

15-07

STATEMENT OF POLICY

Antimicrobial Stewardship and Antimicrobial Resistance

Policy

The National Association of County and City Health Officials (NACCHO) recognizes that the development of antimicrobial resistance (AR) represents a growing threat to the health of the public. The World Health Organization, Centers for Disease Control and Prevention (CDC), and the White House have identified AR as a serious threat and called for urgent, coordinated action across all government sectors to address the issue. The active inclusion and support of local health departments is essential to successfully develop and implement AR prevention policies. NACCHO encourages federal and state partners to support and fund local health department participation and workforce training in the development and implementation of policies and strategies to address AR. NACCHO promotes local health department representation in stakeholder meetings, committees, and activities that establish and refine strategies that address AR at the national, state, and local levels.

Examples of engagement include the following:

- Ensuring local health department representation on state and federal antimicrobial stewardship policy advisory committees;
- Facilitating review of state AR surveillance and action plans by as many local health officials as possible;
- Encouraging local health departments' participation in state, regional, and national meetings that address AR and antimicrobial stewardship policy;
- Expanding local health departments' access to antimicrobial susceptibility pattern information for their locality;
- Supporting local health department staff training in infection control and antimicrobial stewardship (including infectious disease certification);
- Establishing or strengthening existing relationships for AR prevention and reduction;
- Educating policymakers, partners, and communities on the ramifications of AR; and
- Amending the National Healthcare Safety Network (NHSN) statement of purpose and confidentiality provisions to establish a system that allows any local health department to access, if desired, healthcare-associated infection (HAI) information collected within its jurisdiction or that relates to healthcare facilities in its jurisdiction reported via the NHSN.¹

Justification

Antimicrobials revolutionized healthcare worldwide. But their use and overuse has led to an increasing prevalence of infectious microorganisms that are resistant to treatment. AR is making the treatment of common infections increasingly complex and expensive. Each year in the United



States, AR causes at least 23,000 deaths, and two million people are infected with bacteria that are resistant to at least one antibiotic.²

Antimicrobial stewardship refers to the adoption of practices that promote responsible antimicrobial use. This is done primarily by prescribing providers, but also includes efforts on the part of consumers and those who work in agriculture. These stewardship practices aim to reduce the development of AR and also seek to maximize the efficacy of antibiotics that are correctly prescribed and used. Antimicrobial stewardship programs have been shown to be cost-effective and even cost saving.³

Multidrug-resistant organisms (MDROs) are microorganisms, predominantly bacteria, that are resistant to one or more classes of antimicrobial agents. In most instances, MDRO infections cause disease that is similar to infections caused by antibiotic-susceptible pathogens; however, options for treating patients with MDRO infections are often extremely limited, which leads to increased lengths of hospital stay, costs, and mortality.⁴

The CDC included a list of current antibiotic resistance threats in their 2013 report on drug resistance.² Some examples, with their threat classification and the number of cases and deaths, include the following:

- Clostridium difficile, classified as urgent, causes 250,000 infections per year and 14,000 deaths per year. It also causes at least \$1 billion in excess medical costs per year. Clostridium difficile infection (CDI) occurs primarily in persons who are being treated with antibiotics. The spread of CDI can be curtailed by infection prevention measures in healthcare facilities and stewardship programs that prevent antibiotic overuse.⁵
- Carbapenem-resistant enterobacteriaceae (CRE), classified as urgent, causes 9,000 drug resistant infections per year and 600 deaths. CRE are resistant to all or nearly all available antibiotics.
- Drug-resistant Neisseria gonorrhoeae, also urgent, causes 246,000 drug resistant gonorrhea infections, which can cause severe reproductive complications and disproportionately affects sexual, racial and ethnic minorities. This represents a growing public health concern, especially since the U.S. gonorrhea control strategy relies on effective antibiotic therapy.⁶

Role of Local Health Departments

Local health departments can play an important role in preventing AR. The CDC's *Vital Signs Report: Estimated Effects of a Coordinated Approach for Action to Reduce Antibiotic-Resistant Infections in Health Care Facilities — United States* outlines the growing understanding that coordination between healthcare facilities will have greater impact on preventing AR than independent, individual facility efforts alone.⁷ Local health departments are in an ideal position to facilitate this coordination and, with sufficient resources, can support efforts to improve awareness, build antimicrobial stewardship programs and policies, and provide the local and regional data necessary for national and international surveillance.⁸ As a growing number of local health departments become more involved in antimicrobial stewardship, it is important to recognize the need to actively include and support their role in developing and implementing AR prevention policies.

While antimicrobial stewardship must be pursued in a broad spectrum of settings regardless of resources, it is also necessary to note that more robust and interoperable public health information systems strengthen this work by improving the tracking of individuals with resistant infections and monitoring prescribing behaviors. Local health departments can also contribute to existing national conversations and partnerships. For example, the National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) is a collaboration among state and local public health departments, CDC, the Food and Drug Administration, and the Department of Agriculture.⁹ NARMS monitors changes in antimicrobial susceptibility of certain bacteria in ill individuals, retail meats, and food animals in the United States. This program serves to protect public health by maintaining information about emerging bacterial resistance, how resistance spreads, and the differences between susceptible and resistant infections. The NARMS working group, however only has four local health department representatives out of 54 health department members.¹⁰

Ongoing, proactive leadership by local health departments is already occurring. Local health departments, together with state health departments and federal support, are increasingly called to respond to outbreaks of antibiotic-resistant organisms or have developed programs relating to antimicrobial stewardship. For example, the Cook County Department of Health in Illinois was recognized for its collaboration with the Illinois Department of Public Health and the CDC in response to an outbreak of CRE.¹¹ Also, the Los Angeles County Department of Public Health has played an active role in antibiotic resistance education of both providers and consumers.¹² They have increased reporting of certain antibiotic-resistant communicable diseases and have partnered with the California Department of Public Health to ensure that hospitals follow the statewide antimicrobial stewardship legislation passed in 2008.¹³ This and other collaborative efforts have enhanced communication channels, started stewardship programs,¹⁴ and educated consumers about AR. These activities provide a powerful model for future collaboration.

Local health departments are uniquely equipped to contribute to the reduction of the health and economic burden associated with AR. Increased collaboration between local health departments and national, state, and local AR stakeholders will support efforts to implement AR prevention, surveillance, and reporting and foster antimicrobial stewardship.

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Record of Action

Proposed by NACCHO Infectious Disease Prevention and Control Workgroup

Approved by NACCHO Board of Directors

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