PRACTICUM SUMMARY REPORT

Name: IHI University of Toronto Project 2014-2015

Team Members: Adam Levesque, Nick Chauvin, Jasmine Song

Project Title: Impact of bedside sanitizer holsters on the hand hygiene compliance of patients in Surgical Ward 4 Central of the Scarborough General Hospital

University/Organization Name: University of Toronto

Health System Sponsor Name: The Scarborough Hospital

Aim of project (1-2 sentences)
Hospital infections are costly to the healthcare system as well as the individual organization and can result in poor patient outcomes. Hand hygiene can be drastically improved by frequent use of hand sanitizer and we conducted a study to examine the effective/efficient use of hand sanitizer at the Scarborough General Hospital (TSH).

Planned changes tested (2-3 sentences)
The plan, do, study and act (PDSA) model was used to conduct two cycles (with four small tests).

PDSA 1—Placed hand sanitizer bottles (in holders) at the bedside of patients and sanitizer posters (in the room) that prompted patients to ask nurses for hand sanitizer bottles.

PDSA 2—Main methods were identical, and added education component involving staff (nurses primarily), prior to patients being admitted to the unit.

Predictions (2-3 sentences)
1. Both PDSA cycles will increase patient hygiene participation and awareness at TSH.
2. PDSA 2 will prompt higher patient hygiene participation than PDSA 1. Likewise rooms with posters will result in higher usage of hand sanitizer than the rooms where sanitizer was only placed.

Results
Present your results with a graph(s).

PDSA 1
Change: Novel Sanitizer Holsters are Introduced to 20 beds in Surgical Ward 4C

Sanitizer Use By Patients in Environments of Continuous Accessible Sanitizer (A) or Sanitizer Available Upon Request (B)
**PDSA 2**

*Change: Nurses actively educated patients about proper hand hygiene practice and encourage use of hand sanitizer holsters*

**Sanitizer Use By Patients in Environments of Continuous Accessible Sanitizer (A) or Sanitizer Available Upon Request (B)**

**PDSA 1 & 2**

Comparison between data collected in both cycles.

**PDSA Cycle Sample Averages in Environments of Continuous Accessible Sanitizer (A) or Sanitizer Available Upon Request (B)**
Summary of results (3-4 sentences):
There was large variance observed between individual room cumulative utilization of the sanitizer and average of sanitizer used per patient day. When environment samples were averaged for cumulative utilization of sanitizer, it was seen that in the environment where sanitizer was only available upon request (B) was greater. In both environments, active nurse education and promotion of patient hand hygiene was found to increase sanitizer usage.

Learning (4-5 sentences)
Comparison of questions, predictions, and analysis of data:
Baseline measures found that the majority of the patient population (76%) had impaired mobility which limited patient accessibility to available sanitizers. The data showed that environment B (sanitizer available upon request) had higher patient hygiene participation than environment A (continuous accessible sanitizer) and that PDSA 2 (with nurse education) had higher patient hygiene participation than PDSA 1 (without nurse education). However these findings are not statistically significant, and are believed to be influenced by the smaller sample size.

Impact on systems (3-4 sentences)
Discuss the project’s significance on the local system and any findings that may be generalizable to other systems:
This project tested several approaches to patient hygiene participation that can help in reducing hospital infections: continuous accessible sanitizer, sanitizer available upon request, and nurse education. The results showed that the method with the highest sanitizer usage was having a bedside sanitizer available upon request coupled with nurse education. Some countermeasures of the project included cost of hand hygiene intervention (holsters and bedside sanitizer bottles), potential waste increase, potential slower service time for patients, and potential staff dissatisfaction (especially the nursing and housekeeping staff) given additional tasks.

Conclusions (3-5 sentences)
Summarize the outcome of the project. Is this project sustainable? What are the requirements for sustainability?
This project found that out of several approaches, having a bedside sanitizer available upon request coupled with nurse education is associated with the highest patient hygiene participation. This project is sustainable given that the following requirements are met: 1) EcoLab and hospital staff continue to support the engagement of patients in hand hygiene, 2) the location of the bedside sanitizers are optimized such that it maximizes patient accessibility and comfort, and 3) collecting long-term hand hygiene compliance data to ensure that the project is meeting its goals.

Reflections/Discussions (5-7 sentences)
Discuss the factors that promoted the success of the project and that were barriers to success. What did you learn from doing this project? What are your reflections on the role of the team?
Transparency and open communication among all members of the team ensured that the project progressed smoothly and that the team acted professionally in the practicum setting. This was achieved through regular team meetings (in person meeting worked more effectively than virtual) and email exchanges; an online file sharing program; and taking meeting minutes. However, since team members are all from different academic backgrounds with busy schedules, it was sometimes difficult to coordinate tasks or to ensure more complete measurement of data. We learned that having a responsible team leader is very important in team organization and that each team member has something meaningful to contribute and deserves our respect. Overall this project taught us to look past internal team issues to focus on the end goal of the project which is to increase patient safety and well-being.
By signing this document (electronic signature is acceptable), I attest that the information provided by the learners in this project is accurate.

### LEARNER(S):

<table>
<thead>
<tr>
<th>Signature</th>
<th>Printed Name</th>
<th>Area of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jasmine Song</td>
<td>Jasmine Song</td>
<td>Master of Public Health</td>
</tr>
<tr>
<td>Nick Chauvin</td>
<td>Nick Chauvin</td>
<td>Masters of Management of Innovation</td>
</tr>
<tr>
<td>Adam Levesque</td>
<td>Adam Levesque</td>
<td>Master of Social Work / Master of Health Care Admin</td>
</tr>
</tbody>
</table>

### FACULTY SPONSOR:

<table>
<thead>
<tr>
<th>Signature</th>
<th>Printed Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassandra Koitsopoulos</td>
<td>Cassandra Koitsopoulos</td>
<td>The Scarborough Hospital</td>
</tr>
</tbody>
</table>

### AUTHORIZATION

Do the learners, faculty sponsor, and health system sponsor authorize this project for publication at [www.ihi.org](http://www.ihi.org)?

☐ Yes  ☐ No

Commented [CMK1]: Yes