



MARYLAND  
Department of Health

# **Antimicrobial Stewardship QAPI Checkpoint: Where are you since the Summit?**

November 7, 2018

*A collaboration between*

*University of Maryland School of Pharmacy, Peter Lamy Center on Drug Therapy and Aging, and Maryland Department of Health*

# Objectives

1. Describe the Maryland State Antimicrobial Stewardship PA-LTC Program
2. Discuss key steps within implementing a Quality Assurance Performance Improvement Initiative
3. Identify common challenges and ways to overcome implementing change

# Overview of Webinar

1. Updates on Antimicrobial Stewardship Activities
2. Process Steps for QAPI Implementation
3. Participant Updates: Where are you with your QAPI initiatives?
4. Questions and Answers

# Updates on Antimicrobial Stewardship Activities

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Executive Director & Professor

University of Maryland School of Pharmacy, Peter Lamy Center on Drug Therapy and Aging

**Richard Brooks, MD, MPH**

Medical Officer, CDC | DHQP | Prevention and Response Branch

Maryland Department of Health, Office of Antimicrobial Resistance and Healthcare Associated Infection Response

# Project Overview

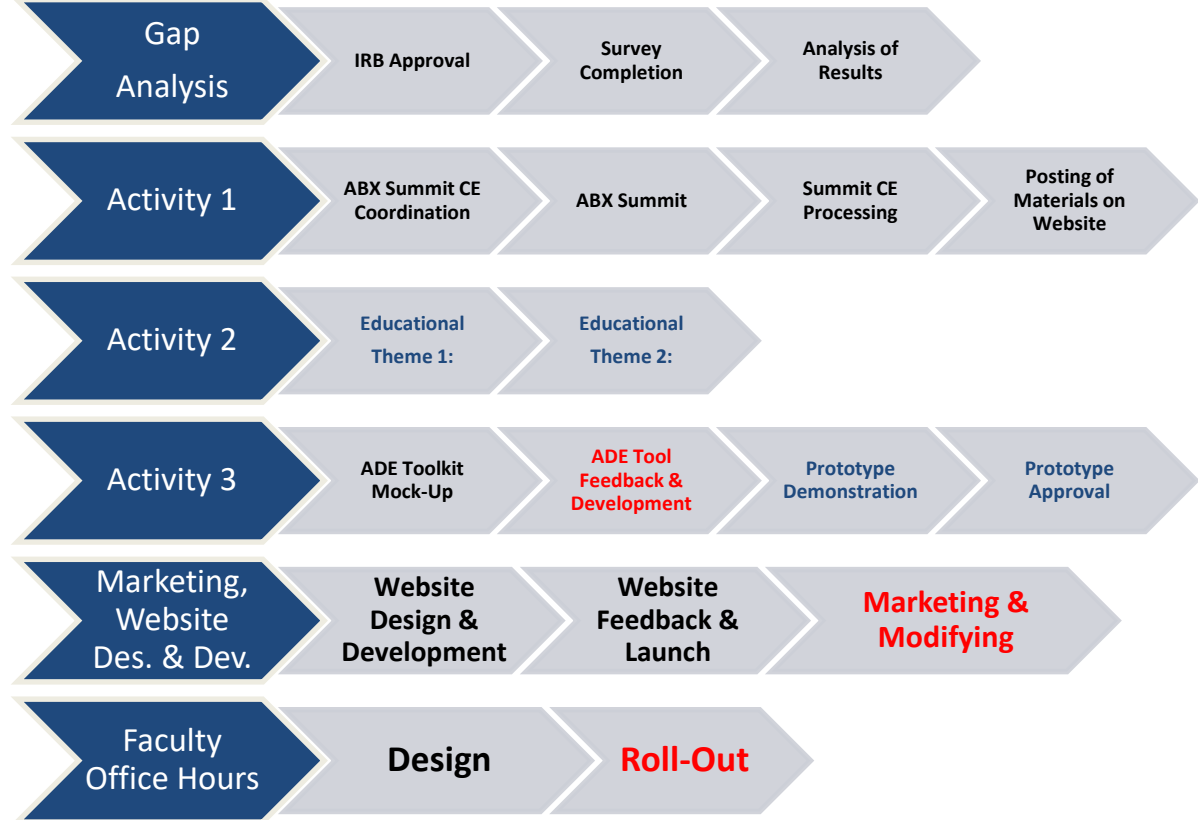
**Purpose:** To create a program of training for LTC consultant pharmacists and medical providers around antibiotic stewardship and infection control in LTC setting.

## **Four Program Elements:**

- Activity 1: Antimicrobial Stewardship Summit
- Activity 2: Targeted Educational Interventions and Support
- Activity 3: Adverse Drug Event Quality Assurance Program
- Activity 4: Marketing and Engagement

# Grant Activities

- In Progress
- Completed Activities
- Remaining Activities



# Participant Expectations

## 1) Active Engagement in:

- ✓ Post Summit Implementation Activity
- ✓ Educational Webinars
- ✓ Maryland Toolkit Development/dissemination

## 2) Train the Trainer Tracking

- ✓ Sharing resources
- ✓ Tracking impact and experiences in quarterly surveys

# Antimicrobial Stewardship Website

- The [website](#) hosts live and online clinical programs, and educational training opportunities aimed at promoting antimicrobial stewardship among health care professionals in long-term care facilities.

**Suspected UTI SBAR**

Complete this form before contacting the resident's physician.

Date/Time: \_\_\_\_\_

Resident Name: \_\_\_\_\_

Resident Room: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Physician/MD: \_\_\_\_\_ Phone: \_\_\_\_\_

Room: \_\_\_\_\_ Fax: \_\_\_\_\_

Notes: \_\_\_\_\_ Facility Phone: \_\_\_\_\_

Reported by:  Nurse  MD  M. Person  Other \_\_\_\_\_

**1. Situation**

Is the resident on an order for suspected UTI? (If no, above resident)

Visit Date: \_\_\_/\_\_\_/\_\_\_ HR: \_\_\_\_\_ Room: \_\_\_\_\_ Bed: \_\_\_\_\_

**2. Background**

After alignment of other symptoms (e.g., urinary, bladder, kidney, genitourinary, or systemic)

Specify: \_\_\_\_\_

Yes  No The resident has an indwelling catheter

Yes  No Related to an indwelling catheter

Yes  No The resident is incontinent. If yes, how/when/why? (1/16) (1/16) \_\_\_\_\_

Yes  No Inquire physician for pending treatment orders in antibiotic and/or hospital orders

Specify: \_\_\_\_\_

No  Yes Medication Allergies

Specify: \_\_\_\_\_

No  Yes The resident is on Warfarin (Coumadin®)

  www.ahrq.gov/antimicrobial-stewardship June 2014  
AHRQ Pub. No. 14-00123-037

**Infection Prevention, Control & Immunizations**

**Infection Control:** This facility tool must be used to investigate compliance at FSSO, PSSI, and PSSI. For the purpose of this task, "and" includes employees, consultants, contractors, volunteers, and others who provide care and services to residents on behalf of the facility. The Infection Prevention and Control Program (IPC) program must be facility-wide and include all departments and contracted services. If a specific care area concerns is identified, it should be evaluated under the specific care area, such as for pressure ulcers, respiratory care, catheter care, and medication pass observations which include central lines, peripheral IVs, and oral/IV respiratory medications.

**Coordination:**

The supervisor coordinates the facility task to review for:

- The overall Infection Prevention and Control Program (IPC)
- The annual review of the IPC policies and practices.
- The review of the surveillance and antibiotic stewardship programs; and
- Tracking influenza/pneumococcal immunization of residents.

Team assignments must be made to include the review of:

- Laundry services.
- A resident on transmission based precautions, if any.
- Five sampled residents for influenza/pneumococcal immunizations; and
- Other case-specific observations if concerns are identified.

Every surveyor assesses IPC compliance throughout the survey and communicates any concerns to the team.

**Hand Hygiene:**

Staff implement standard precautions (e.g., hand hygiene and the appropriate use of personal protective equipment (PPE)).

Appropriate hand hygiene practices are followed.

Alcohol-based hand rub (ABHR) is readily accessible and placed in appropriate locations. These may include:

- Entrances to resident rooms;
- At the bedside (as appropriate for resident population);
- In individual pocket-sized containers by healthcare personnel;
- Staff work stations; and
- Other convenient locations.

Staff wash hands with soap and water when their hands are visibly soiled (e.g., blood, body fluids), or after caring for a resident with known or suspected C. difficile infection (CDI) or norovirus during an outbreak, or if endemic rates of CDI are high. ABHR is not appropriate to use under these circumstances.

Staff perform hand hygiene (even if gloves are used) in the following situations:

- Before and after contact with the resident.

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# BE ANTIBIOTICS AWARE

SMART USE, BEST CARE

## U.S. ANTIBIOTIC AWARENESS WEEK

November 12-18, 2018

[www.cdc.gov/antibiotic-use](http://www.cdc.gov/antibiotic-use)

Colleagues,

We are excited to kick-off U.S. Antibiotic Awareness Week (USAAW) with you starting on Monday, November 12<sup>th</sup>! As you prepare for the week, we encourage you to check out [CDC's Be Antibiotics Aware partner toolkit](#), which contains key messages, social media content, graphics, and more.

Also, we'd like to share some specific CDC USAAW activities along with data and resources focused on improving antibiotic prescribing and use in human healthcare that we will promote during the week that may be relevant for you, your partners, and your organizations' membership. We hope you'll help share and promote these items in addition to the other activities you have planned.

#### Monday, November 12 (Veteran's Day):

- **Special edition [CDC Safe Healthcare blog](#)**, which will feature a story about the successes in antibiotic stewardship program implementation to improve antibiotic use and prescribing for our nation's veterans.
- **CDC resources and data** for healthcare providers:
  - [CDC's Online Antibiotic Stewardship Training Course](#)
    - ✓ Provides up to 8 hours of free continuing education (CE)!
  - **NEW!** Publication that describes drivers of inappropriate antibiotic prescribing and potential interventions to improve outpatient antibiotic use. (Publishing on Monday, November 12<sup>th</sup>)
- **CDC resources and data** for patients and their families:
  - ["The Right Tool"](#) 15-second Public Service Announcement
  - ["Antibiotics Aren't Always the Answer"](#) animated educational video
  - [Virus or Bacteria: What's Got You Sick?](#) chart

#### Tuesday, November 13:

- **[5 Ways Pharmacists Can Be Antibiotics Aware](#)** FREE webinar with CE at 1 pm EST, hosted by CDC in collaboration with Health Resources and Services Administration's (HRSA's) Federal Office of Rural Health Policy, the Society of Infectious Disease Pharmacists, and the American Society of Health-System Pharmacists.
  - Leading experts will discuss pharmacists' roles in improving antibiotic prescribing and use in hospital settings.
- **CDC resources and data** for inpatient healthcare providers:
  - **NEW!** [Percentage of Hospitals Meeting all 7 Core Elements of Hospital Antibiotic Stewardship Programs by State, 2017](#)
  - [Core Elements of Hospital Antibiotic Stewardship Programs](#)

#### Wednesday, November 14:

- **CDC resources and data** for healthcare providers who provide care for older adults:
  - **NEW** brochure! [Do You Need Antibiotics? Information about antibiotics for nursing home residents and their families](#)
  - **NEW** customizable commitment poster for facilities! [A Commitment to Our Residents About Antibiotics](#)
  - [Outpatient Antibiotic Prescribing Among Older Adults in the United States, 2011 to 2014](#)

**THANK YOU!**

**IF INTERESTED IN JOINING**

Email: [nbrandt@rx.umaryland.edu](mailto:nbrandt@rx.umaryland.edu) or the  
[lamycenter@rx.umaryland.edu](mailto:lamycenter@rx.umaryland.edu)

# CAAUSE: MD Campaign for Appropriate Antibiotic Use

- Multidisciplinary collaborative formed in January 2016
  - Acute, LTC, community, academic, state, pharmacy, ID, IP
- Objective: to encourage proper antibiotic use and decrease drug resistance rates in MD by broadly promoting antibiotic stewardship
- Outcome: 100% of participating facilities meet the CDC 7 Core Elements
- Goal: Work with Acute and LTC to develop facilities to be prepared to meet the Joint Commission standards and the anticipated 2017 CMS Conditions of Participation as proposed by the CMS Proposed Rule 482.42 and CMS 81 FR 68688

# CAAUSE — Phase 3

- Will end December 31, 2018 with potential to carry forward
  - Activities will continue to align with ongoing national perspective
  - Facilities will evaluate antibiotic stewardship program effectiveness and implement additional interventions as needed
  - Successful approaches will be disseminated at local/national venues and via publications

# CAAUSE: What's Next?



# Understanding outpatient antibiotic use

- MDH has purchased a proprietary database of outpatient antibiotic prescriptions
  - 2012–2017
  - Represents prescribing from retail, standard and specialty mail service, and LTC pharmacies
  - Patient and prescriber characteristics
  - Analysis ongoing; will inform public health interventions

# Partnership with HQI

- Goal of reducing inappropriate antibiotic use in the outpatient setting
- Asked practices to make commitment to safe antibiotic use
- Posters to display in offices

**COMMIT TO SAFE ANTIBIOTIC USE!**

We have partnered with Health Quality Innovators and the Department of Health and Mental Hygiene to reduce antibiotic resistance.

Important information about antibiotics:

Antibiotics only fight infections caused by bacteria.

Antibiotics will NOT help you feel better if you have a viral infection such as:

- Cold or runny nose
- Bronchitis or chest cold
- Most sinusitis
- Flu

If you take antibiotics when you don't really need them, they can cause more harm than good:

- You might feel worse
- You can get diarrhea, rash, or yeast infections
- Taking antibiotics when you DON'T need them could mean that they will not work the next time you DO need them. Only the antibiotics are in your body, bacteria have a chance to develop a resistance to them.

As a patient, you can:

- Tell your doctor you want an antibiotic only if it is really necessary
- Ask about other treatment options
- Do not better and get relief from your symptoms
- Follow the treatment plan discussed with your doctor.

As your healthcare providers we pledge to give you the most care possible. We will avoid prescribing antibiotics when they might do more harm than good.

We are committed to **Safe Antibiotic Use.**

*Antibiotic Resistance Champion*

If you have any questions, please ask your doctor, nurse or pharmacist.

For additional information, visit: <http://www.hqi.gov/antibiotic>

This material was prepared by Health Quality Innovators (HQI), an affiliate of Health Quality Resources, a non-profit organization. HQI is a registered provider of continuing medical education and continuing nursing education. For more information, visit [www.hqi.gov](http://www.hqi.gov). © 2014 Health Quality Resources. All rights reserved. HQI is a registered provider of continuing medical education and continuing nursing education. For more information, visit [www.hqi.gov](http://www.hqi.gov).

# Partnership with Aetna

- Targeted letters to Aetna providers in MD (and other states)
  - Used Healthcare Effectiveness Data and Information Set (HEDIS) to examine appropriate antibiotic use for ARI
  - Sent to under and over-performers
  - Co-signed by Aetna VP & MD Deput Sec. of Health

Harold L. Paz, M.D., M.S.  
Executive Vice President  
Chief Medical Officer  
151 Farmington Ave, RC5A  
Hartford, CT 06156

Dear Dr. X,

## Help Us Fight Antibiotic Resistance

Antibiotic resistance is among the greatest threats to our health today, leaving more infections untreatable and complicating critical procedures. As you know, inappropriate prescribing of antibiotics threatens the usefulness of these agents, which may result in more prolonged and severe infections, potential need to use more toxic and less effective alternate-line therapies, and the emergence of "superbugs." In the United States, an estimated 2 million people become infected with antibiotic-resistant bacteria and at least 23,000 people die annually as a direct result of these infections.<sup>1</sup> At least 80 million antibiotic prescriptions in the United States each year are believed to be unnecessary.<sup>2</sup>

In order to combat this growing threat, Aetna is collaborating with Centers for Disease Control and Prevention (CDC) and Maryland Department of Health to focus on the topic of improving antibiotic prescribing among our clinical community. In addition to sharing best practices, we hope to help providers understand how their antibiotic prescribing habits compare to those of their peers. As part of this effort, we are identifying and alerting prescribers who our data indicates are outliers in their antibiotic prescribing patterns. Based on Aetna's analysis of our claims and pharmacy data over the past year, you have been identified as inappropriately prescribing antibiotics at least 50 percent of the time for acute uncomplicated bronchitis for at least 5 Aetna members. This analysis was based upon the Healthcare Effectiveness Data and Information Set (HEDIS) quality measure of avoidance of antibiotic treatment in adults with acute

aetna®





# Process Steps for QAPI Implementation

**Sheila McLean, MBA, LNHA, CPHQ**

Vice President

Health Quality Innovators

**Lisa Mark, RN, BSN**

Improvement Consultant

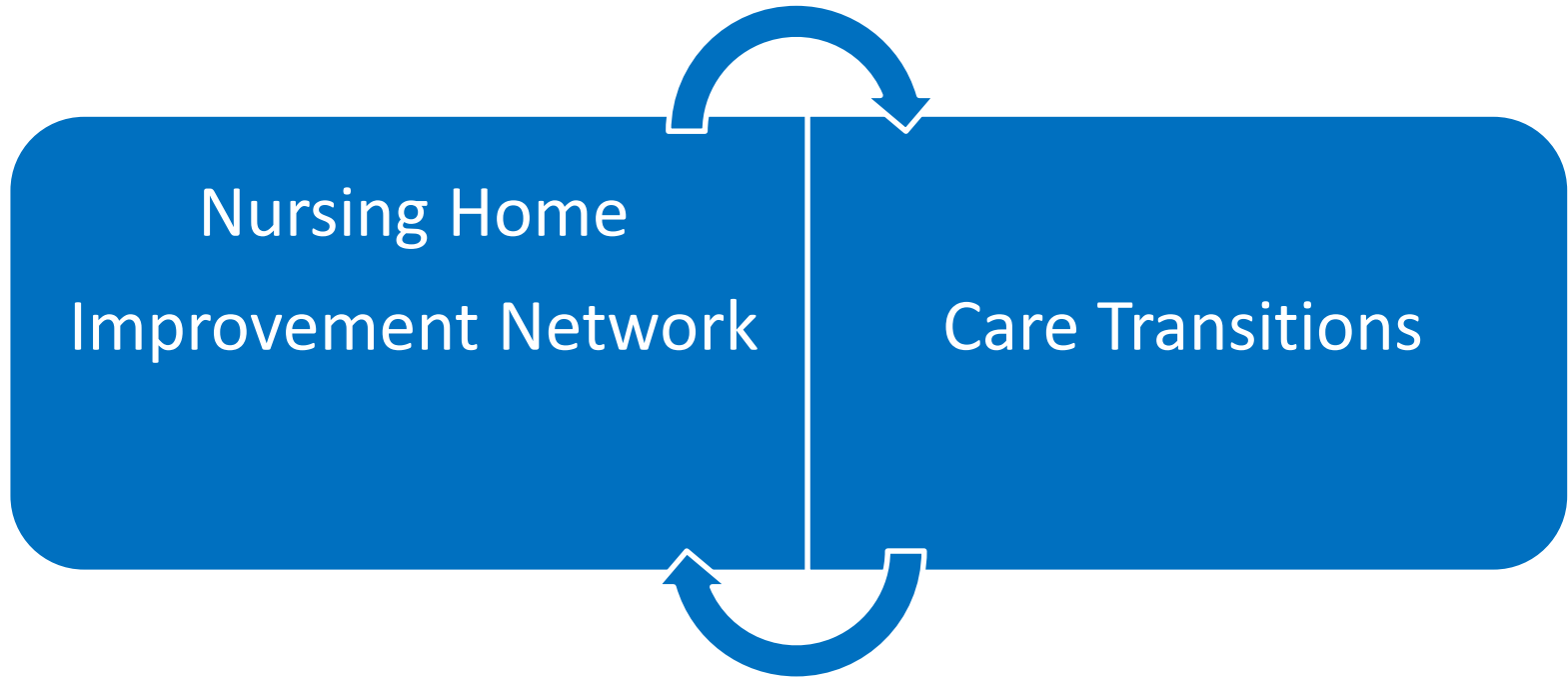
Health Quality Innovators

# Quality Innovation Network – Quality Improvement Organization (QIN-QIO)

*The Program's objectives align with the HHS and CMS Quality Strategies and are designed to support their goals*

- Promote effective prevention & treatment of chronic disease
- Make care safer & reduce harm caused in the delivery of care
- Promote effective communication & coordination of care
- Make care more affordable

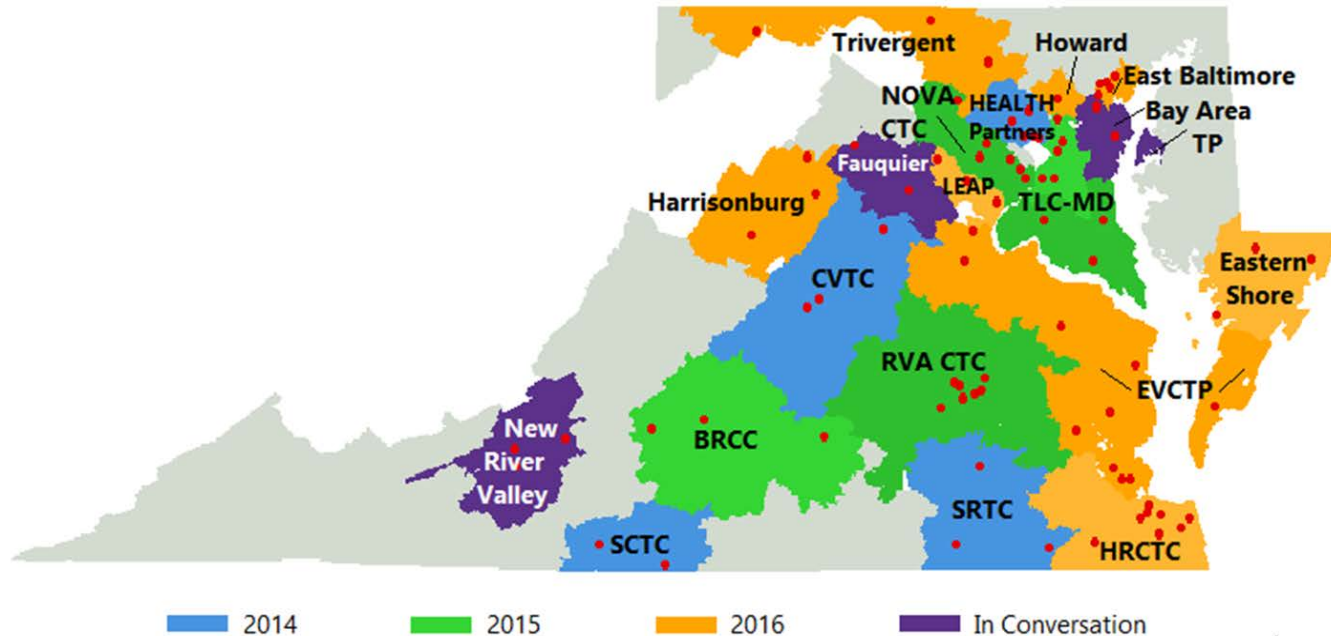
# Better Healthcare for Communities



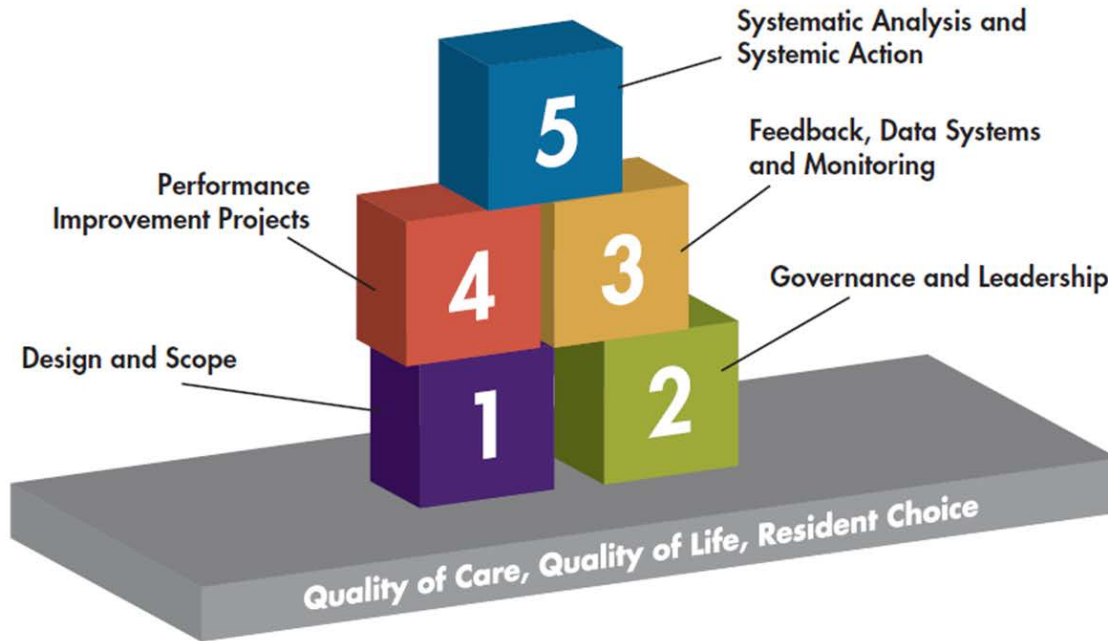
# Community Coalition Engagement



HQI Virginia and Maryland Communities:  
2014-16 Recruited and In Conversation

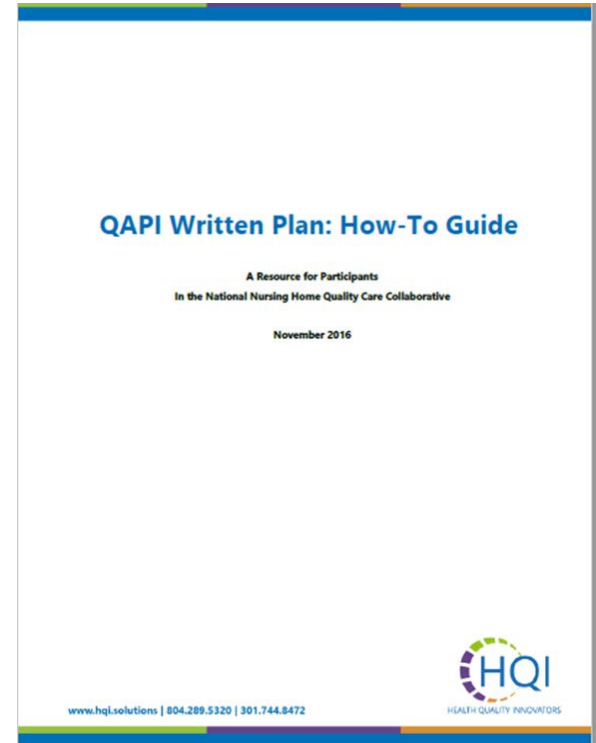


# The Five Elements of QAPI



# Element 1: Design and Scope

1. Address all systems of care and management practices
2. Include clinical care, quality of life, and resident choice
3. Aim for safety and high quality with all clinical interventions while emphasizing resident autonomy/choice
4. Utilize the best available evidence to define and measure goals



# Element 2: Governance and Leadership

- Establish a budget to ensure that QAPI activities are supported
- Training to include quality improvement principles and practices
- The QAA Committee will have representation from leadership, general staff, and resident and/or family representatives (if appropriate)
- Report QAPI activities/outcomes during staff meetings, resident/family council meetings, and via newsletters
- Staff is encouraged to report errors and near misses to allow the organization to learn from those occurrences and make systemic changes to prevent recurrences.

# Element 3: Feedback, Data Systems, and Monitoring



“Without data, you’re just another person with an opinion”

- W. Edwards Deming



# Suggested Data Sources

## Feedback Systems

- Resident/Family Satisfaction Surveys
- Staff Satisfaction Surveys
- **Resident/Family Council Meetings**
- **Community Partnerships**
- **Regulatory Surveys**
- Grievance/Compliment Logs
- **Contract Vendor Reports**

## Clinical Data

- **Quality Measures**
- **Medication Errors**
- Vaccination Compliance
- Nutrition
- **Unplanned Hospitalizations**
- **Unexpected Deaths**
- Abuse/Neglect
- Decline in Functional Status

# Benchmarking

- Against Who?
  - Peers
  - Yourself
- How Often?
  - Monthly
  - Quarterly
  - Annually
- What Should be Benchmarked?
  - Quality information consistent with strategic direction
  - Information necessary to demonstrate value
  - Information necessary to demonstrate quality of care
  - Key financial information

# Data Engagement

- ✓ Add data to every meeting (in fact, make it a focal point!)
- ✓ Create charts and graphs that are visible around the facility
- ✓ Coach employees on what it means to see and use data
- ✓ Bring employees, residents, and families into the conversation – give them a voice
- ✓ Create a culture based on integrity that begins with doing the right thing

# Element 4: Performance Improvement Projects (PIPs)

From State Operations Manual:

- QAPI program activities would be required to conduct distinct PIPs.
- Each facility would be required to implement at least one project annually.

## Performance Improvement Project Plan



Date	Project Champions <input type="checkbox"/> Include key stakeholders who may be involved or impacted by outcome – other staff [departments/levels]; residents; families; external vendors/relationships, etc.
<p><b>What objective are you trying to accomplish?</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> Objective statement<ul style="list-style-type: none"><li>◆ What you want to do; who is it being done for and when do you want to do it by</li></ul></li><li><input type="checkbox"/> Problem to be addressed (this defines the WHAT)<ul style="list-style-type: none"><li>◆ What existing problem / opportunity is to be addressed?</li><li>◆ What aspect of care or process will be improved?</li><li>◆ What subsystems will be affected? (e.g., medication administration, dining, admissions, housekeeping, rehab schedule, etc.)</li></ul></li><li><input type="checkbox"/> Reason for the effort (defines WHY)<ul style="list-style-type: none"><li>◆ Why is the effort important?</li><li>◆ How will this improvement benefit residents, staff, or other stakeholders?</li><li>◆ What is the potential downside of this effort for residents, staff, or other stakeholders?</li><li>◆ What background information (data/analysis/literature review) supports the choice of this effort?<ul style="list-style-type: none"><li>• Research for evidenced – based practices/ standards / outcomes where available</li><li>• Consider both internal / external benchmarks</li><li>• Gather input from key stakeholders about process and potential impact; understand current process from a practical standpoint not just theory/policy</li></ul></li></ul></li><li><input type="checkbox"/> Expected outcomes (defines WHAT specifically)</li></ul>	

# Prioritize Opportunities Using Data

Choose problems or issues that you consider important; establish method to “rank” the opportunities in terms of risk

- High risk
- High frequency
- Problem prone



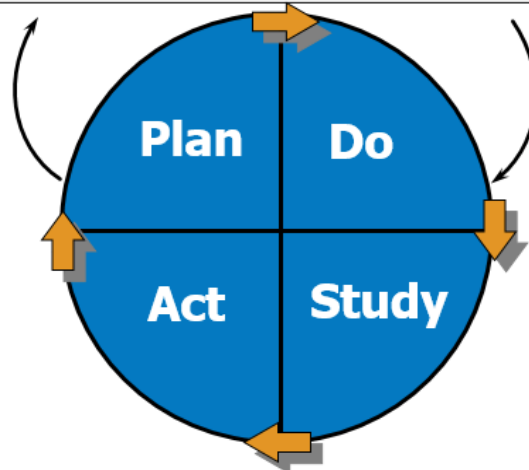
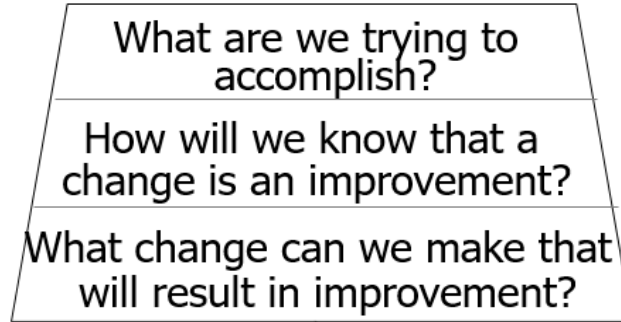
# Element 5: Systemic Analysis and Action

## From State Operations Manual:

The facility must take actions aimed at performance improvement and, after implementing those actions, measure its success, and track performance to ensure that improvements are realized and sustained.



# Using the Model for Improvement



# PDSA Cycle



PDSA MODEL

## PDSA Worksheet



Team Name: _____	
Cycle start date: _____	Cycle end date: _____
Aim Statement: _____	
PLAN: Area to work on:	Describe the change you are testing:
What question does this test seek to answer? (If I do 'x,' will 'y' happen?)	
_____	
What do you predict or expect the result will be?	
_____	
What measure will you use to learn if this test is successful or has promise?	
_____	
Plan for change or test: who, what, when, where	
_____	
Data collection plan: who, what, when, where	
_____	
DO: Report what happened when you carried out the test. Describe observations, findings, problems	





# Interventions are Implemented and Effective

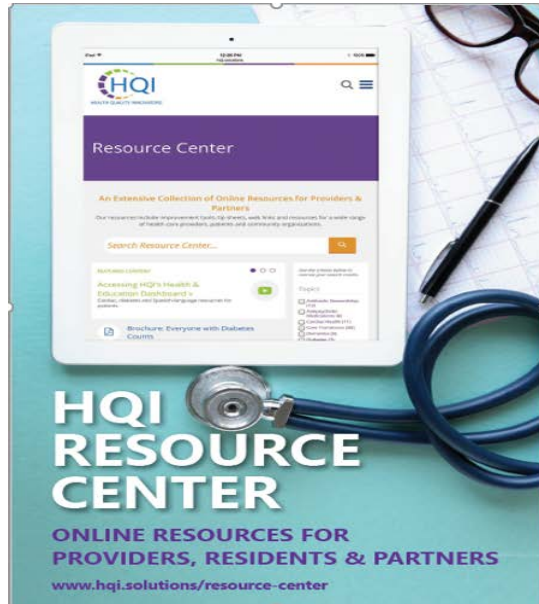
- Choose indicators/measures that tie directly to the new action
- Conduct ongoing periodic measurement and review to ensure the new action has been adopted and is performed consistently
- Review some measures more frequently (even daily) by staff to show incremental changes, which can serve as a reminder for the new action and provide encouragement and reinforcement
- Based on measurement review, make changes in procedure(s) as needed to help facilitate the change

# Domestic Lean Goddess

## You Tube Videos

- The 5 S's of Quality Improvement
  - How to apply the 5 S's (sort, straighten, shine, standardize, sustain)
- Getting the Kids to School on Time – PDSA
  - How to apply the PDSA method
- Clothing Processing Center – Eliminating the 7 Wastes
  - How to analyze and eliminate the 7 Wastes in any process to improve it and make it more lean.

# HQI Resource Center



## IT HAS NEVER BEEN EASIER TO ACCESS HQI'S RESOURCE CENTER

Health Quality Innovators (HQI) recently launched a new online resource center. Now clinicians, partners and patients have easy access to a wide range of quality improvement resources at no cost.

### Benefits include



**No log-in needed:** You can access all our tools and resources; no password or username required.



**Multiple ways to search:** Either type in your search term(s) or sort by topic, audience or media type.



**A wealth of materials covering all settings:** You will find videos, webinar recordings, tip sheets, patient education materials and more. Materials cover all settings and address a wide range of topics from quality improvement basics to strategies for engaging patients and families.

[www.hqi.solutions/resource-center](http://www.hqi.solutions/resource-center)

This material was prepared by Health Quality Innovators (HQI), the Medicare Quality Innovation Network-Quality Improvement Organization for Maryland and Virginia, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy.

HQI|11SOW|20181101-193301

# Participant Updates: Where Are You with Your QAPI Initiatives?

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University of Maryland School of Medicine

**Sarah Kabbani, MD, MSc**

Physician (Public Health), Office of Antibiotic Stewardship

Centers for Disease Control and Prevention

**Emily L. Heil, PharmD, BCPS AQ-ID, AAHIVP**

Assistant Professor - Infectious Diseases

University of Maryland School of Pharmacy

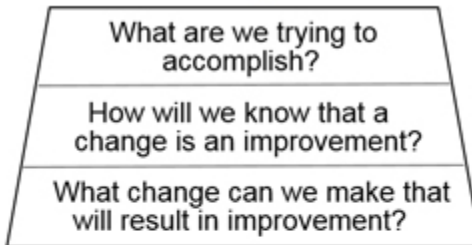
# 12 Steps to QAPI



1. Define leadership responsibility & accountability
2. Develop deliberate approach to teamwork
3. Conduct a self-evaluation
4. Identify organizational guiding principles
5. Develop a QAPI plan
6. Conduct QAPI awareness campaign
7. Develop strategy for collecting and using QAPI data
8. Identify gaps and opportunities
9. Prioritize and charter projects
10. Plan, conduct, and document project management/implementation plans
11. Identify the root cause of problems
12. Take systematic actions

# PDSA cycle


## Model for Improvement





UNIVERSITY *of* MARYLAND  
SCHOOL OF PHARMACY  
THE PETER LAMY CENTER  
ON DRUG THERAPY AND AGING

# Participant Sharing



**Q & A**

**ALL FACULTY**