

Strategies for Preventing Healthcare Associated Infections



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Learning Objectives

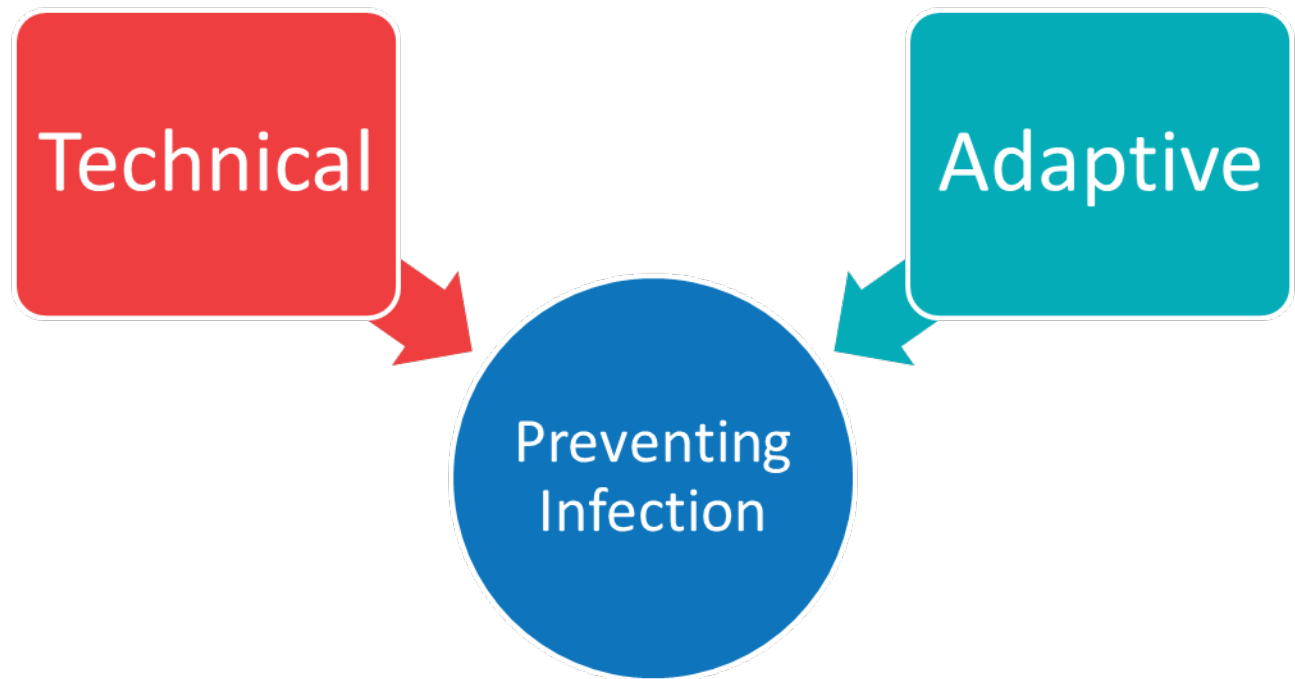
- Learn how to engage clinicians and leaders to prevent infections.
- Demonstrate factors that influence sustainability of HAI prevention efforts



Preventing Infection

Preventing infection is both:

- Technical
- Adaptive



Ingredients for Success

1. Start with a plan
2. Engage the clinicians in the hospital by:
 - I. Showing them that you have a good plan
 - II. Link the infection prevention initiative with the strategic goals of the hospital or the external environment
3. Build a great team
4. Have a backup plan



Start with a Plan

1. Pick a unit to begin: positive CAD from TAP report; where you are most likely to succeed
2. Form a team, with an identified team leader
3. Identify gaps: review of data and evidence-based best practices
4. Develop aim or goal
5. Plan evidence-based intervention; adapt to address anticipated barriers
6. Anticipate Barriers
7. Implement the intervention: test through rapid-cycle tests of change (PDSAs), which includes tracking performance; revise intervention as indicated until it achieves desired intent
8. Once successful, spread to other places
9. Consider sustainability at the outset



Why it's Important to Engage Physicians

- Play a key role in shaping care in the hospital
- Primarily interested in treating illness; typically not trained in patient safety
- Tend to be fairly autonomous; may not be hospital employees
- Likely unaware of safety efforts in the hospital
- Change may not be readily embraced



Why it's important to Engage Nurses

- Play a key role in shaping care in the hospital
- Primarily trained in caring for the patient
- Tend to be fairly autonomous; may not be hospital employees
- Likely unaware of safety efforts in the hospital
- Change may not be readily embraced



Why it's important to Engage Environmental Services

- Play a key role in infection prevention and control
- Responsible for cleaning and disinfection of patient care and hospital environments
- May not be hospital employees
- Often unaware of their contributions to infection control and prevention
- Might not be empowered to implement change



How to Engage Nurses, Physicians and EVS Managers

- Develop a common purpose (patient safety, efficiency)
- Recruit nurses, EVS managers, and physicians
- Identify a champion for each group early
- Standardize evidence-based processes (and make the right thing to do, the easy thing to do)
- Provide support from leadership for the efforts of the champion



Leadership Engagement Can Help

- The key senior leaders in preventing HAIs are the CNO and CMO
- But other leaders are important; consider recruiting:
 - Unit managers
 - Service chiefs
 - Hospital epidemiologists
 - Infection Preventionists
 - Environmental Services
 - Facility Managers



Overarching Facilitator

- Leadership at all levels
- Examples:
 - Infection Preventionists
 - Hospital epidemiologists
 - Patient safety officers
 - Chief Medical Officers
 - Nurse managers
 - EVS managers
- Works well with other disciplines



Build a Team

Team Role (Responsibility)	Personnel to Consider for the Role
Project coordinator	Infection preventionist, quality manager, nurse manager, nurse educator
Nurse champion (Engage nursing personnel)	Bedside nurse, nurse educator, unit manager, charge nurse
Physician champion (Engage medical personnel)	ID physician, hospitalist, hospital epidemiologist, intensivist
Data collection (Data monitoring, reporting)	Infection preventionist, quality manager, utilization manager
Other	Pharmacist (antimicrobial stewardship), environmental services (CDI)

(Modified from Saint et. al., Preventing Hospital Infections, 2015)



Executive Partners Tasks

- Advocate for project goals and share project progress with senior leaders and your Hospital Board
- Meet with the project team to review data and progress
- Assist the team with prioritization of safety efforts
- Facilitate removal of barriers
- Help provide the necessary resources



Ideal Characteristics of the Executive Partner

- Strong communication skills
- Approachable and willing to commit time
- Commitment to patient safety
- Respected by peers and others
- Potential candidates include: CMO, CNO, Chief Quality or Patient Safety Officer



Key Behaviors of Effective IP Leaders

- Cultivate a culture of clinical excellence
 - Develop a clear vision and successfully convey it to staff
- Inspire staff
 - Motivate and energize employees
- Solution-oriented
 - Focus on overcoming barriers
 - Deal directly with resistant staff
- Think strategically while acting locally
- Plan ahead; politic before crucial issues come up for a vote in committees

(Saint S, et al., Infect Control Hosp Epid, 2010)



Have a Back-up Plan

What is a back-up plan?

- A back-up plan is an alternative plan which can be used if something goes wrong with the original plan.
- Created for risk management.

When would you consider using it?

- Used when an outcome other than the expected occurs that could have catastrophic consequences.



Consider a Tiered Approach

Tier 1: Ensure that products and procedures are standardized and implemented fully.

If Tier 1 is not effective, then move to

Tier 2: the back up plan, consisting of interventions that in general will be more time-consuming and intensive than Tier 1.



Consider a Tiered Approach

Consider using a tiered approach:

Tier 1

Standardize Products

Standardize Procedures

Move to Tier 2 if
rates remain elevated



Tier 2

Guide to Patient Safety
(GPS)



Targeted Interventions



Personnel Barriers

Two types of personnel barriers that impede HAI prevention activities:

- Active resistors
- Organizational constipators



Active Resistors

Active resistors are people who take specific and deliberate actions to resist a change.



(Saint S. et al, Jt Comm J Qual Patient Saf , 2009)



Organizational Constipators



Organizational constipators are mid- to high-level executives who act as insidious barriers to change and increase the difficulty in implementing change.

(Saint S. et al, Jt Comm J Qual Patient Saf , 2009)



Overcoming Resistors and Constipators



- Work around them.
- Engage in early discussion about the issue with them.
- As a last resort, fire and replace them with someone who will embrace the new philosophy

(Saint S. et al, Jt Comm J Qual Patient Saf, 2009)



What is Sustainability?

- Sustainability is a balancing act.
- It meets the needs of the present while anticipating the needs of the future.



Sustainability

- Sustainability is the ability to maintain or augment improvements
- The innovation becomes part of regular activities
 - **Institutionalization**
- Hospital staff provide ongoing support and expertise
 - **Capacity Building**
- Ideally, sustainability should be considered at the outset.



Planning for Sustainability

- Identify required resources:
 - Technical support (EMR)
 - FTE support
- Identify mechanisms for integration of the process into daily work flow
- Identify the team that will be accountable for sustaining the work:
 - **Who** is in charge
 - **How** will the improvements be done?



Factors that Influence Sustainability

1. Evidence of Effectiveness
2. Institutionalization
 - Routinization and integration with existing programs/services
3. Building capacity
 - Program champions and leadership
4. Context
 - Internal and external environment

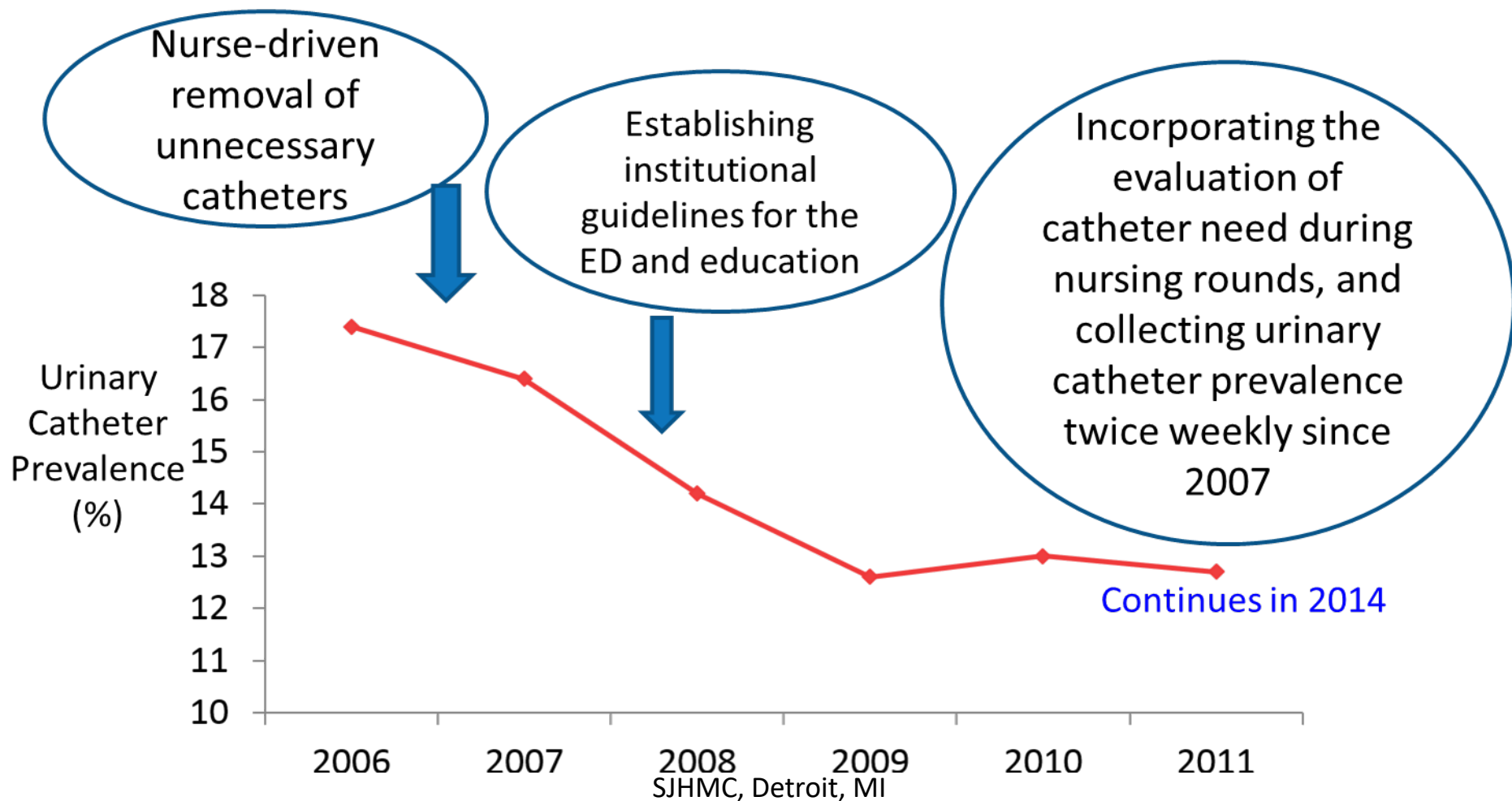


1. Evidence of Effectiveness

- Regular monitoring/evaluation and feedback of progress
- Expanding the effort by focusing on additional areas (intra-institutional spread) of success.



Example: Sustaining Gains with Interventions



2. Institutionalization

- Process should be accepted by healthcare personnel
- The program fits with the organization and is **flexible** enough to allow future modifications
- The initiative becomes part of the “standard of care” in the unit or hospital
 - Only insert catheters based on appropriate indications
 - Comply with proper HAI prevention activities
 - Policies and standard operating procedures
 - Policies based on best practices that are shared with health care staff
 - Alignment with the organization’s goals



3. Building Capacity

- Program champions
 - Physicians
 - Nurses
 - EVS managers
- Leadership
 - Has to keep funding the initiative
 - Acknowledge workforce turnover
 - Set up a system to evaluate HAI prevention efforts
 - Identify new opportunities for intervention
- Increase the number of engaged staff



4. Context: Internal and External Environment

Internal Environment:

- Organization geared towards quality and safety
- Leaders adopting best practices
- Employee satisfaction and morale

External Environment

- Public reporting, value based purchasing, and hospital acquired condition penalties
- National efforts: “Partnership for Patients,” SCIP
- Incentives of payers
- State efforts



Spreading the Innovation

- A final tip: once you have succeeded in one unit, work on spreading the success to other units.
- Success really builds confidence and the word spreads throughout the institution anyway.
- Maintain the momentum and continue!



References

- Damschroder LJ, Banaszak-Holl J, Kowalski CP, Forman J, Saint S, Krein SL. The role of the champion in infection prevention: results from a multisite qualitative study. Qual Saf Health Care. 2009; 18(6): 434-40.
- Reinertsen JL, Gosfield AG, Rupp W, Whittington JW. Engaging Physicians in a Shared Quality Agenda. IHI Innovation Series White Paper. Cambridge, MA: Institute for Healthcare Improvement; 2007. Available on www.IHI.org.
- Saint S, Kowalski CP, Banaszak-Holl J, Forman J, Damschroder L, Krein SL. The importance of leadership in preventing healthcare-associated infection: results of a multisite qualitative study. Infect Control Hosp Epidemiol. 2010; 31(9):901-7.
- Saint S, Kowalski CP, Banaszak-Holl J, Forman J, Damschroder L, Krein SL. How active resisters and organizational constipators affect healthcare-acquired infection prevention efforts. [Jt Comm J Qual Patient Saf](#). 2009 May;35(5):239-46.



References

- Saint S, Krein SL, Stock RW. Preventing Hospital Infections. New York, NY: Oxford University Press; 2015.
- Fakih MG, Rey JE, Pena ME, et al. Sustained reductions in urinary catheter use over 5 years: bedside nurses view themselves responsible for evaluation of catheter necessity. *Am J Infect Control*. 2013; 41: 236-239.
- Krein SL, Damschroder LJ, Kowalski CP, et al. The influence of organizational context on quality improvement and patient safety efforts in infection prevention: a multi-center qualitative study. *Soc Sci Med*. 2010; 71(9): 1692-701.
- Shediach-Rizkallah MC, Bone LR. Planning for the sustainability of community-based health programs: conceptual frameworks and future directions for research, practice and policy. *Health Educ Res*. 1998; 13(1): 87-108.
- Wiltsey SS, Kimberly J, Cook N, et al. The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implement Sci*. 2012; 7:17.



THANK YOU!



Speaker Notes



Speaker Notes: Slide 1

No Notes.



Speaker Notes: Slide 2

This module was developed by a multi-disciplinary team of physicians, nurses, and infection preventionists devoted to improving patient safety and infection prevention efforts.



Speaker Notes: Slide 3

No notes.



Speaker Notes: Slide 4

No notes.



Speaker Notes: Slide 5

Preventing infection is both technical and adaptive. The technical is relatively straightforward – these are things like the definition of an infection that will be used, and how accurate that definition is, the best practices that should be deployed and the evidence behind those best practices. And these interventions, while occasionally controversial, tend to be relatively straightforward. Adaptive strategies, on the other hand, are usually not easy. Adaptive components include the culture of the organization or the micro culture of the unit. They also include the context in which the intervention is being implemented, and include things like competing demands and behavioral changes. We will focus on the overarching adaptive issues that you must consider regardless of the infection or QI project in your hospital.



Speaker Notes: Slide 6

Ingredients for success include the following:

1. Start with a plan. It is important to start with a plan to set direction and priorities and simplify decision making.
2. Engage the clinicians by showing them you have a good plan and linking infection prevention initiatives with strategic goals.
3. Build a great team that consists of various key people, with one person identified as the team leader.
4. Have a backup plan. Some times things do not go according to plan, therefore a backup plan is useful.



Speaker Notes: Slide 7

1. Pick one unit to begin, to focus efforts. TAP reports will provide a quick view of which units have the highest CADs or “cumulative attributable difference” which tells you where to concentrate resources.
2. Form the team with an identified team leader.
3. Identify gaps through assessment of your data: outcomes, process audits, patient/family feedback, learning from root cause analyses, patient safety survey results for the unit, etc. Include a review of evidence-based best practices so your team will know and understand what practices should be, compared to what they are.



Speaker Notes: Slide 7

Include discussions with front line staff to determine their perceptions and attitudes about how to prevent the particular harm the team wants to address. Including their collective knowledge and wisdom about safety and how such harms can be prevented helps to engage them and feel heard. They are more likely to comply to new interventions if they feel they have been a part of the work.

4. Having an aim or specific goal helps establishes direction and sets a threshold to define success, or not.



Speaker Notes: Slide 7

5. It is important to adapt interventions to address anticipated barriers. You will likely learn about real or perceived barriers when you talk to staff to understand their perceptions and attitudes about prevention of the specific harm in question from step 3 above. Make sure interventions take those barriers into consideration and strive to avoid or mitigate them. For example, one intervention a team came up with was to have a standardized central line insertion cart in the unit. The physicians and nurses felt the cart was not kept stocked and had ceased to use the cart for that reason.



Speaker Notes: Slide 7

This intervention was re-surfaced with a plan in place to keep the cart stocked. Cart status was incorporated into the audit process for CVC insertion so this issue could be tracked over time to ensure there was not drift, thus attempting to remove that barrier to staff complying with the insertion bundle.

6. Anticipate common barriers. Most hospitals will have the following barriers, such as nurses and physicians resistant to change, maybe patient and family requests for a certain device, like a Foley. If you anticipate these barriers it will be much easier to overcome them when they occur.



Speaker Notes: Slide 7

7. As the intervention is implemented through rapid cycles, auditing of it allows for rapid learning and revision to improve the process. Engagement with front line staff to learn what works and what doesn't is critical. Auditing of the process helps to illuminate issues or barriers that need to be corrected in order to ensure that the process that is adopted and is as successful as possible.

8. Once an intervention has been tested and is achieving desired intent, it's important to spread to other areas or units. Keep in mind that other units may need to adapt it to fit into their routines or processes, so will need to test it there and adapt.



Speaker Notes: Slide 7

9. Throughout this whole process, questions about how best practices will be sustained need to be asked and answered: How will new or temporary staff learn about this process? How will the process be audited going forward to monitor for drift? How do we ensure this best practice is part of standard operating procedure in this unit? Who will oversee this process to provide accountability for compliance? How will staff learn about their performance?



Speaker Notes: Slide 8

It's important to engage physicians in infection prevention initiatives because they play a key role in shaping care within the hospital. Physicians tend to be primarily interested in and concerned with treating illness and are not typically trained in patient safety.

Additionally, physicians tend to be fairly autonomous, and may not be hospital employees, which can make them unaware of safety efforts within the hospital. Physicians often have a heavy case load and most have little time to volunteer with additional initiatives.

Lastly, some physicians may not readily embrace change unless individual engaged in the change.



Speaker Notes: Slide 9

It's important to engage nurses in infection prevention initiatives because they play a key role in shaping care within the hospital. Nurses are trained in patient safety.



Speaker Notes: Slide 10

It's important to engage Environmental Services (EVS) in infection prevention initiatives because they play a key role in infection prevention and control. EVS are concerned with cleaning and disinfection of patient care and hospital environments.



Speaker Notes: Slide 11

How do you engage nurses, EVS managers and physicians? There are five different approaches as shown on the slide. First, it is important to develop a common purpose. Find out what is important to the hospital, senior leadership, nurses, EVS managers, and physicians. Some examples can be patient safety and improving hospital efficiency. Another approach is to recruit nurses and physicians as partners in new initiatives. One way to do this is to identify champions for each group early on in the project and involve them in the initial process. The next approach is to standardize evidence-based processes to ensure that the right steps are taken each and every time.



Speaker Notes: Slide 11

Finally, provide support from senior leadership for the efforts of the designated champion. For example, you can create a “EVS Champion of the Year” award and give out vouchers to nearby restaurants along with a signed certificate from chief of staff. Not only will this award the champion that goes above and beyond but it also shows the other nurses and physicians what they could receive if they help champion quality improvement projects.



Speaker Notes: Slide 12

Leadership engagement is also very important. Administrative support is critical to the success of the program. Leadership engagement and involvement should be solicited at the onset of any program.

The key senior leaders in preventing HAIs are the Chief Nurse Officer and the Chief Medical Officer. But other leaders are also important, including unit managers, service chiefs, hospital epidemiologist, infection preventionists, environmental services, and facility managers.



Speaker Notes: Slide 13

An overarching facilitator is leadership at all levels that can assist with both organizational constipator's as well as active resistors and can help improve the culture of safety at your organization.

The overarching facilitator is leadership. Leadership is important at all levels. This applies not only to the Director, but also others including infection preventionists, hospital epidemiologists, patient safety officers, Chief Medical Officers, nurse managers and EVS managers. The type of leader we are talking about has to work well with other disciplines and ideally would be someone who is highly collaborative in nature. In fact, if you want to learn more about leadership in preventing infection, please review module two of this course entitled “Engaging Clinicians and Senior Leadership in Infection Prevention.”



Speaker Notes: Slide 14

Regardless of the problem or plan, you will need to assemble a team. On this slide are a list of the key roles and responsibilities of team members along with the type of personnel to consider. These include 1) a project coordinator (an infection preventionist, quality manager, or nurse manager or educator), 2) a nurse champion, such as a bedside nurse or charge nurse to help with engaging nursing personnel, 3) a physician champion (an ID physician, hospitalist, intensivist) to help engage medical personnel, 4) someone to help with data collection, such as an infection preventionist, and 5) other stakeholders (pharmacists, housekeeping).



Speaker Notes: Slide 14

Project coordinators will be responsible for managing communication within the team. They will guide the team from implementation and an operational point of view, ensuring smooth delivery of new initiative launch, and identifying nurse and physician champions. The nurse champion will primarily engage the nursing personnel – providing education, advocacy, and motivation to improve the patient safety culture within the unit. Other nurses may look to this nurse for support and guidance in regards to different challenges that may occur on a day-to-day basis. The physician champion also has similar responsibilities with the biggest difference being that they will engage other physicians and medical personnel.



Speaker Notes: Slide 14

For both the nurse champion and physician champion, they should continue to identify other champions to educate and train to further promote quality improvement initiatives. Data collection personnel will be responsible for collecting, monitoring, and reporting both quantitative and qualitative findings. They will ensure that the team understands what data is being collected, how it is being analyzed, and its impact in the current quality improvement initiatives. Other team members, such as pharmacists or environmental services are encouraged to do a deeper analysis on antimicrobial stewardship and CDI prevention efforts.



Speaker Notes: Slide 15

Having an executive partner is important. The main responsibility of an executive partner is to advocate for the project goals and share the project's progress with other senior leaders and the Hospital Board.

The executive partner should also:

- Meet with the project team to review data & progress.
- Assist the team with prioritization of safety efforts
- Facilitate the removal of barriers and
- Help provide necessary resources



Speaker Notes: Slide 16

Ideal characteristics of an executive partner include

- Strong communication skills
- Approachable and willing to commit time
- Commitment to patient safety and
- Being respected by their peers and others.

Some potential candidates for an executive sponsor maybe your hospital's Chief Medical Officer (CMO), Chief Nursing Officer (CNO), Chief of Quality or Patient Safety Officer.



Speaker Notes: Slide 17

In a study of infection prevention in hospitals, we found that effective infection prevention leaders often displayed 4 key behaviors:

1. They cultivate a culture of clinical excellence. They have a clear vision and successfully convey it to staff.
2. Successful leaders also inspire staff by motivating and energizing others. Some, but not all, were charismatic.
3. Infection Prevention Leaders are also solution-oriented; they focus on overcoming barriers and dealt directly with resistant staff.
4. And lastly, they think strategically while acting locally. They plan ahead and generated support before crucial issues came up for a vote in committees.



Speaker Notes: Slide 18

No notes.



Speaker Notes: Slide 19

Consider a tiered approach (e.g., Tiers for CAUTI Prevention practices discussed in detail in the CAUTI modules). Tier 1 will focus on standardizing both products and procedures with a focus on infection rates. If the rates remain elevated, higher than what you would like or higher than some national benchmark or mean, then you to move to Tier 2, which will be the backup plan, consisting of interventions that in general will be more time-consuming and intensive than those discussed in Tier 1.



Speaker Notes: Slide 20

An example of an intervention is to use the Guide to Patient Safety. This tool is designed to help you evaluate your infection specific improvement efforts. Basically, the CAUTI GPS is a brief, trouble-shooting guide. It helps identify the key reasons why hospitals may not be successful in preventing an infection. And once the barriers are identified, the GPS can help identify possible solutions and direct you to tools that can help address identified issues and barriers and ways to overcome these barriers.



Speaker Notes: Slide 21

There are two types of personnel, active resistors and organizational constipators, that impede HAI prevention activities, and several approaches are used to overcome those barriers. Hospital administrators and patient safety leaders can use the findings to more successfully structure activities that prevent HAI in their hospitals.



Speaker Notes: Slide 22

The first type of barrier we have found are people who are called the active resistors. Active resistors are people who take specific and deliberate actions to resist a change.

The issue with active resistors is that they are used to doing things the way they have always been done. They take a specific and deliberate approach to resist change. But fortunately we have ways of overcoming that.



Speaker Notes: Slide 23

A second type of barrier, which is much more challenging, are organizational constipators. Organizational constipators are mid-to high-level executives who act as insidious barriers to change and increase the difficulty in implementing change.



Speaker Notes: Slide 24

Just like with active resistance, we heard stories from hospitals about how they overcame the barrier of organizational constipators. Unfortunately, none of these are ideal. Here are some of the approaches that other hospitals have used. The first involves a work-around. As one quality manager succinctly put it: “... basically if I keep off the radar, I can do what I need to do... so that’s what I did...”



Speaker Notes: Slide 24

The second approach involves engaging the constipators and resistors in early discussion about an issue. A hospital director shared their approach with us: “... essentially we’ve brought a particular person who’s known for...having strong opinions into the discussions with the Executive Board and so we are able to vet them... often organizations take that person and keep them out because they’re going to block something that you wanted ... instead of bringing them into the fold... In a couple of situations it’s been so helpful to have that person there and have the dialogue... and in a couple of instances, they changed their mind and turned into a supporter...” in a fact you make it so that that person thinks it’s their idea.



Speaker Notes: Slide 24

And the third, and final approach, we saw in dealing with constipators, is to fire them. As one chief of medicine at a private hospital told us: “...the tough approach is what we’ve done here and that is, they’re gone. We get somebody else in that position who will embrace what we philosophically agree we should do.”

And this I would have to say is easier said than done. Because the challenging thing about dealing with constipators and resistors, is that the people above them usually think they are doing a good job, while the people below them can’t believe they still have a job.



Speaker Notes: Slide 25

Ideally, sustainability should be considered at the outset to protect resources.

Sustainability is a balancing act. It meets the needs of the present while anticipating the needs of the future.



Speaker Notes: Slide 26

It's good to start with a definition just to make sure that we're all on the same page. We define sustainability as the ability to maintain or augment the improvements gained with implementation after the program ends.

By becoming part of a unit's or hospital's regular activities, the innovation loses its separate identity and becomes part of regular activities, in other words, the innovation becomes routinized or part of the routine, kind of like that song..."This is how we do it..."



Speaker Notes: Slide 26

You'll know the innovation is being sustained when hospital staff provide ongoing support and expertise, effectively building the capacity to maintain the change.

You should start thinking about sustainability at the outset of your program. This should be part of your initial plan. When brainstorming about potential innovations, ask yourselves, will this be sustainable? Who do we have to talk to improve the chances of sustainability? For example, not having adequate resources can be a significant barrier, so sometimes a high level administrator's support is needed at the outset, because without it, the chances of having resources to continue with the innovation will be jeopardized.



Speaker Notes: Slide 27

Planning for sustainability requires a combination of resources, processes and people. Assuring adequate resources is an important component of sustainability. Resources can include aspects other than financial, such as technical support and additional FTEs. For example, you can figure out how much or what type of FTE support you'll need by getting answers to these questions: who is responsible for collecting and reviewing data? How will the information be used or acted upon? And what is the process for ongoing improvement?



Speaker Notes: Slide 27

Mechanisms for integrating the process into daily work flow requires first a firm understanding of current workflow. Bedside practitioners are the ones to approach for this information, as well as for ideas as to how to integrate the new practice or innovation. In asking the question, “Who is in charge?” we’re also asking, who is the go-to person for more information? Having one source of information helps to keep the message consistent and reduce “drift”. To answer the question, “how will improvements be done?” again, go to the people who will be doing the work, as they will have the best ideas about how to incorporate the changes.



Speaker Notes: Slide 28

What kinds of things affect sustainability? There are four factors and they are: effectiveness, institutionalization, building capacity and context. We'll be talking about each of these factors in greater detail next.



Speaker Notes: Slide 29

Monitoring, evaluation and feedback are crucial to effectiveness because they provide information on how well the program is doing, as well as information on how to make changes to improve effectiveness if needed.

We recommend starting a program in one area, then expanding to other areas as appropriate for the program, staff and patients. It is easier to take lessons learned from a single unit and make changes before spreading out beyond the single site.



Speaker Notes: Slide 30

Here's an example of an effective program to reduce indwelling urinary catheters that include all components of effectiveness. It started with the nurses who were given the power to remove unnecessary urinary catheters, without a physician order. Over time you can see how future modifications were made to the program. Data collection and feedback helped to sustain the improvement. At St. John Hospital & Medical Center, urinary catheter use data continue to be collected biweekly, thanks to a collaborative effort among Infection Prevention, Quality and Case Management teams. Prevalence results are periodically fed back to the units. Although this program started in the ED, it has spread to other units in the hospital.



Speaker Notes: Slide 31

If the process is not accepted by healthcare personnel, it likely won't work. Healthcare personnel are more likely to accept a process if they are involved in its development.

The program has to “fit,” meaning that it has to align with the culture of the organization. For example, an organization that has a culture of each unit fending for itself will struggle with a program that involves cross-unit collaboration. Flexibility is important because over time, as other processes are added, modified, or deleted, changes can be necessary that will be difficult to implement unless there is some flexibility built in initially.



Speaker Notes: Slide 31

Institutionalization involves integrating the new initiative and making it part of the routine...the usual standard of care in practice, not just on paper. The innovation, for example a HAI prevention program, loses its separate identity and becomes part of regular activities, institutionalization. With time, modifications of the program can occur based on new evidence, for example, appropriate indications.

One of the organization's goals should be centered on promoting safety. Leadership plus the board regularly reviews the outcomes to keep the work as a priority.



Speaker Notes: Slide 31

Making an innovation routine, so that it becomes institutionalized, can be done in several different ways:

- Regular education: this can be done electronically or through champions
- Competencies: for example urinary catheter placement and management, or keeping healthcare personnel updated on best practices
- Healthcare personnel daily routines: incorporate it into the workflow. Can you imagine not monitoring vital signs? Do we ever forget? No, taking or at least monitoring vital signs are part of daily practice for nurses.
- And finally, electronic medical records can be used to sustain an innovation, for example by incorporating the innovation into order sets, and building reminders or triggers in the record.



Speaker Notes: Slide 32

Building capacity, the third factor that influences sustainability, has two components: program champions and leadership. Program champions are physicians, EVS managers, and nurses. Champions are identified during implementation. One group alone, meaning physicians, EVS managers, or nurses, cannot do it. The role of champions is to keep the effort as a priority. Champions provide expertise in the topic, and liaise with peers to promote best practice to reduce healthcare-associated infections. Champions also help in disseminating the findings.



Speaker Notes: Slide 32

Leadership has to work with champions and frontline staff, and one of leadership's primary roles is to keep funding the initiative. Leadership is aware of workforce turnover which indirectly affects sustainability and has to come up with a plan to mitigate turnover. For example, orientation for all incoming personnel, physicians, nurses, and EVS managers should include some material on the new initiative. As another example, consider how in academic medical centers physicians rotate through units on a monthly basis. When I was the critical care clinical nurse specialist at the University of Chicago Hospitals, I would provide monthly training to new incoming house staff physicians on what initiatives we had going.



Speaker Notes: Slide 32

Leadership has to set up a system and in fact provide resources so that staff have dedicated time to measure and collect data on things like urinary or vascular catheter point prevalence, with or without appropriate use, proper catheter insertion technique audits, maintenance of catheters, outcome rates, and root cause analyses or focused reviews. Finally, with the results of data collection, leadership can identify new opportunities for intervention.



Speaker Notes: Slide 33

The internal environment refers to characteristics of the unit or hospital where the process will be implemented...where the work will be done. To improve the chances of sustainability, we recommend that these three characteristics be assessed and strengthened: an organization that is already geared towards quality and safety is more likely to have success than one that is not. Leaders, who as a matter of course adopt best practices, will more easily adopt the new practice, which is of course based on the best evidence. When employee satisfaction and morale is high at the outset, employees will be more likely to look favorably on a new project.



Speaker Notes: Slide 33

The external environment refers to those agencies, local, state, federal, policies and initiatives outside of the organization that can have influence on the process being started.

For example, hospital-wide reporting of urinary catheter use and CAUTI has been in effect since January of 2015. National efforts include the Partnership for Patients initiative that is supported by Hospital Engagement Networks, which many of you belong to.



Speaker Notes: Slide 33

Incentives include hospital-acquired conditions reduction penalties. Hospitals with high CAUTI outcomes have a reduction of 1% of CMS payments. State efforts include things such as building infrastructure through “On the CUSP Stop CAUTI” to engage specialty societies and state hospital organizations. By paying attention to the external environment and taking advantage of appropriate resources or programs, sustainability can be enhanced.



Speaker Notes: Slide 34

No notes.

