Disclaimers

• No conflict of interest to report
• The IDPH HAI/AR Prevention Program is supported with ELC cooperative agreement funds from the Centers for Disease Control and Prevention (CDC)

Objectives

• Identify priority action areas, strategies, and components outlined in the Illinois Action Plan to Prevent Health Care Associated Infections and Antimicrobial Resistance
• Discuss current initiatives to prevent health care associated infections and antimicrobial resistance lead by IDPH Division of Patient Safety and Quality
• Discuss the landscape of HAI/AR prevention activities in Illinois and ongoing collaborations
• Discuss how activities implemented at facilities contribute to achieving statewide goals of the IL Action Plan to prevent HAI/AR
Illinois Action Plan to Prevent HAIs & AR

Vision: The state of Illinois ensures health and patient safety through prevention of healthcare associated and antimicrobial resistant infections driven by a sustainable, collaborative and coordinated healthcare system.

Mission: Reduce healthcare associated and antimicrobial resistant infections through education, practice guidance, surveillance, and data-driven public policy and quality improvement efforts that strategically engage healthcare consumers, providers, and stakeholders.

Illinois Action Plan to Prevent HAIs & AR

Align state priorities & goals with National priorities

- Strategic Plans of partner and stakeholder organizations

http://www.cdc.gov/hai/pdfs/stateplans/factsheets/il.pdf
Illinois Action Plan to Prevent HAIs & AR
Priority Areas & Goals

A  Infection Prevention Infrastructure, Standards, and Practices
   Goal #1 Illinois will implement a comprehensive and effective infection prevention and control system with standards, policies, and practices in place for all healthcare settings

B  Assessment/Treatment/Outbreak
   Goal #2 Improve detection, investigation and response to infectious outbreaks including community and healthcare associated infections (HAI) and antimicrobial resistant (AR) organisms

C  Antimicrobial Stewardship
   Goal #3 Improve antimicrobial prescribing practices across all healthcare settings

D  Multi-Drug Resistant Organisms
   Goal #4: Raise public awareness about antibiotic use and misuse
   Goal #5: Slow the emergence of resistant bacteria and C. difficile, and prevent their transmission

Key Strategies & Cross-Cutting Topics

Education & training  Policy  Data & Surveillance  Communication

Priority Area
Goal #

Objective #

Strategy/Task  Performance Indicator/Data Source

Program Planning
Creative Brainstorming
Develop activities specific to your setting/audience
→ Positive deviants
Identify additional data sources:
How will you measure progress?
Set meaningful intermediate and long term targets for specific data points (e.g., % reduction in CDI)
Define what success looks like for your project/program
A

**Infection Prevention Infrastructure, Standards, and Practices**

**Goal #1** Illinois will implement a comprehensive and effective infection prevention and control system with standards, policies, and practices in place for all healthcare settings.

Objective 1.1 IDPH will provide leadership for coordination and collaboration between public health and all health care settings across the continuum of care.

Objective 1.2 Identify and disseminate information on implementation of best practices across health care settings for infection prevention and control.

Objective 1.3 Develop sustainable capacities to assess and address gaps in infection control policies and practices in health care settings throughout Illinois.

Objective 1.4 Ensure health care facilities/settings are appropriately staffed with qualified personnel to implement comprehensive and effective infection control programs.

Objective 1.5 Collect, analyze, interpret, and report HAI/AR surveillance data to direct and inform actions.

Objective 1.6 Standardize and improve timeliness and completeness of communication during transitions in care about patients’ infection or colonization status with high risk organisms, need for contact precautions, and history of antibiotic use.

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**IDPH Infrastructure Initiatives**

- HAI/AR Prevention Advisory Council
- Collaborations with partners
- IP Liaison Program – QI assessments & expert consultations - APIC Consulting & Chicago Dept of Health
- LTC Certificate Course in infection control – APIC Consulting
- Data for Action – presenting data that is meaningful

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**Data for Action**
Data for Action

- Reports sent to 182 hospitals: 152 completed follow-up survey
- 49 hospitals were prompted by the report to take action to reduce HAIs, including enhancing antimicrobial stewardship programs
- Future reports may summarize NHSN survey responses re core elements of stewardship

Assessment/Treatment/Outbreak

Goal #2 Improve detection, investigation and response to infectious outbreaks including community and healthcare associated infections (HAI) and antimicrobial resistant (AR) organisms

Objective 2.1 Increase knowledge and competency of relevant health care facility staff related to outbreak preparedness, detection protocols, containment, and resolution.

Objective 2.2 Prepare for emerging communicable disease threats that may enter health care facilities.

Objective 2.3 Strengthen and expand surveillance system infrastructure for detection of infectious outbreaks across acute care, non-acute care, and community settings.

Objective 2.4 Improve HAI and AR outbreak reporting across all health care facilities.
Antimicrobial Stewardship

Goal #3: Improve antimicrobial prescribing practices across all healthcare settings

Objective 3.1: Promote and monitor antibiotic stewardship programs (ASP) across health care settings.
Objective 3.2: Strengthen public health and health care facility infrastructure to facilitate AS work.

Antimicrobial Stewardship

Goal #4: Raise public awareness about antibiotic use and misuse

Objective 4.1: Establish infrastructure to facilitate outreach to general public.
Objective 4.2: Educate the general public on antibiotic resistance and appropriate antibiotic use.

Initiatives to promote and track antibiotic stewardship & prevent antimicrobial resistance

- Expand reporting to NHSN Antibiotic Use and Resistance Modules
- Catalyst for Antimicrobial Stewardship Improvement (CASI) Project
- Infuse/enhance antimicrobial stewardship training & resources into other initiatives
- Precious Drugs & Scary Bugs outpatient campaign

National Healthcare Safety Network (NHSN)
Prescribing Data - Illinois

- NHSN Antibiotic Use (AU) module
  - 12 (of 183) acute care hospitals in IL are reporting

- NHSN facility survey
  - Only 44% of hospitals have all seven core elements of antimicrobial stewardship in place
**Audience & Partners**

- **Target audience:** outpatient ambulatory care providers
- **Participants:** 55 practices representing > 385 providers
  - Recruited through presentations and e-mail blasts to medical directors
- **Campaign Workgroup**
  - Ann & Robert H. Lurie Children’s Hospital of Chicago
  - BlueCross BlueShield of Illinois
  - Downstate Illinois Partnership Against Antibiotic Resistance
  - Illinois Academy of Family Physicians
  - Illinois Academy of Pediatrics
  - Illinois Pharmacy Association
  - Illinois Primary Health Care Association
  - Medical Groups
  - Academic Partners

**Campaign Overview:**

**Commitment Poster**

- **Nudging guideline-concordant antibiotic prescribing: a randomized clinical trial**
  - 954 adults in 5 outpatient primary clinics had visits for acute respiratory infection (ARI) during the study timeframe
- **INTERVENTION**
  - Displaying poster-sized commitment letters in examination rooms for 12 weeks
- **RESULTS**
  - Posted commitment letter resulted in a 19.7 absolute percentage reduction in inappropriate antibiotic prescribing rate relative to control (P = .02)

**Healthcare Effectiveness Data and Information Set (HEDIS) by National Committee for Quality Assurance**

- **Measure 1:** Avoidance of antibiotic treatment in adults with acute bronchitis
  - Percentage of adults 18-64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription.
- **Measure 2:** Appropriate treatment for children with URI
  - Percentage of children 3 months to 15 years of age who were diagnosed with URI and were not dispensed an antibiotic prescription on or within three days after the episode date.
Medical Group A
19 Practices Representing 71 Providers

HEDIS Outcome Measures Before and After Commitment Poster Implementation

Multi-Drug Resistant Organisms
Goal #5 Slow the emergence of resistant bacteria and C. difficile, and prevent their transmission

Objective 5.1 Increase reporting of antimicrobial resistant organisms to surveillance systems, and enhance those systems.

Objective 5.2 Enhance testing and laboratory capability to detect antimicrobial resistant organisms and mechanisms of resistance.

Objective 5.3 Engage health care facilities in targeted prevention activities for specific MDROs.

Objective 5.4 Improve communication about MDROs and C. difficile among health care facilities, providers, and public health departments.

Contact: DPH.XDROregistry@illinois.gov

http://dph.illinois.gov/topics-services/prevention-wellness/patient-safety-quality/cre
www.xdro.org

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www.xdro.org
Antimicrobial Resistance Data - Illinois

Extensively Drug Resistant Organism Registry:
CRE reported in Illinois (as of Sept 27, 2016)

- Number of patients (unique cases): 3150
- Number of reports submitted: 4951

XDRO automated alert pilot

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429 alerts sent for 180 patients as of 9/27/16
The Institute for Healthcare Improvement (IHI) Model for Improvement

Start with a small test of change... Then, build on and expand your efforts.

Joinpoint regression lines of C. Diff standardized infection ratios from January 2012 to December 2013 by quarter for hospitals that participated in the campaign (blue line, red squares) and those that did not participate (turquoise line, purple diamonds).

Trend of Quarterly C. difficile SIR by ICE C. diff Campaign Participation (2012 - 2014)
“Getting schooled” in Quality Improvement
...by my children

Growth Mindset
Have GRIT!
The Power of “YET”

National Healthcare Safety Network (NHSN)
Clostridium difficile

Another way to look at the data...
- Recent antibiotic exposure is a primary risk factors for CDI
- A substantial proportion of antibiotic exposures (e.g., prescriptions) are unnecessary
- In 2015, IL hospitals reported 15,476 cases of CDI to NHSN
- Half of these (7,711) were designated as community onset cases
- There are likely more community CDI cases not captured by NHSN
In 2015, IL hospitals reported 15,476 cases of CDI to NHSN

The Chicago Symphony Orchestra looks out at a capacity crowd during a 2012 concert. C. Todd Rosenberg (WBEZ)