modulation interventions implemented by Occupational Therapists (OT) has been successful in other settings.

Objectives The purpose of this study is to examine the effectiveness of sensory modalities and engagement in sensory-based activities for decreasing the number of 'acting out' behaviours during classroom sessions on an adolescent inpatient psychiatric unit to <2/day.

Methods During this nine week 2^3 factorial planned experimentation (PE) all patients, with or without SMD, who participated in OT were offered specific sensory modalities which included weighted vests, vibrating snake, and weighted lap pad as they worked on sensory-based activities during the OT sessions. Immediately following OT sessions, observations of patients' behaviours were made during the one hour classroom session.

Results Post introduction of sensory modalities, the baseline mean of 'acting out' episodes during class decreased for all patients from 14.2 to 1.3/day and SMD patients (account for 92% of episodes) from 12.8 to 1.2/day. Greatest improvement noted for SMD patients post all sensory modalities combination and sensory-based activities from mean of 12.8 to 0.4/day. This intervention replicated with similar outcome as the PE. Goal met and mean <1/day sustained until end of school session.

Conclusions Incorporating sensory modalities into adolescent psychiatric inpatients' daily routine prior to the formalised classroom setting improves their ability to handle sensory stimuli appropriately and decrease acting out behaviours. Plan to continue monitoring for sustainability and spread to the adult inpatient psychiatric setting.

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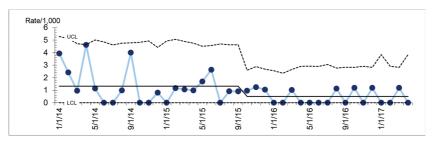
REDUCTION OF HOSPITAL ACQUIRED CONDITIONS
THROUGH THE USE OF A WORKSTREAM APPROACH IN
PILOT UNITS IN HAMAD MEDICAL CORPORATION

Jesse McCall, Frank Federico, Azhar Ali. IHI, US

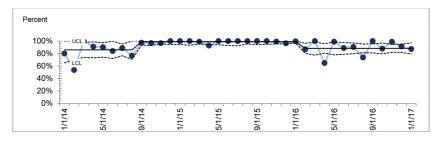
10.1136/bmjoq-2017-IHI.24

Background Through a system-wide, modified IHI Breakthrough Series Collaborative, staff at the Hamad Medical Corporation aimed to increase the reliability of bundle compliance to reduce hospital acquired infections in critical care units, general wards and for peri-operative patients.

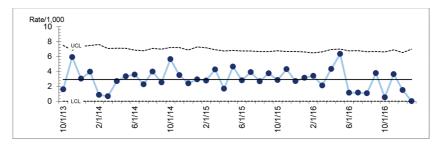
Objectives The aim of the collaborative was to achieve 95% reliable use of care bundles and 0 incidence or 300+days between patient harm events in participating units by December 2016.



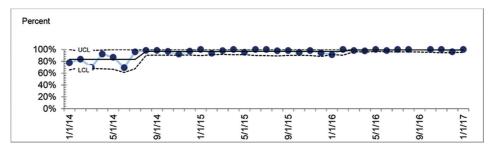
Abstract 1012 Figure 1 VAP rate per 1,000 device days in BCA pilot units (U chart). Average VAP rate was 1.3 per 1,000 device days and reduced to 0.5 per 1,000 in October 2015. Average VAP bundle compliance was 86% and increased to 98% in September 2014, then reduced to 90% in January 2016.



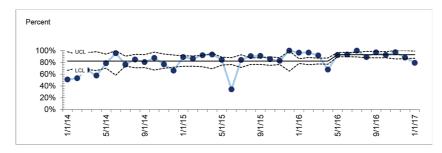
Abstract 1012 Figure 2 Percent compliance with VAP bundle in BCA pilot units (P chart).



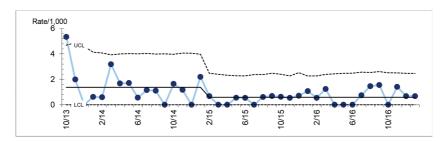
Abstract 1012 Figure 3 Central line infection rate per 1,000 device days in BCA pilot units (U chart). Average central line infection rate has remained constant at 2.9 per 1,000 device days despite an increase in insertion and maintenance bundle compliance.



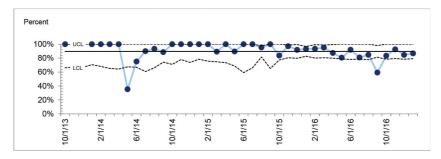
Abstract 1012 Figure 4 Percent compliance with central line insertion bundle in critical care pilot units (P chart).



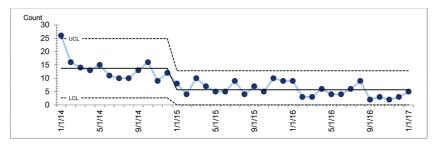
Abstract 1012 Figure 5 Percent compliance with central line maintenance bundle in BCA pilot units (P chart).



Abstract 1012 Figure 6 CA-UTI infections per 1,000 device days in BCA pilot units (U chart). Average catheter-associated urinary tract infections was 1.4 per 1,000 device days, then reduced to 0.6 per 1,000 in February 2015, despite bundle compliance remaining constant at 90%.

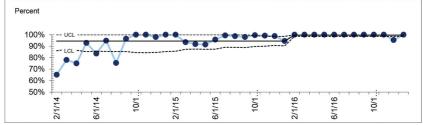


Abstract 1012 Figure 7 Percent compliance with urinary catheter insertion bundle in BCA pilot units (P chart).

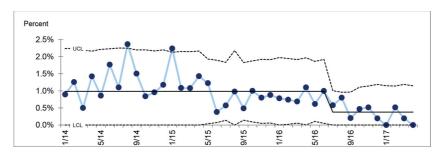


Abstract 1012 Figure 8 Pressure ulcer count in BCA general ward and critical care pilot units (C chart). The average count of pressure ulcers was 13.8 and reduced to 5.7 in January 2015. Percent of 'at risk' patients receiving pressure ulcer prevention increased as did achievement of multi-disciplinary rounds.

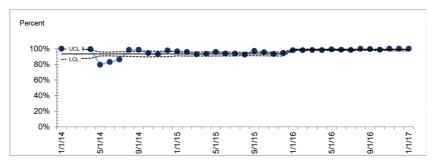
Abstract 1012 Figure 9 Percent of 'at risk' patients receiving the full pressure ulcer prevention bundle in BCA pilot units (P chart).



Abstract 1012 Figure 10 Percent achievement of multi-disciplinary rounds in general ward pilot units (P chart).



Abstract 1012 Figure 11 Percent of patients developing surgical site infections in BCA perioperative pilot units (P chart). Average percent of surgical patients contracting a surgical site infection was an average of 1% and reduced to 0.3% in July 2016. Percent of elective surgeries with complete pre-surgical briefings increased from 95% to 98% in January 2016. Other surgical interventions were also tested and implemented.



Abstract 1012 Figure 12 Percent of elective surgeries with complete pre-surgical briefing (P chart).

Methods In October 2013, The Best Care Always Collaborative was launched, focusing on improving the reliability of evidence-based care processes and thus improved outcomes for patients. Participating teams apply quality improvement methods to test change packages and aim to implement contextspecific care bundles to reduce hospital acquired conditions. All sites submitted qualitative and quantitative data in monthly progress reports.

Results Through focused improvement efforts in workstreams the improvement teams were able to reduce instances of hospital acquired infections and in most cases improve process reliability. Please see attached data for detailed analysis.

Conclusions The IHI team learned how to work and apply the Science of Improvement in a new cultural context in Doha, Qatar. Reliably applying all elements of evidence-based care bundles can lead to improved outcomes. Healthcare delivery is complex and multiple factors effect patient outcomes. Multi-faceted approaches must be employed to reduce hospital acquired conditions. Further work should be done to develop, test and measure the effects of standard workflows for processes prone to human error and patient harm in this context.

1015 **USING QUALITY IMPROVEMENT TO END HOMELESSNESS**

Beth Sandor, Jake Maguire. Community Solutions, US

10.1136/bmjoq-2017-IHI.25

Background Homelessness is an urgent public health crisis. Still, most communities do not target resources effectively to the most vulnerable homeless populations, and no framework

COMMUNITY SOLUTIONS

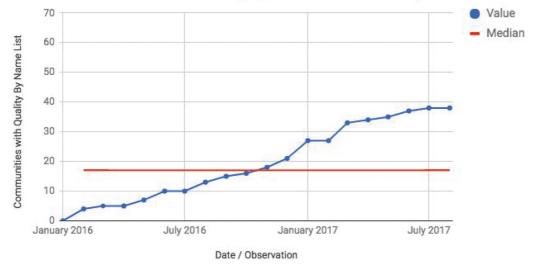
August 2017 **Using Quality Improvement to End Homelessness**

Increases in Communities with Monthly By Name Data on Homeless Veterans



*Quality By Name List is defined as a registry of all persons experiencing veteran and/or chronic homelessness across a community's entire geography, updated at least monthly.

Increases in Communities with Monthly By Name Data on Chronically Homeless



Abstract 1015 Figure 1