



# IDSAs

Infectious Diseases Society of America

## 2017-2018 BOARD OF DIRECTORS

President

**Paul G. Auwaerter, MD, MBA, FIDSA**  
JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE  
BALTIMORE, MD

President-Elect

**Cynthia L. Sears, MD, FIDSA**  
JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE  
BALTIMORE, MD

Vice President

**Thomas M. File, Jr., MD, MSc, FIDSA**  
SUMMA HEALTH  
AKRON, OH

Secretary

**Larry K. Pickering, MD, FIDSA**  
EMORY UNIVERSITY SCHOOL OF MEDICINE  
ATLANTA, GA

Treasurer

**Helen W. Boucher, MD, FIDSA**  
TUFTS MEDICAL CENTER  
BOSTON, MA

Immediate Past President

**William G. Powderly, MD, FIDSA**  
WASHINGTON UNIVERSITY SCHOOL OF MEDICINE  
ST. LOUIS, MO

**Angela M. Caliendo, MD, PhD, FIDSA**  
BROWN UNIVERSITY/RHODE ISLAND HOSPITAL  
PROVIDENCE, RI

**Henry F. Chambers, MD, FIDSA**  
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO  
SAN FRANCISCO, CA

**Victoria J. Fraser, MD, FIDSA**  
WASHINGTON UNIVERSITY SCHOOL OF MEDICINE  
ST. LOUIS, MO

**Daniel P. McQuillen, MD, FIDSA**  
LAHEY HOSPITAL & MEDICAL CENTER  
BURLINGTON, MA

**Thomas A. Moore, MD, FIDSA**  
IDC OF KANSAS  
WICHITA, KS

**Ighowwera Oforokun, MD, MSc, FIDSA**  
EMORY UNIVERSITY SCHOOL OF MEDICINE  
ATLANTA, GA

**Trish M. Perl, MD, MSc, FIDSA**  
UT SOUTH-WESTERN MEDICAL CENTER  
DALLAS, TX

**Susan J. Rehm, MD, FIDSA**  
CLEVELAND CLINIC  
CLEVELAND, OH

**Tina Q. Tan, MD, FIDSA**  
NORTHWESTERN UNIVERSITY FEINBERG SCHOOL  
OF MEDICINE  
CHICAGO, IL

Chief Executive Officer

**Christopher D. Busky, CAE**

### IDSAs Headquarters

1300 Wilson Boulevard  
Suite 300  
Arlington, VA 22209  
TEL: (703) 299-0200  
FAX: (703) 299-0204  
EMAIL ADDRESS:  
info@idsociety.org  
WEBSITE:  
www.idsociety.org

August 30, 2018

**Haileyesus Getahun, MD, PhD, MPH**  
Coordinator and Head

UN Interagency Coordination Group on AMR Secretariat  
Avenue Appia 20  
1211 Geneva 27  
Switzerland

Dear Dr. Getahun:

The Infectious Diseases Society of America (IDSAs) greatly appreciates the work of the Interagency Coordination Group (IACG) on Antimicrobial Resistance (AMR) and the opportunity to help inform its efforts. IDSAs represents over 11,000 physicians and scientists. Our members care for patients with infections caused by multidrug-resistant organisms; lead antimicrobial stewardship programs and infection prevention and control programs; conduct basic, translational and clinical research on AMR and on the development of new vaccines, diagnostics and therapeutics; and drive public health interventions to prevent, detect and track resistance.

IDSAs strongly supports international efforts to advance comprehensive solutions to AMR, including stimulating research and development for urgently needed new antibiotics and diagnostics, implementing infection prevention and stewardship programs, and strengthening surveillance. IDSAs has been sounding the alarm on AMR for well over a decade and has helped inform, advance and secure federal funding for the US National Action Plan on Combating Antibiotic Resistant Bacteria. We continue working to advance antibiotic research and development (R&D) incentives in the US Congress. IDSAs is eager to assist the IACG, World Health Organization (WHO) or other global partners on any aspect of global AMR efforts. Below please find responses to questions posed by the IACG.

### Optimize Use of Antimicrobials

**What kind of support (other than financial) is needed to translate the existing guidance into implementable actions?**

Individuals who are new to the field of antimicrobial stewardship would benefit greatly from expert support. IDSAs recommends the creation of additional opportunities for individuals leading successful stewardship efforts to share their knowledge with other providers. IDSAs would be delighted to partner in such an effort and can provide, through our membership, a variety of experts.

IDSA also recognizes that broader efforts to strengthen health systems overall are an important foundation to support the success of stewardship. For example, efforts to expand access to appropriate prescribers will be a critical component to efforts to end over-the-counter sales of antibiotics that are contributing significantly to inappropriate use and the development of resistance.

Inappropriate use of antibiotics in animal agriculture is a major driver of resistance. Messages to better explain the impact of antibiotic use in this setting on human health are very important to drive more responsible use policies.

Finally, IDSA calls for the development of clear targets for reducing inappropriate antibiotic use and reporting antibiotic use to measure progress against targets. Targets are needed in the animal and human health sectors as well as the environment. Caution should be taken to ensure that achieving targets does not impede appropriate access to antibiotics for individuals who need them, especially in resource-limited settings.

**How can policy makers be assisted to further develop and implement infection prevention and control in human and animal health and plants and be convinced to invest now to mitigate the escalating and future costs and obtain benefits far beyond preventing AMR?**

The WHO and others should develop and promote clear and compelling messages regarding the cost of inaction on infection prevention and control. This should include the generation of additional evidence on the economic cost of AMR for human and animal health and food supply in low- and middle-income countries. These types of economic-based arguments can be particularly convincing for policymakers and can help them better understand the value of investments in infection prevention and control. IDSA is also calling upon countries to commit to sustained investment to support infection prevention and control, including through the Global Health Security Agenda. In addition, better educating the public on AMR and on the individual consequences of antibiotic use will better position individuals to place pressure on policymakers to enact infection prevention and control and other AMR solutions.

**What incentives or initiatives are needed for behaviour change towards responsible use in the health sector (hospitals, community health centres) and in the food and animal production sectors (animal and plant health professionals, food producers and manufacturers, consumers).**

IDSA has primary expertise in human health. Within this sector, IDSA advocates for policies to require stewardship programs in all health care facilities (appropriately scaled) to provide prescribers with the education and tools necessary to understand and implement best practices with regard to antibiotic use and evidence-based communications tools for patient interactions to reduce inappropriate prescribing. We recommend expanded use of telemedicine technologies to facilitate the adoption of stewardship programs, particularly in settings lacking appropriate expertise. IDSA also strongly recommends increased development, availability and use of rapid diagnostic tests as an important tool in guiding optimal antibiotic use. We encourage more resources for research and development of new diagnostic tests, activities to educate providers on optimal diagnostic use, and efforts to ensure that all settings have access to rapid, point of care

tests. We also recognize the important role of public awareness campaigns about the individual and population risks of inappropriate antibiotic use.

**What is needed to generate evidence-based data that link the misuse of antimicrobials and the development and spread of AMR via the environment? How can we use the available data to develop effective policy solutions influence policy makers?**

IDSA believes increased funding should be made available for research on AMR in the environment and the link between the environment and human disease

**What approaches are needed to ensure the industry and investors manufacture and market antimicrobials responsibly, and not stimulate overuse or contribute to environmental pollution?**

IDSA is actively engaged with policymakers to develop and advance economic incentives that are de-linked from the sales and use of antibiotics to remove any financial urge to inappropriately market antibiotics. We also support policies that would require companies receiving substantial economic incentives for antibiotic R&D to adhere to stewardship principles. We believe that antibiotic R&D incentives and stewardship are equally essential pillars of efforts to combat AMR, and policies should reflect these intertwined goals.

**Changing practices needs the support of the industry - how can we balance the availability of a public good such as effective antimicrobials, with a private industry perspective?**

Efforts to promote the appropriate availability and stewardship of safe and effective antibiotics must be balanced with financial realities—namely, that most pharmaceutical companies have exited antibiotic R&D because it is risky, costly and provides very limited opportunity for return on investment. Broader policies to combat AMR must include as a central component new economic incentives that are de-linked from the sales and use of antibiotics. Such incentives would remove the financial pressure to inappropriately market antibiotics while providing the financial support necessary to generate a robust and renewable antibiotic pipeline.

**What are the mechanisms to enhance the availability and utility of global resources for the end user (communities and individuals) to optimize or reduce the need for the use of antimicrobials and mitigate the unintentional exposure to the environment?**

Preventing infections is an optimal way to reduce the need for antimicrobials. IDSA strongly supports efforts to scale up access to vaccines and invest in vaccine R&D for unmet needs. In some areas, investments in sanitation and clean water are required as well. Further, we advocate for the adoption of evidence-based infection prevention and control strategies in all healthcare settings.

To limit environmental exposure to antimicrobials, IDSA supports appropriate regulation regarding the handling of pharmaceutical waste resulting from antibiotic manufacturing. Stronger regulation is especially needed in low- and middle-income countries.

## **Meeting the Challenge of Antimicrobial Resistance: From Communication to Collective Action**

### **How can we best measure and prioritize efforts that communicate AMR effectively, so that limited resources are used optimally?**

Effective communications about AMR should be appropriately targeted to key audiences. For example, to measure the effectiveness of AMR messages that target policymakers, WHO should measure policy actions taken to address AMR. Communications that result in the allocation of increased government resources to address AMR, new policies to promote infection prevention or stewardship and new policies to stimulate antibiotic R&D could all be considered successful communications efforts. For messages targeting healthcare providers, WHO should measure antibiotic prescribing and infection rates. Communications that lead to a decrease in inappropriate prescribing or decreased infection rates could be considered successful. With regard to messages targeting the general public, WHO should measure antibiotic use and vaccination rates. Communications that lead to a decrease in inappropriate antibiotic use or an increase in vaccination rates could be considered successful.

### **What are the major barriers to changes in antimicrobial use and management among priority stakeholder groups and communications recommendations to tackle these?**

Healthcare providers need communications tools to better understand and respond to patients' knowledge, beliefs, and outcome expectations about antimicrobial use. Patients' perceptions about the benefits of antimicrobial indication, use, and expected outcomes from antibiotics or alternative strategies need to be adequately addressed by the provider to solicit and sustain adherence as well as build trust. In addition, many providers would benefit from education on the appropriate use and interpretation of diagnostic tests to inform optimal antimicrobial use. Evidence has also demonstrated that regular feedback on prescribing patterns and local antibiotic resistance patterns positively impact prescribing behavior. Increased communications to deepen understanding in the general public regarding the individual and population risks associated with inappropriate antibiotic use will also be extremely important.

Finally, we must keep in mind that many of the barriers to change cannot be addressed by communications alone. For example, to address the inappropriate over-the-counter use of antibiotics, investments in health systems will be critically important to ensure that all individuals have access to appropriate health care providers.

### **What are appropriate and practical incentives for changes in practice? What lessons might be learned from other areas, from vaccination to WASH (water, sanitation and hygiene) campaigns, that could inform what the IACG might recommend?**

In countries with sufficient infrastructure, requirements for stewardship programs and infection prevention and control programs are effective and appropriate for driving behavior change. Vaccine requirements in many countries have been successful in driving and maintaining very high childhood vaccination rates and eradicating or nearly eradicating several infectious diseases.

When those requirements have been weakened, vaccination rates have dropped and infectious diseases have resurfaced.

The success of programs such as PEPFAR in building trust in communities and achieving significantly improved health outcomes have demonstrated that robust, sustainable investments that partner international experts and local experts are a winning strategy. The WHO should consider opportunities to build upon existing infrastructure and human resources such as PEPFAR and similar efforts, to improve AMR communications and implement solutions. AMR is a cross-cutting issue that should be of interest to organizations focused on a wide variety of health care issues, including HIV and maternal and child health. Many of the organizations and programs working on these issues have gained the trust of the local communities and would be effective messengers and partners for AMR efforts.

**What research agenda is needed to support efforts to communicate AMR? How might this communications research best be funded and coordinated?**

IDSA recommends research to inform communications between healthcare providers and patients and family members, particularly in instances in which a patient or family member is requesting an antibiotic that would be inappropriate. Similarly, research to inform communications between antibiotic stewardship implementers and challenging prescribers would be very beneficial. Research to inform communications with the public at various levels of health literacy in a culturally informed context will also be very important.

**What model approaches best mobilize key actors in tackling AMR while raising awareness? How might one best structure a multi-stakeholder platform for AMR communications and a community of practice linking these key communications focal points?**

IDSA strongly urges the WHO to utilize existing organizations, including medical societies such as IDSA, to mobilize thousands of members and draw from existing expertise. The infectious diseases physicians and scientists in IDSA membership are committed to tackling AMR and well connected to health care providers in a variety of disciplines and settings. IDSA has already issued numerous reports and other communications to raise awareness about AMR, particularly in the US. IDSA's annual scientific meeting, IDWeek, is already a leading showcase of AMR science and a forum for thousands of infectious diseases physicians and scientists. IDSA would be delighted to explore opportunities for IDWeek to serve a greater role in AMR communications, particularly in coordination with WHO. We would welcome the opportunity to partner with WHO and others on broader AMR communications activities.

We also invite WHO and others to utilize the IDSA-convened Stakeholder Forum on Antimicrobial Resistance (S-FAR) as a conduit for communications to a wide array of stakeholders. S-FAR includes over 115 organizations representing health care providers, scientists, public health, industry, patients and advocates across human health and agricultural sectors. Through S-FAR, IDSA provides these partner organizations opportunities to engage with government and multi-lateral entities on AMR and mobilizes partner organizations for AMR advocacy.

**Where and what would be the most strategic opportunities for investing in efforts that communicate AMR? How can the Tripartite agencies and other intergovernmental agencies be supported to carry out this work?**

Many global AMR communications have been largely focused on human health. The 2017 World Antibiotics Awareness Week was a welcome step forward in communicating AMR messages related to animal health and the environment as well, and we encourage a continued One Health focus. We also encourage WHO and partners to investigate opportunities to utilize well-known individuals and popular personalities to increase public attention to AMR messaging.

**How can we best scale promising strategies for changing individual behavior into collective action to effect AMR change? What groups might be enlisted in these efforts? What role does civil society, professional societies and industry trade associations among others constructively play in these efforts, and how might this be supported?**

Professional societies play an essential role. IDSA is already driving a wide variety of efforts to effect AMR change and would welcome the opportunity to more effectively partner with multilateral organizations, other countries and additional global partners.

- **IDWeek:** IDSA's annual scientific meeting brings thousands of ID clinicians and scientists together and already features significant educational opportunities on AMR and stewardship. It would be an ideal venue for collaborative presentations, workshops, and other activities with WHO or other global partners.
- **S-FAR:** IDSA convenes the Stakeholder Forum on Antimicrobial Resistance (over 115 organizations) which is a conduit for information sharing, a forum for receiving feedback on policy proposals, and a vehicle to mobilize advocacy to increase government investment in AMR solutions and drive policies to combat AMR.
- **Expertise and knowledge sharing:** IDSA members possess expertise in many aspects of AMR, including leading stewardship and infection prevention and control programs in a variety of settings; conducting research on AMR, including clinical trials for new antibiotics, diagnostics and vaccines; caring for patients infected by multidrug-resistant organisms; and advocating for policymakers to advance AMR solutions. We would welcome more opportunities to share expertise with individuals across the globe as well as learn from our peers in other countries.

**What opportunities are there for enabling effective monitoring for accountability towards effecting AMR change? What enabling conditions are critically important for such efforts, and how can we best ensure that these conditions are met?**

It is important to measure rates of resistance and inappropriate antibiotic use in all sectors and all countries to evaluate progress in driving both down. This will require appropriate investment in the necessary surveillance infrastructure. Data should consider aggregate progress as well as

country-level progress, to allow for the identification of best practices in countries as well as countries in need of greater assistance.

It is equally essential to assess the antibiotic R&D landscape, including the overall pipeline, drugs in all stages of development for WHO priority pathogens, and the number of large and small companies engaged in antibiotic R&D. Regular monitoring on these fronts should help drive the implementation of antibiotic R&D incentives and evaluate their impact.

Once again, IDSA greatly appreciates the important work of the IACG and looks forward to opportunities to work collaboratively on global AMR solutions.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul G. Auwaerter". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Paul G. Auwaerter, MD, MBA, FIDSA  
President, IDSA