Public Health's Role in Antibiotic Stewardship

Driver Diagram

Efforts to promote optimal antibiotic use should employ both the public health and healthcare systems. While some drivers of antibiotic resistance fall outside the direct control of public health (e.g., use of antibiotics in livestock food supplies), others highlighted here sit squarely within the focus of public health organizations.

This diagram outlines primary and secondary drivers of optimal antibiotic use. It compliments a driver diagram being piloted in eight hospitals by the Institute for Healthcare Improvement (IHI). PHF is actively seeking comments on the driver diagram from healthcare and public health organizations already engaged in efforts to address antibiotic resistance.

AIM

Promote Optimal Antibiotic Use

Goals

- Preserve antibiotics for the future
- Decrease demand by the public for inappropriate use
- Reduce the spread of antibiotic resistance
- Decrease adverse events associated with inappropriate antibiotic use
- Decrease costs associated with antibiotic use

PRIMARY DRIVERS

SECONDARY DRIVERS

Appropriate Use of Antibiotics

Partnerships, Communication, Reimbursement, & Stewardship

- Provide information on which antibiotics are most effective within your community at a certain point in time
- Provide information on which diseases are prevalent within a community at a point in time
- Develop policies that create incentives for appropriate antibiotic use
- Develop appropriate policies for daycare, work, and school on appropriate attendance during illness (staying away and going back)

Data Monitoring, Transparency, and Stewardship Infrastructure

Surveillance, Analysis, Feedback, Triage, & Leveraging Resources

- Leverage existing infrastructure to promote better antibiotic use
- Use local resistance data to inform antibiotic choice
- Explore ways to gather use and prescribing data

Knowledge, Awareness, and Perception of the Importance of Appropriate Antibiotic Use

Share Evidence Broadly, Provide Education, Create Urgency, & Empower Alternative Action

- Develop intervention plans for segmented target audiences (consumers, providers, insurers, policy makers, etc.)
- Change attitudes and perceptions about what constitutes appropriate antibiotic use
- Educate health departments and public health professionals
- Incorporate antibiotic usage into community assessment and improvement plans

Policy, Communication, Education, Incentives, Partnerships, and Facilitation

This model was developed collaboratively by public health professionals with expertise in antimicrobial resistance and quality improvement. This work was funded through a cooperative agreement between the Public Health Foundation and the U.S. Centers for Disease Control and Prevention.

March 2013 | Version 1.1