



A Quick Guide to *Just Clean Your Hands*

Ontario's Evidence-based Hand Hygiene Program for Hospitals

CEO Message

This document is a brief summary of a multifaceted hand hygiene improvement program developed by the Ministry of Health and Long-Term Care for Ontario hospitals.

Hand hygiene is key to improving patient and provider safety, and to preventing health care associated infections and the spread of antibiotic resistant organisms¹. Health care associated infections can make people sick, costing the health care system hundreds of thousands of dollars in care costs, longer hospital stays, readmissions and, occasionally, legal costs. For example, it costs a hospital over \$25,000 to manage a single case of methicillin-resistant *Staphylococcus aureus* (MRSA)². Health care associated infections are not an inevitable cost of doing business: they can be prevented. With better hand hygiene, hospitals can decrease infection rates, reduce costs and save lives. An effective hand hygiene program will also help hospitals increase patient confidence and meet new accreditation standards.

An effective hand hygiene program is more than a poster campaign.

According to research by the World Health Organization, in the United Kingdom and in Ontario, it takes a combination of leadership, education, environmental changes, the right hand-cleaning products at the point of care, a skin care program, visual reminders and measurement to create a “clean hands” culture within a hospital.

To help hospitals improve hand hygiene, the Ministry of Health and Long-Term Care has developed the *Just Clean Your Hands* program, which includes:

- A practical step-by-step implementation guide
- Train-the-trainer sessions for up to three people from every hospital in Ontario
- Tools and materials, such as online training modules, a methodology for selecting and placing appropriate hand hygiene products, a hand care program, posters, and visual reminders
- An audit process and tool to evaluate the program's impact and measure hand hygiene compliance rates
- A website – justcleanyourhands.ca – that will provide easy access to information and materials as well as a discussion forum where hospitals can share success stories and lessons learned
- Support and guidance from ministry staff during program implementation.

Just Clean Your Hands is an evidence-based program that builds on work done by the World Health Organization and the United Kingdom. The program is specifically designed for Ontario hospitals and was successfully pilot tested in 10 Ontario hospitals.

CEOs play an important role in hand hygiene. Leadership, role modeling and a hospital-wide commitment are essential to improving hand hygiene compliance rates.

Please share this document with senior management, the infection prevention and control committee, the occupational health and safety committee, and quality assurance/risk management committee.

Identify the key leaders in your organization who can oversee implementation.

Consider how you can use the ministry resources to implement *Just Clean Your Hands* in your facility or to augment/enhance your existing hand hygiene program.

For more information about the ministry program or a copy of the full Ontario pilot study report, visit justcleanyourhands.ca or contact Liz McCreight (416-212-5228, liz.mccreight@ontario.ca).

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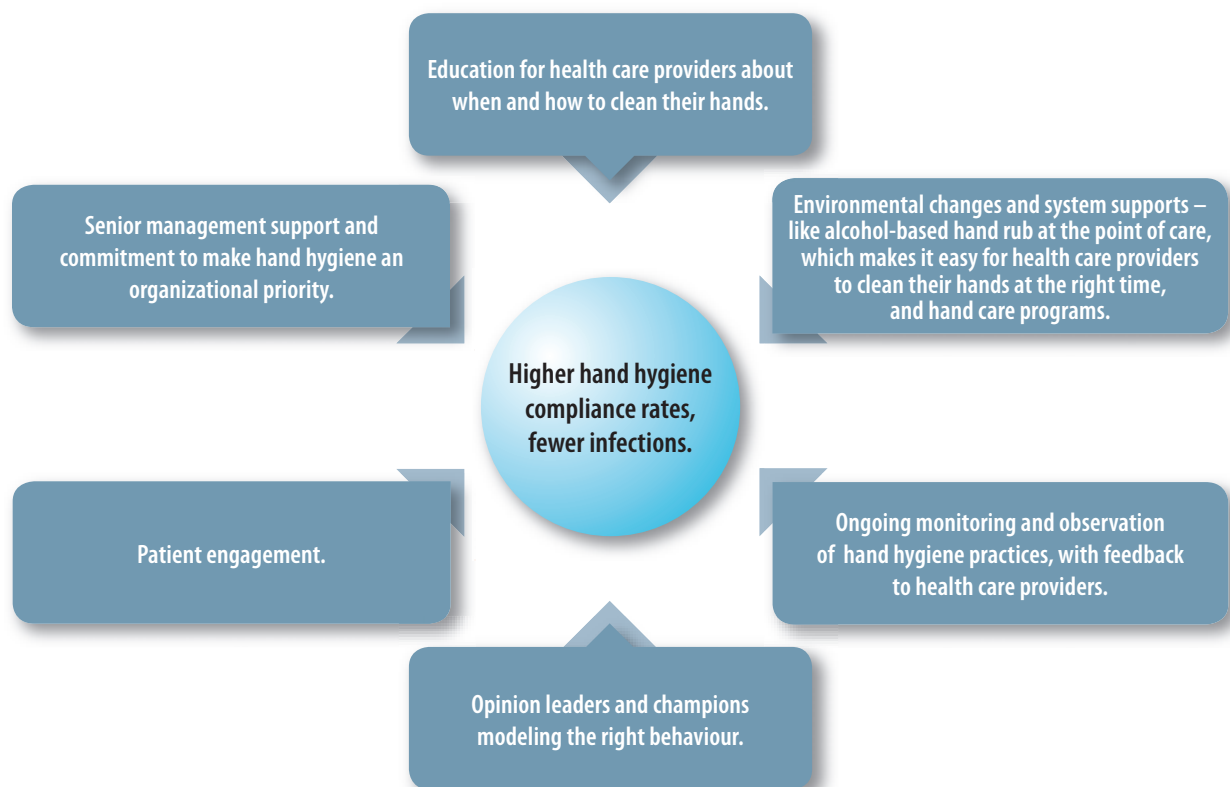
Ontario is at the leading edge of a worldwide initiative to improve patient and health care provider safety by improving hand hygiene. The Ministry of Health and Long-Term Care has worked over the past 18 months to create *Just Clean Your Hands*: a comprehensive, multifaceted hand hygiene program for Ontario hospitals.

The program includes tools and materials developed and tested in Ontario for Ontario hospitals; it also takes advantage of materials developed by the UK *cleanyourhands* campaign and the global *Clean Care is Safer Care* initiative, led by the World Health Organization.

A hand hygiene program is more than a poster campaign.

For health care providers to improve their hand hygiene, clean hands must become part of their workplace culture. The *Just Clean Your Hands* program will help hospitals overcome the barriers to proper hand hygiene and improve compliance with hand hygiene best practices.

It takes more than a single intervention such as a poster campaign to change hand hygiene behaviour. It takes a multifaceted intervention:



To help hospitals implement *Just Clean Your Hands*, MOHLTC will provide:

1. A practical step-by-step implementation guide.
2. Train-the-trainer sessions for up to three people from every hospital in Ontario.
3. Tools and materials, such as online training modules, a methodology for selecting and placing appropriate hand hygiene products, a hand care program, posters, and visual reminders.
4. An audit process and tool to evaluate program impact and measure hand hygiene compliance rates.
5. A website – justcleanyourhands.ca – that will provide easy access to information and materials as well as a discussion forum where hospitals can share success stories and lessons learned.
6. Support and guidance from ministry staff during program implementation.

All program materials can be adapted to meet the needs of each hospital or to complement existing multifaceted hand hygiene programs.

Why should hand hygiene be a priority in Ontario hospitals?

Because it's the right thing to do. Proper hand hygiene will protect patients and health care providers, reduce the spread of infections and the costs associated with treating infections, reduce hospital lengths of stay and readmissions, reduce wait times, and prevent deaths.

Health care associated infections are a real and growing safety problem:

- In Canada, about 250,000 people – or one out of every nine patients³ admitted to hospital each year – pick up infections while being treated for something else.
- Every year, more than 8,000 patients die from those infections.
- Antibiotic resistant organisms add \$40 to \$52 million to the annual direct and indirect costs of providing care.⁴
- The average cost of managing a patient infected with methicillin-resistant *Staphylococcus aureus* (MRSA) has increased from \$14,360 in 1997 to \$25,661 in 2007.⁵
- The incremental cost to prevent a case of health care associated infection is <\$20 per patient⁶
- Proper hand hygiene – the use of alcohol-based hand rub or soap and water by health care providers to clean their hands – is one of the most effective ways of preventing health care associated infections.^{7,8,9}
- Most health care settings report less than 50 per cent adherence to hand hygiene^{10,11} and compliance among Ontario health care providers is estimated to be less than 32 per cent.¹²
- Under the proposed new standards for infection prevention and control developed by the Canadian Council on Health Services Accreditation (March 2007), hospitals will be required to monitor infection rates and participate in hand hygiene initiatives in order to maintain their accreditation. **www.cchsa.ca**

Health care providers know hand hygiene is important, so why don't they “just do it”?

Several factors prevent health care providers from practising proper hand hygiene, including:

- Hand hygiene is not a priority in the workplace
- Lack of understanding of best practices in hand hygiene
- Providers' perceptions that they are already practising good hand hygiene
- Physical barriers, such as lack of access to hand hygiene products at point of care
- Hand hygiene products that are unpleasant to use or hard on their hands and the lack of hand care programs to promote healthy intact hands.

How to make hand hygiene a hospital priority.

Between December 2006 and August 2007, the ministry pilot tested the *Just Clean Your Hands* program in 10 hospitals across Ontario. The evaluation included surveys of patients and health care providers, focus groups with health care providers, key informant interviews, reviews of hospital records on product use and number of health care associated antibiotic-resistant organisms, and three observational audits of health care providers' hand hygiene practices (at baseline, two months after launch, five months after launch), which were done by trained observers using a valid tool tested to ensure consistent, reliable scores.

Here's what we learned about making hand hygiene a priority.

1. There is a gap between health care providers' perception of their hand hygiene practices and their actual practice. Health care providers don't clean their hands as often or as thoroughly as they think they do.
2. Leadership and a hospital-wide commitment to hand hygiene – with visible role models – is key to success.
3. Hand hygiene compliance rates improved steadily over the duration of the pilot project. By using a multifaceted program, it is possible to create a culture and environment that promotes hand hygiene, and to significantly improve health care providers' hand hygiene practices.
4. Education is essential to teach “when and how” to do appropriate hand hygiene in health care settings – which is different from personal hand hygiene.
5. Alcohol-based hand rub is more convenient, faster and healthier for health care providers' hands than soap and water. The type, quality, user input, availability and location of alcohol hand rub has a direct impact on hand hygiene practices.
6. Visual reminders at point of care reinforce the importance of hand hygiene and lead to better adherence to best practices.
7. Hand hygiene is not just an issue for those providing direct patient care; it involves everyone who works in or provides support for patient care areas in the hospital.
8. Patients are more confident about their care when a hospital has a hand hygiene program. Patients should be engaged in hand hygiene in a way that does not transfer responsibility from health care providers to patients or visitors.
9. Ongoing promotion and measurement (observational audits) of hand hygiene practices, using a valid tool and timely feedback, are key to continuous quality improvement.

Ten Things Hospitals Should Know to Implement a Hand Hygiene Program

The following critical success factors for an effective hand hygiene program were identified from the pilot testing in Ontario hospitals, and supported by the international literature.

1. Good data can close the gap between perception and practice.

Health care providers believe they and their colleagues practice good hand hygiene “most or all” of the time. However, observational audits reveal that **actual compliance with hand hygiene guidelines is well below the health care providers’ perceptions**, especially at baseline.

When health care providers were shown the data, it made a difference. They were surprised by the gap between perception and practice, became more engaged in the program, and their compliance rates improved steadily during the pilot.

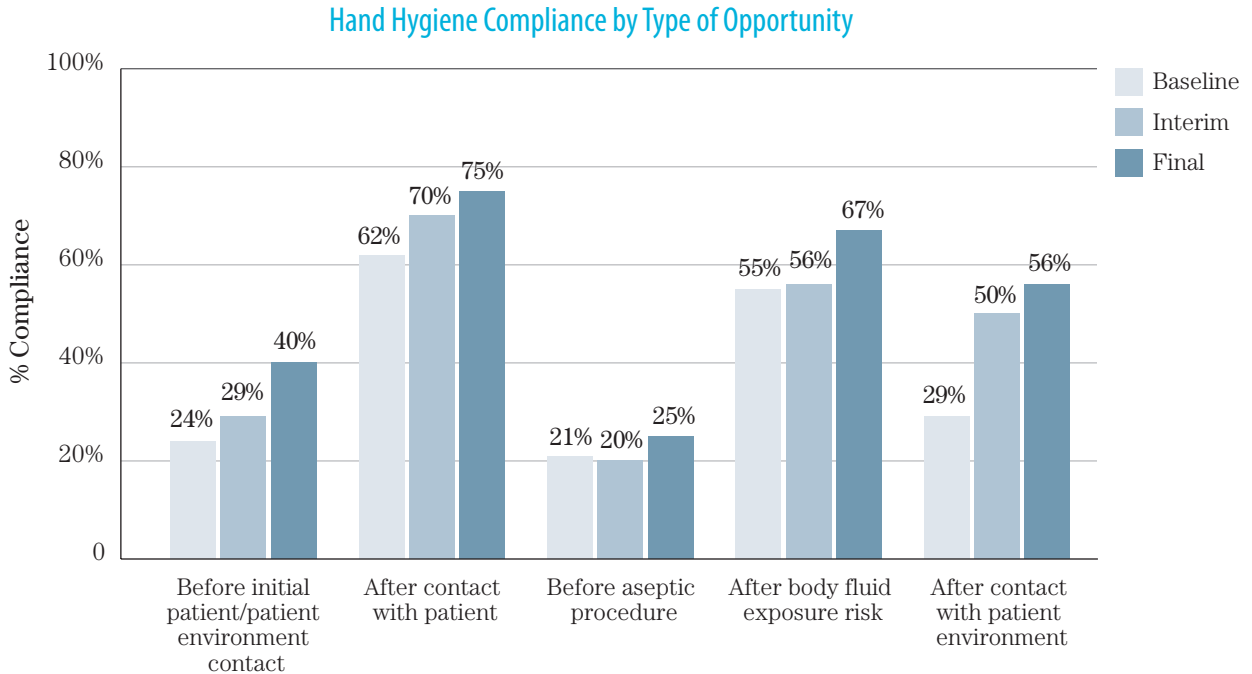
The data also helped convince managers that the program was important.

“Don’t take it for granted that hospital staff are practising good hand hygiene. When our observations were done, it was a surprise to us to find that our compliance with best practices was much lower than we expected. Don’t just assume. You need to know.”

Hal Fjeldsted, CEO,
Kirkland and District Hospital

2. Education helps health care providers know when to clean their hands.

Health care providers are more likely to clean their hands after contact with a patient than before they provide patient care.



Notes to chart: When a health care provider moved from one patient to another, it was recorded as a “before patient or environment” opportunity rather than an “after patient” opportunity. There were few observations before aseptic procedures, so the findings for this opportunity may not be reliable.

Many health care providers do not have a clear understanding of when to clean their hands.

It’s important to provide education about when to clean hands up front – when first introducing the program.

There are certain key times in the care process when the risk of transmission is greatest and hand hygiene is essential.

The ministry has developed “Your 4 Moments for Hand Hygiene” approach to teach health care providers the essential times to clean their hands.

Ontario’s 4 Moments approach supports and endorses the WHO *Clean Care is Safer Care* “5 Moments” approach to teaching and auditing hand hygiene, which was designed for all health care settings, not just hospitals.

Your 4 Moments for Hand Hygiene

1	BEFORE initial patient / patient environment contact	WHEN? Clean your hands: <ul style="list-style-type: none"> • before touching • before touching WHY? To protect the patient
2	BEFORE aseptic procedure	WHEN? Clean your hands to: <ul style="list-style-type: none"> • before touching WHY? To protect the patient against harmful germs, including the patient’s own germs, entering his or her body
3	AFTER body fluid exposure risk	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the health care environment from harmful patient germs
4	AFTER patient / patient environment contact	WHEN? Clean your hands when leaving: <ul style="list-style-type: none"> • after touching patient or • after touching any object or furniture in the patient’s environment WHY? To protect yourself and the health care environment from harmful patient germs

Adapted from WHO poster “Your 5 moments for hand hygiene”, 2006.
For more information, please visit www.pact.on.gov.on.ca.

Ontario

3. Alcohol-based hand rub is convenient, faster and healthier for health care providers' hands.

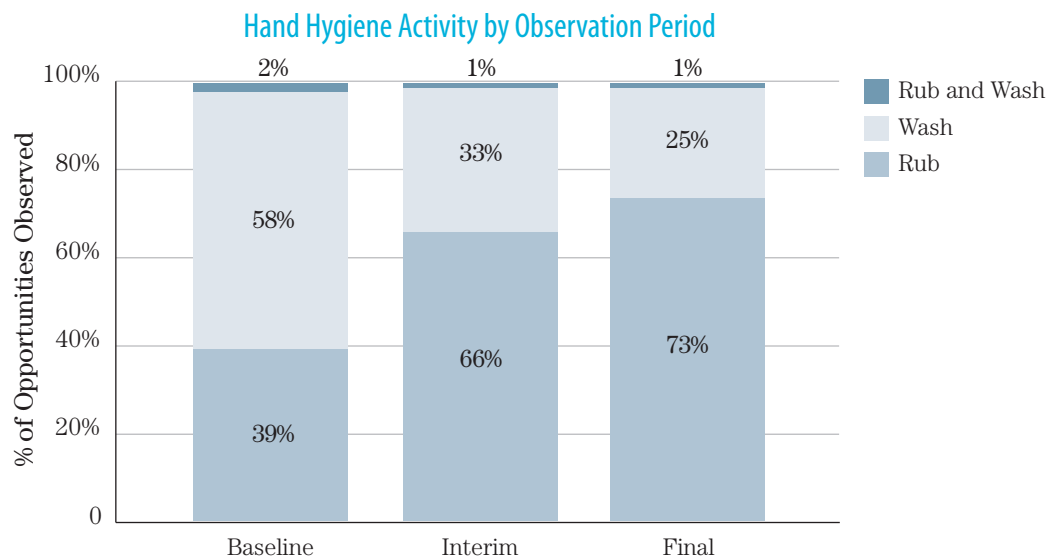
Good quality alcohol-based hand rub should be the product of choice when hands are not visibly soiled.

Cleaning with alcohol-based hand rub is quicker, more convenient and healthier for health care providers' hands. High quality alcohol-based hand rub products are good for skin, and help overcome one of health care providers' key reasons for not practising hand hygiene routinely: dry, rough hands.

By the end of the project – which included education about the efficacy and benefits of hand rub – health care providers were more likely to use alcohol-based hand rub than soap and water.

97 per cent of the health care providers surveyed during the pilot project said quality of the alcohol-based hand rub was important in encouraging them to clean their hands.

Pilot sites that involved health care providers in choosing the type of alcohol-based hand rub to be used on a unit had greater compliance and provider satisfaction.



Numbers may not add to 100% due to rounding.

4. Putting hand rub containers at point of care improves hand hygiene.

Another advantage of alcohol-based hand rub is that it can be placed right at the point of care.

What is the point of care? The point of care (POC) is where the following three elements are present at the same time:

- The patient
- The health care provider
- Care involving contact is taking place.

The closer hand rub is to where patient care is delivered, the more likely health care providers are to use it at the right time.

- 90 per cent of health care providers surveyed reported that having alcohol-based hand rub at the point of care encouraged them to clean their hands.

An added benefit of having hand rub at the point of care is that patients see health care providers cleaning their hands before providing care. This practice reassures patients and families that the hospital takes hand hygiene seriously and is doing everything it can to protect patients from unnecessary infections.

The *Just Clean Your Hands* program includes tools hospitals can use to analyze work flow and choose what type of hand rub containers to use and where to install them.

“For a lot of staff, the lack of convenience was an excuse for not cleaning their hands. With hand cleaning stations installed throughout the hospital and at every bedside, accessibility is no longer an issue.”

Mark Balcaen, CEO,
Lake of the Woods District Hospital

5. Hand hygiene involves everyone in the hospital.

Hand hygiene is a different way of thinking about safety and patient care – one that involves everyone who provides direct patient care (i.e., clinical staff), works in patient care areas (i.e., housekeeping, maintenance) and/or supports patient care (i.e., purchasing, senior management).

Everyone must participate to make it work.

- The alcohol-based hand rub containers have to be kept full.
- Alcohol-based hand rub stations and containers have to be installed in the right places.
- Visual reminders and cues have to be posted at the point of care and updated regularly to have an impact.
- The involvement of occupational health and safety helps reinforce the importance of hand hygiene for provider as well as patient safety.
- Administration also plays a key role, providing the resources and support to implement and sustain the program.

“Having a multidisciplinary steering committee was key to getting everyone involved and creating collaboration. Staff in purchasing understand why it’s important to have the right equipment and supplies, and housekeeping understands how important their role is in helping maintain proper hand hygiene practices.”

Linda Hunter,
Director of Quality and Patient Safety,
The Ottawa Hospital

6. Leadership and communication are key.

As with any change process, leadership is key.

All hospital leaders – from the CEO to unit managers – have to be committed to creating a culture that values and actively promotes good hand hygiene practices.

Identify a key person in your organization who will oversee implementation.

It's also important to talk about the program: with health care providers, patients, visitors and the public.

Communication helps raise awareness and build interest. Reporting back to health care providers about their compliance rates and the impact on patients helps to keep them engaged in the program.

“It’s important for Occupational Health and Safety to be involved in the program. It helps reinforce that hand hygiene is good for workers as well as for patients.”

John Pellegrino, Senior Consultant,
Occupational Health and Safety,
Niagara Health

7. Patients are partners in hand hygiene but do not want to be responsible for reminding health care providers to clean their hands.

Many patients do not feel comfortable asking health care providers about hand cleaning and they do not want to be responsible for reminding health care providers to clean their hands.

While it may not be appropriate to expect patients to remind health care providers to clean their hands, patients should know when and how to clean their hands, and when to expect health care providers to clean their hands.

Educating patients and visitors on personal hand hygiene is a good public health practice. Educating patients about when health care providers should clean their hands helps manage patient expectations.

The *Just Clean Your Hands* program will include tools to educate patients and visitors about proper hand hygiene, which will be made available after the train-the-trainer phase.

8. Patients are more confident about their care when a hospital has a hand hygiene program.

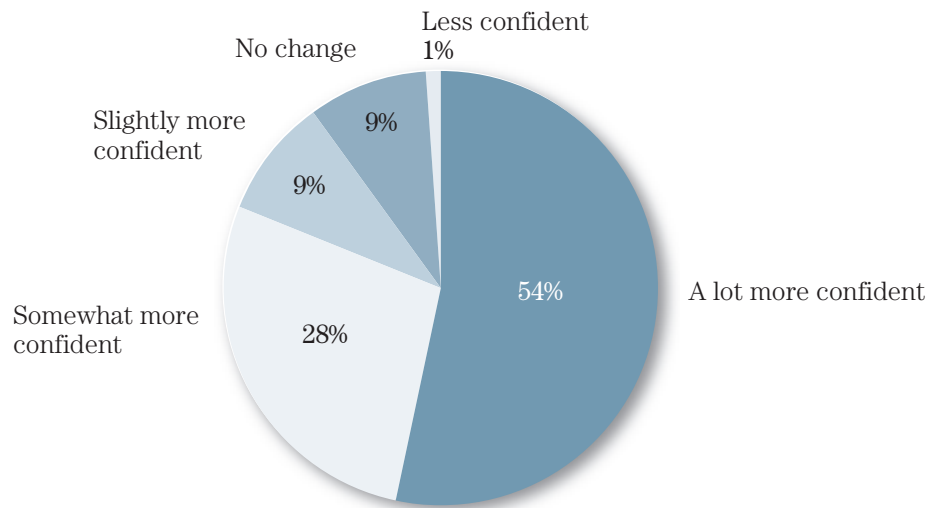
Good hand hygiene improves patient confidence as well as patient and provider safety.

Most patients (91 per cent) reported feeling more confident about their care just knowing the hospital had a hand hygiene improvement program.

“We’ve been diligent about communicating what we’re doing both inside and outside the hospital. We’ve posted the results of our hand hygiene audits on our website and released them to the press.”

Rita Downhill, Director
Diagnostic Services, Quinte Health Care

How a Hand Hygiene Program Impacts Patient or Visitor Confidence in their Care (Final Assessment)



9. Knowing your rates helps motivate staff and sustain the program.

If you can't measure it, you can't change it.

Hospitals should be maintaining data on rates of health care associated infections, such as MRSA and VRE. They should also routinely gather data on hand hygiene compliance rates. This information will help hospitals understand the practices in their organization and assess the effectiveness of their hand hygiene program.

It will take time to see the impact of increased health care providers' hand hygiene compliance on the transmission of health care associated infections in hospitals. Ongoing monitoring and observation of hand hygiene practices with timely feedback to front-line health care providers is an important first step.

The ministry has developed an observation tool and training program to help hospitals audit compliance with hand hygiene practices. Because all hospitals will be using the same tool, they will be able to compare their data and learn from one another. The tool and training program will also be used to support Canada's national hand hygiene campaign.

“The data from the actual [observational] audit are very useful. They help inform and educate workers and show us where we needed to do more work.”

John Pellegrino, Senior Consultant,
Occupational Health and Safety,
Niagara Health

10. Success is a steady improvement in compliance rates.

How should hospitals measure the success of their hand hygiene programs?

Based on experience in other jurisdictions with years of experience with hygiene improvement programs, it's unrealistic for hospitals to expect or sustain compliance rates of 90 to 100 per cent. However, it is realistic for hospitals to expect a steady improvement in compliance with good hand hygiene practices.

Some pilot sites saw their compliance with hand hygiene before contact with a patient or patient environment jump from 27 per cent of the time to 68 per cent of the time: a 41 per cent increase in compliance and a rate of improvement greater than 150 per cent.

In the short-term, it is possible to measure success in terms of:

- The increase in environmental support for good hand hygiene (e.g., adequate supplies, hand rub containers kept full and located at point of care, champions and leaders actively promoting hand hygiene)
- Increased awareness of the importance of hand hygiene on the part of health care providers and patients
- Changes in health care provider attitudes and practices (e.g., ability to assess risk and clean hands at the right times, greater predisposition to clean hands, fewer staff with dry cracked hands)
- Patient attitudes (e.g., greater understanding of hand hygiene, more confidence in care).

Each hospital will start from a different baseline. The goal is to see an ongoing, incremental increase in health care provider hand hygiene compliance.

“One of the benefits is the coming together of different areas of the organization – management, nursing and housekeeping – around a common issue.”

Rita Downhill, Director Diagnostic Services, Quinte Health Care

“I’ve observed that we’re carrying the habits and behaviours we’re developing at work outside the hospital. If I look at myself, I wash my hands more frequently than I did before outside of work. I’ve got hand rub in my car. I’m talking about the issue with people in community. If I’m experiencing that, others likely are too.”

Hal Fjeldsted, CEO
Kirkland and District Hospital

Making Just Clean Your Hands Work for Your Hospital

Just Clean Your Hands is a practical, evidence-based program designed to help hospitals improve hand hygiene. The multifaceted program was developed specifically for Ontario hospitals and has been successfully tested in 10 hospitals across the province.

The program can be used in different ways. Some hospitals may choose to implement all the components; others may use certain tools and materials to augment their existing multifaceted hand hygiene programs. The Ministry of Health and Long-Term Care encourages all hospitals to take advantage of the program and of the expert advice available to them, and be part of a dynamic province-wide and world-wide effort to provide clean, safe care.

Working together, we can decrease health care associated infections, reduce costs and save lives.

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