Antibiotic Resistance
What Your Business Needs to Know

The Problem

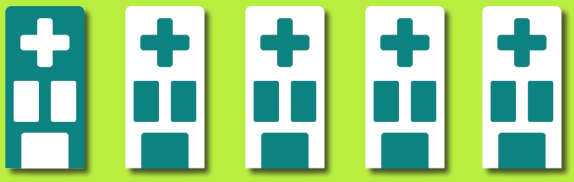
Due the inappropriate and excessive use of antibiotics over the last few decades, **common disease-causing microbes (now known as superbugs) are becoming resistant to the effects of these drugs**. As a result, illnesses that were once treated easily using antibiotics are now requiring more expensive and toxic drug therapies to be cured.

The Impact

The Centers for Disease Control and Prevention (CDC) estimates that nearly ***2.8 million Americans*** are infected with antibiotic-resistant pathogens each year. Of these, ***35,000*** individuals will die as a result of these infections.[1]

Research shows that up to ***50%*** of outpatient antibiotic prescriptions are unnecessary or inappropriate based on drug selection, dosing, or duration.[1]

Adverse Drug Events (ADEs)



Antibiotics cause 1 out of 6 ER visits for ADEs [2]

7 of the 10 drugs involved in ADEs leading to ER visits are antibiotics [2]

The total economic cost of antibiotic resistance to the U.S. economy is estimated to be as high as ***$20 billion*** in excess direct health care costs, and an additional ***$35 billion*** in lost productivity.[1]

St. Louis ARCH Program
ANTIBIOTIC RESISTANCE CAN HARM

Survey Says

A recent survey of U.S. adults showed . . .

More than **half** (53%) think the overuse of antibiotics is a "major problem" while an additional three in ten say it is a "minor problem."[3]

Nearly half of adults (45%) say they have personally not taken their antibiotics as prescribed by a doctor - one of the leading causes of antibiotic resistance.[3]

Healthcare-Associated Infections (HAI)

HAIs are infections that patients get while receiving care in a medical facility, such as a hospital or surgical center. Some HAIs can be caused by antibiotic-resistant bacteria, which may result in sepsis or death if treatment is ineffective.

Common HAIs Include: [4]

- Central line-associated bloodstream infections (CLABSI)
- Catheter-associated urinary tract infections (CAUTI)
- Surgical site infections (SSI)
- Methicillin-resistant Staphylococcus aureus (MRSA)
- Clostridium difficile (C. Diff)

Approximately ***1 in 31*** hospital patients has at least one HAI on any given day.[4]

1 in 31

HAIs result in up to ***$33 billion*** in excess medical costs for the U.S. health care system every year.[4]

$33 billion

In 2015, ***687,000*** hospital acquired infections were associated with ***72,000*** deaths.[4]

The Solution

Employers can play an important role in educating employees about antibiotic resistance and how to prevent the spread of superbugs. Below are a few tips for your business to take action:

Illness Prevention Strategies

Minimizing the risk of antibiotic resistance starts by preventing the spread of common illnesses in the workplace. Implement the following strategies to keep employees healthy and germ free:

- Place **hand washing signs** in bathrooms, break rooms, and kitchen areas. **(click here to view resources)**
- Encourage employees to **stay home when sick** and ensure attendance policies support, rather than penalize, employees for absences due to illness. **(click here to view resources)**
- Host **onsite flu shot clinics** and provide affordable benefit coverage for preventive vaccines.
- Offer **appropriate food preparation and storage areas** (e.g., sink, refrigerator, microwave, clean surfaces and equipment) to reduce the occurrence of food-borne illnesses.

Antibiotic Resistance Can Harm (ARCH) Program

The ARCH Program is a collaborative effort established in 2001 to promote the judicious use of antimicrobial agents and to reduce antibiotic resistance throughout the St. Louis metro area. The ARCH Program provides the following educational resources for workplaces:

- **Health fair table** with interactive "Does this Bug Need a Drug?" game **(click here for more info)**
- Cold and flu symptom treatment kit **giveaways (tissues, cough drops, sanitizing wipe, disposable thermometer)**
- **Educational pamphlet** on antibiotic resistance **(click here to view)**
- **Newsletter article template** for inclusion in employee communications **(click here to view)**
- Sample **social media messaging** for spreading the word **(click here to view)**
- **Lunch n' learn presentation covers:** the differences between bacteria and viruses, causes of antibiotic resistance, how to prevent the evolution and spread of superbugs, and tips for symptom treatment, medication adherence, and doctor conversations **(click here for more info)**

If interested in using ARCH resources, please contact Kayley Delashmit at **kdelashmit@stlbhc.org**.

Health Benefit Strategies

Employers should encourage employees to learn how to protect themselves and their loved ones when seeking medical treatment and ensure that benefit plans reward employees and providers for making high-quality care decisions around the appropriate use of antibiotics. Below are suggested resources to help:

- **Choosing Wisely:** This free online resource was developed by physicians to promote conversations between patients and providers around safe, evidence-based, and effective care choices, including when antibiotics are and are not needed for treatment **(click here to access)**
- **Health Plan Strategies:** Talk with your health plan to better understand how many healthcare-associated infections occur in your population each year, and work with your health plan to incorporate non-payment of HAIs into provider contracts **(click here to learn more)**
- **Provider Partners:** Encourage your insurance carrier to work with health care facilities or physicians that have antibiotic stewardship programs or are incorporating good prescribing practices in their operations **(click here to learn more)**

For more information on strategies for addressing healthcare-associated infections and antibiotic resistance, please contact Kayley Delashmit at **kdelashmit@stlbhc.org**.

Sources

1. Centers for Disease Control and Prevention. (2019). Antibiotic Resistance Threats in the United States. *Retrieved from https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf*

2. Centers for Disease Control and Prevention. (2019). Adverse Drug Events from Specific Medicines. *Retrieved from https://www.cdc.gov/medicationsafety/adverse-drug-events-specific-medicines.html#anchor_1558445387*

3. Kaiser Family Foundation. (2019). Public Awareness Around Antibiotic Resistance. *Retrieved from https://www.kff.org/other/issue-brief/data-note-public-awareness-antibiotic-resistance/*

4. Association of State and Territorial Health Officials. (2019). Healthcare-Associated Infections and Antibiotic Resistance. *Retrieved from http://www.astho.org/Enhancing-HAI-Prevention-and-Outbreak-Response/Communication-Toolkit/*

5. Centers for Disease Control and Prevention. (2021). HAI and Antibiotic Use Prevalence Survey. *Retrieved from https://www.cdc.gov/hai/eip/antibiotic-use.html*

This resource is made possible by funding and technical support from:

St. Louis Area bhc BUSINESS HEALTH COALITION *employer partners in healthcare*

UNIVERSITY OF HEALTH SCIENCES & PHARMACY in St. Louis

Missouri DHSS Department of Health and Senior Services