposal: Increase Support for Public Health Infrastructure: We support the *Public Health Infrastructure Saves Lives Act* (S. 674, introduced by Chairwoman Patty Murray and others), which would provide a significant infusion of needed funding to CDC and state, local, territorial and Tribal health departments to support key core capabilities, including public health assessment, preparedness and response, communications, community partnership development and health equity.

Strengthening readiness within the medical countermeasure enterprise to ensure that countermeasures can be rapidly identified and advanced through clinical development and manufacturing and appropriately deployed and distributed when a new public health threat is identified. Modernizing the development of medical countermeasures to address public health threats.

Proposal: Strengthen the Antibiotic Pipeline and Incentivize Antibiotic Stewardship

Programs: The *Pioneering Antibiotic Subscriptions to End Upsurging Resistance (PASTEUR) Act*, soon to be reintroduced by Sens. Michael Bennet and Todd Young, would establish a subscription program to provide a predictable return on investment for critically needed new antibiotics through federal payments that are delinked from antibiotic sales and use. The *PASTEUR Act* would also provide support for hospitals to strengthen their stewardship programs and would encourage hospitals to report data on antibiotic use and resistance to the CDC National Healthcare Safety Network to strengthen our national understanding of antibiotic resistance and evaluate our interventions.

A strong antibiotic pipeline and antibiotic stewardship programs to drive optimal use of antibiotics are key components of public health emergency preparedness and managing an influx of seriously ill patients. Patients with COVID-19 are susceptible to secondary infections at a frequency similar to patients with influenza-like illness, and patients who require mechanical ventilation are most at risk. Since April 2020, CDC has responded to 20 outbreaks of antibiotic resistant pathogens in COVID-19 treatment and observation units. It is not yet clear how these outbreaks may impact the regional spread of resistant pathogens in the long term. In addition, high levels of antibiotic use, particularly earlier in the COVID-19 pandemic, may have led to the development of additional resistance that has not yet even been detected.

Unfortunately, it is extremely challenging for antibiotic developers to earn the return on investment necessary to sustain antibiotic innovation, in part because antibiotics must be used judiciously to preserve their effectiveness. Economic barriers have driven nearly all large pharmaceutical companies from antibiotic research and development and have left smaller companies struggling to stay in business. While hospitals are required to have antibiotic stewardship programs as a Condition of Participation in Medicare, many stewardship programs lack the necessary staff and funding to fully implement evidence-based protocols to optimize antibiotic use. Rural hospitals, critical access hospitals and community hospitals in particular struggle to sufficiently resource their stewardship programs.

Proposal: Strengthen Clinical Trial Infrastructure and Increase Diversity in Clinical Trials: Lessons learned from COVID-19 provide a crucial opportunity to strengthen our clinical trial infrastructure with a focus on diversity, inclusion, equity and access. Key strategies should be centered around the need to increase engagement with community-based organizations and leaders; address barriers to health care; optimize the clinical trial infrastructure to be more inclusive of key

populations and community-based clinical trial sites; and foster an inclusive and diverse research workforce. We are engaging with NIAID and have shared with them the following recommendations to strengthen our clinical trial infrastructure in a manner that promotes greater diversity in clinical trials:

- Direct NIAID to report to Congress regarding progress made in strengthening and expanding clinical trial infrastructure, increasing diversity in clinical trials and addressing remaining barriers; and
- Authorize additional funding to support new initiatives to strengthen clinical trial infrastructure and advance diversity in clinical trials.

Federally supported infrastructure should provide an integrated framework to link individuals to appropriate trials and encourage large-scale collaboration across many different types of facilities, including settings outside the traditional urban tertiary care academic centers. Such an approach will increase the reach of trials of promising therapeutics to populations that are typically omitted from studies. IDSA supports the expansion of pragmatic trials networks to reach more participants through community-based settings and run larger, simpler trials. Additional needs include funding for transportation to and from trial sites, as well as additional staff to support extended hours outside of the 9-5 workday, translation services, technological supports to promote remote data gathering (e.g., digital health technology), community outreach and engagement and support for infectious diseases physicians in settings beyond academic medical centers to lead trials.

Improving and securing the supply chain for the U.S.'s critical medical supplies needed to swiftly address public health threats.

Proposal: Address Antimicrobial Shortages: We support the Onshoring Essential Antibiotics Act (S. 1176, introduced by Sens. Tina Smith and Bill Cassidy), which would establish a new federal program to support the manufacturing of essential generic antibiotics to address persistent shortages of these drugs. In a 2016 survey of infectious diseases physicians, 70% reported modifying their antimicrobial of choice in the previous two years due to an antimicrobial drug shortage. This resulted in the use of broader-spectrum agents (75% of respondents), more costly agents (58%), less effective second-line agents (45%) and more toxic agents (37%). Widespread antibiotic shortages negatively impact patient outcomes.

Once again, thank you for your leadership in strengthening our nation's preparedness and public health infrastructure. We look forward to working with you on this critical issue. Please feel free to contact Amanda Jezek, IDSA Senior Vice President for Public Policy and Government Relations, at ajezek@idsociety.org if we may assist you in any way.

Sincerely,

Barbara D. Alexander, M.D., MHS, FIDSA

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President, IDSA