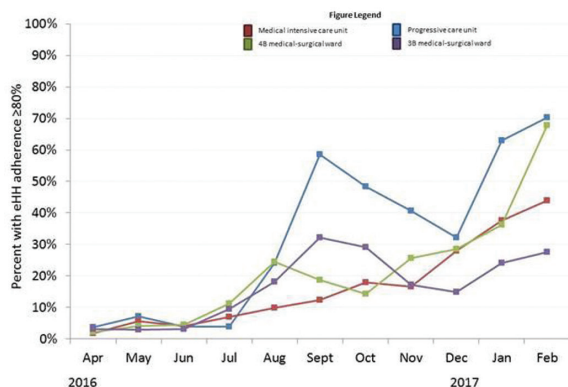


Figure 3. Proportion of nurses with electronic hand hygiene adherence $\geq 80\%$, Apr 2016-Feb 2017



Disclosures. All authors: No reported disclosures.

1326. Improving Hand Hygiene: Anonymously Validated Data Driven Approach Producing Sustainable Culture Change Utilizing “One and Up” Accountability Agents across a Healthcare System- a Cost-effective National Best Practice.

Jack Ross, MD, FACP, FIDSA, FSHEA; Hartford Hospital, Hartford, Connecticut

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Background. Inadequate hand hygiene is a major contributor to hospital infections worldwide. Before 2012, in our healthcare system, hand hygiene was monitored by unit managers, nurses, and infection control staff with reported compliance rates of $>90\%$. A five month independent audit by an anonymous observer revealed actual rates of 14–33%. This discordant result was typical of hospitals across the country then and now who have provided intensive education, used peer feedback, and maximized physical hand hygiene supplies. A commitment was made to rigorously improve hand hygiene utilizing validated data, social psychology with disciplinary consequence, and no additional expensive technology.

Methods. Employed dedicated “secret shopper”/anonymous observers were deployed across five hospitals, all units and all shifts, and all job roles to collect valid anonymous hand hygiene observations without local bias. Twice monthly hand hygiene data was shared by hospital, unit, shift, and job role to executive leadership and down to frontline unit staff for daily huddles. Additionally, over 100 “One and Up” Accountability Agents from management ranks were recruited, trained, and performed weekly standardized unit-based hand hygiene observations openly, giving feedback real-time to non-compliant employees and medical staff; noncompliance was reported to the hospital epidemiologist; and emails on his behalf were sent to the employee’s manager, and the manager’s manager “One and Up”. A four step disciplinary process was begun. The same process was applied to the medical staff.

Results. Over 188,000 anonymous secret shopper validation observations, and hundreds of thousands of Accountability Agent observations have been performed. Hand hygiene compliance has been $>94\%$ for 22 months and $\geq 97\%$ for the last 6 months in all five hospitals. No employee or medical staff member advanced beyond the second disciplinary step.

Conclusion. This model represents a national best performance model, with validated and sustained results, accomplished with cultural change and aligned multitier accountability (not technology). It is truly a low cost blueprint for other healthcare systems that seek rapid, honest, and sustained hand hygiene improvement across all job roles, shifts, and different sized hospitals and cultures.

Disclosures. All authors: No reported disclosures.

1327. Monitoring Hand hygiene Compliance among Healthcare Workers at a Tertiary Care Center: Use of Secret Observers Is the Way Forward

Amar Krishna, MD¹; Bhagyashri Navalkele, MD²; Amina Pervaiz, MD³; Aditya Kotecha, MD⁴; Shahram Maroof, MD⁵; Dale Stern, MD⁶; Katia Robinson, MD²; Jenna Kado, MD²; Elaine Flanagan, RN, BSN, MHA, CIC⁵; Syed Hussain, MD⁴ and Teena Chopra, MD, MPH⁶; ¹Infectious Disease, Detroit Medical Center/Wayne State University, Detroit, Michigan, ²Detroit Medical Center/Wayne State University, Detroit, Michigan, ³Infectious Diseases, Detroit Medical Center/ Wayne State University, Detroit, Michigan, ⁴Detroit Medical Center, Detroit, Michigan, ⁵Internal Medicine, Wayne State University School of Medicine and the Detroit Medical Center, Detroit, Michigan, ⁶Infection Prevention and Hospital Epidemiology, Detroit Medical Center, Detroit, Michigan

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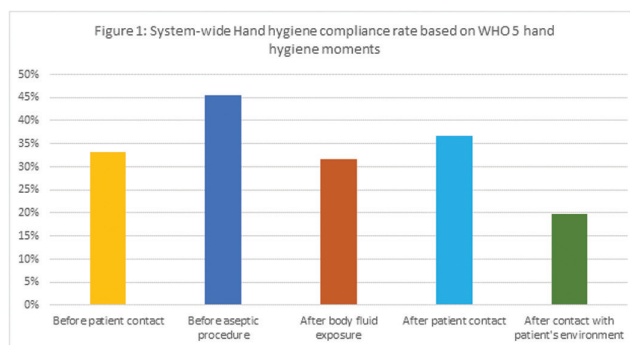
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Background. Hand-hygiene (HH) is known to be the most effective way to reduce healthcare acquired conditions (HACs). Despite being a simple answer to the complex HAC issue, compliance with HH practice has been abysmal with reported compliance rate of 40% among healthcare workers (HCWs). In 2015, compliance rate with HH at Detroit Medical Center (DMC) was reported to be 100% when direct observers were used to monitor compliance. In order to confirm the previously reported compliance rates, this study used secret observers to audit HH compliance and provide performance feedback to HCWs.

Methods. A prospective observational study was conducted at DMC from June 2016 to December 2016. Hand hygiene committee was established comprising of Infection Prevention and Hospital leadership members. Trained medical residents were appointed as “secret observers” to provide accurate HH reporting. HH auditing was performed using the smartphone app “Speedy audits” to survey and capture the 5 moments of hand hygiene among HCWs. Compliance reports based on different professions, hospital sites, unit locations and auditors were generated using online web portal and analyzed to determine HH compliance rate.

Results. During the 7-month study period when secret observers were used, a total of 1229 HCWs were observed. Overall, the HH opportunity compliance rate was 31% (916 complied opportunities /2939 opportunities). Hand hygiene compliance rates drastically fell when secret observers were used (31% compared with 100% in 2015 using direct observers). Based on two major before and after patient contact indications, 1022 compliances were observed from 3343 opportunities (30.5% compliance rate). The other compliance rates were 44% before aseptic procedure, 35% after body fluid exposure and 20% after patient environment contact [Figure 1]. Based on profession, compliance rates were lowest among nurses (613/2058; 30%) and medical students (36/169; 21%) when compared with physicians (445/957; 46%).

Conclusion. Hand-hygiene monitoring by secret observers with use of smartphone app is a feasible and accurate way for tracking HH compliance. The advantage of generating profession-based and unit-based reports for feedback will help to promote HH awareness and improve adherence rates.



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1328. What Psychological Theories of Behavior Change Can Teach Us about Improving Hand Hygiene Adherence: Do We Mean What We Say?

Kimberly Corace, PhD^{1,2,3}; Jeffrey Smith, MSc⁴; Tara MacDonald, PhD⁵; Leandre Fabrigar, PhD⁵; Arezou Saedi, IMG⁶; Jacquelyn Quirk, MPH⁴; Sam MacFarlane, RN⁴; Debbie Valickis, RN⁴ and Gary Garber, MD, FACP, FIDSA^{1,3,4,6}; ¹Ottawa Hospital Research Institute, Ottawa, ON, Canada, ²University of Ottawa/Institute of Mental Health Research, Ottawa, ON, Canada, ³University of Ottawa, Ottawa, ON, Canada, ⁴Infection Prevention and Control, Public Health Ontario, Toronto, ON, Canada, ⁵Queen's University, Kingston, ON, Canada, ⁶University of Toronto, Toronto, ON, Canada

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Background. Health care worker (HCW) hand hygiene is effective in reducing healthcare associated infections, yet hand hygiene rates are suboptimal. Psychological theories of behavior change can be used to improve and sustain hand hygiene adherence. While past research has examined HCW explicit attitudes towards hand hygiene (ie., self-reported attitudes), it is unclear if these explicit attitudes are consistent with implicit attitudes (ie., attitudes outside of one’s awareness). Understanding HCW explicit and implicit attitudes is important when designing effective interventions to improve hand hygiene rates. This study examined explicit attitudes towards HCW hand hygiene and compared these to implicit attitudes.

Methods. HCWs (N = 420) from 70 long-term care facilities in Ontario, Canada completed: (1) a survey tool based on psychological theories of behavior change to examine explicit attitudes towards hand hygiene, and (2) a computer administered implicit association test (IAT) and affect misattribution procedure (AMP) to evaluate implicit attitudes towards hand hygiene. Sociodemographics and self-reported hand hygiene adherence were measured. Factor analysis was performed to identify themes. Correlations were conducted between explicit and implicit measures.

Results. Factor analysis identified key explicit attitudes themes: (1) beliefs about consequences to self and others, (2) environmental resources, (3) time pressure and workload, and (4) social/professional role and identity. AMP and IAT results indicated that these procedures can be successfully applied to hand hygiene. While results suggested implicit positive attitudes towards hand hygiene, implicit test scores were neither correlated with explicit attitudes nor with self-reported hand hygiene adherence.

Conclusion. Explicit attitudes did not predict implicit attitudes. So, what we say is not always what we really think or do. Interventions have successfully targeted implicit attitudes to foster behavior change when targeting explicit attitudes alone did not work. This is yet to be explored in the hand hygiene arena, and is a key area for future research in order to guide the development of successful interventions to sustainably improve hand hygiene rates.

Disclosures. All authors: No reported disclosures.