



# **QIN-QIO and Community Partnerships to Improve CDI Surveillance and Prevention Activities**

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New England QIN-QIO

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# Objectives

At the completion of this session, the learner will:

- Identify potential partnership opportunities within your state for working toward *C.difficile* prevention
- Describe methods for working successfully with partners in support of healthcare providers

# Outline

- QIN-QIO work on CDI prevention
- New England QIN-QIO examples of collaboration
  - Massachusetts and MA DPH and Tufts Medical Center
  - Maine and Maine Hospital Association and Maine CDC

# QIN-QIO Program:

## A (very) Brief History



- **1965** Medicare 65+; focus: hospital, nursing home, home health nursing
- **1972** PSROs to **1982** PROs
- **2002** Quality improvement Organizations (QIOs); Goal: improve the quality of services delivered to Medicare beneficiaries
- **QUALITY**
  - Safe
  - Effective
  - Efficient
  - Patient Centered
  - Timely
  - Equitable



# New England Quality Innovation Network-Quality Improvement Organization (NE QIN-QIO)

- Regional approach, six New England states
  - State based implementation
  - Each state has a full compliment of QIO staff
- Assistance and education to physicians, hospitals, and nursing homes in achieving quality improvement goals
- Five year contract



# Current Topics: 11<sup>th</sup> SOW

Diabetes self management

Heart disease and Hypertension

Adverse Drug Event Prevention

Antibiotic stewardship

Transitions of care

Antipsychotic reduction

VBP support

CDI reduction

# CMS CDI Reporting & Reduction Project 2016-2019

- Working within the National NH Quality Care Collaborative (already recruited 7,400 NHs into the collaborative)
- **Goal:** to recruit 15% of nursing homes
  - Enroll in NHSN
  - Sustain NHSN reporting over the course of the project
  - Participants will receive training and support on CDI reporting and prevention activities including:
    - NHSN enrollment, CDI event reporting and analysis
    - Training in LTC communication (TeamSTEPPS)
    - Antibiotic Stewardship

# Collaborating to Improve Infection Control & Antibiotic Stewardship in Massachusetts Nursing Homes

Massachusetts Department of Public Health & New England QIN-QIO Collaboration



Massachusetts  
Department of  
Public Health

# Massachusetts Collaboration

- LTCF: 409      Recruited: 93
- ***Focus:*** Education, Validation, and Best Practice Recommendations

# Infection Control & Antibiotic Stewardship Activities in Massachusetts Nursing Homes

- 93 nursing homes recruited to participate in the NHSN Cohort
- 85 nursing homes completed NHSN enrollment
- 123+ nursing homes participated in the MDPH LTC ICAR assessment funded by CDC.
- NHSN Enrollment and Reporting education
  - Webinars, F2F presentations with multi-facility chains, 1-to-1 technical telephonic or on-site support
- Navigating Infection Control and Antimicrobial Stewardship in LTC educational series

# NHSN CDI Reporting Challenges & Barriers

## Challenges & Barriers

- Lack of incentives
- Competing priorities
- Staff turnover
- Navigating NHSN and SAMS
- Technology
- Nursing home closures and changes in ownership

## Solutions

- Align with RoP requirements
- DPH Partnership
- Leadership Buy-In
- Engaging corporate leadership
- Multiple NHSN users
- Monthly touch bases

# NE QIN-QIO

## CDI Data Cleaning Reports

### Facility Summary Data

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Resident Days	6,125	7,590	<b>87</b>	7,998	8,047	7,401	7,599	<b>92</b>	-
Resident Admissions	15	16	22	24	<b>1</b>	19	20	17	-
Residents admitted on <i>C. difficile</i> treatment*	0	1	2	2	0	3	1	0	-

# NE QIN-QIO

## CDI Data Cleaning Reports

### Event Reporting

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Number of Events	0	0	1	2	1	2	0	0	0
No Events Box	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Complete Event Reporting?	NO	NO	NO	YES	YES	YES	NO	NO	<b>NO</b>

# Top NHSN CDI Data Errors

- Underreporting resident days
- Reporting admissions either lower or higher than monthly average
- Checking the “No Events” box when reporting events
- Not checking the “No Events” box with no events to report
- Missing monthly reporting
- Reporting duplicate events

# Massachusetts Department of Public Health NHSN CDI Data Validation

## External Validation of CDI Lab ID Data Reporting

- MDPH Healthcare Associated Infections (HAI) team will be conducting an external validation of *C. difficile* infections (CDI) reporting of outpatient and inpatient locations reported in NHSN.
- Audit will include 20 acute care hospitals and 10 long-term care facilities across the state.
- Purpose of the audit is to ensure complete and accurate CDI reporting according to NHSN methods and definitions.
- Following the validation audit, a written report summarizing the findings will be shared with each hospital and LTCF facility.

# Massachusetts Department of Public Health (MDPH) NHSN CDI Data Validation: Long-term Care Facilities



- 10 Long-term Care Facilities Selected – 2017 data
  - ***Targeted selection***
    - Reported complete data for the first six months of 2017
    - Transferred residents to or receive residents from an acute care hospital that was selected for CDI validation
  - ***7/10 validations complete***
  - ***6/7 missed CDI events***
    - Used clinical definitions (community-onset; healthcare facility-onset, community-onset healthcare facility- associated)
    - MDPH providing cheat sheet with reporting algorithm and NHSN surveillance definition

# EDUCATIONAL SERIES: Navigating Infection Control and Antimicrobial Stewardship in Long-Term Care

## ❖ 9 Monthly Webinars

- **Infection Control**
  - Surveillance & Monitoring
  - Management & Prevention
- **Antimicrobial Stewardship**
  - Strategies for Implementation
  - Approach to the Patient with Suspected UTI
  - Antibiotic Selection, De-Escalation, and Duration
  - Prevention and Management of *C. difficile* and Other Healthcare Associated Infections
  - Monitoring and Tracking Data

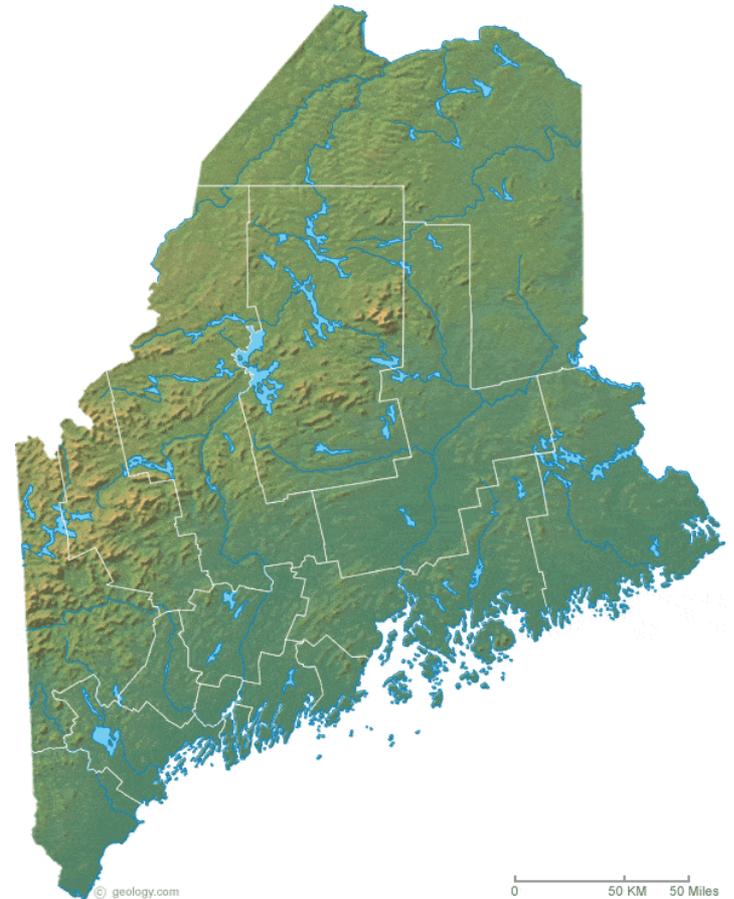
## ❖ 3 Quarterly “Ask the Experts” Conference Calls

- **Infection Control Q&A and overcoming barriers**
- **Antimicrobial Stewardship Q&A and overcoming barriers**

# Collaborative to Prevent and Reduce CDI in Hospitals and LTCFs

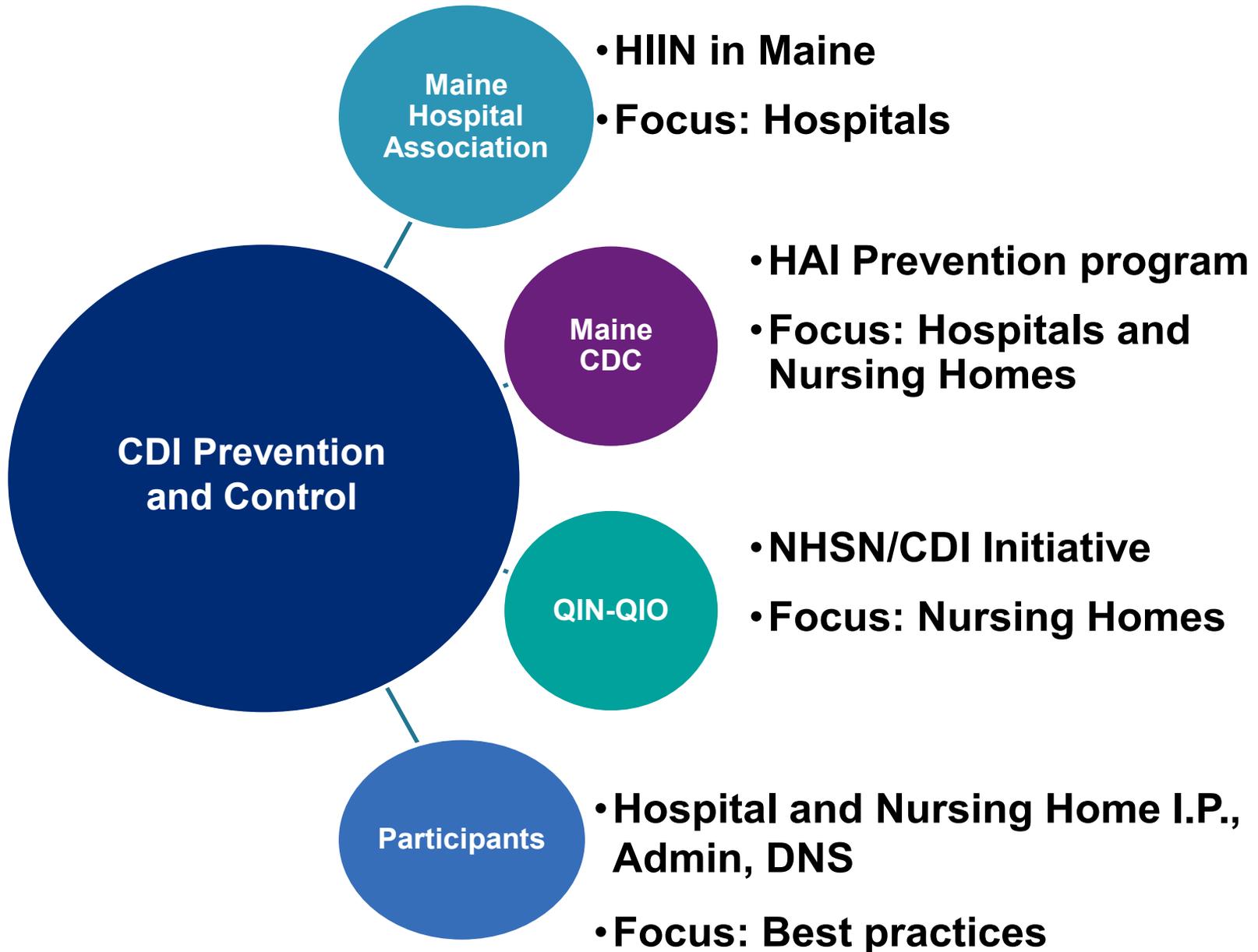


Paul R. LePage, Governor      Ricker Hamilton, Acting Commissioner



# Maine Collaboration

- LTCFs: 101                      Recruited: 15
- Hospitals: 34                      Recruited: 12
- ***Focus:*** Six-month learning collaborative drawing upon regional partnerships and directed toward education and peer learning



# CMS Rules of Participation

## Phase 1 (11/28/16)

- Infection Control Program
- QAA Committee

## Phase 2 (11/28/17)

- Facility Assessment
- Antibiotic Stewardship Program
- Initial QAPI Plan

## Phase 3 (11/28/19)

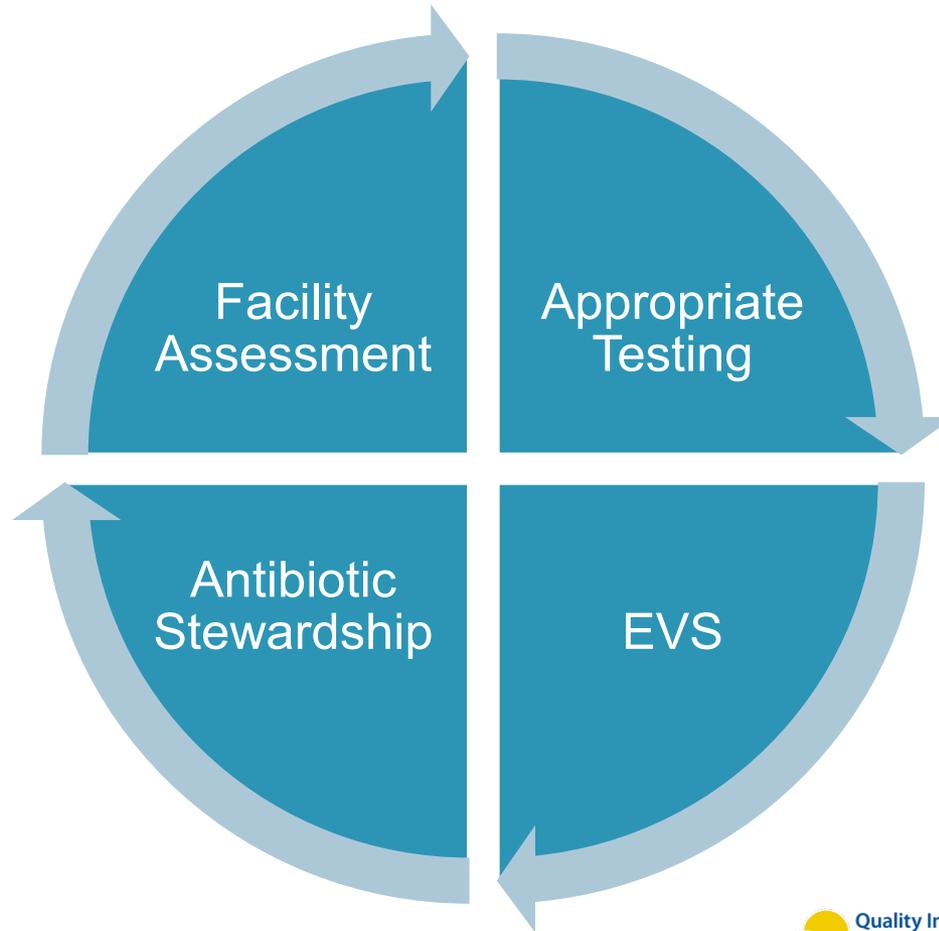
- Infection Preventionist with specialized training
- Full implementation of QAPI with IP integration

Full, detailed document available at [FederalRegister.gov](https://www.federalregister.gov)

# Collaborative Timeline



# Collaborative Areas of Focus

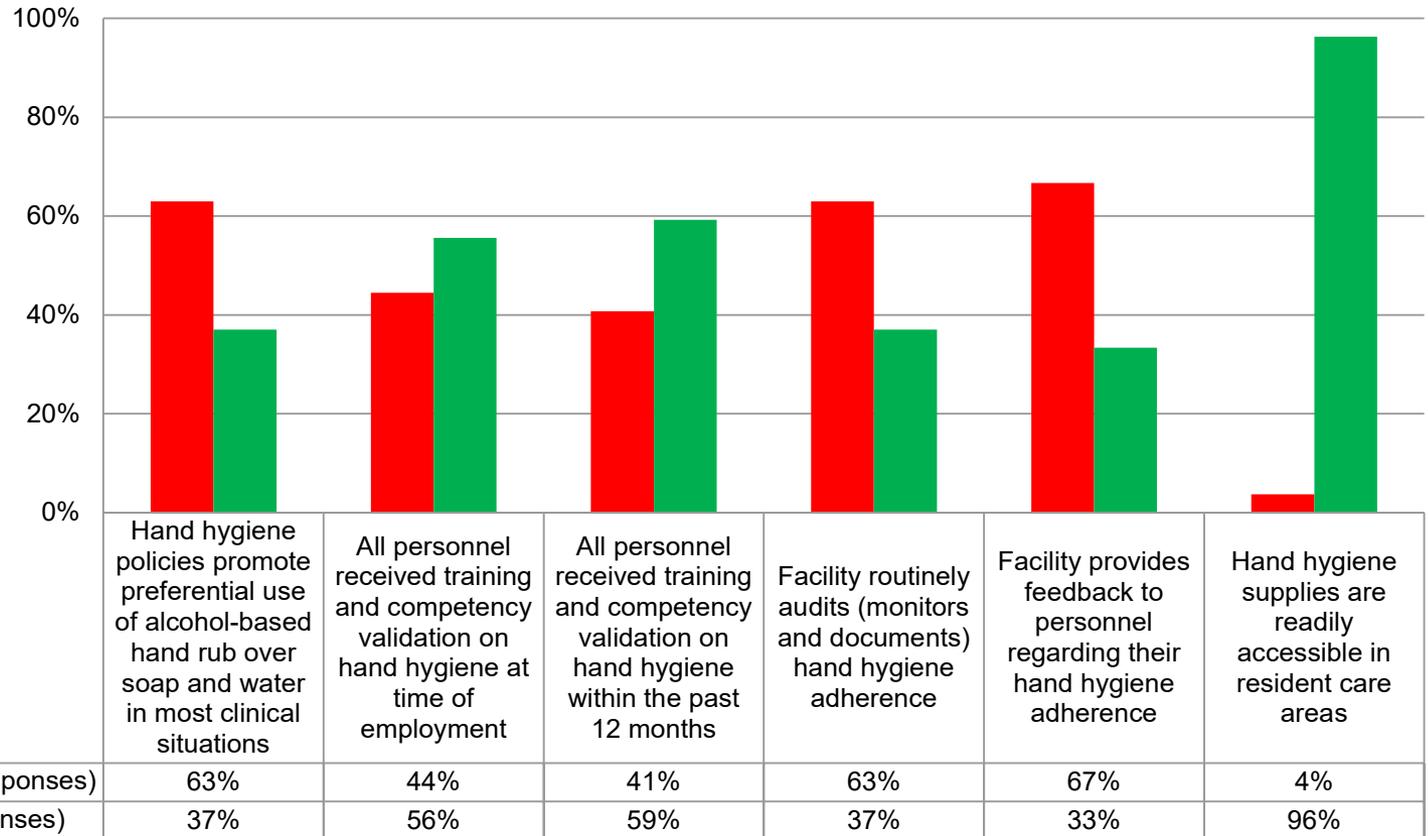


# First Session: Assessment

- NHSN Annual Survey data
- ICAR Assessments (LTCFs)
- TAP Assessments (Hospital and LTCFs)
- CORE Elements Assessments (LTCFs)
- Participants: “Right now, I’m/we’re struggling with...”

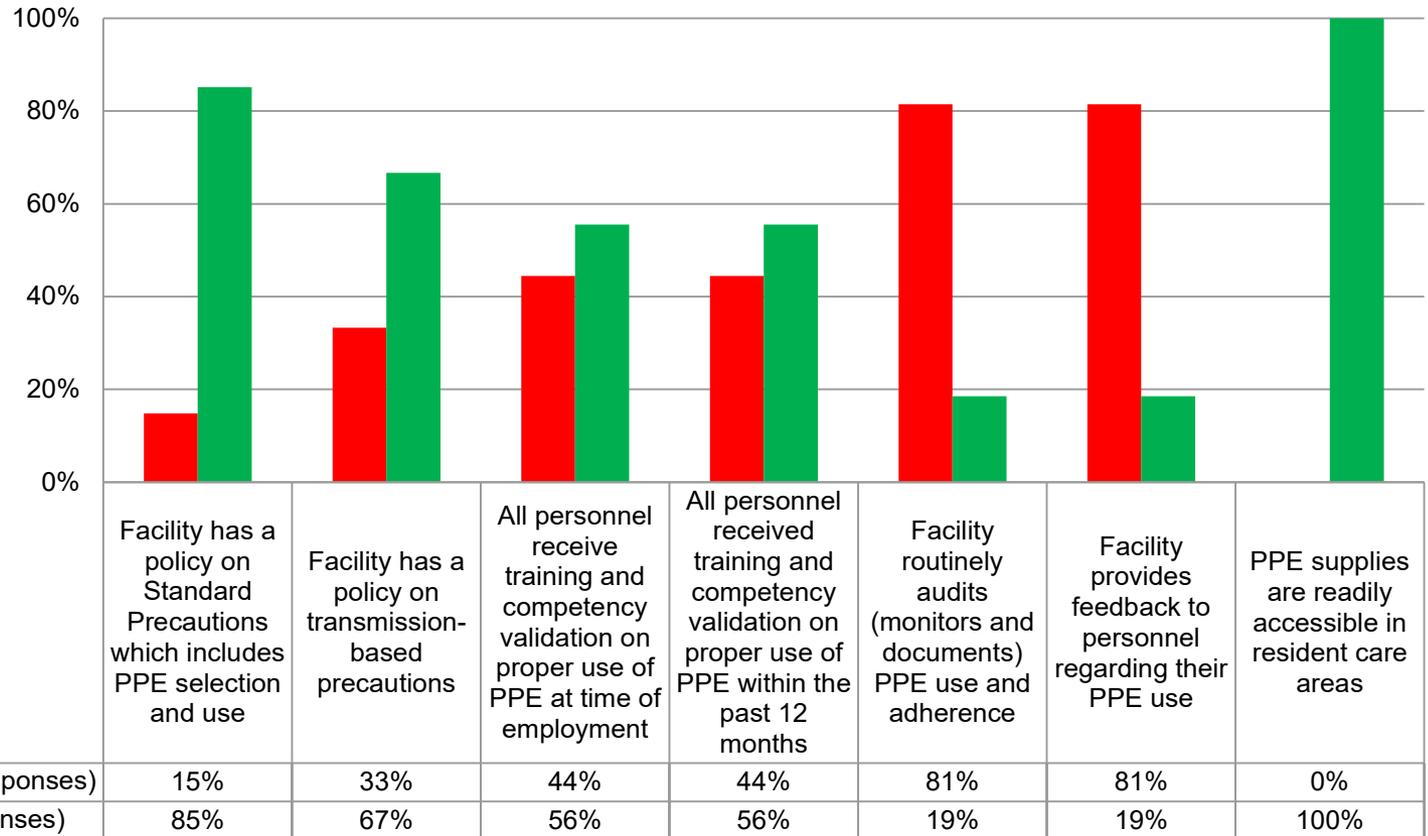
# LTCF ICAR Results

## Hand Hygiene



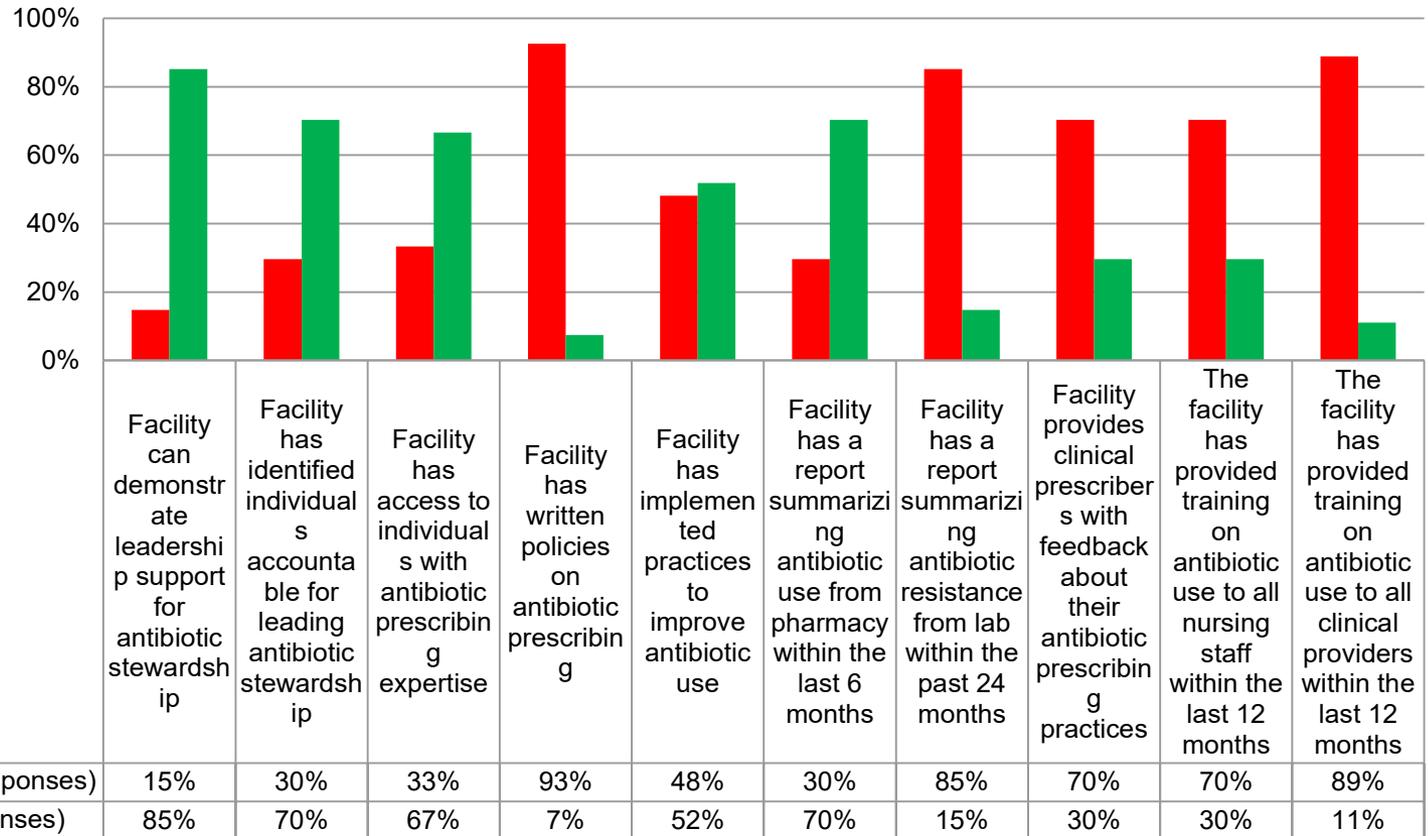
# LTCF ICAR Results

## Personal Protective Equipment (PPE)



# LTCF ICAR Results

## Antibiotic Stewardship



# LTCF ICAR: Common Gaps

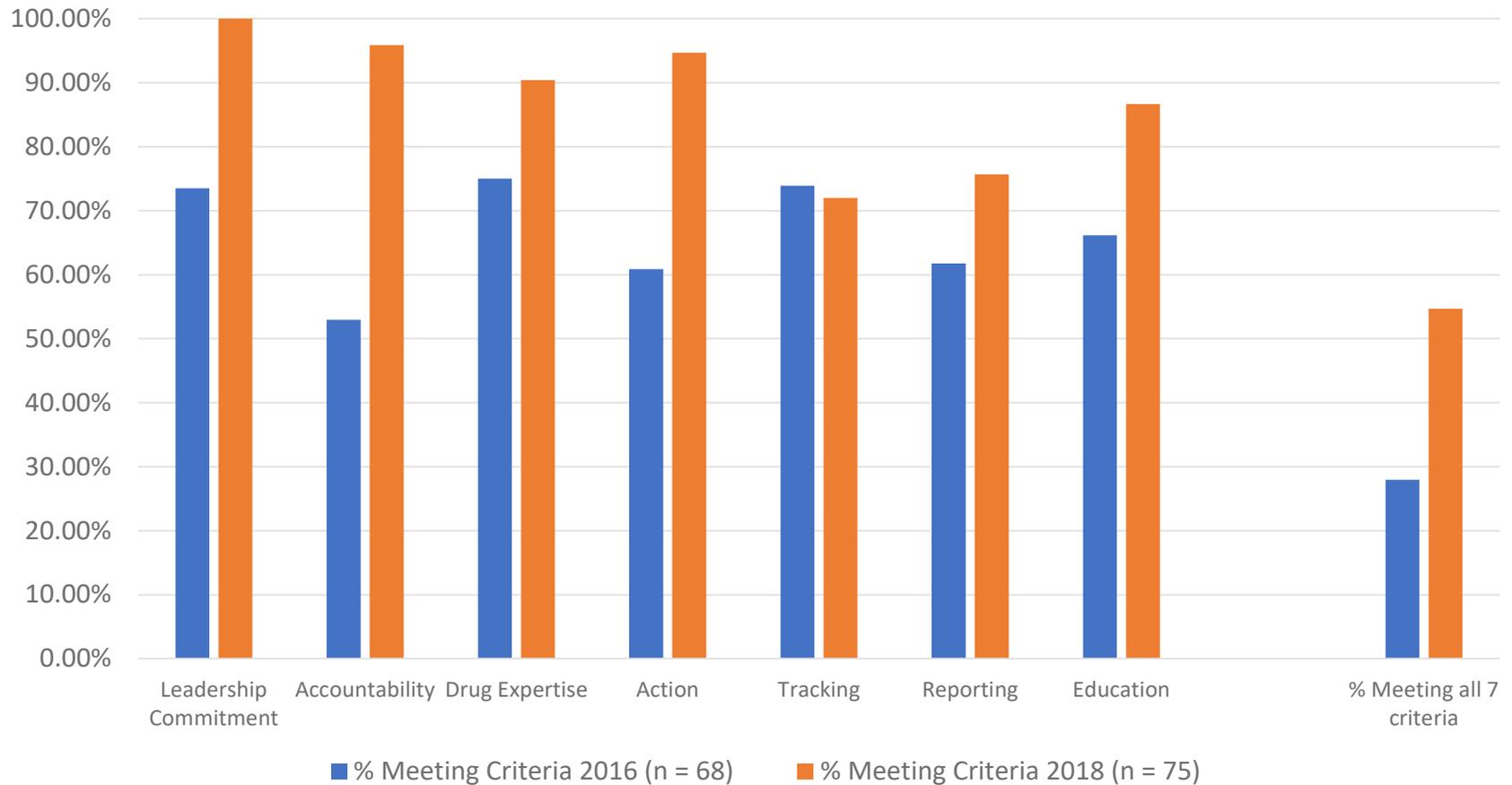
	Preliminary Data National	Preliminary Data Maine
Domains with most gaps identified	<ul style="list-style-type: none"> <li>• Antibiotic Stewardship</li> <li>• Environmental cleaning</li> <li>• Injection safety and point of care testing</li> <li>• Personal protective equipment (PPE) use</li> </ul>	<ul style="list-style-type: none"> <li>• Antibiotic Stewardship</li> <li>• Environmental cleaning</li> <li>• Injection safety and point of care testing</li> <li>• Personal protective equipment (PPE) use</li> <li>• Hand hygiene</li> </ul>
Domains with fewest gaps	<ul style="list-style-type: none"> <li>• Healthcare personnel and resident safety</li> <li>• Surveillance and disease reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare personnel and resident safety</li> <li>• Surveillance and disease reporting</li> <li>• Respiratory/cough etiquette</li> </ul>
Common issues noted across domains	<ul style="list-style-type: none"> <li>• Training (and competency validation)</li> <li>• Auditing adherence to practices</li> <li>• Providing feedback to staff and providers</li> </ul>	<ul style="list-style-type: none"> <li>• Training (and competency validation)</li> <li>• Auditing adherence to practices</li> <li>• Providing feedback to staff and providers</li> </ul>

**National:** Data from 289 facilities with assessments completed by 32 health departments

**Maine:** Data from 27 facilities with assessments completed by Maine CDC: HAI Department

# CORE Assessment: LTC

LTC Antibiotic Stewardship Core Elements Tracking - State of Maine



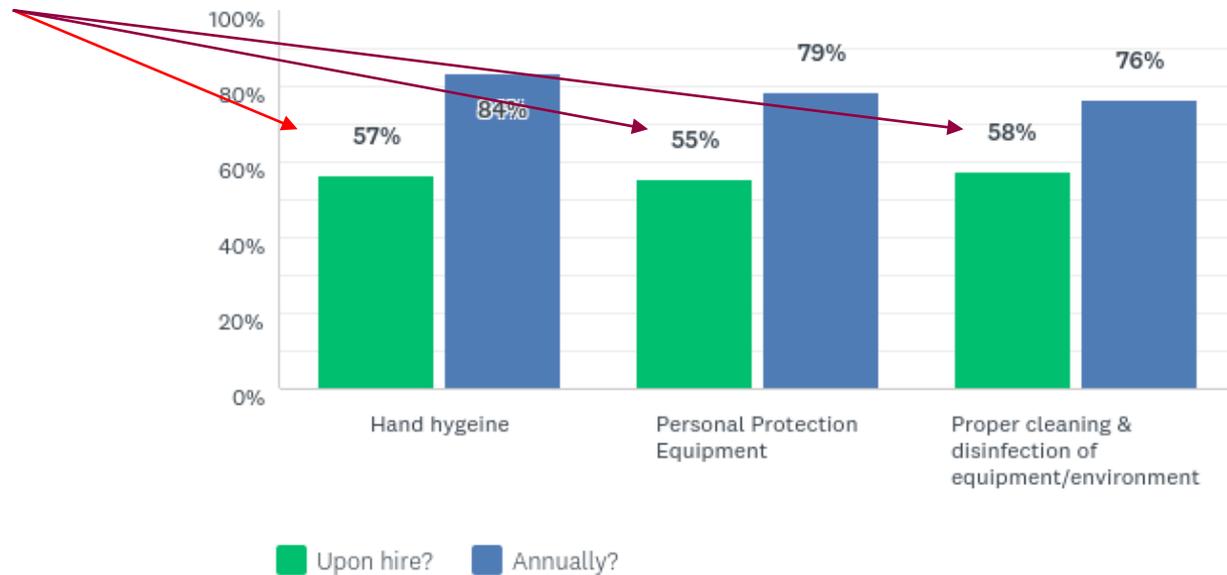
# TAP Participation: Hospital and LTC

Clinical	#
Nurse/LPN	237
CNA	103
Physician/NP	11
Lab	11
Therapies (RT/OT/PT/Rec)	27
Paramedicine	2
Pharmacy	11
Total	402

Non-Clinical	%
Environmental	23
Dietary	6
Admin	39
Social Work	6
Imaging	28
Total	102

# Q6: I received training on (select all that apply) ...

Trends ~ 20 points lower than clinical across all 3 questions



**Non-clinical**

# “Hands Up” Assessment

- 50% of participants:  
unclear about  
*C.difficile* laboratory  
testing that is  
performed on their  
facility patients or  
residents including:  
**when** to deploy and  
**how** to interpret



# Collaborative Outcomes

## Antibiotic Stewardship

Evaluating Fluoroquinolone use (inpt and ED): ID opportunities for reductions (hospital)

Reviewed: all C.diff rx in past year; focus: risk factors and abx use; summary report to physicians (hospital)

Expanded committee attendance (hospital)

SBAR communication with physicians (long term care)

Continuing education for residents, families and staff (long term care)

Antibiotic rounding: IP, ID, Pharm (hospital)

Changing testing → Rx (PCR plus Toxin pos for rx)

# Collaborative Outcomes

## Facility Assessment

Plan for follow up assessments (e.g. CDI) (hospital; LTC)

Changed resources (e.g. isolation gowns; disinfecting wipe dispensers in patient rooms (hospital)

Updated/revised/added IP/IC education for ancillary staff (hospital)

Hand hygiene monitoring/auditing; EVS monitoring (LTC)

Revise education re: *C.difficile* testing (hospital/LTC)

# Collaborative Outcomes

## EVS

Revisit training: disinfectant wet times (hospital)

Expanding cleaning validation process to outpatient settings (hospital)

I.P.s to attend EVS training (hospital)

Revise terminal cleaning protocol (hospital)

Developing cleaning validation process (long term care)

# Collaborative Outcomes

## Appropriate *C.difficile* Testing Protocol

Testing algorithm/DDT (diarrhea decision tree) (hospital)

Physician mandatory education (hospital)

Adopt hospital testing protocol (LTC affiliated with hospital)

Review/revise testing protocol with QAPI/Medical Director (LTC)

# CDI Surveillance Outcomes\*

- **Hospital**

HO + CO-HCFA = no  
difference from baseline

- **Long Term Care**

LO + ACTLO = no  
difference from baseline

**\* Outcome: April, 2018; Final  
data: August, 2018**

# A Few Lessons :Learned re: Successful Partnering

- Clarify your common goal
- Expose your individual agendas
- \*Articulate: what can a partnership do that you can't do alone?
- Bring together the right people
- \*Support each others learnings
- Recognize all sources of expertise

