Florida Department of Health:
Healthcare Associated Infection Prevention Program

FLORIDA DEPARTMENT OF HEALTH

An Introduction to the MDRO/CDI and CAUTI 2 Prevention Collaboratives

5-year National Prevention Targets

According to HHS Action Plan to Prevent HAIs:

- **Central Line-associated Bloodstream Infections (CLABSI)**
- ***Clostridium difficile* Infections (CDI)**
- **Catheter-associated Urinary Tract Infections (CAUTI)**
- **Methicillin-resistant *Staphylococcus aureus* (MRSA)**
- **Surgical Site Infections (SSI)**
- **Ventilator-associated Pneumonia (VAP)**

FDOH's Target Areas

- **Catheter Associated Urinary Tract Infections (CAUTI)**
- **Epidemiologically Significant Organisms**
  - **Multi-drug Resistant Organism (MDRO)**
  - ***Clostridium difficile* Infections (CDI)**

Mission

Utilize surveillance guided, evidence based prevention strategies through collaboration among public and private entities to reduce healthcare-associated infections in people who interact with Florida's healthcare system.

HAI Advisory Board

- **Florida Professionals in Infection Control**
- **Florida Infectious Disease Society**
- **Florida Hospital Association**
- **Agency for Healthcare Administration**
- **Hospital Corporation of America**
- **Florida Health Care Association**
- **Florida Association for Directors of Nursing Administration in LTC**

Current Program Status

- **Advisory board – Increased representation from LTC**
- **Approximately 45 users in FDOH NHSN user group**
- **Voluntary CLABSI reporting in NHSN – Data checks**
- **Prevention Collaboratives – CAUTI and *C. diff***

Where are we going?

MDRO/CDI Collaborative

- Acute care, LTAC, SNF, NH
- Jacksonville Regional CDI Collaborative

CAUTI Collaborative

- Acute care, LTAC, SNF, NH
- Cohort 2
- Antibiotic Stewardship for UTIs

HAI Reporting to CMS via NHSN

HAI Event	Facility Type	Start Date
CLABSI	Acute Care Hospitals Adult, Pediatric, and Neonatal ICUs	January 2011
CAUTI	Acute Care Hospitals Adult and Pediatric ICUs	January 2012
SSI	Acute Care Hospitals Colon and abdominal hysterectomy procedures	January 2012
I.V. antimicrobial start *(proposed)*	Dialysis Facilities	January 2012
Positive blood culture *(proposed)*	Dialysis Facilities	January 2012
Signs of vascular access infection *(proposed)*	Dialysis Facilities	January 2012
CAUTI	Inpatient Rehabilitation Facilities	October 2012
CLABSI *(proposed)*	Long Term Care Hospitals	October 2012
CAUTI *(proposed)*	Long Term Care Hospitals	October 2012
MRSA Bacteremia	Acute Care Hospitals Facility-wide	January 2013
C. difficile LabID Event	Acute Care Hospitals Facility-wide	January 2013
HCW Influenza Vaccination	Acute Care Hospitals, OP Surgery, ASCs	January 2013
SSI *(proposed)*	Outpatient Surgery/ASCs	January 2014

Prevent the Spread *of* MDROs

MDRO/ CDI Objectives

By December 31, 2012:

- **Reduce MDRO/CDI HAIs by 20% from baseline through the implementation of evidence-based prevention strategies in participating facilities.**
- **Reduce the number of admissions (including readmissions) from skilled nursing facilities (SNF)/nursing homes (NH) to hospitals due to MDRO/CDI by 10% in participating SNF/NH.**
- **MDRO/CDI collaborative participants will achieve and maintain 90% compliance with isolation precautions.**
- **MDRO collaborative participants will achieve and maintain 95% compliance with adherence to cleaning high touch surfaces.**

Target Audience

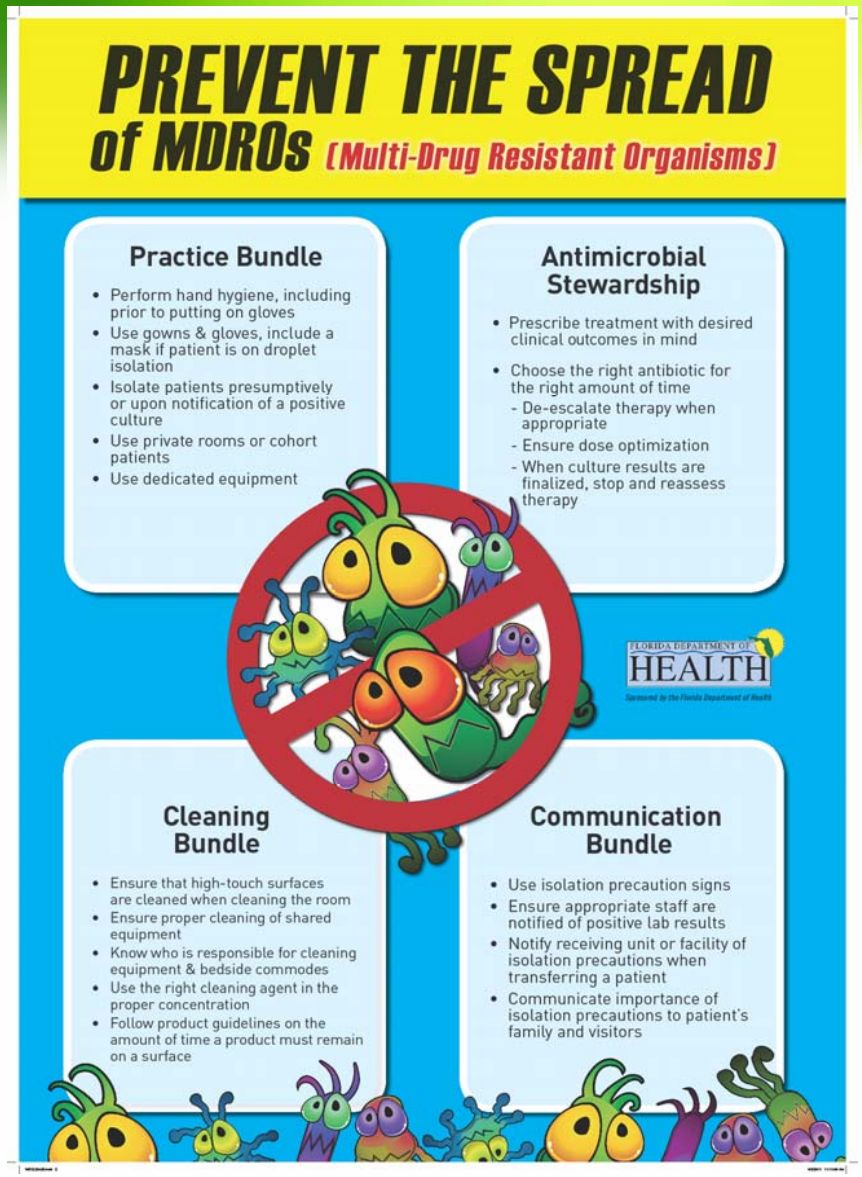
- **Acute care hospitals**

  Facilities currently participating in CDI collaborative to expand to other units & engage in antibiotic stewardship activities

- **Long-term acute care hospitals**
- **Skilled nursing facilities/nursing homes**
- **Additional Option: Regional Approach**

Prevention Bundles

- **Practice Bundle**
- **Cleaning Bundle**
- **Communication Bundle**
- **Antimicrobial Stewardship**



Practice Bundle

- **Perform hand hygiene, including prior to putting on and after removal of gloves**
- **Use gowns & gloves, include a mask if patient is on droplet isolation**
- **Isolate patients presumptively or upon notification of a positive culture**
- **Use dedicated equipment**

Cleaning Bundle

- **Ensure that high-touch surfaces are cleaned when cleaning the room**
- **Ensure proper cleaning of shared equipment**
- **Know who is responsible for cleaning equipment and bedside commodes**
- **Use the right cleaning agent in the proper concentration**
- **Follow product guidelines on the amount of time a product must remain on a surface**

Communication Bundle

- **Use isolation precaution signs**
- **Ensure appropriate staff are notified of positive lab results**
- **Notify receiving unit or facility of isolation precautions when transferring a patient**
- **Communicate importance of isolation precautions to patient's family and visitors**

Antimicrobial Stewardship

- **Prescribe treatment with desired clinical outcomes in mind**
- **Choose the right antibiotic for the right amount of time**
  - **De-escalate therapy when appropriate**
  - **Ensure dose optimization**
  - **Stop and reassess therapy, when culture results are finalized**

Antimicrobial Stewardship

- **Increase number of interventions being implemented in healthcare facilities**
- **Activities based on results of assessment being conducted by the University of Miami**
  - **Education**
  - **Sharing of best practices**

Timeline

Period	Month
Recruitment/Enrollment Period: Facilities must establish MDRO team and meet all requirements for participation as outlined in the commitment form and complete the NHSN setup by the end of the Enrollment Period.	August 2011 September 2011 October 2011 November 2011 December 2011
Baseline Measurement Period: Conduct MDRO surveillance, report selected MDRO infections and summary data via NHSN/Excel tool by the 25th of the following month. Begin conducting isolation precaution and environmental cleaning observations. Data collected during this period will be used to establish a baseline for the collaborative. *We will review rates over time not just by period.*	January 2012 February 2012 March 2012 April 2012
Implementation Period: Continue MDRO surveillance and reporting via NHSN/Excel tool as well as monthly activities. During this period plan, develop, and implement new processes for implementation of evidence-based prevention strategies.	May 2012 June 2012 July 2012 August 2012
Outcome Measurement Period: Continue MDRO surveillance, reporting into NHSN/Excel tool and monthly activities. Ensure any new processes identified in the action plan are implemented. Collect observation data for contact isolation precautions and environmental cleaning. Data collected during this time will be used to determine whether collaborative objectives have been met.	September 2012 October 2012 November 2012 December 2012

MDRO/CDI Collaborative Data Collection

- **NHSN Definitions for LabID Events**
- **Hospitals: Acute & LTACH will use NHSN**
- **SNF/NH: Excel**
- **Data to be submitted by the 25th of each month**
- **Data Quality Check**

MDRO/CDI Collaborative Process Measures

- **Environmental Cleaning Monitoring**
  - **20 daily & 20 terminal cleaning observations during baseline & outcome measurement periods (Total = 80)**
  - **Decreased number of surfaces from CDI collaborative**
- **Isolation Precaution Monitoring**
  - **30 observations during baseline & outcome measurement periods (Total = 60)**

CAUTION!

Count to 10 before you cath.

CAUTI: Looking Ahead…

- **Beginning in 2012 Centers for Medicare and Medicaid Services will require hospitals to report CAUTI into the National Healthcare Safety Network.**
- **The Joint Commission has added a National Patient Safety Goal requiring hospitals to implement evidence-based practices to prevent CAUTI by 2013.**

FMQAI

- **FMQAI is funded by CMS to be Florida's Quality Improvement Organization (QIO)**
- **CMS has given FMQAI several initiatives including improving individual patient care by reducing HAIs (including CAUTI)**
- **FMQAI will be partnering with FDOH as well as other organizations with the goal of reducing HAI in an attempt to avoid duplication of efforts**

National Patient Safety Goal 07.07.01

Hospital Accreditation Program

NPSG.07.07.01

Implement evidence-based practices to prevent indwelling catheter-associated urinary tract infections (CAUTI). *
Note: This NPSG is not applicable to pediatric populations. Research resulting in evidence-based practices was conducted with adults, and there is not consensus that these practices apply to children.
Footnote *: Evidence-based guidelines for CAUTI are located at: Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals at, http://www.shea-online.org/about/compendium.cfm
Guideline for Prevention of Catheter-associated Urinary Tract Infections, 2009 at http://www.cdc.gov/hicpac/cauti/001_cauti.html

Elements of Performance for NPSG.07.07.01

1. During 2012, plan for the full implementation of this NPSG by January 1, 2013.
   Note: Planning may include a number of different activities, such as assigning responsibility for implementation activities, creating timelines, identifying resources, and pilot testing.
2. Insert indwelling urinary catheters to prevent infection according to established evidence-based guidelines that address the following:
   - Limiting use and duration to situations necessary for patient care
   - Using aseptic techniques for site preparation, equipment, and supplies
3. Manage indwelling urinary catheters to prevent infection according to established evidence-based guidelines that address the following:
   - Securing catheters for unobstructed urine flow and drainage
   - Maintaining the sterility of the urine collection system
   - Replacing the urine collection system when required
   - Collecting urine samples
4. Measure and monitor catheter-associated urinary tract infection prevention processes and outcomes by doing the following:
   - Selecting measures using evidence-based guidelines or best practices
   - Monitoring compliance with evidence-based guidelines or best practices
   - Evaluating the effectiveness of prevention efforts

http://www.jointcommission.org/assets/1/6/NPSGs_CAUTI-VAP_HAP_20101119.pdf

CAUTI Collaborative Cohort 2: Target Audience

- **Acute care**
- **Long term acute care**
- **Skilled Nursing Facilities/Nursing Homes**

* ***Facilities currently participating in Cohort 1 are encouraged to include other units within facility***

CAUTI Collaborative Objectives

By December 31, 2012:

- **Acute Care/Long-term Acute Care**
  - **Reduce CAUTI per 1,000 urinary catheter days by 25% from baseline or to zero.**
  - **Reduce device utilization (urinary catheter days/patient days x 100) by 50%.**
- **Skilled Nursing Facilities/Nursing Homes**
  - **Reduce CAUTI per 1,000 urinary catheter days by 20% from baseline or to zero.**
  - **Reduce device utilization (urinary catheter days/patient days x 100) by 15%.**

Cohort 2 Timeline

Period	Month
Recruitment/Enrollment Period: Facilities must establish CAUTI team and meet all requirements for participation as outlined in the Goals and Objectives Document and complete the NHSN setup by the end of the Enrollment Period.	August 2011 September 2011 October 2011 November 2011 December 2011
Baseline Measurement Period: Collect summary data and conduct CAUTI surveillance as well as report all CAUTI and summary data via NHSN/Excel tool by the 15th of the following month. Data collected during this period will be used to establish a baseline for the collaborative.	January 2012 February 2012 March 2012 April 2012
Implementation Period: Continue CAUTI surveillance and reporting via NHSN/Excel tool as well as monthly activities. During this period plan, develop, and implement new processes for implementation of evidence-based prevention strategies.	May 2012 June 2012 July 2012 August 2012
Outcome Measurement Period: Continue CAUTI surveillance and reporting via NHSN/Excel tool as well as monthly activities. Ensure any new processes identified in the action plan are implemented. Data collected during this time will be used to determine whether collaborative objectives have been met.	September 2012 October 2012 November 2012 December 2012

CAUTI Collaborative Data Collection

- **Case Definitions:**
  - **Acute care/LTACH: NHSN CAUTI Case Definitions**
  - **SNF/NH: McGeer UTI Criteria**
- **Data Reporting:**
  - **Acute care/LTACH: National Healthcare Safety Network**
  - **SNF/NH: Excel**
- **Data to be submitted by the 25th of each month**
- **Data Quality Check**

Prevention Strategies: *Count to 10 Before you Cath!*

1. **Insert catheters only for appropriate indications.**
2. **Consider using an alternative.**
3. **Perform hand hygiene.**
4. **Insertion limited to trained personnel.**
5. **Use aseptic technique and sterile equipment.**
6. **Secure catheter after insertion.**
7. **Maintain a closed drainage system.**
8. **Maintain unobstructed urine flow.**
9. **Do not clean periurethral area with antiseptics.**
10. **Assess daily and remove unnecessary catheters.**

Let’s Collaborate!

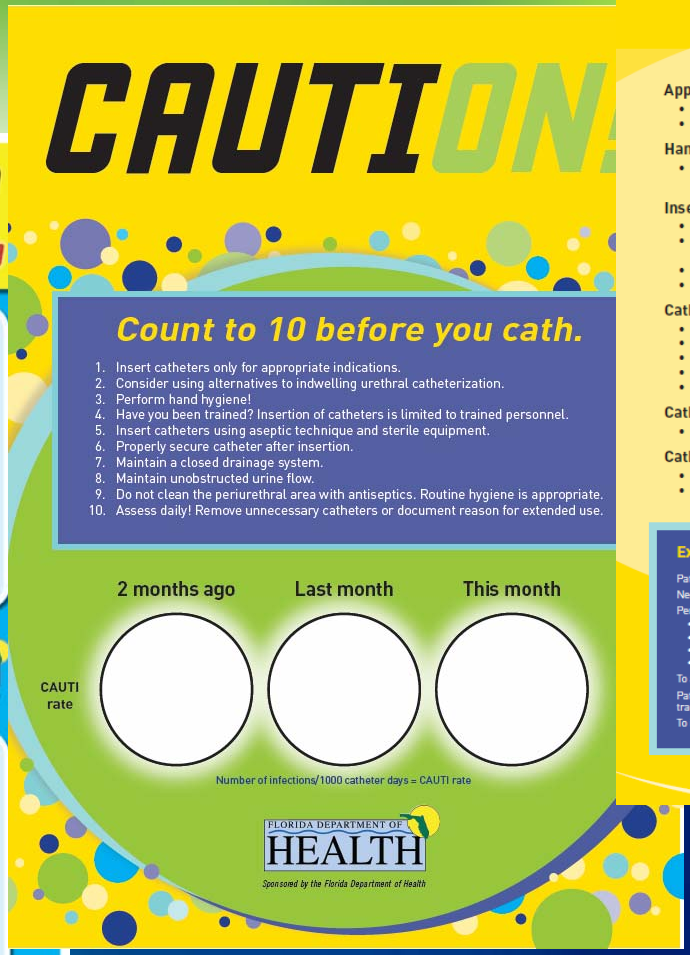
What is provided by FDOH?

For each collaborative, FDOH will provide:

1. **Training and tools for consistent use of case definitions (NHSN/McGeers)**
2. **Training on standard data collection procedures (NHSN & Excel files)**
3. **Training on how to use NHSN**
4. **Individual facility consultation on identifying action steps and timelines to implement procedures.**
5. **Training and tools for the implementation of evidence based prevention strategies.**
   - ***Some tools recently published by TJC***

Posters!

PREVENT THE SPREAD
of MDROs (Multi-Drug Resistant Organisms)
Practice Bundle
• Perform hand hygiene, including prior to putting on gloves
• Use gowns & gloves, include a mask if patient is on droplet isolation
• Isolate patients presumptively or upon notification of a positive culture
• Use private rooms or cohort patients
• Use dedicated equipment
Antimicrobial Stewardship
• Prescribe treatment with desired clinical outcomes in mind
• Choose the right antibiotic for the right amount of time
- De-escalate therapy when appropriate
- Ensure dose optimization
- When culture results are finalized, stop and reassess therapy
HEALTH
Cleaning Bundle
• Ensure that high-touch surfaces are cleaned when cleaning the room
• Ensure proper cleaning of shared equipment
• Know who is responsible for cleaning equipment & bedside commodes
• Use the right cleaning agent in the proper concentration
• Follow product guidelines on the amount of time a product must remain on a surface
Communication Bundle
• Use isolation precaution signs
• Ensure appropriate staff are notified of positive lab results
• Notify receiving unit or facility of isolation precautions when transferring a patient
• Communicate importance of isolation precautions to patient's family and visitors


CAUTION
Count to 10 before you cath.
1. Insert catheters only for appropriate indications.
2. Consider using alternatives to indwelling urethral catheterization.
3. Perform hand hygiene!
4. Have you been trained? Insertion of catheters is limited to trained personnel.
5. Insert catheters using aseptic technique and sterile equipment.
6. Properly secure catheter after insertion.
7. Maintain a closed drainage system.
8. Maintain unobstructed urine flow.
9. Do not clean the periurethral area with antiseptics. Routine hygiene is appropriate.
10. Assess daily! Remove unnecessary catheters or document reason for extended use.
2 months ago
Last month
This month
CAUTI rate
Number of infections/1000 catheter days = CAUTI rate
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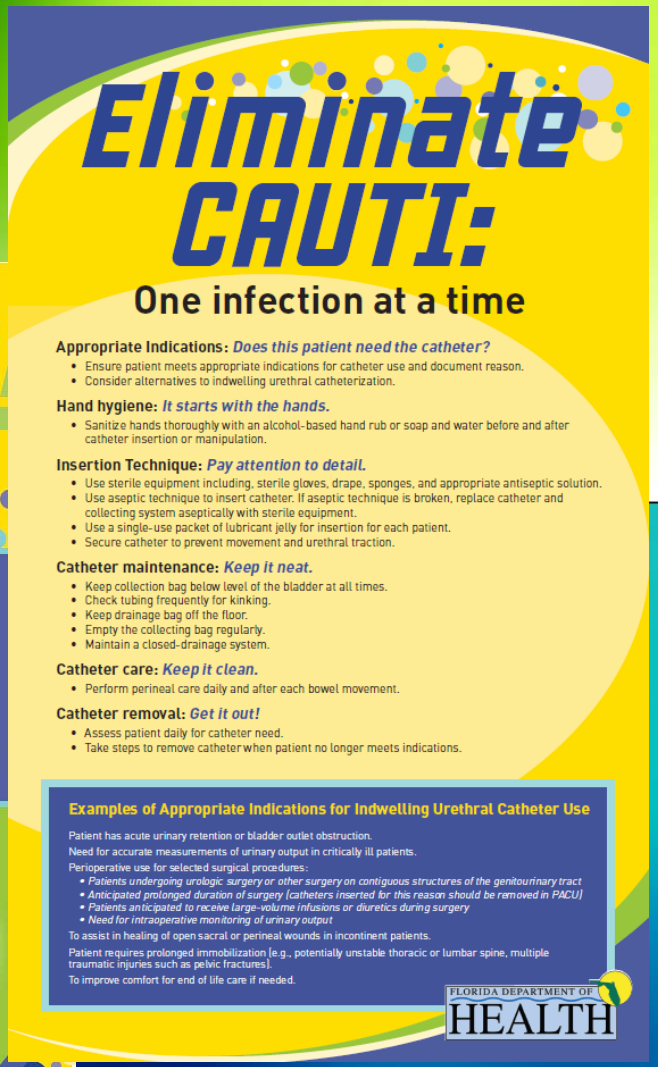
Eliminate CAUTI:
One infection at a time
Appropriate Indications: Does this patient need the catheter?
• Ensure patient meets appropriate indications for catheter use and document reason.
• Consider alternatives to indwelling urethral catheterization.
Hand hygiene: It starts with the hands.
• Sanitize hands thoroughly with an alcohol-based hand rub or soap and water before and after catheter insertion or manipulation.
Insertion Technique: Pay attention to detail.
• Use sterile equipment including, sterile gloves, drape, sponges, and appropriate antiseptic solution.
• Use aseptic technique to insert catheter. If aseptic technique is broken, replace catheter and collecting system aseptically with sterile equipment.
• Use a single-use packet of lubricant jelly for insertion for each patient.
• Secure catheter to prevent movement and urethral traction.
Catheter maintenance: Keep it neat.
• Keep collection bag below level of the bladder at all times.
• Check tubing frequently for kinking.
• Keep drainage bag off the floor.
• Empty the collecting bag regularly.
• Maintain a closed-drainage system.
Catheter care: Keep it clean.
• Perform perineal care daily and after each bowel movement.
Catheter removal: Get it out!
• Assess patient daily for catheter need.
• Take steps to remove catheter when patient no longer meets indications.
Examples of Appropriate Indications for Indwelling Urethral Catheter Use
Patient has acute urinary retention or bladder outlet obstruction.
Need for accurate measurements of urinary output in critically ill patients.
Perioperative use for selected surgical procedures:
• Patients undergoing urologic surgery or other surgery on contiguous structures of the genitourinary tract
• Anticipated prolonged duration of surgery (catheters inserted for this reason should be removed in PACU)
• Patients anticipated to receive large-volume infusions or diuretics during surgery
• Need for intraoperative monitoring of urinary output
To assist in healing of open sacral or perineal wounds in incontinent patients.
Patient requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).
To improve comfort for end of life care if needed.
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Participation Requirements

- **Demonstrate senior leadership (C-Suite) support by signing a letter of commitment.**
- **Identify a project team that includes a team leader (e.g. IP or quality lead), clinical champion (R.N or M.D.), and a senior leader.**
- **Identify a unit team responsible for ensuring the implementation of prevention strategies in the designated unit and includes a nurse manager, staff nurse, and patient tech.**
- **Complete pre-assessment tool.**
- **Submit monthly data for respective collaborative.**
- **Participate in site visits/regional meetings with FDOH staff, training, and collaboration calls.**

Collaborative Activities

- **Site visits / regional meetings**
  - **1-2 site visits**
    - **Facilities participating in a regional MDRO/CDI collaborative will be required to participate in one regional meeting**
- **Monthly collaboration calls & training**
- **Monthly team meetings**
  - **Review rates**
  - **Case review to ID opportunities for improvement**
  - **Reinforce prevention strategies**

To Join an FDOH Collaborative

1. **Email HAI staff or HAI_Program@doh.state.fl.us**
2. **Complete commitment form**
3. **Complete FDOH data use agreement**
4. **Complete Pre-assessment**
5. **Begin further improving your HAI rates!**

Questions or Comments?

E-mail: HAI_Program@doh.state.fl.us

HAI Program Website:
http://www.doh.state.fl.us/disease_ctrl/epi/HAI/HAI.html