

July 2010

The National Hand Hygiene Initiative Newsletter

Spotlight on Western Australia

Robert Fletcher, Hand Hygiene Australia, WA

The WA Minister for Health, Dr Kim Hames publically launched WA involvement in the National Hand Hygiene Initiative at Fremantle Hospital in April 2009 (pictured opposite). The NHHI was a logical progression from the existing state based hand hygiene clinical practice improvement program developed by the WA Health Office of Safety and Quality in Healthcare.

Senior State Health Executives supported the NHHI with endorsement of the Operational Directive, *Hand Hygiene in Western Australian Hospitals*, a state policy mandating adoption of the NHHI in all public hospitals.

The integration of the NHHI into hospital quality improvement agendas continues. Nine WA sites participated in the first NHHI audit in February 2009 and this increased to 45 for Audit 1, 2010.

Reflecting the pro-active participation of WA hospital staff, hand hygiene compliance, measured using the NHHI audit tool has improved in each of the past four audit periods, including overall compliance, compliance by moment, and compliance by many HCW groups.

The five key elements identified by the WHO as essential for sustained change in hand hygiene practice are a useful guide to showcase examples of WA activity as hospitals enter their second year of the NHHI.

1. System Change

Recognising the importance of ease of access to Alcohol Based Hand Rub (ABHR) Royal Perth Hospital (RPH) placed hand rub at the foot of all inpatient beds in late 2006. Regular auditing of availability by RPH's Infection Prevention and Control team demonstrates greater than 85% of inpatient beds have ABHR at the bed end, suggestive of strong staff support. RPH is continuing to identify practices to ensure 100% point of care availability at all times.



WA launch of the NHHI April 8 2009 at Fremantle Hospital (left - right):
Dr Lewis Marshall (Sexual Health Physician, Fremantle Hospital)
Dr Kim Hames MLA, Minister for Health,
Dr Shirley Bowen Executive Director Fremantle Hospital,
Neville Collard, Aboriginal custodian.

With the NHHI providing greater executive awareness of hand hygiene improvement strategies many more WA hospitals have followed RPH's lead, locating or moving ABHR to the bed end. At Swan Districts Hospital, Emergency Department staff worked with their Infection Prevention and Control team to place ABHR at the foot of all their patient gurneys/trolleys. Many private hospitals, including Bethesda, South Perth and the St Johns Group have enlisted the support of their ABHR suppliers to provide in-service education sessions, workplace reminders, and solutions to product placement. Led by Bentley Hospital, another example of system change is the design of a combined bed chart/ABHR holder to simplify gel placement.

2. Education and Training

Integrating the '5 moments for hand hygiene' framework into hand hygiene education has progressed throughout 2009. The e-learning package made available through Hand Hygiene Australia (HHA) has been a useful adjunct to existing hand hygiene education delivery in many WA hospitals.

King Edward Memorial Hospital (KEMH) Executive endorsed a policy that all HCWs complete the e-learning package, using the reporting capability of the Online Learning Package (OLP) to track participation.

At Kalgoorlie Hospital, Illana Gomez (ICP) had success when the Executive endorsed her proposal that all staff from the Regional Director to the gardener completed the e-learning package within a six week time frame.



King Edward Memorial Hospital Neonatal HDU staff (and members of Infection Control/Safety and Quality department). KEMH has distributed fob watches to ward staff who demonstrate a commitment to improving hand hygiene.

Fremantle Hospital has developed two videos on hand hygiene featuring staff members. One is designed to inform patients and families of the hospital's commitment to delivering safer patient care via appropriate hand hygiene. The second video, highlighting the importance of hand hygiene in infection prevention and demonstrating the '5 moments', is to be utilised for HCW education. International author, comedian and local Fremantle resident, Ben Elton, even makes a star appearance for the Fremantle Hospital team!

3. Regular auditing of performance and timely feedback of results

The auditing requirements for the NHHI have prompted many larger sites to involve a variety of HCWs in data collection – staff that might not have participated in infection prevention and control activities in the past.

Fremantle Hospital microbiologist, Dr Helen Darragh, became the first medical HCW trained in the NHHI auditing methodology. In addition to participating in data collection, Dr Darragh is ideally positioned to interpret results for her peers.

KEMH has trained 28 HCWs including clinical midwives, special care nursery staff and staff

educators to assist in data collection and feedback of results. Similarly, a physiotherapist and a dietician at Joondalup Health Campus have joined with nursing colleagues to collect data.

Sir Charles Gairdner Hospital has also engaged a volunteer, Ann Cordingly, from its Community Advisory Council (CAC) to assist with auditing. According to Beth Ellis, SQuRe Senior Project Officer, *"The CAC works to improve the patients hospital experience, so having a volunteer from this group is of huge benefit and gives a different perspective."*



Sir Charles Gairdner Community Advisory Council Volunteer, Anne Cordingly. Anne received training in the NHHI auditing methodology and now assists SCGH with data collection.

In country WA, 29 hospitals participated in Audit 1 2010. Gold Standard Auditors in the larger regional centres have facilitated a number of training workshops for HCWs from surrounding smaller hospitals, with a growing number now collecting data.

Hospitals who have engaged a range of HCWs in data collection report the efforts have been positive, resulting in improved feedback of performance and increased staff ownership of their hospitals' improvement program.

4. Workplace reminders

Many hospitals have developed or creatively adapted existing workplace reminders to maintain staff awareness. Some examples include:

- Geraldton Regional Hospital created a large portable sign in the shape of a bottle of ABHR. The display includes space for a bottle of hand rub and has been highly successful in promoting its use to staff and visitors when positioned at the entrance to wards / departments



My patients are in safe hands

I make it my priority to use alcohol hand rub or wash my hands before and after every patient contact.

If I can, you can too...



Clean hands, safe hands.

Professor David Fletcher
Clinical Director of Surgical Services

Poster developed by Fremantle Hospital featuring Professor David Fletcher, Clinical Director, Surgical services.

- Fremantle Hospital has developed a series of posters featuring local consultants, heads of departments, junior doctors, nursing staff and patient care assistants - encouraging HCWs to follow their lead and perform hand hygiene at all appropriate occasions
- Posters specific to maternity and child health settings have been devised by KEMH and Princess Margaret Hospital.

5. Institutional safety climate

In WA, Infection Prevention and Safety and Quality professionals, supported by their Hospital Executives have implemented many activities to promote improved hand hygiene. This includes an increasing number of hospitals recognising the WHO *SAVE LIVES: Clean Your Hands* day on 5 May.

With *SAVE LIVES* day coinciding with international Midwives Day, Rockingham General Hospital used the Semmelweis story to promote hand hygiene in the midwifery setting. Babies born on the day were gifted T-shirts branded with the RGH '*I'm in your hands*' logo.

The Executive Director of Performance Activity and Quality Division, WA Health, has ensured the reporting of WA's progress in the NHHI is a regular agenda item at the State Health Executive Forum the principal advisory body to the Director General of Health.

The NHHI is a great example of a national program that through senior executive support has led to greater recognition of the importance of hand hygiene at all levels of health; placing it firmly 'on the radar' in Western Australia.

Private Hospital Update

Sally Havers, Hand Hygiene Australia

There are 561 private hospitals in Australia, treating 3.3 million patients, which is equivalent to 40% of all hospital patients, and 64% of all elective surgery (1.2 million separations). Private hospitals provide 33% of all hospital beds (27,466 beds) in Australian health care.

In May 2009, two Private Sector Project Coordinators were appointed to HHA to support private facilities in the implementation of the NHHI in the private sector. Currently, there are 153 private facilities, from all Australian states and territories, with at least one Gold Standard validated auditor and there are

currently 259 validated Gold Standard Auditors working in private facilities across Australia.

The enthusiasm from the private sector to implement the NHHI has been overwhelming. Many private facilities have hosted HHA workshops, most of which are well booked in advance. Implementation of the NHHI has revealed some common barriers to Hand Hygiene Compliance. These include ABHR placement and resource allocation for auditing staff. Since rolling out the HHA training package many facilities have since moved to ABHR at point of care, making access to HH products much easier for HCWs. Also, additional

allocation of resources for auditing of Hand Hygiene Compliance has ensured many private sector staff gain considerable knowledge and understanding of the 5 Moments for Hand Hygiene in the validation process.

Fifty six private facilities submitted data in Audit 1, 2010. All submitting facilities receive Private Sector reports, which include national Hand Hygiene Compliance data and national private sector

benchmarks. All Private facilities are able to access resources, audit tools, guidelines and all other resources provided by HHA. Demand for Private Sector HHA Workshops continues to be high, and it is anticipated that the number of Private facilities submitting data and implementing the NHHI will continue to increase substantially.

Hand Hygiene Australia update

Phil Russo, National Project Manager, Hand Hygiene Australia

A National Program

In conjunction with Centre for Healthcare Related Infection Surveillance and Prevention (CHRISP), HHA has recently completed three large workshops in Brisbane. Over 140 healthcare workers from across Queensland attended the workshops, and with the majority achieving Gold Standard accreditation, the NHHI now has Gold Standard auditors in every jurisdiction. HHA is grateful to staff at CHRISP for hosting and assisting in the workshops, and to The Royal Brisbane Hospital for access to clinical areas.

Compliance Data and Data Collection

The first data period for 2010 ended in April 2010, and currently data are being collated. Dates for data submission in 2011 are:

- 18th March 2011
- 1st July 2011
- 4th November 2011

Hand Hygiene Compliance Application – HCCApp

There is much excitement about the completion of the Hand Hygiene Compliance Application (HCCApp). The HCCApp is a significant step in the sustainability of the National Hand Hygiene Initiative, and will provide the potential to remove much of the current manual data handling, improve efficiency of data management, and importantly allow users to generate meaningful reports in a timely manner. HCCApp will be accessible via the Hand Hygiene Australia website. A PDA application has also been developed for electronic data collection on a HP iPAQ212, and other

applications for a variety of portable devices are also being explored. Over the coming months the HHA team will be working within each of the jurisdictions as HCCApp is rolled out.

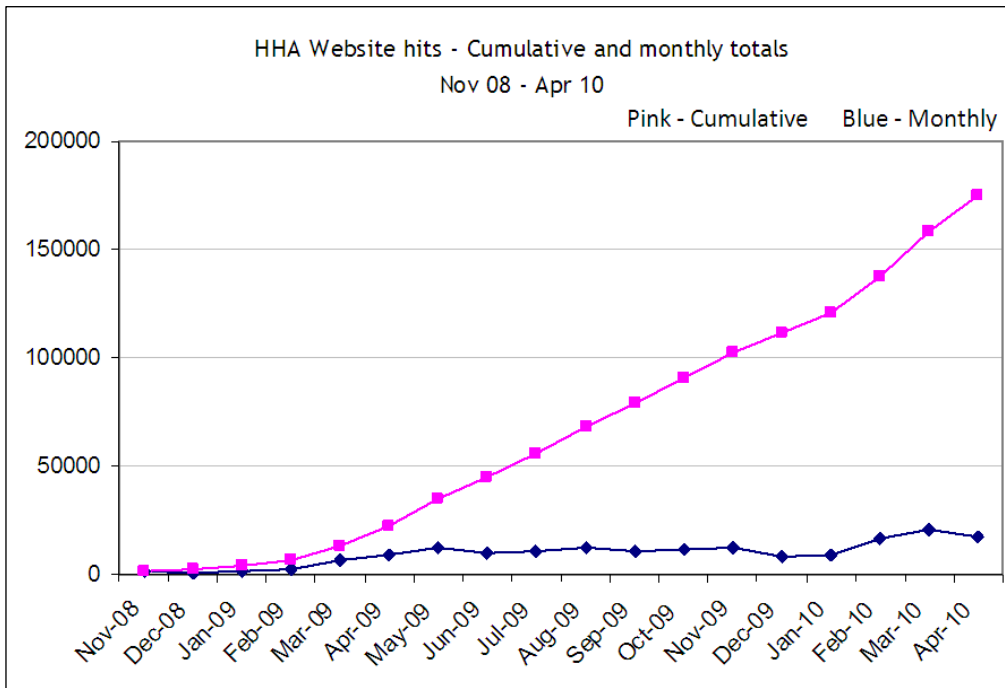
Australasia South East Asia Inaugural Hand Hygiene Collaborative (ASEAHC) Workshop

The Australasia South East Asia Inaugural Hand Hygiene Collaborative (ASEAHC) Workshop was held at Palm Cove on 18–19 June 2010. The aim of the workshop was to provide an update on the various hand hygiene activities in our region. Speakers from Australia as well as international speakers from Malaysia, Singapore, New Zealand and Papua New Guinea presented. Dr Didier Pittet from Geneva and Dr Andreas Voss from the Netherlands also presented at the workshop.

In attendance were key representatives and stakeholders in hand hygiene from across Australia, representatives of infection control, government bodies, and infectious diseases physicians. Unfortunately as numbers were limited, attendance was by invite only. However given the large amount of interest in attending, future ASEAHC workshops will be able to accommodate larger numbers. Proceedings from the workshop will be made available on the HHA website and included in the next newsletter.

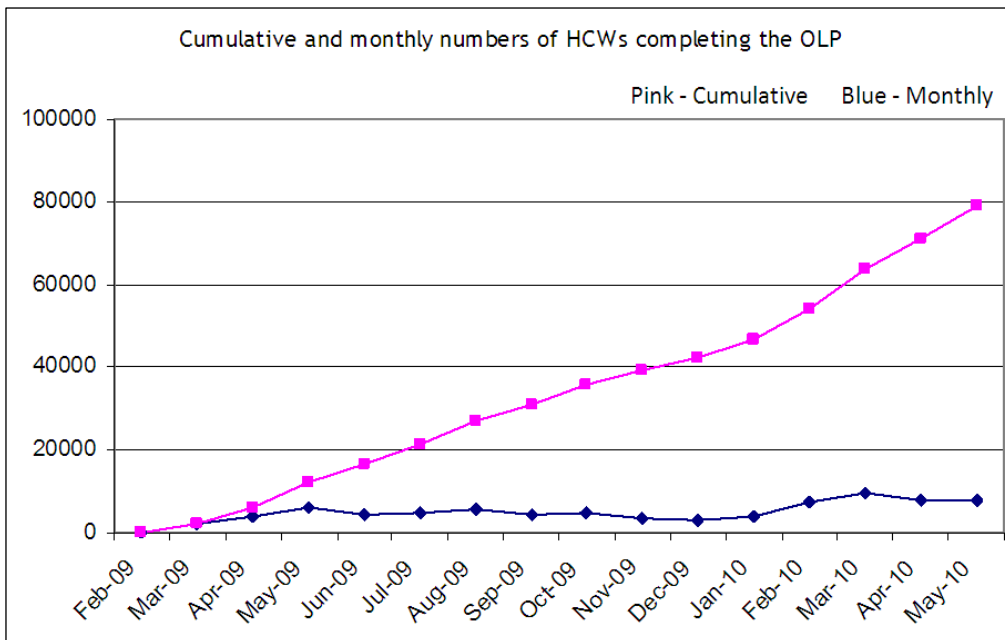
Website statistics

Latest data from the website indicates that is a frequently referred to resource (please refer to figure on following page).



Online Learning Package

As demonstrated below, approximately 5000 healthcare workers complete the Online Learning Package (OLP) on average every month. The OLP is designed to provide basic information about hand hygiene and is aimed at all HCWs. A more specific package is being developed which targets clinical staff



Evaluating hand hygiene interventions and their ability to reduce Healthcare Associated Infection

Megan Campbell, Project Manager, Hand Hygiene Evaluation

What is the project and what do we hope to achieve?

The Hand Hygiene Evaluation is an NHMRC Partnership project, and our broad aim is to evaluate the *National Hand Hygiene Initiative* (NHHI) which was implemented throughout Australian hospitals with the aim of reducing hospital-associated infection.

How are we going to evaluate the NHHI?

By asking two broad research questions:

1. How does it work?
2. Is it worth doing?

How does it work?

We are interested in whether other measurable factors, other than hand hygiene compliance affect rates of healthcare associated *Staphylococcus aureus* bacteraemia. Important factors might be the size and type of hospital? Do things like bed occupancy, staff to bed ratio, percentage of agency nurses make a difference? How important is the level of infection control resources: for example the number of ICPs per 100 beds or the quality and coverage of surveillance activities? Does the attitude of the CEO and management teams make a difference? Does the age, experience and training of the HCW make a difference? And do levels of knowledge, perceptions and beliefs differ between HCWs? Does peer pressure play a part?

Is it worth doing?

We will explore whether a hand hygiene intervention is a cost-effective use of scarce healthcare resources. To do this we need to estimate the actual costs of rolling out a complex and widespread program. These costs will impact on many different parts of the hospital and be incurred jointly with many other activities; so they will be hard to measure. We will also build models to describe the gain in health benefits from reducing infection. The important cost savings from preventing infection will also be counted. We may find the cost-effectiveness of hand hygiene programs varies in Australia.

What data are we collecting to help answer these questions?

- Data that describes hand hygiene compliance and rates of healthcare associated SAB are currently being collected by HHA from every hospital participating in the NHHI.
- We will request data from the Hospitals Statistics Unit of the Australian Institute for Health & Welfare (AIHW) describing the characteristics and activities of all Australian hospitals. We will use this to examine hospital related factors that could affect HH compliance and infection rates.
- The project team will undertake prospective data collection from a selection of health care workers and infection control personnel employed in 50 Australian public hospitals including focus groups, web/telephone administered surveys, and self report measures. We will use these data to examine factors relating to HCWs that could affect HH compliance.
- Data will be collected from high level health planners working in the state and territory health departments to establish cost associated with hospital acquired infection
- Data relating to quality of life and mortality risk will be collated from published literature.

Our resources and partners

We are jointly funded by the NHMRC Partnerships Program and the Australian Commission on Safety and Quality in Health Care (ACSQHC). Our partner organisations who will be working closely with us to complete the project are ACSQHC, Hand Hygiene Australia, and the State and Territory Health Departments around Australia.

Who we are

The project is lead by **A/Prof Nicholas Graves**. Nick is an Associate Professor in Health Economics with a joint appointment between the Institute of Health and Biomedical Innovation (IHBI) at Queensland University

of Technology (QUT) and the Centre for Healthcare Related Infection Control and Surveillance. His applied research brings economics to the study of healthcare and he has a special interest in HAI. He manages a research team and supervises PhD students. Nick will be the driving force behind the Hand Hygiene Evaluation project and will oversee the data collection, analyses and information dissemination.

Prof Lindsay Grayson is Director of the Infectious Disease Department at Austin Hospital in Victoria, and Professor of Medicine at the University of Melbourne. Lindsay is also the Director of Hand Hygiene Australia, that has implemented the NHHI. Through his role with HHA, Lindsay will be responsible for collecting the data on hand hygiene compliance and infection rates throughout Australia, which will help us answer our first research question.

Dr David Paterson is an Infectious Disease Consultant at Royal Brisbane and Women's Hospital, Professor of Medicine at University of Queensland (UQ), and Clinical Microbiology Consultant with Pathology Queensland. David will supervise the clinical infection aspect of this project. He will be developing the criteria we use to decide whether the levels of resources are sufficient for effective infection control, and will assist with the epidemiological interpretation of the data.

Dr Katy White (QUT) and **A/Prof Nerina Jimmieson** (UQ) are senior lecturers in Psychology at their respective universities, with research interests in organizational psychology. Katy and Nerina will be identifying the main behavioural factors that influence hand hygiene compliance, including underlying beliefs, attitudes, social influences, and risk perceptions. They will also determine what, if any, organizational factors are predictive of employee outcomes.

Overseeing our study design and analysing the data we collect will primarily be the role of **Dr Adrian Barnett** who is a health statistician and Senior Researcher at IHBI, QUT. Analysis of longitudinal data is a speciality of Adrian's, and the data from this project will be longitudinal with repeated results from hospitals over time.

Prof Naomi Fulop is the Chair of Health and Health Policy at King's College in London. Naomi contributes her wealth of experience and knowledge on the evaluation of the impact of quality improvement programs in healthcare.

Associate Investigators:

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Western Australian Office of Safety and Quality

A/Prof Mary Louise McLaws

University of New South Wales

Irene Wilkinson - SA Health

Megan Campbell (IHBI, QUT) is the Project Manager responsible for day-to-day coordination of all aspects of the Hand Hygiene Evaluation, including management of budget, staff, and data collections. Importantly, she will be the point of contact for the study and will work to foster strong channels of communication between all those involved. Megan has a background in medical research, specifically genetic epidemiology, and an undergraduate degree in clinical microbiology.

How to find out more

We warmly welcome suggestions and feedback and our aim is to make the processes, progress and results of this project as open as possible. A representative from the project will try to attend the various infection control conferences and workshops around the country over the next three years, so if you see one of us about please come up and say hello. The project has only just begun in the last month but we are in the process of setting up some information dissemination tools, such as a webpage where Megan will provide regular progress updates. If you would like to contact us with questions, comments or feedback, please call or e-mail: (07) 3138 0307 megan.campbell@qut.edu.au or visit our webpage: <https://wiki.qut.edu.au/display/HHE>

For further information about hand hygiene please contact:

www.hha.org

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