

# **CDC Winnable Battles**

## **Healthcare-Associated Infections and Antimicrobial Resistance**

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# Healthcare-Associated Infections (HAIs)

- Infections that patients acquire during the course of receiving treatment for other conditions within a healthcare setting
- HAIs occur across healthcare settings (e.g., long-term care, outpatient)
- Many infections are caused by resistant microorganisms
  - Carbapenem-resistant Enterobacteriaceae (CRE)
  - Methicillin-resistant *Staphylococcus aureus* (MRSA)
- State HAI Prevention Programs established in 2009

# Culture Change

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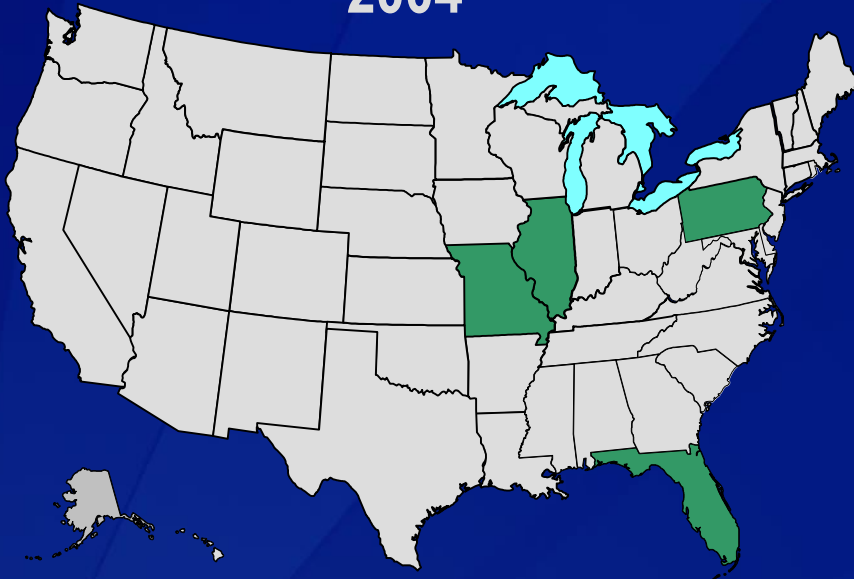
“Many infections are inevitable;  
some might be preventable”



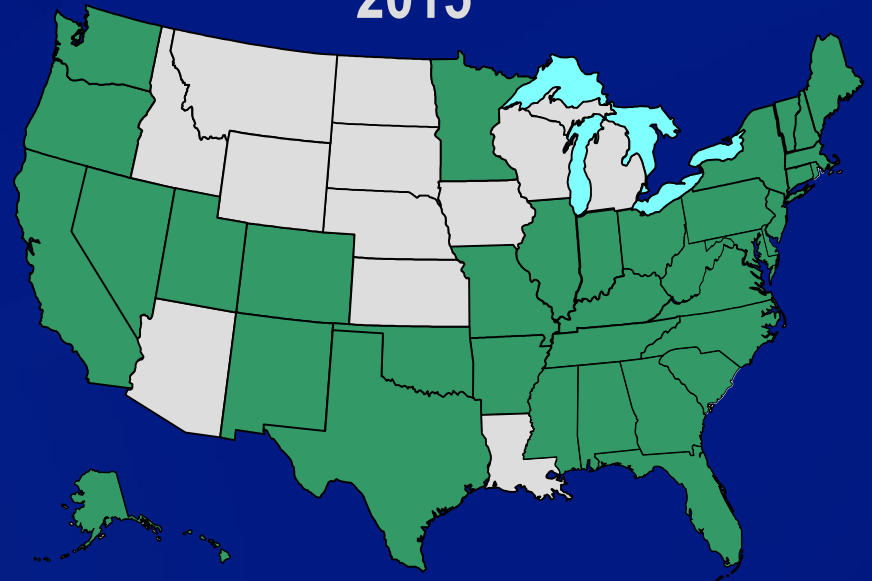
“Each infection is potentially preventable,  
unless proven otherwise”

# States with Public Reporting Policies for Healthcare-Associated Infections (HAIs)

2004



2015



■ States required to publicly report some healthcare-associated infections

# Increasing Transparency: CDC data for State and Federal initiatives

**NATIONAL**  
Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a health care facility. The standardized infection ratio (SIR) is a statistic used to track the progression of progress over time. Lower SIRs indicate better progress. The infection data are collected through CDC's National Healthcare Safety Network (NHSN).

**OKLAHOMA**  
Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. The standardized infection ratio (SIR) is a statistic used to track HAI prevention progress over time. Lower SIRs indicate better progress. The infection data are collected through CDC's National Healthcare Safety Network (NHSN). Oklahoma requires hospitals to publicly report at least one HAI to NHSN, and HAI data for nearly all U.S. hospitals are published on the Hospital Compare website.

**CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS (CLABSIs) ↓ 52% LOWER COMPARED TO NATIONAL BASELINE**

Changes in CLABSIs vs. 2008 National Baseline

A central line is a tube that a doctor usually places in a large vein of a patient's neck or chest to give important medical treatment. When not used or correctly inserted, central lines can become a doorway for germs to enter the body and cause deadly infections in the blood. Oklahoma hospitals did not report a significant change in CLABSIs between 2011 and 2012.

LEGEND: State National

State measures also and requires medical staffs for risk reduction to control antibiotic and compliance.

**CAUTION**  
When a patient is in or left in a hospital, or in a long-term care facility, they are at risk of getting a healthcare-associated infection (HAI).

**SSIs: SURGICAL SITE INFECTIONS**  
When patients undergo surgery, they are at risk of getting a surgical site infection (SSI). SSIs are usually spread by contact with contaminated surfaces or contaminated hands.

7th REPORT ON NATIONAL HAI PREVENTION REPORT 2014

## Medicare.gov | Hospital Compare

The Official U.S. Government Site for Medicare

### Healthcare Associated Infections - details

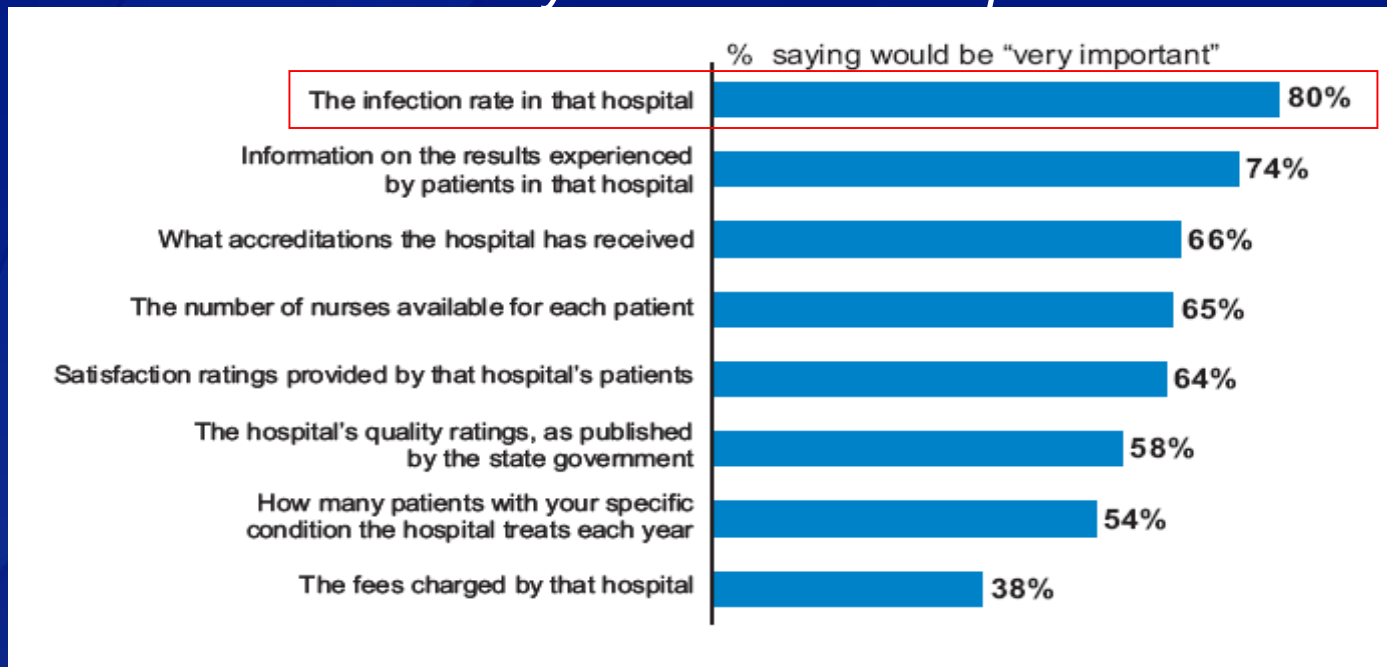
Table 1 of 6 Central line-associated blood stream infections (CLABSI)

	No. of Infections Reported (A)	Central Line Days (CLDs) (B)	Predicted No. Infections (B)	Standardized Infection Ratio (SIR) (A/B)	Evaluation
GEORGE WASHINGTON UNIV HOSPITAL	20	6983	15,230	1.313	No Different than U.S. National Benchmark
CHILDREN'S HOSPITAL NMC	Not Available	Not Available	Not Available	Not Available <sup>5</sup>	Not Available
MEDSTAR GEORGETOWN UNIVERSITY HOSPITAL	13	9769	24,425	0.532	Better than the U.S. National Benchmark

Standardized infection ratio (SIR) national benchmark = 1.  
Lower SIRs are better. A score of (0) – meaning no CLABSIs – is best.

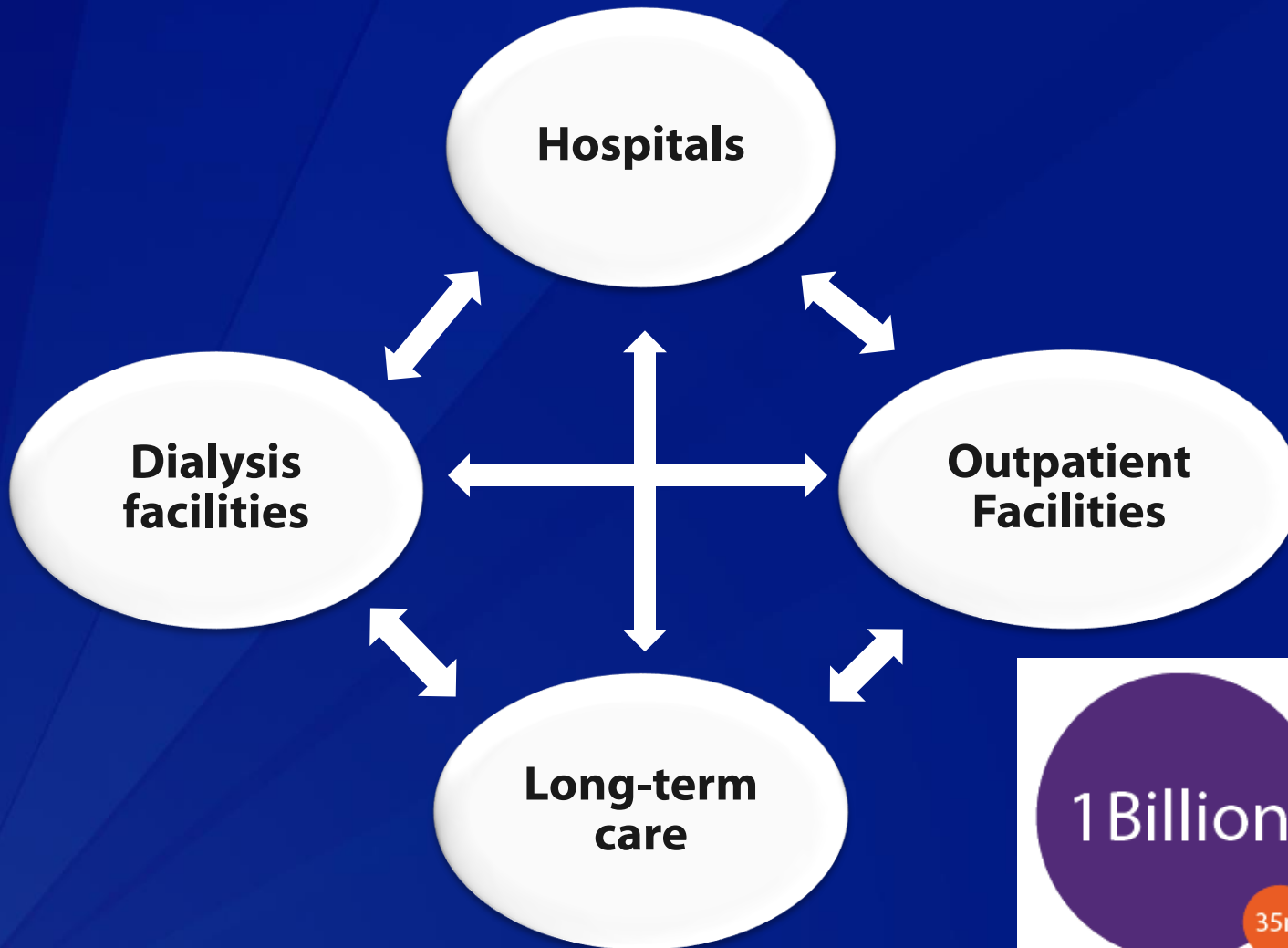
# Most Important Information to Consumers Choosing a Hospital

*How important would that information be to you personally the next time you choose a hospital?*



Source: Blue Cross Blue Shield of Massachusetts. Looking for Answers: How consumers make health care decisions in Massachusetts, a survey of Massachusetts adults. Presented at the *High-Performance Health Care: What It Takes* Conference, April 2, 2007. Available at: [http://www.bluecrossma.com/common/en\\_US/pdfs/aboutUs/consumers-make-health-care-decisions-in-ma.pdf](http://www.bluecrossma.com/common/en_US/pdfs/aboutUs/consumers-make-health-care-decisions-in-ma.pdf).

# Healthcare, infections, and antibiotic resistance have moved beyond hospitals



**1 Billion**  
Roughly 1 billion ambulatory visits occur in the US each year.<sup>(C)</sup>

**35m**  
About 35 million hospital admissions occur annually.<sup>(C)</sup>

# Outpatient Settings

- ❑ **Provide healthcare to patients who do not remain overnight**
- ❑ **Increasingly complex procedures, vulnerable patients**
  - Each year more than one million cancer patients receive outpatient chemotherapy and/or radiation therapy
- ❑ **Expansion of services without parallel increases in attention to and oversight of infection control**
  - Many outpatient facilities are operated independently and are not accredited, CMS-certified, or state-licensed
- ❑ **Lack systematic surveillance to detect infections**



# Seattle Children's warns of potential infection risk

Originally published August 26, 2015 at 2:59 pm | Updated August 27, 2015 at 6:15 pm



Seattle Children's CEO Jeff Sperring, third from left, at a press conference Wednesday in Seattle, addresses sterilization concerns for equipment used at Seattle Children's Bellevue campus that could affect as many... (Bettina Hansen / The Seattle Times) [More](#)



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Seattle Childrens Hospital asking 12,000 patients to get Hep B,C &HIV blood tests- more @ 4:58 [kiro.tv/LiveNews](http://kiro.tv/LiveNews)

7:43 PM - 26 Aug 2015

- Breaches in cleaning and sterilization of surgical instruments, and other errors related to device reprocessing
- Families of 13,700 pediatric surgery patients and 1,600 clinic or urgent care patients were notified

Stay Informed

Safety Issue Information: Bellevue Clinic and Surgery Center

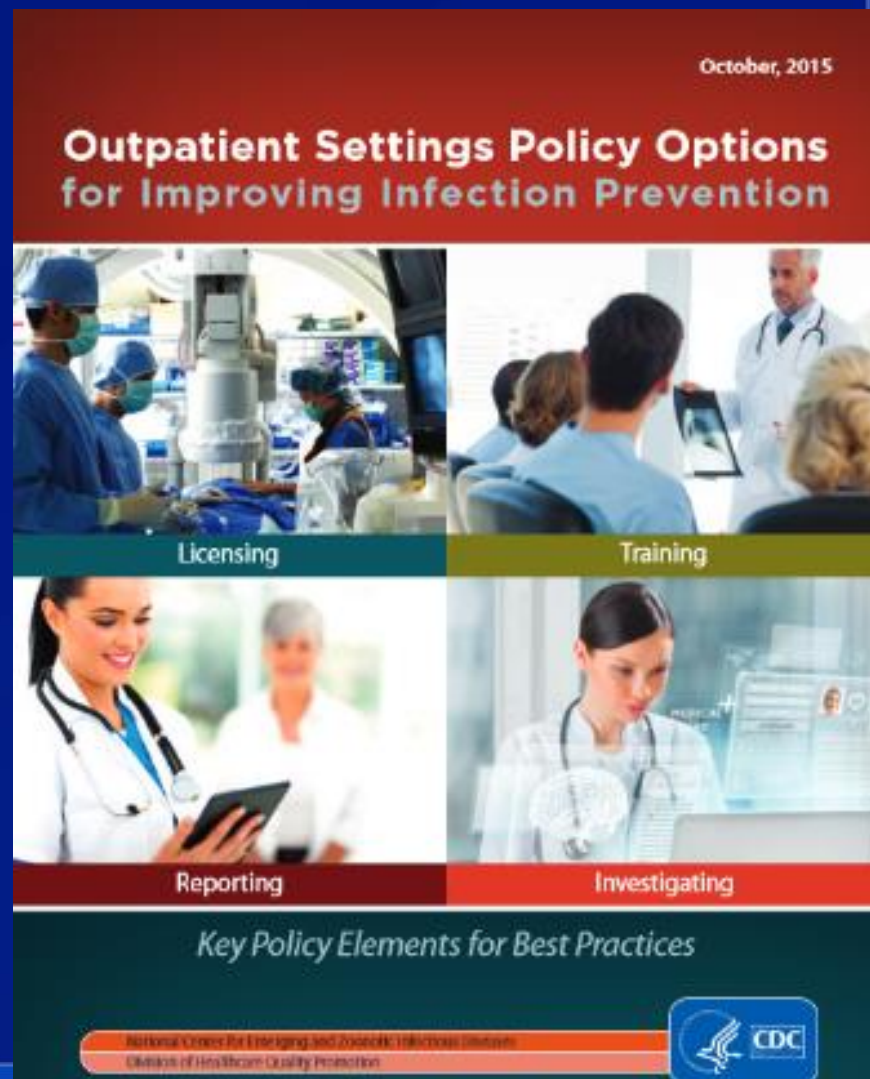
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# Outpatient Settings Policy Options

Consider more effective and proactive oversight of outpatient facilities through:

- (1) Facility licensing/accreditation
- (2) Provider training, licensing and certification
- (3) Reporting requirements
- (4) Investigation authorities



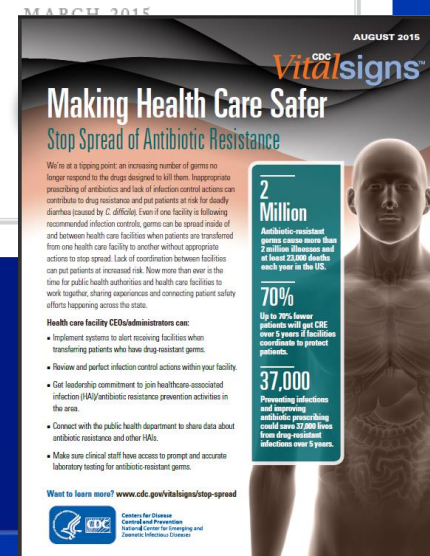
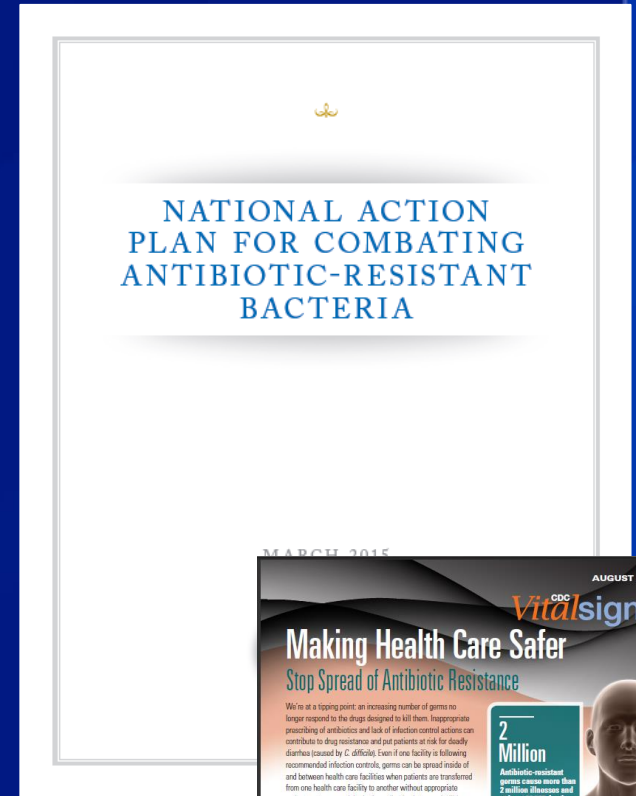
# National Action Plan for Combating Antibiotic-Resistant Bacteria (CARB)

National Action Plan for CARB called for a CDC response to:

- **Detect and respond** to resistant pathogens
- **Prevent spread** of resistant infections
- Encourage **innovation** for new strategies

Steps needed to meet CARB goals:

- **Build state capacity**
- **Expand nation-wide lab capacity**
- **Expand efforts to address community AR threats**



# Modern medicine at risk

- ❑ **Loss of effective antibiotic treatment could make routine infections deadly**
  - Pneumonia
  - Urinary tract infections
  - Wound infections
- ❑ **Patients who receive specialized care will be at highest risk**
  - Cancer chemotherapy
  - Complex surgery
  - Joint replacements
  - Organ transplants
  - Chronic conditions (e.g., rheumatoid arthritis)
  - Dialysis

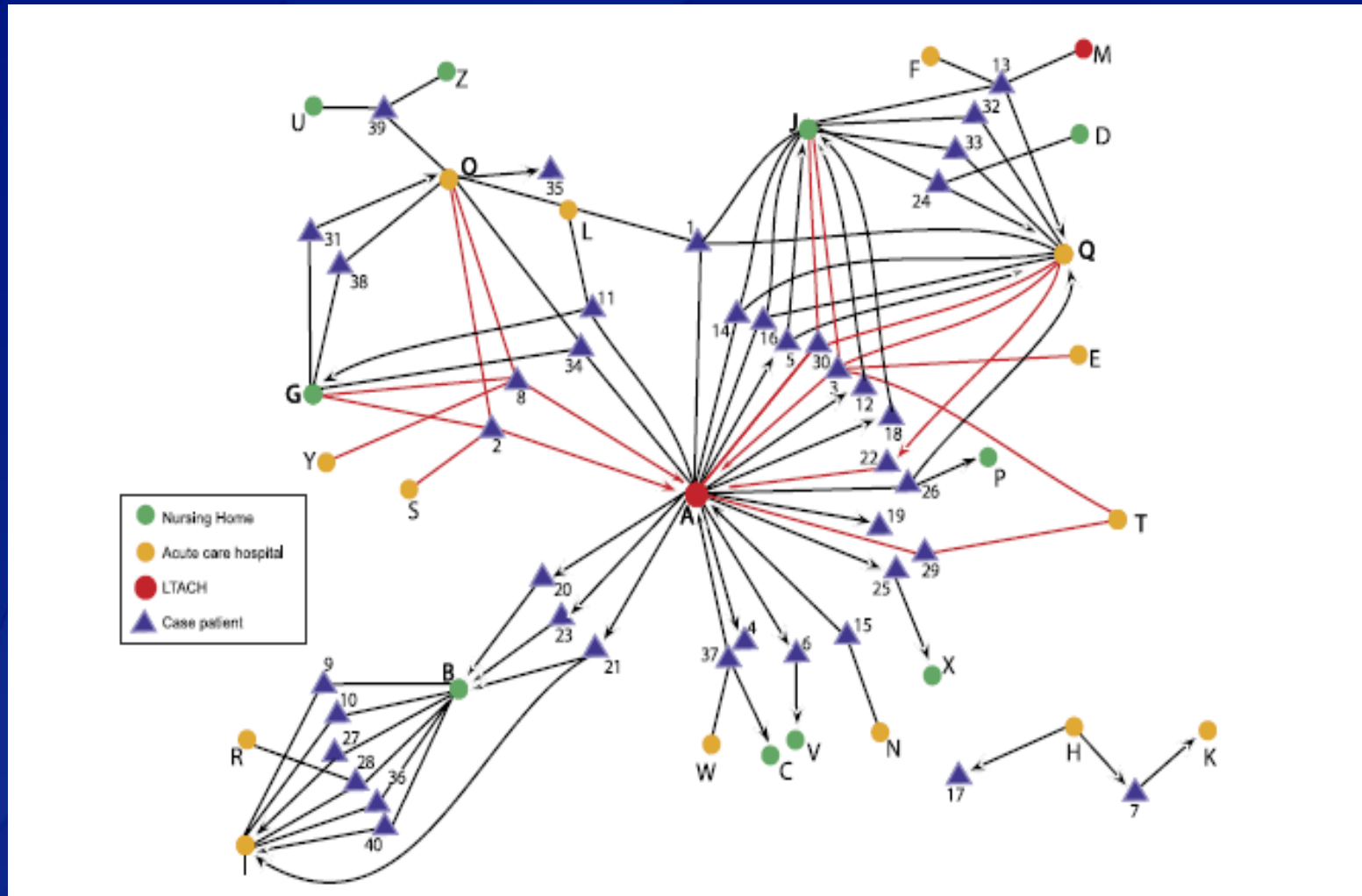
## Cancer Treatment

- **>600,000** patients receive chemotherapy<sup>1</sup>
- **~60,000** cancer patients will be hospitalized with neutropenia and infections<sup>2</sup>
- **1 in 14** of these will die from this complication<sup>2</sup>

<sup>1</sup>Kantar Health, Cancer Impact

<sup>2</sup>Caggiano et al, 2005, Cancer

# Coordinated Approach to Combatting Resistance





# Public Health is in key position to work with healthcare partners and lead coordination



- Identify the health care facilities in the area and how they are connected.
- Dedicate staff to improve connections and coordination with health care facilities in the area.
- Work with CDC to use data for action to better prevent infections and improve antibiotic use in health care settings.
- Know the antibiotic resistance threats in the area and state.

SOURCE: CDC Vital Signs, August 2015.

# HAI/AR Priorities

- Combat Antimicrobial Resistance (AR)
  - Improve antibiotic use
  - Decrease AR infections (*Clostridium difficile*, CRE, MRSA)
  - Coordinated approach across healthcare
- Decrease device- and procedure-related infections (CLABSI, CAUTI, SSI)
- Working with states and other partners to prevent HAIs and AR infections

# Thank You

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**For more information please contact Centers for Disease Control and Prevention**

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Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

Visit: [www.cdc.gov](http://www.cdc.gov) | Contact CDC at: 1-800-CDC-INFO or [www.cdc.gov/info](http://www.cdc.gov/info)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

National Center for Emerging and Zoonotic Infectious Diseases

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