Welcome!

Rhode Island Healthcare-Associated Infection Prevention and Antimicrobial Stewardship Coalition

*Education and Best Practice Workgroup Meeting*

*December 7, 2016*
*8:00am-12:00pm*
Today’s Agenda

Opening Remarks

Core Elements of Antimicrobial Stewardship
- Presentations
- Table breakout discussions
- Group discussion and Q&A

Infection Control Assessment and Response Data
- Presentations
- Table breakout discussions
- Group discussion and Q&A

Success Stories and Best Practices
- Presentations
- Q&A

Opportunities and Resources in Rhode Island
- Presentations
- Table breakout discussions
- Group discussion and Q&A

Closing Remarks
OVERVIEW OF COALITION

Healthcare-Associated Infections and Antimicrobial Stewardship in RI
What will the new RI HAI Prevention and Antimicrobial Stewardship Coalition do?

Increase coordination, collaboration and communication and reduce duplication of efforts

Identify New Partners and Opportunities

Support existing and new relationships within a more cohesive environment

RI HAI Prevention and Antimicrobial Stewardship Coalition

Act as a resource hub and identify and share best practices

<table>
<thead>
<tr>
<th>Rhode Island Department of Health</th>
<th>Healthcentric Advisors/QIN-QIO</th>
<th>HIIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Association of Rhode Island</td>
<td>ICPSNE</td>
<td>HAI Subcommittee</td>
</tr>
<tr>
<td>Trade and Professional Organizations</td>
<td>Engaging Partners</td>
<td>AMSEC Taskforce</td>
</tr>
</tbody>
</table>

Nursing Homes

Hospitals

Home and Community-based Services

Expand Provider Reach
How will the new RI HAI Prevention and Antimicrobial Stewardship Coalition operate?

Two tracks focused on a single goal: Protecting the health of Rhode Islanders and the sustainability of our healthcare system.

- **Leadership and Policy Committee**
  - Work with executive and state leadership to ensure facility policies and resource allocation adequately support HAI prevention and antimicrobial stewardship
  - Develop and support state and national policies that align with coalition goals

- **Education and Best Practice Workgroup**
  - Work with HAI prevention/antimicrobial stewardship leads, champions and subject matter experts to identify gaps in state or facility programs and develop best practices
  - Provide expert information to Leadership and Policy Committee

- Meetings will be held for each track throughout the year to develop and work towards coalition aims
- Existing meetings and groups will also be leveraged to reduce duplication and support coordination
Today’s Objectives

- Review CDC guidance for infection prevention and antimicrobial stewardship programs
- Discuss and share current practices in infection prevention and antimicrobial stewardship
- Discuss and share barriers to aligning with the CDC guidance
- Determine priorities for state and partner support
Healthcare-Associated Infections and Antimicrobial Stewardship in RI

UPDATES SINCE LAST MEETING
Hospitals

- Number of hospitals receiving negative payment adjustments under the Healthcare-acquired condition conditions program reduced from 7 in FY2016 to 4 in FY2017

- Rhode Island participating in STRIVE (States Targeting Reduction in Infections via Engagement) program with the Health Research Education and Trust

- HIIN awards announced and HIINs reaching out to hospitals

- Save the date: “Beyond Stewardship, Antibiotics and Medication Safety” February 16 (more details TBD)
Nursing Homes

- 15 of nursing homes fully enrolled in NHSN and 15 have already submitted CDI data
- Rhode Island Department of Health (RIDOH) planning to administer 15 onsite ICAR assessments between December and January
- New conditions of participation from CMS address infection prevention in nursing homes
- Save the date: infection prevention training for nursing home staff on January 23 (more details TBA).
- Save the date: “Beyond Stewardship, Antibiotics and Medication Safety” February 16 (more details TBD)
Outpatient and Community-based Providers

- CDC released the **Core Elements of Outpatient Antibiotic Stewardship**
- QIN-QIO tasked with **assisting outpatient settings** to adopt the new core elements
- Quality measures related to **antimicrobial prescribing and infection prevention** included in potential quality measures for new CMS **Merit-based Incentive Payment System (MIPS)**
- Save the date: **“Beyond Stewardship, Antibiotics and Medication Safety” February 16** (more details TBD)
Core Elements of Antimicrobial Stewardship

Diane Parente Pharm. D  
Clinical Pharmacist Specialist, Infectious Disease, The Miriam Hospital

Stephen Creasy, Pharm. D  
Utilization Manager, Pharmerica

Stacey Ranucci, RPh, CGP, CDE  
Clinical Pharmacist, Integra / RIPCPC

Moderated by Kerry LaPlante, Pharm D., FCCP  
Professor of Pharmacy, University of Rhode Island, College of Pharmacy; 
Adjunct Professor of Medicine, Warren Alpert Medical School of Brown University  
Co-Director, Antimicrobial Stewardship Program, Providence VA Medical Center
CDC’s Core Elements for Antimicrobial Stewardship: A Focus on Acute Care Hospitals

Diane Parente, PharmD
Clinical Pharmacist Specialist, Infectious Diseases and Antimicrobial Stewardship
The Miriam Hospital
Providence, RI
Background

• 2014 – CDC recommended that all acute care hospitals implement an Antimicrobial Stewardship Program (ASP)


• June 2016 – Centers for Medicare and Medicaid Services (CMS) released a proposed rule change to require hospitals to implement ASPs, enhancements to infection control programs, and greater surveillance activities with ASP in order to participate in Medicare and Medicaid. Rules to be effective at the end of 2017.

Requirements

*TJC, CMS, RI DOH Statement of Commitment*

- CDC core elements are included in
  - TJC standards
  - RI DOH Statement of Commitment
  - Proposed CMS rules

- Achieve goals through multidisciplinary efforts, education, evidenced-based guidelines for prescribing, monitoring, and performance improvement
7 CDC Core Elements of ASP

1. Leadership Commitment
   Dedicating necessary human, financial and information technology resources

2. Accountability
   Appointing a single leader responsible for program outcomes

3. Drug Expertise
   Appointing a single pharmacist leader responsible for working to improve antibiotic use

4. Action
   Taking individual actions in a patient receiving antibiotics that are known to reduce antibiotic use

5. Tracking
   Monitoring antibiotic prescribing and resistance patterns

6. Reporting
   Regular reporting information on antibiotic use and resistance to doctors, nurses and relevant staff

7. Education
   Educating clinicians about resistance and optimal prescribing (and educating patients about their medications)
Core Element 1: Leadership Support

*Dedicating necessary human, financial and information technology resources*

- Written statements: policy or formal statement approved by the board
- Dedicate specific salary to support ASP based on the size and population of hospital
- Ensure ASP leaders have training in measuring and improving antibiotic use
- Funding for information technology and access to data
Core Element 2: Accountability
Appointing a single leader responsible for program outcomes

- Physician with expertise in antibiotic use, training in ASP, leadership skills, respect from peers, and good team skills
- Hold the leader accountable for ASP outcome measures
- Ensure ASP physician leader actively engages antibiotic improvement efforts with other departments
Core Element 3: Drug Expertise

Appointing a single pharmacist leader responsible for working to improve antibiotic use

- Pharmacist with expertise in antibiotic stewardship
  - Post-graduate training in infectious disease (residency or fellowship) preferred
  - Train pharmacist leader via ASP certificate programs

- Ensure pharmacy leader engages and trains fellow pharmacists
  - Provide in-services to pharmacy staff
  - Automatic IV to PO policy
  - Pharmacy to vancomycin policy
  - Renal dose adjustments
Core Element 4: Action

To support optimal antibiotic use

- Implement specific interventions to improve antibiotic use
- Interventions should have measurable outcomes
- Examples
  - Restricting specific antibiotics
  - Require indication and duration for all antibiotic orders
  - Develop hospital specific (empiric) treatment guidelines
  - Process to review antibiotics prescribed after 48-72 hours
  - Pharmacist-driving automatic IV to PO policy
  - Utilize rapid diagnostic assays to improve appropriate use
Core Element 5: Tracking

*Tracking and monitoring antibiotic prescribing, use, and resistance*

- Critical to identify opportunities for improvement and assess impact of interventions
- **Antibiotic use**
  - Days of Therapy (DOT) – preferred, NHSN reporting
  - Defined Daily Dose (DDD) – if DOT not available
  - Standardized Antibiotic Administration Ratio (SAAR) – available to hospitals enrolled in NHSN Antibiotic Use Option
- **Antibiotic expense**
- **Tracking antibiotic resistance patterns and *C. difficile* rates**
Core Element 5: Tracking

Tracking and monitoring antibiotic prescribing, use, and resistance

Overcoming potential barriers

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited resources</td>
<td>• Focus on one to two initiatives at a time</td>
</tr>
<tr>
<td></td>
<td>• Standardize data collection (recording practices, timing, frequency)</td>
</tr>
<tr>
<td></td>
<td>• Collaborate with infection control and/or quality to identify ways to partner for data collection</td>
</tr>
<tr>
<td>Lack of expertise on data collection, analysis, and interpretation</td>
<td>• Reach out to near by hospitals</td>
</tr>
<tr>
<td></td>
<td>• Develop relationships with data experts through state collaboratives and meetings</td>
</tr>
<tr>
<td>Lack of IT Support</td>
<td>• Ensure tracking and monitoring are part of discussions with IT and administration when engaging support for ASP</td>
</tr>
</tbody>
</table>

NHSN, National Healthcare Safety Network
Core Element 6: Reporting

*Information on improving antibiotic use and resistance*

- Regularly report to healthcare providers, hospital leadership, infection control, microbiology, quality improvement committees

- **Information to report**
  - Overall antibiotic use and trends
  - Impact of interventions
  - Outcomes of specific implemented initiatives (e.g. IV to PO protocols, restricted antibiotics)
  - Resistance and *C. difficile* rates
  - Specific recommendations for improvement reports

- **Focus on one or two priorities at first than expand to other initiatives later**
Core Element 7: Education
Of clinicians and patients and families

• TJC requirement: provide staff education upon hire and periodically thereafter
  – Incorporate antibiotic stewardship elements into orientation modules

• Types of education
  – In person: in-services, grand rounds, lectures, ASP rotation
  – Web-base education: required modules, hospital ASP intranet page, newsletters
  – National observance – participate in CDC Get Smart week
  – In-direct: screen savers, messages while on hold, alerts during order entry or link to guidelines

• Know your audience – target education, deliver messages that are clear, concise with specific actions to improve antibiotic use
Core Element 7: Education

Of clinicians and patients and families

- Patient education on antibiotic use can be delivered in a variety of ways:
  - Admission or discharge paperwork
  - Educational pamphlets in waiting rooms (e.g. ED)
  - Hospital TV channel
  - Web-based video on hospital website
The Centers for Disease Control & Prevention’s

The Core Elements of Antibiotic Stewardship in Nursing Homes
Antibiotics are a precious resource!

- The CDC has recognized that antibiotic-resistant organisms are rapidly outpacing the development of new antibiotic research
  - 2 million illnesses/year due to antibiotic-resistant bacteria (ARB)
  - 23,000 deaths/year due to ARB
  - Estimated $20-35 billion in costs/year related to ARB

- CDC data in nursing homes shows:
  - Up to 70% of residents receive at least one course of antibiotics in a year
  - 40-75% of antibiotics prescribed may be unnecessary or inappropriate

- 42 CFR §483.80 – Infection Control
  - CMS published final regulations to reform Requirements for LTCFs on 10/4/2016
  - EACH FACILITY will be responsible for establishing an infection prevention and control program (IPCP) that, among other requirements:
    - Contains an Antibiotic Stewardship Program that includes antibiotic use protocols and a system to monitor antibiotic use
    - Required by 11/28/2017 (Phase 2)
The Core Elements of Antibiotic Stewardship for Nursing Homes

• Recognized by CMS in Final Rule commentary response as “an excellent resource for guidelines...and (we) encourage LTC facilities to consider the CDC guidelines.”
  – Joint Commission on Accreditation of Healthcare Organizations (JCAHO) uses Core Elements for Hospitals in their Antimicrobial Stewardship Standard

• The Core Elements set forth the framework needed to take a step-wise approach to the development and implementation of an Antibiotic Stewardship program.
  ❖ Leadership commitment
  ❖ Accountability
  ❖ Drug expertise
  ❖ Action
  ❖ Tracking
  ❖ Reporting
  ❖ Education
The Core Elements of Antibiotic Stewardship for Nursing Homes

Leadership Commitment
- Nursing home leaders commit to improving antibiotic use and can identify a champion to act as a driver of change
  - Outline facility leadership support via statement/letter
  - Include Antibiotic Stewardship duties in job descriptions
  - Quality Committee’s involvement defined

Accountability
- Nursing homes identify individuals who are accountable for the Antibiotic Stewardship activities and who have the support of facility leadership
  - Identify who will lead the program
    - Medical Director/Director of Nursing will have most impact

Drug Expertise
- Nursing homes establish access to individuals with antibiotic expertise to implement antibiotic stewardship activities
  - Engage with your pharmacy services provider or consultant pharmacist to see what services they can offer
The Core Elements of Antibiotic Stewardship for Nursing Homes

Action

– Nursing homes implement prescribing policies and change practices to improve antibiotic use
  • Policies that support optimal antibiotic use
    – Prescribing Policies, communication tools
  • Broad interventions to improve antibiotic use
    – Facility-specific resident assessment, diagnostic testing procedures, treatment recommendations
    – Antibiotic “time-out”
  • Pharmacy interventions to improve antibiotic use
    – Work with Consultant Pharmacist to outline responsibilities
  • Infection and syndrome specific interventions to improve antibiotic use
    – Target inappropriate antibiotic treatment courses (ex. asymptomatic bacteriuria)
    – Fever/suspected infection protocols
The Core Elements of Antibiotic Stewardship for Nursing Homes

Tracking & Reporting

- Nursing homes monitor both antibiotic use practices and outcomes related to antibiotics in order to guide practice changes and track the impact of new interventions
  - Process measures
    - Retrospective audit of prescribing practices
  - Antibiotic use measures
    - Rate of antibiotic starts
  - Antibiotic outcome measures
    - Rates of *C. Diff* infection

Education

- Nursing homes provide antibiotic stewardship education to clinicians, nursing staff, residents and families
The Core Elements and Facility Self-Assessment Checklist

http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html

**Leadership commitment**
Demonstrate support and commitment to safe and appropriate antibiotic use in your facility

**Accountability**
Identify physician, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility

**Drug expertise**
Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility

**Action**
Implement at least one policy or practice to improve antibiotic use

**Tracking**
Monitor at least one process measure of antibiotic use and at least one outcome from antibiotic use in your facility

**Reporting**
Provide regular feedback on antibiotic use and resistance to prescribing clinicians, nursing staff and other relevant staff

**Education**
Provide resources to clinicians, nursing staff, residents and families about antibiotic resistance and opportunities for improving antibiotic use
Antimicrobial Stewardship Ambulatory Care
Core Elements of Outpatient Antibiotic Stewardship

For Healthcare Professionals

The Core Elements of Outpatient Antibiotic Stewardship provides a framework for antibiotic stewardship for outpatient clinicians and facilities that routinely provide antibiotic treatment. This report augments existing guidance for other clinical settings. In 2014 and 2015, respectively, CDC released the Core Elements of Hospital Antibiotic Stewardship Programs and the Core Elements of Antibiotic Stewardship for Nursing Homes. Antibiotic stewardship is the effort to measure and improve how antibiotics are prescribed by clinicians and used by patients. Improving antibiotic prescribing involves implementing effective strategies to modify prescribing practices to align them with evidence-based recommendations for diagnosis and management.
Improve Antibiotic Use to Combat Antibiotic Resistance

CDC is working to reduce unnecessary antibiotic use

White House National Action Plan to Combat Antibiotic-Resistant Bacteria (CARB)

Goal: By 2020, reduce inappropriate outpatient antibiotic use by 50%

Find out when antibiotics are necessary. Visit: [http://www.cdc.gov/getsmart](http://www.cdc.gov/getsmart)

http://www.pewtrusts.org/-/media/assets/2016/05/antibioticuseinou tpatientsettings.pdf;
The Core Elements of Outpatient Antibiotic Stewardship

**Commitment**: demonstrate dedication to and accountability for optimizing antibiotic prescribing and patient safety

**Action for policy and practice**: implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working, and modify as needed

**Tracking and Reporting**: monitor antibiotic prescribing practices and offer regular feedback to clinicians or have clinicians assess their own antibiotic use

**Education and Expertise**: provide educational resources to clinicians and patients on antibiotic prescribing and ensure access to needed expertise on
• Put a Commitment Poster in Your Clinic!
• CDC worked with the authors of the study to create a poster template for download
• Will be coming in Spanish
• Add your picture and signature
• Place in your examination rooms

• Available at: https://www.cdc.gov/getsmbt/community/materials-references/print-materials/hcp/index.html

• Add your picture and signature here
DISCUSSION QUESTIONS

1. In what ways does your facility’s antimicrobial stewardship program aligns/not align with your setting’s core elements?

2. What are the barriers to aligning your facility’s program, or developing a program that aligns, with your setting’s core elements?

3. If there are not core elements for your setting, what guidance did you use to develop your antimicrobial stewardship program OR what are the barriers to developing an antimicrobial stewardship program?
Infection Control Assessment and Response Data

Rebecca Reece, MD
Infectious Disease Consultant, Rhode Island Department of Health
OVERVIEW OF INFECTION CONTROL ASSESSMENT AND RESPONSE (ICAR) TOOLS
Understanding the ICAR Tools

What are they?

- Developed by the CDC to determine current practices in infection prevention in hospital, long-term care, outpatient and dialysis settings
- Goal is information gathering, not punitive
- Set a high bar

How are they being used in Rhode Island?

- All acute-care hospitals and long-term care facilities were asked to complete the tool as a self-assessment (spring 2016)
- 3 hospitals participated in onsite assessments (spring 2016)
- 15 nursing homes will be asked to participate in an onsite assessment (winter 2016/2017)
- All data is de-identified and only shared in aggregate form
Healthcare-Associated Infections and Antimicrobial Stewardship in RI

HOSPITAL DATA
Background

- **11** acute-care hospitals completed the self-assessment (all data shared in from self-assessments)
- **11/11** hospitals provide **fiscal and human resource support** for maintaining the infection prevention and control program
- At **11/11** hospitals, the person directing the program is qualified and **trained in infection control** (specifically CIC and/or courses organized by recognized professional societies)
- Average hospital FTE of infection prevention personnel: **2.2 (range, 1-6.2)**
- Average hospital FTE of infection prevention personnel per 100 beds: **0.81 (range, 0.54-1.4)**

*Correction: the data points in red were updated after the event.*
Key Takeaway #1
Competency-based Education

Hand Hygiene
- 10/11 hospitals provide hand hygiene training for all healthcare personnel
- 0/11 hospitals require personnel to demonstrate competency following training

Personal Protective Equipment (PPE)
- 11/11 hospitals have the necessary PPE available and located at point of use
- 9/11 hospitals provide PPE training for all personnel who use PPE
- 1/11 hospitals require personnel to demonstrate competency with selection and use following training
Key Takeaway #1
Competency-based Education, cont.

CAUTI

- **11/11** hospitals have a physician and/or nurse champion for CAUTI prevention activities
- *Urinary Catheters:* **1/11** hospitals have competency-based training for insertion and **3/11** have competency-based training for maintenance

CLABSI

- **11/11** hospitals have a physician and/or nurse champion for CLABSI prevention activities
- *Central Venous Catheters:* **6/11** hospitals have competency-based training for insertion and **3/11** have competency-based training for maintenance
Key Takeaway #2
Alignment of Infection Prevention and Antimicrobial Stewardship

Antimicrobial Stewardship and Prevention of SSIs

- 11/11 hospitals have a surgical care improvement program that includes the following elements:
  - **Preoperative timing** of prophylactic antibiotic administration
  - Appropriate prophylactic **antibiotic selection** based on procedure type
  - **Discontinuation** of prophylactic antibiotics within 24 hours (48 hours for cardiovascular surgery) after surgical end time
- 6/11 hospitals regularly audit adherence to elements of their surgical care improvement program
Key Takeaway #2
Alignment of Infection Prevention and Antimicrobial Stewardship, cont.

Antimicrobial Stewardship and Prevention of CDI

- **11/11** hospitals have a physician and/or nurse champion for CDI prevention activities
- **11/11** hospitals use **CDI data** to direct prevention activities
- **8/11** hospitals have an antimicrobial stewardship program that meets the CDC’s 7 core elements
- **5/11** hospitals have specific antibiotic stewardship strategies in place to reduce CDI
NURSING HOME DATA
Background

- **29** nursing homes completed the self-assessment (all data shared in from self-assessments)
- **29/29** nursing homes have *written infection control policies and procedures* based on evidence-based guidelines, regulations or standards
- At **13/29** nursing homes, the person directing the program is qualified and *trained in infection control* (training not specified)
- Average number of hours each week dedicated to IP activities: **20 (range, 2-40)**
Key Takeaway #1
Policies, Training and Audits

Hand Hygiene
- **24/29** nursing homes provide hand hygiene training and competency\(^1\) validation to all personnel at time of employment
- **16/29** nursing homes audit adherence to hand hygiene

Personal Protective Equipment (PPE)
- **23/29** nursing homes provide PPE training and competency\(^1\) validation to appropriate staff at time of employment
- **15/29** nursing homes audit adherence to PPE use

\(^1\)The LTCF ICAR tool does not provide the definition of “competency-based training” that is provided in the hospital ICAR tool.
Key Takeaway #1
Policies, Training and Audits, cont.

Injection Safety and Point of Care Testing

- **25/29** nursing homes have a policy on injection safety which includes protocols for performing finger sticks and point of care testing.

- **14/29** nursing homes provide training and competency validation on injection safety to personnel that perform point of care testing at time of employment.

- **10/29** nursing homes audit adherence to injection safety procedures during point of care testing.

---

1The LTCF ICAR tool does not provide the definition of “competency-based training” that is provided in the hospital ICAR tool.
Key Takeaway #1  
Policies, Training and Audits, cont.

Environmental Cleaning

- Nursing homes that have written cleaning/disinfection policies which include:
  - Routine and terminal **cleaning and disinfection** of resident rooms **27/29**
  - Routine and terminal cleaning and disinfection of rooms of residents on **contact precautions 26/29**
  - Cleaning and disinfection of **high-touch surfaces** in common areas **26/29**
  - **14/29** nursing homes audit quality of cleaning and disinfection procedures
Key Takeaway #2
Moving Towards Antimicrobial Stewardship

Antimicrobial Stewardship Support and Staff

- **22/29** nursing homes can demonstrate leadership support for efforts to improve antibiotic use
- **24/29** nursing homes have identified individuals accountable for leading antibiotic stewardship activities
- **25/29** nursing homes have access to individuals with antibiotic prescribing expertise (e.g. ID trained physician or pharmacist)
Key Takeaway #2
Moving Towards Antimicrobial Stewardship, cont.

Antimicrobial Stewardship Policies and Training

- **10/29** nursing homes have written policies on antibiotic prescribing
- **10/29** nursing homes have provided training on antibiotic use to all nursing staff within the last 12 months
- **8/29** nursing homes have provided training on antibiotic use to all clinical providers with prescribing privileges within the last 12 months
DISCUSSION QUESTIONS

1. Does the ICAR tool for your setting outline an appropriate and comprehensive infection prevention and control program (i.e. is it an ideal to strive for)?

2. What are the most difficult elements of the outlined program to implement at your facility?

3. What resources would allow you to implement those elements?

4. If there is not an ICAR tool available for your setting, what guidance did you use to develop your program?

5. If there is not an ICAR tool available for your setting, please consider the guidance you used to answer questions 1-3
Success Stories and Best Practices

Robin Neale, MS, MT(ASCP)SM, CIC
Director, Infection Prevention, Care New England Health System

Barbara Langshaw-Soares, RN, BSN
Director of Nursing, Heritage Hills Nursing and Rehabilitation

Janet Robinson, RN, MEd, CIC
Senior Program Administrator, Healthcentric Advisors

Moderated by Nelia Silva Odom, RN, BSN, MBA, MHA, WCC
Program Administrator, Healthcentric Advisors
New England Nursing Home Quality Care Collaborative:

**Clostridium difficile Initiative**

HAI and AMS Coalition
December 7, 2016

Janet Robinson RN, MEd, CIC
New England Nursing Home Quality Care Collaborative: *C. difficile*

- The New England QIN-QIO has been tasked by the Centers for Medicare & Medicaid Services (CMS) to work with a limited number of nursing homes to participate in an important initiative to prevent and reduce *C. difficile* in nursing homes.

- The initiative will support participants submission of data into the CDC’s National Healthcare Safety Network (NHSN) databank to develop a national baseline for *Clostridium difficile*.

- Free Education and technical assistance will be offered to participants along with relevant tools and learning forums to support their path toward reducing and eliminating *C. difficile* in their facilities.
Why *C. difficile*?

*C. difficile* is a germ that causes major colon inflammation and potentially fatal diarrhea.

More than 100,000 *C. difficile* infections develop among residents of US nursing homes each year. (CDC 2015)

*C. difficile* caused almost half a million infections among patients in the US in 2011. More than 80% of the deaths associated with *C. difficile* occurred among Americans aged 65 or older. (CDC 2015)

1 out of 3 *C. difficile* infections occurs in patients 65 years or older. (CDC 2015)

1 out of 9 patients aged 65 or older with a healthcare-associated *C. difficile* infection died within 30 days following their diagnosis. (CDC 2015)

70% of *C. difficile* infection-related harm was preventable. (OIG 2014 report of adverse events in SNFs)
What is NHSN?

CDC’s National Healthcare Safety Network (NHSN) is the nation’s most widely used healthcare-associated infection (HAI) tracking system. NHSN provides facilities, states, regions, and the nation with data needed to identify problem areas, measure progress of prevention efforts, and ultimately eliminate healthcare-associated infections.
Benefits of Participating

- Receive education and support to submit data into NHSN and to utilize available reports for surveillance and quality improvement

- Contribute to the national database on the incidence of C. difficile

- Enhance resident care/safety through education and training on C. difficile management, antibiotic stewardship principles and environmental cleaning

- Acquire additional tools for infection surveillance and prevention practices

- Network with and learn from other experts in your state and the country working together on this initiative
<table>
<thead>
<tr>
<th><strong>C. difficile Initiative Timeline</strong></th>
</tr>
</thead>
</table>
| **Recruitment**  
(May 2016–Aug. 2016)  
• Participation is limited  
• A signed participation agreement is required |
| **NHSN Onboarding**  
(May 2016–Oct. 2016)  
• NHSN enrollment *(Virtual and on-site training & support)* |
| **Data submission & analysis**  
• Develop *C. difficile* infections national baseline *(Oct. 2016–July 2016)*  
• Acquire tools in order to participate in infection surveillance |
| **Education**  
• TeamSTEPPS LTC communication strategies and techniques to enhance team performance and safety *(starting April 2017)*  
• Antibiotic Stewardship principles and practices including *C. difficile* management *(starting August 2017)*  
• QAPI performance improvement projects *(starting October 2016)*  
• *Free* technical assistance *(starting June 2016)*  
• In-person kick-off event *(May 2017)* |
What is being Reported?

CDI LabID Event

A *C. difficile* positive laboratory assay obtained while a resident is receiving care in the LTCF and the resident has no prior *C. difficile* positive laboratory assay collected in the previous 14 days while receiving care in the LTCF
Other Testing Criteria

• CDI LabID Events are reported facility-wide, not just for certain units

• Lab results from outside facilities, before a resident’s admission, should NOT be included

• *C. difficile* testing done only on liquid stool samples
Data Interpretation

C. diff Categories

- Incident Event
- Recurrent Event
- Community-onset
- Long-term Care Facility-onset
  – Acute Care Transfer-LTCF-onset
Data Use

Facilities

• Surveillance
• Benchmarking
• Internal Quality Improvement
• Inform conversations with hospitals

CDC

• Establish national benchmarks
• Monitor success of prevention efforts
Barbara Langshaw-Soares, RN, BSN
Director of Nursing, Heritage Hills Nursing and Rehabilitation
Journey to ZERO:
Preventing Central Line Infection in Neonates

Rhode Island HAI Prevention and AMS Coalition
Education and Best Practice Workgroup Meeting
Robin Neale MS, MT(ASCP)SM, CIC
December 7th, 2016
- Over 8,000 births per year
- 80 bed Neonatal Intensive Care Unit
- 1,300 NICU admissions per year

**FY 2016**
- 376 central lines inserted
- 3,077 line days
- Some lines in place for many weeks
Comparative Benchmarking - SIR

Standardized Infection Ratio = \frac{\text{Observed Infections}}{\text{Predicted Infections}}

Risk Stratified by Birthweight

11 Infections observed / 33 Predicted (NHSN)
9/yr x 4 = 36 – 11 = 25 Infections avoided!
How did we get there....

- First... takes time....
- Relentless, consistent attention to detail
- Unwavering leadership
- Committed unit-based team(s)
Device Utilization

Device Utilization Ratio = \text{Line days} / \text{Patient Days}

WIH \quad NPM

<750 \text{ gm} \quad 751 - 1000 \quad 1001-1500 \quad 1501-2500 \quad >2500 \text{ gm}
Baby Bundle - Insertion

- Formal Eligibility Guideline
- Pre-stocked Kits and Carts
- Dedicated PICC Insertion Team
- Insertion Checklist
- Enhanced Hand hygiene - surgical scrub
- Maximum sterile barriers
- Chlorhexidine gluconate (CHG)
- Neutral Pressure Mechanical Valve
Baby Bundle - Maintenance

- Dressing change - only when compromised
- CHG for dressing change
- CHG Scrub the Hub before access
- Sterile 2-person Line Change
- Closed medication system – 24 hrs
- Review of Line Necessity daily, or as the infant approaches 80% of full feeds.
Positive blood in infant with line....

- Immediate huddle
- Case Review
- Sepsis Task Force

8 years.... I learn from every one!
Final Words

- Unwavering support from physician-nurse leaders
- Committed team(s) with attention to detail
- Solid Bundle
- Celebrate Success... *Weeks without CLABSI*
Opportunities and Resources in Rhode Island

Maureen Marsella, RN, CCM
Senior Program Coordinator, Healthcentric Advisors
Healthcare-Associated Infections and Antimicrobial Stewardship in RI

RHODE ISLAND DEPARTMENT OF HEALTH (RIDOH)
Healthcare Quality Reporting Program

Healthcare-Acquired Infections Subcommittee

- Publicly report comparative data for licensed healthcare facilities in RI
- Advise RIDOH on issue related to HAI prevention, data collection and reporting

Antimicrobial Stewardship and Environmental Cleaning Taskforce (AMSEC)

- Training, education and outreach around antimicrobial stewardship and antimicrobial resistance in RI
- Advise RIDOH on issues related antimicrobial stewardship and antimicrobial resistance
Epidemiology and Laboratory Capacity - Detection and Response Infrastructure (K1) and Coordinated Prevention (K2)

Rhode Island Healthcare-Associated Infection Prevention and Antimicrobial Stewardship Coalition

- Align state activities
- Promote best practices

Support data for action activities

- Optimize NHSN use (e.g., expand data submission, leverage TAP reports)
- Use data to target prevention activities

Training and education

- Develop/disseminate tools and resources
- Support facility/health system initiatives
Healthcare-Associated Infections and Antimicrobial Stewardship in RI

QIN-QIO 11TH STATEMENT OF WORK
Task C.2 – Reducing Healthcare Acquired Infections in Nursing Homes: CDI Reporting and Reduction

- Work with nursing homes
- Support adoption/implementation of NHSN and provide education related to infection prevention
- Funded by CMS (Medicare Trust Fund)
- June 2016–July 31 2019
Task C.3.10 – Antimicrobial Stewardship in the Outpatient Setting

- Work with outpatient setting providers/facilities
- Support adoption/implementation of the Core Elements of Outpatient Antibiotic Stewardship
- Funded by CMS (Medicare Trust Fund)
- October 1, 2016-July 31, 2019
Healthcare-Associated Infections and Antimicrobial Stewardship in RI

HOSPITAL IMPROVEMENT INNOVATION NETWORK (HIIN)
What Are the HIINs?

- Organizations have been selected to assist hospitals with innovative improvement projects
- Hospitals allowed to select which HIIN they will join
- Funded by CMS (Medicare Trust Fund)
- October 2016-September 2018
Who Are the HIINs?

- Carolinas Healthcare System
- Dignity Health
- Healthcare Association of New York State
- HealthInsight
- The Hospital and Healthsystem Association of Pennsylvania
- The Health Research and Educational Trust
- Health Research and Educational Trust of New Jersey
- Health Services Advisory Group
- Iowa Healthcare Collaborative
- Michigan Health & Hospital Association (MHA) Health Foundation
- Minnesota Hospital Association
- Ohio Children’s Hospitals’ Solutions for Patient Safety
- Ohio Hospital Association
- Premier, Inc.
- Vizient, Inc.
- Washington State Hospital Association
What Will the HIINs Work On?

- CLABSI, CAUTI, CDI, VAE, SSI, Sepsis, Septic Shock
- Data review and report generation (NHSN)
- Learning events and collaboratives
- Tools and resources (creation and dissemination)
STATES TARGETING REDUCTIONS IN INFECTIONS VIA ENGAGEMENT (STRIVE)
What is STRIVE?

- Promotes a partnership and collaboration between the state hospital association, the state health department and the QIN-QIO
- Program managed by the Health Research & Educational Trust with funding from the CDC
- Rhode Island is one of 16 states between cohorts 1 and 2, RI part of cohort 2)
- Five hospitals in Rhode Island recruited as full participants, all hospitals invited to participate in education and training
- November 2016-October 2017
What Will STRIVE Work On?

- CLABSI, CAUTI, CDI and MRSA
- Data monitoring (NHSN)
- Education (webinars from HRET)
Healthcare-Associated Infections and Antimicrobial Stewardship in RI

OTHER INITIATIVES
Individual Facility or Health System Initiatives

- All facility types
- CMS/TJC/RIDOH/ requirements and/or funding
- Focused on facility/health system needs or research interests
- Vary in scale

We would like to know more about what projects or initiatives are happening in Rhode Island. Please share any information with Maureen Marsella at mmarsella@healthcentricadvisors.org
DISCUSSION QUESTIONS

1. What types of support from external organizations are most and/or least helpful (e.g. onsite technical assistance, in-person training, shared tools, facilitation of collaborative meetings, etc.)?

2. In what areas would you most like to receive more external support?

3. In what areas do you feel external support has become duplicative, redundant or repetitive?

4. What programs were not included in the presentation?
Recap of Today’s Event

- Core Elements of Antimicrobial Stewardship
- Current practices in infection control and antimicrobial stewardship
- Best practices in Rhode Island
- Opportunities and resources in Rhode Island
What Comes Next?

- Use today’s discussions to build out the picture of current practices, gaps and barriers in infection prevention and antimicrobial stewardship
- Share this information with state leadership, facility/health system leadership and stakeholders
- Work with all to determine new best practices from current practices and to address gaps and barriers
Thank you to our supporting partners!

Alpine Nursing Home
Bayberry Commons
Bethany Home of Rhode Island
Blackstone Valley Surgicare
Blue Cross Blue Shield of Rhode Island
Briarcliff Manor
Butler Hospital
Care New England
Cherry Hill Manor
Cortland Place
Eastgate Nursing and Rehabilitation Center
Elderwood at Riverside
Elderwood of Scallopd Shell at Wakefield
Elmwood Nursing and Rehabilitation
Genesis – Greenwood Center
Grace Barker Nursing Center
Health Concepts Ltd.
Healthcentric Advisors
Heritage Hills Nursing and Rehabilitation Center
Hope Hospice and Palliative Care Rhode Island
Hospital Association of Rhode Island
Kent Hospital
Kent Regency - Genesis Healthcare
Landmark Medical Center
Linn Health Care Center
Mansion Nursing and Rehabilitation Center
Memorial Hospital of Rhode Island
Neighborhood Health Plan of Rhode Island
Newport Hospital
Optum Care
Our Lady of Fatima Hospital
Overlook Nursing and Rehabilitation Center
Pawtucket Skilled Nursing and Rehab
Phamerica
Rhode Island Hospital
Rhode Island Long Term Care Ombudsman
Rhode Island Pharmacists Association
Rhode Island Society of Health System Pharmacists
Rhode Island Veterans Home
Riverview Healthcare
Roberts Health Centre
Royal Middletown
Saint Elizabeth Home
Saint Elizabeth Manor, East Bay
Silver Creek Manor
South County Health
Southcoast Hospitals Group
Steere House Nursing and Rehabilitation Center
The Friendly Home
The Miriam Hospital
University Medicine
URI College of Pharmacy
URI Institute for Integrated Health and Information
Village House Nursing and Rehab
VNA of Care New England
West Shore Health Center
West View Nursing and Rehabilitation Center
Westerly Health Center
Westerly Hospital
Women and Infants Hospital
Woodpecker Hill Health Center
Harris Health Center
Thank You!