Understanding How Hand Hygiene Improves: A Look at New Hampshire Hospitals During a Statewide Hand Hygiene Campaign

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Goals for Today

• Review background leading to this work
• Summarize data sources and methods
• Review results
  – What we did
  – What we learned
• What next?
• Discussion
In 2008, NH Hospitals launched a statewide campaign to improve hand hygiene (and reduce HAI).
A Successful Campaign

Hand Hygiene improved!
For 2 years, NH HAI rate has been lower than national benchmark!

HH compliance (%)

- July-Dec 08
- Jan-June 09
- July-Dec 09
- Jan-Jun 10

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<tr>
<th></th>
<th>All staff</th>
<th>Physicians</th>
<th>Nurses</th>
<th>Other staff</th>
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<td>July-Dec 08</td>
<td>82%</td>
<td>79%</td>
<td>84%</td>
<td>78%</td>
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<tr>
<td>Jan-June 09</td>
<td>86%</td>
<td>82%</td>
<td>87%</td>
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<tr>
<td>July-Dec 09</td>
<td>89%</td>
<td>86%</td>
<td>91%</td>
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<tr>
<td>Jan-Jun 10</td>
<td>90%</td>
<td>88%</td>
<td>92%</td>
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For 2 years, NH HAI rate has been lower than national benchmark!
Variation Across Hospitals
Reported Performance Jan-Jun 2010

HH compliance (%)
Our Questions

1. What factors explained the variability?

2. Could we identify characteristics of higher and lower performing hospitals?

3. Were there common barriers to improvement?

4. How had the most successful hospitals succeeded?

5. What could we learn from one another?
What We Did

• Solicited self-assessments from NH hospitals
• Visited every NH hospital
  – Conducted focus groups with front line staff
  – Interviewed infection preventionists, auditors, and medical center leaders
  – Toured facilities
• Transcribed taped sessions
• Analyzed all the data for themes
New Hampshire Acute Care Hospitals, Critical Access Hospitals and Population Distribution

New Hampshire Hospitals
- H - Acute Care Hospitals
- H - Critical Access Hospitals

Population Distribution*
- 0 - 999
- 1000 - 2299
- 3000 - 6099
- 9000 - 20099
- 30080 - 59999
- 60000 - 110000

*Taken from 2010 US Census data. Not actual population. This map is intended to only show distribution.
Wash Your Hands
PROTECTING YOU
PROTECTING US
SANITIZING
IS A MUST
THANK YOU FOR CARING

VOUS PROTÉGER
NOUS PROTÉGER
DETERGENT
EST UN PLUS - +
Merci de votre générosité
Data Sources

• Self-assessment completed by 22 hospitals
• Site visits included 26 hospitals and 3 ASCs
• 29 focus groups with 242 total participants
  – 83% female; 58% >45 y
  – Job types included
    • 122 nursing staff
    • 25 physicians
    • 19 housekeepers
• Individual interviews with 28 IPs, 12 auditors
• Interviews or focus group participation by senior leaders (CEO, CMO, COO, CNO) at 18 hospitals
What We Learned
An Early Observation
Variation in Measurement Methods

• Standard campaign audit tool used by most

**BUT . . .**

• Everything else varied
  – Who audits
  – When and for how long audits are done
  – What is measured
  – Covert or overt; with or without immediate feedback

• Validity of data
  – Possibly useful for internal trends
  – Probably not legitimate for inter-hospital comparison
Emerging Pattern Phases of Improvement

- Initiation
- Implementation
- Maintenance
Initiation

“Well I think what we’ll be focusing on first, is actually getting the baseline data, and then actually getting the things installed in one unit. It was very overwhelming to think of doing this in the entire...I want to accomplish something in addition to measuring something.”

(infection preventionist interview, hospital in initiation phase)
Implementation

“I think we’ve made some good progress but we have certainly a long way to go.”

(focus group, hospital in implementation phase)

“I think 94% is good, but it’s not as good as it needs to be... I would say keep the light shining on it as long as it take to get up to 100%.”

(leader interview, hospital in maintenance phase)
Maintenance

“You can’t just have a campaign and have an end date. It really has to be an ongoing process.”

(focus group, hospital in maintenance phase)

“It’s not a project, it’s a forever thing.”

(focus group, hospital in maintenance phase)
Phases of Improvement of NH Hospitals

- Initiation
- Implementation
- Maintenance

PPS
CAH
“plateau”
Are there “best practices” and common barriers for each phase?

Are there options that have been used successfully to overcome common barriers?
Accountability

“It really does boil down to personal accountability. You can have an ICP nipping at people’s heels until the cows come home, reminding people. But in the end, people have to take it in as their own personal accountability.”

(infection preventionist interview, hospital in implementation phase)

“And I said ‘I don’t want to hear that a physician pushed back at one of those observers, if I heard that I’m going to be coming and talking to people.’”

(leader interview, hospital in maintenance phase)
System accountability is maintained across the continuum..........................
Ensure people know what to do and have tools to do it
....................Make expectations clear----establish clear consequences for failure
....................Avoid double standard for MDs
....................Establish response to willful disregard

.............Personal accountability begins at initiation and spreads......................
Early personal pledge/commitment
...........Increasing personal responsibility
...Shared accountability by and for all
Leadership

“We’ve had a lot of support from the administration and down the chain, having as many resources available for hand hygiene as possible which has been key to our success.”

(focus group, hospital in maintenance phase)

“I felt this is a no brainer, this is something that needs to be supported. So I’ve been keeping track of how its going, asking how I can be supportive of it, trying to be more conscientious myself about hand hygiene because I know part of it is example. Of course I don’t treat any patients, but having the leaders step up makes a big difference.”

(leader interview, hospital in maintenance phase)
Leadership

Initiation

Single leader (often IP) → Team/committee → Local champions

Senior leader support important throughout

Access to resources
Link to expectations and accountability

Physician leadership important to avoid divide

Implementation

Maintenance

Important activities

Goal setting (“100%” ideal).....Address organizational culture....Maintain focus
Measurement and Feedback

“And finally what we did was we expanded that so everybody in the whole staff was given shifts to do the observations which raised their consciousness. So not only were they looking to their observations once a week or every two weeks, but they knew they were being looked at all the time and that’s when I think if you look at our data points that’s when you see that take-off, where we made that fairly quick jump.”

(focus group, hospital in maintenance phase)

“I think I’d rather have immediate feedback than like get a form saying, “seven times you didn’t wash your hands.” A) because you could say maybe, “well, I did wash my hands inside.” But if I wasn’t, I’d rather have the chance to like... it would remind me to think about it more if I was forgetting to do it, if it’s right at that time...and also to change my ways.”

(focus group, hospital in implementation phase)
Measurement & Feedback

- **Initiation**
  - Covert audits at every phase to:
    - Establish baseline
    - Identify gap
    - Identify problem areas
    - Highlight progress
  - Monitor success

- **Implementation**
  - Increasing overt audits for:
    - Immediate feedback
    - Improvement

- **Maintenance**
  - Auditing shifts from individuals to local staff to everyone

Establish early:
- Clear definitions
- Clear and consistent auditing method
Education and Training

“That’s one of the education pieces I – I say that all the time: I want you to picture yourself, sitting in the exam room, waiting to have your physical, um... and your, your – your doc comes in. And... you know you’re going to be thinking: are his hands clean?”

(focus group, hospital in maintenance phase)

“And just a word on education and training: we have E-Learning modules that... are not very effective. It’s set up that they can go straight to the test without doing the module. And there’s like three test questions that are, you know, kindergarten level.”

(IP interview, hospital in implementation phase)
**Role in communicating goals and expectations**

*Focus shifts from*  
- How to do hand hygiene  
- Why to do hand hygiene  

*to*  
- Increasing just-in-time education  
- How to give and receive feedback  
- Other initiatives

**Ideas/Tools:**  
- Make link to HAI prevention explicit  
- Use to educate about audit methods  
- Hands-on demos (e.g. glo-germ)  
- Scripting and role plays
Product Availability and Convenience

“I think this hand gel has changed the world. I mean, it’s everywhere and you see everyone using it – I mean visitors, doctors, nurses, everybody uses it.”

(focus group, hospital in maintenance phase)

“They’re in, they’re in the rooms, they’re outside of the rooms. And if you take a trip to med-surg you’ll see they are every like, four feet, every three feet, they’re in the room, they’re outside the room. There, there’s no reason why someone cannot sanitize their hands.”

(focus group, hospital in maintenance phase)
Product Availability & Convenience

Initiation

Implementation

Maintenance

-----Necessary part of every phase ➔➔

Important elements:

- Uniform hand sanitizer location
- In-room access to hand sanitizer near point of care
- Ease of refill and replacement
- Personal hand sanitizer option
- Involve staff in product selection
Marketing and Communication

“We have one [sign] in the back of the door in the bathroom that says, “One out of every six people don’t wash their hands, I hope it’s not you.” Visitors see that and they go, “Gasp.” I love that sign. So that, to me, was effective.”

(focus group, hospital in implementation phase)

“They don’t stop looking at them...because there’s something new to look at.”

(focus group, hospital in maintenance phase)
Marketing & Communication

Initiation

Implementation

Maintenance

Key role in generating, maintaining enthusiasm for meeting goal

Key themes:

- Goals and progress
- Leadership commitment
- Link to infections
- Patient safety

Innovative mini-campaigns like “Be Seen Being Clean”

Important issues:

- Short targeted messages: “bumper sticker” or “tweets”
- Periodic changes to keep message fresh
Beyond the 5 Fingers
The Emerging Role of Culture and Relationships

• Resistance to audits, skepticism about audit data
• Relationships between staff
  – Issues of trust and safety around peer feedback
    • Fear of retribution
    • Fear of being labeled critical, self-righteous, police
  – Hierarchical structure (overt or covert) vs Team focus
• Relationships with patients and families
  – Is it really “ok to ask?”
  – Varying approaches to patient rights vs responsibilities
Ten Fingers?
Common Features of Hospitals in Maintenance Phase

- View hand hygiene as engrained activity (like seatbelts) but looking to innovate
- Use real-time peer and cross-discipline feedback for education and improvement
- Staff able to articulate hospital’s approach to accountability around hand hygiene
- Sophisticated approach to involving patients
- Strong sense of “Team” and community
- Good morale in face of economic challenges
Barriers and Threats to Progress

- Initiation
- Implementation
- Maintenance
Barriers that Impede Initiation

“Even though I have a hand hygiene team it’s hard with all their other duties to get them together to help me work on the campaign. Basically I am the hand hygiene campaign.”

(infection preventionist interview, hospital in implementation phase)

“It’s not outside every room. There’s one, like, every other room. And I know when I came out, it wasn’t actually easy for me to find the hand sanitizer.”

(focus group, hospital in initiation phase)
Barriers that Impede Initiation

• Lack of connection with NHHA and FHC
• IP-related factors
  – Turnover in position
  – Competing roles for IP
  – IP feels unsupported, alone, persecuted
• Lack of confidence that resources are committed
• Lack of senior leadership support
• Inconveniently located, or not enough, hand sanitizer
Barriers during Implementation

“I think that, again, it’s that human nature. People are afraid to hurt people’s feelings. People are afraid to embarrass people in front of others, and so it’s a very difficult, difficult thing.”

(focus group, hospital in maintenance phase)

“So we’re back to resources again we’re in this day and age of streamlining and downsizing and leaning you know, we don’t have resources to do that kind of stuff.”

(leader, hospital in implementation phase)

“It’s hard to implement new things or push or accelerate things when the organization is just sort of consumed with day-to-day and trying to keep things going and trying to keep their lives going outside.”

(focus group, hospital in implementation phase)
Barriers During Implementation

• Availability and convenience
  – Fire code restrictions
  – Financial disincentives to use more products

• Measurement/feedback:
  – Failure to establish clear criteria for hand hygiene opportunity and measurement
  – Lack of consistency in auditing (leading to lack of confidence in the data)
  – Preoccupation with (and skepticism about) data validity
  – Resistance to the idea of performance measurement
  – Continued reliance on covert audits only
  – Resistance to peer feedback
Barriers During Implementation

• Leadership/accountability:
  – Continued reliance on single campaign leader
  – Lack of active senior leader engagement
  – Ongoing resource issues
  – Tolerance of disruptive behavior

• Other cultural issues
  – Hierarchical culture
  – Acceptance of MD disengagement or under-engagement
  – Hostility between administration and MDs and/or staff
  – Resistance to patient involvement in campaign
Threats to Sustainability

“I don’t think it’s, it’s self-sustaining by itself, I think that there’s somebody – a group, or individuals or, or you know, all of us have to drive it, all of these have to drive it, I don’t think it’s just – I don’t think it’s self-sustaining, where we fixed it and we can move on to something else, that kind of thing.”

(leader, focus group, hospital in maintenance phase)

“I think as long as we can keep it right there and it’s an automatic thing, I guess we’ll be okay. But if you’re asking what my concern would be, it’s if there are competing priorities for what they have to do, and it gives any room for them to say, ‘well it’ll be alright this time,’ then we might start slipping.”

(leader interview, hospital in maintenance phase)
Threats to Sustainability

• Complacency
• Competing QI initiatives
• Redirection of resources
• Lack of formalized program to train, sustain and provide ongoing support for local champions
“I think it’s important because when you’re trying to communicate, engage, request support from the high offenders, and frankly it’s the physicians, it is a challenge to communicate to them as scientists what the data is, how it was gathered and then therefore say based on this we need your behavior to change. It is a challenge, does that mean it can’t be done? No I’m not saying that. But it does create a speed bump to that conversation.”

(leader interview, hospital in implementation phase)
Preliminary Insights into Variation Across Disciplines

• Physicians less involved in planning and implementing campaigns
• Campaigns often not optimized for MDs:
  – Product placement often unit specific
  – Feedback often provided by unit
• MDs take “scientific” approach: want ongoing proof, link to HAI
• Historical role models:
  – Florence Nightingale vs Ignaz Semmelweis
• Complex relationship issues with patients
• Double standard for MDs a common feature of “stuck” hospitals (formal accountability structure helps address)
What Next?

• Comprehensive report provided to all facilities
• Brief summaries for each hospital
  – Stage
  – Plateau or not
  – Strengths of current program
  – Vulnerabilities
  – Recommended next steps, interventions
• Opportunities to share resources
  – Posters and other marketing tools
  – Educational tools (e.g. WDH training for peer feedback)
  – New tools (leadership resource, auditing for measurement training)
  – Specific initiatives (e.g. CHAMPS, Be Seen Being Clean)
Remaining Questions for Further Investigation

**Gender**
Is hand hygiene a feminine activity?

* 

**Generation**
Are younger doctors and nurses more accepting of the need to perform hand hygiene?

* 

**Educational background**
Are some people too advanced to participate?

* 

**Professional roles**
Why are nurses *expected* to clean their hands and doctors *applauded* for doing so?

* 

**Morale**
Optimistic vs cynical view of challenges
HIGH FIVE for a HEALTHY NH

Clean your hands!