

Clean Hands = Best Care: evaluation, re-design and re-launching of a regional healthcare facility hand hygiene program

Penelope Radalj¹, Professor Eugene Athan¹, Professor Patricia Dunning¹
1. Barwon Health, Geelong, Victoria



Background

Barwon Health’s (BH), University Hospital Geelong, 5 Moments for Hand Hygiene compliance (HHC) was 39% in February 2007 and improved within months after implementing the Victorian Hand Hygiene Project guidelines. Since National Hand Hygiene Initiative (NHHI) Audit 1, 2010 Barwon Health consistently achieved above the National Benchmark of 70% HHC with a correlated reduction in methicillin resistant *Staphylococcus aureus* disease. There was organisational concern that by continuing to apply current strategies we had plateaued around 70% HHC and would not improve HHC. A decision was made to evaluate and improve the hand hygiene program with support of executive and key stakeholders.

Aim: to determine whether multidisciplinary and multifaceted interventions increase hand hygiene compliance.

Method: Clean Hands = Best Care was launched in November, 2012. A multidisciplinary committee was established and committee members were responsible for reporting decisions back to their home divisions and for bringing relevant issues from their home division to the committee. This team oversaw the multidisciplinary and multifaceted interventions that were planned and implemented to improve adherence to hand hygiene practices. A cause-and-effect diagram (Ishikawa diagram) was used to facilitate identification of potential failure points. These factors were assigned to one of six categories: (1) environment /organisation, (2) staff, (3) consumer, (4) process, (5) products and (6) promotion. Working groups were formed to investigate, manage and implement improvement to the hand hygiene program:

- Hand hygiene promotion and the consumer
 - The key message is hand hygiene is “everyone’s responsibility”
 - Health care consumers receive education and awareness of the importance of hand hygiene.
 - Hand hygiene stations at hospital and ward entrances. Posters to educate and promote hand hygiene for staff and consumer.



Product - A review of replenishment and supply of hand hygiene product to assist staff with access to hand hygiene.

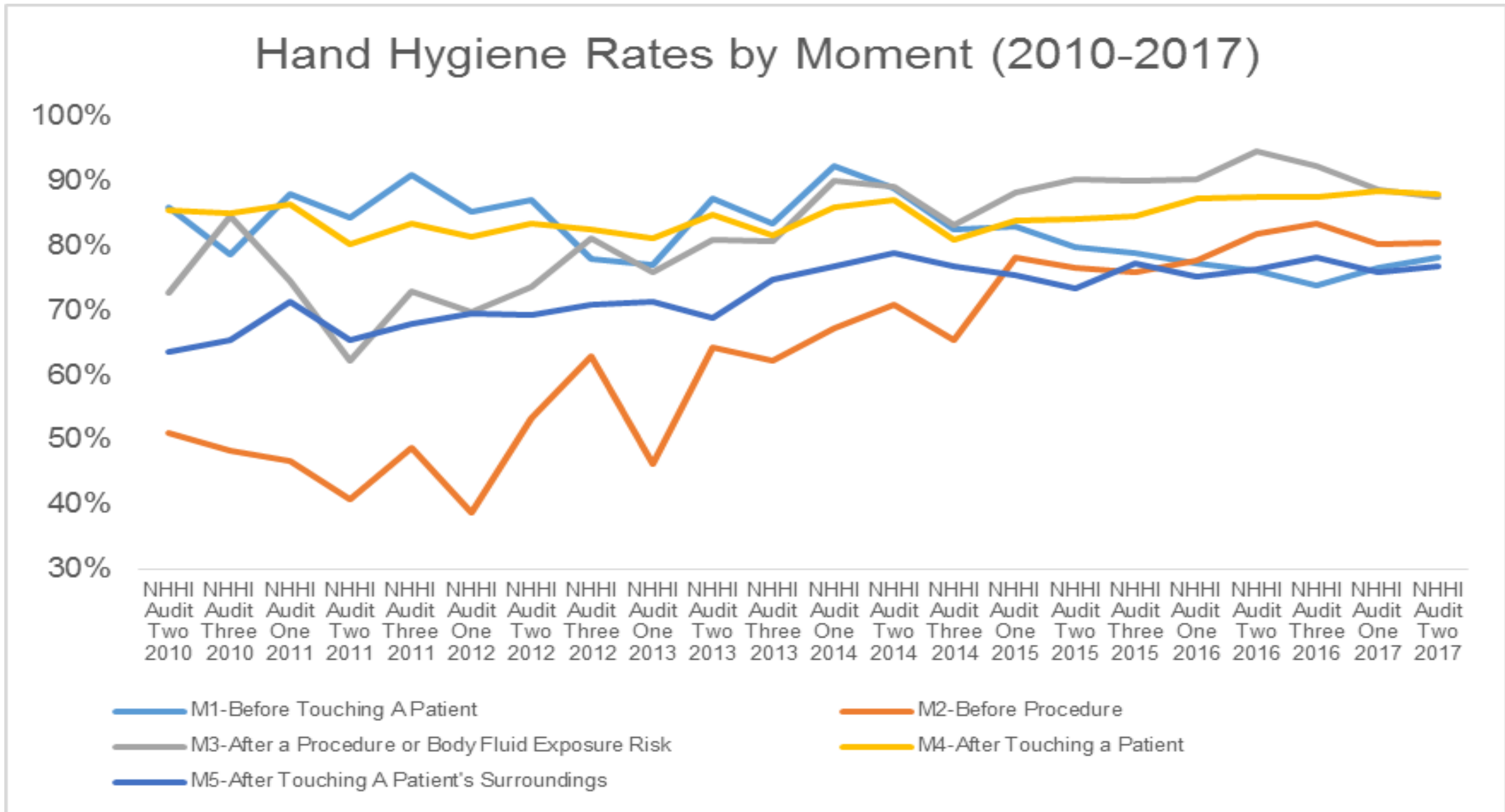
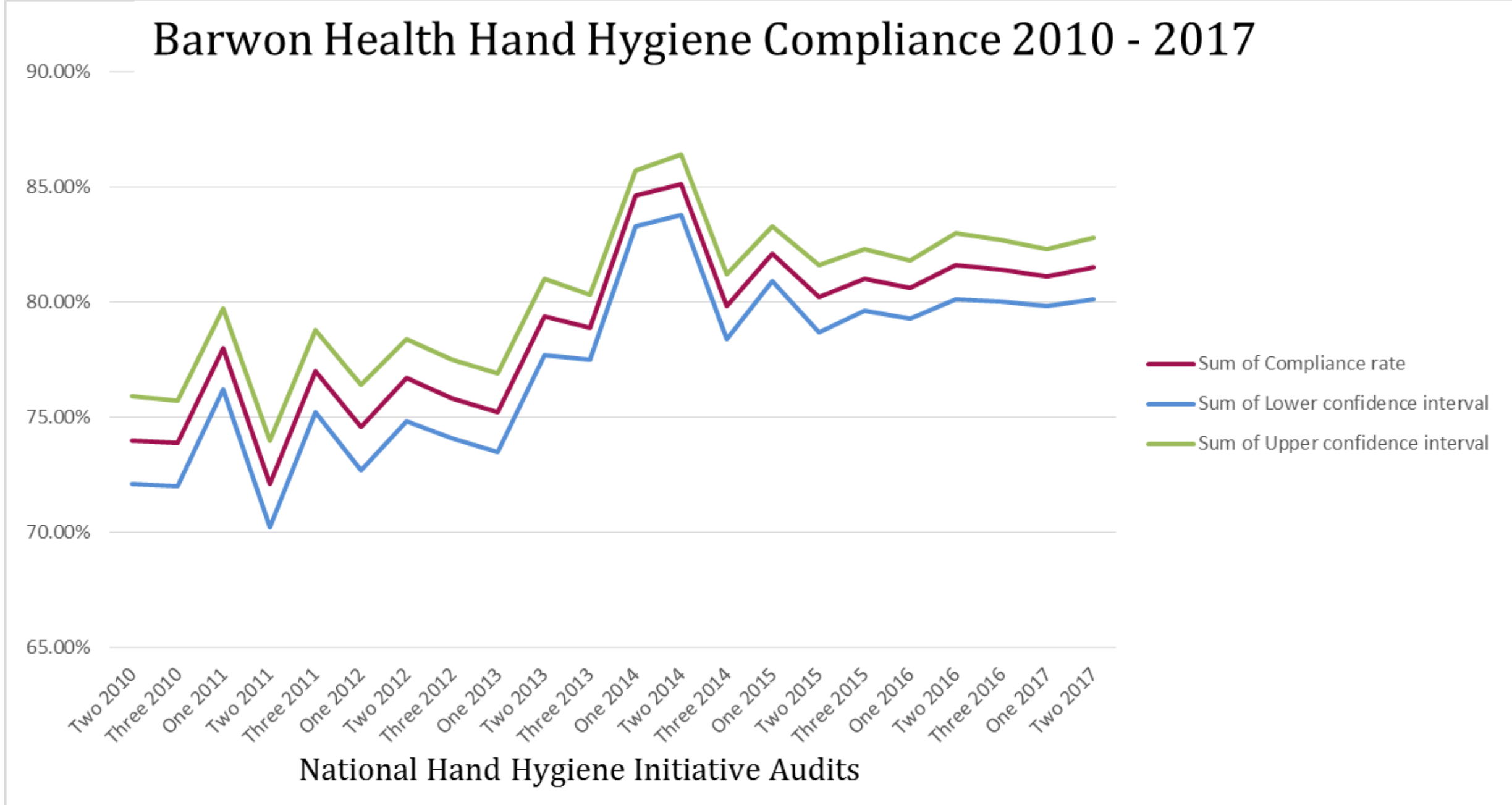
Education - 100% completion of the clinical or nonclinical hand hygiene online learning package on orientation to Barwon Health and biannually by all staff and accounted for when doing their annual appraisal. The hand hygiene online learning package is accessed through the Barwon Health learning portal (Grow) which has the capacity to accurately record and account for staff completion. This package uses the Hand Hygiene Australia online learning material. HH in-service is provided for staff groups with limited computer access/literacy.

Clinical practice -The 5 Moments for Hand Hygiene picture is now embedded in all clinical practice guidelines and the moments for hand hygiene during a procedure articulated as appropriate. Hand hygiene is assessed as a component of clinical practice during simulated clinical procedures in all staff education and included in clinical audit tools.

Hand hygiene compliance auditing - departmental hand hygiene compliance auditors are responsible for auditing the 100 Moments for Hand Hygiene, submitted every second month. HHC auditors are involved in disseminating HH audit results, provide HH education and assist planning and implementing hand hygiene compliance improvement strategies for their area.

Audit feedback - HHC results are reported to all levels of hospital hierarchy; to the Board of Directors and the health care workers involved in the auditing on completion of each audit. HHC results are posted publicly in the audit area as part of the Safety and Quality display. HHC is reported three times annually to Hand Hygiene Australia as a national requirement. HHC less than 80% triggers an organisational requirement to plan and implement an improvement action plan per the BH Hand Hygiene Non-compliance Procedure.

Hand hygiene compliance results



Discussion

Hand hygiene compliance observational auditing was the measure of success for evaluating and re-launching the Barwon Health hand hygiene program. HHC is over 80% since NHHI Audit 1, 2014, supported by the increase in upper and lower confidence intervals. Considering the expansion in the audit program to cover all clinical areas for every audit, this is a significant improvement. Maintaining this increased level of HHC for over three years demonstrates sustainability of the BH hand hygiene program.

Each of the 5 Moments for Hand Hygiene has improved apart from Moment 1. Analysing HHC by the 5 Moments for Hand Hygiene assists with focusing education on areas requiring the most improvement.

The redesign process allowed for input from across the organisation and there is now shared responsibility for HHC. Prior to this process Infection Prevention Service solely managed the HH Program. Local areas, supported by service directorates, now manage their own hand hygiene programs. Staff in medical areas regularly perform hand hygiene simulation exercises which serve to sustain high levels of HHC. The auditors are encouraged to remind staff who fail to perform HH and acknowledge good HHC. This supports the cultural change of hand hygiene being ‘everyone’s responsibility”.

Hand hygiene promotion has increased visibility of the hand hygiene program and raises awareness of the importance of hand hygiene. Mandated hand hygiene education and inclusion in clinical practice guidelines and clinical simulations connects HH policy to clinical practice. There is a reliable and continuous supply of hand hygiene product in all areas at BH. Local HHC auditors support local ownership of the hand hygiene program. The Hand Hygiene Noncompliance Procedure gives structure to improving HHC and areas or staff groups are aware of the expectation to address HHC less than 80%. This multimodal approach supports HHC of existing and new staff.

The consumer is included in HHC promotion and education. They contributed to designing the hand hygiene program with participation in working and focus groups. Particularly critiquing and validating promotional and educational material, and consumer surveys.

Conclusion

Barwon Health has demonstrated multimodal interventions optimally delivered with support of executive and key stakeholders successfully improving adherence to hand hygiene practices. The Barwon Health hand hygiene program has benefited from redesign as HHC is consistently greater than 80%. HHC is now a shared responsibility across the organisation, rather than being solely managed by Infection Prevention Service. This supports appropriate use of hand hygiene resources across the organisation. Hand hygiene is acknowledged as everyone’s responsibility. The focus is on health care workers and health consumers collaborating as partners in a practical approach to preventing health care acquired infections.