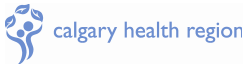


“Moving the Needle”: Monitoring the Effectiveness of a Social Marketing Campaign to Improve Hand Hygiene Adherence



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Background/Objectives

Interventions to improve adherence with hand hygiene recommendations in an entire Region of 22,000 staff included installation of alcohol hand rub dispensers, education activities, posters, screensavers, merchandising, and live on-unit drama. An on-going evaluation plan to monitor the hand hygiene campaign was developed to assess both perceptions and attitudes of staff as well as actual hand hygiene adherence.

Methods

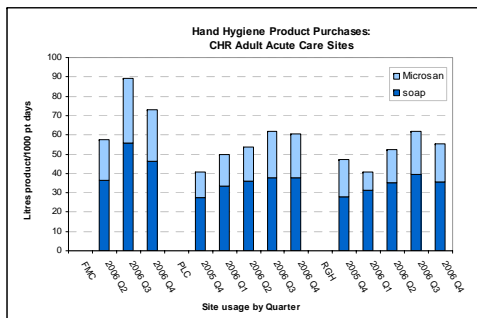
Three key indicators were used to measure hand hygiene adherence:

- 1. Hand hygiene product usage.** Hand hygiene product purchase volumes for each acute care site were obtained from Housekeeping and Purchasing and were standardized by patient days/financial quarter/acute care site.
- 2. Observations of practice.** Quarterly audits of hand hygiene behaviour are performed in the 3 adult ICU settings at each acute care site by Infection Control Practitioners (ICPs) as part of the on-going VAP prevention bundle.
- 3. Staff surveys** to measure attitudes and beliefs about hand hygiene. The survey was conducted by ICPs at each site 6 weeks after the initial hand hygiene product installation and then every 6 months after. The survey tool measures awareness of hand hygiene promotions; staff attitudes and perceptions of the hand hygiene campaign; self-reported adherence with hand hygiene; and perceived priority of hand hygiene in routine patient care activities.

Results

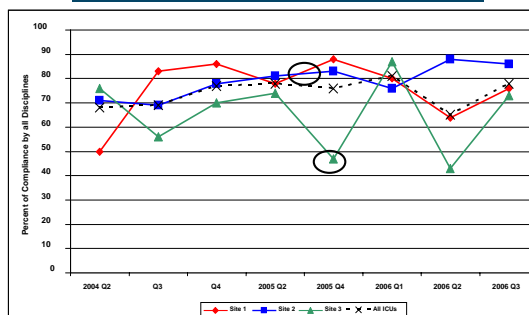
- Routine soap usage in the adult acute care settings has increased from an average 30.6 litres soap/1000 patient days to 39.9 litres/1000 patient days, while alcohol hand rub usage has increased from 17.9 litres/1000 patient days to 23.1 litres/1000 patient days.
- Observed adherence with hand hygiene initially increased with the installation of alcohol hand rub in the ICU settings but has subsequently decreased over time from an average adherence of 80% down to approximately 65%.
- A total of 2010 staff have been surveyed throughout the Region over 3 survey cycles. Of those respondents who identified their professional role, 42% were nurses and 4% were physicians. Staff were older (41% over 45 years) and female (83%).
- Over 1/3 of staff reported their skin condition as “worse since the new products” (37%), but that has since decreased, down to 19% in the last summer survey and up to 27% in the previous winter survey. Twelve percent (12%) of staff have reported their skin condition has improved with the new products.

Hand Hygiene Product Volumes



- The values shown are litres of Microsan hand rub or litres of plain and antimicrobial soap ordered in the given quarter (Q4 2005-06 to Q4 2006-07). Products include both dispenser cartridges purchased by Housekeeping and pump bottles purchased by individual units. The product volumes have been standardized using patient days to reflect patient volumes at the different acute care settings.
- Since these purchase volumes are proxy measures of actual product consumption volumes, there may be movement up or down with individual quarters (for example, an over-purchase of product in one quarter would lead to a reduced volume purchased in the subsequent quarter). However, these volumes are useful for gauging the proportions of soap usage vs. hand rub usage over time. Continued monitoring of these product volumes will be important to observe long-term trends.

ICU Hand Hygiene Observations



- This chart is derived from the Hand Hygiene observation data from the adult acute care ICU's. There are 3 adult acute care sites in the Region.
- The hand hygiene product installations occurred beginning in 2005 Q3 at Site 1 and Site 2, and 2005 Q4 at Site 3 (circled points on graph). Observations of adherence with hand hygiene appear to be stable over time, with no obvious increase in rates post-installation of the hand hygiene products.

Staff Hand Hygiene Survey Results

	I perform hand hygiene between all patient contacts n=1935	Other HCWs perform hand hygiene between all patient contacts n=2008	I know when to wash my hands (vs. using Microsan) n=2047	I wash my hands more than using Microsan n=2040	Microsan keeps my hands clean n=2010
strongly agree/agree (all)	1839/1935 (96%)	1368/2008 (68%)	1960/2047 (96%)	1342/2040 (66%)	1595/2010 (79%)
1st survey	511/532 (96%)	349/540 (65%)	521/550 (95%)	355/546 (65%)	433/533 (81%)
2nd survey	649/684 (95%)	505/711 (71%)	696/724 (96%)	469/723 (65%)	563/716 (79%)
3rd survey	679/719 (94%)	514/757 (68%)	743/773 (96%)	518/771 (67%)	599/761 (79%)

- The table shows the compiled results from all survey cycles (n = 2010). A total of 96% of respondents reported they perform hand hygiene between all patients. Because self-reporting of behaviour is not reliable, the survey also questioned perceptions about the behaviour of other healthcare workers. The percent of those surveyed who believe that other healthcare workers perform hand hygiene between all patient contacts has increased from 65% to 68% over the survey cycles.
- Although 96% of respondents report knowing when to wash hands instead of using alcohol hand rub, only 34% report using alcohol hand rub more than hand washing. Current hand hygiene guidelines encourage staff to use alcohol hand rub in relation to most job activities, and to wash hands only when visibly soiled or when a patient is diarrheal.
- Different promotional strategies had different results in visibility and raising awareness of hand hygiene. Although 95% saw hand hygiene posters, only 61% of those staff said they were more aware of hand hygiene because of them. Only 30% reported seeing the on-unit drama “Bugs on the Run”, but 81% of those staff said they were more aware. Less than a third (28%) of staff saw screensavers placed on multi-user computers on units, but 75% of those said they were more aware of hand hygiene because of them.

Conclusions

- Continuing monitoring of a variety of performance indicators provides the most valid measure of the effectiveness of a marketing program.
- Promotion of hand rub use over soap use remains a challenge.
- Highly visible poster promotions may allow a large number of staff to see messaging, but their impact in raising awareness of hand hygiene is less than a novel approach such as on-unit dramas or computer screensavers.
- In social change programs, “cultural change” is reflected by system-wide, progressive, modest increments in performance indicators (“moving the needle”) that must be sustained by long-term efforts.