

# The Power of Innovation

A health care system to meet our needs  
**NSW Health**  
 Symposium Oct 2012

## IT'S A BUGS LIFE @ THE TWEED HOSPITAL Harry Collins Award

### Introduction

In late 2009 early 2010, The Tweed Hospital (TTH) had a notable increase in healthcare acquired infections (HAIs) with Staphylococcus Aureus Bacteraemias (SABs).

A full investigation and audits were undertaken with some systems identified as problematic requiring implementation of practice improvement processes.

Feedback and education to all staff, including both clinical and non-clinical was undertaken. All initiatives implemented contributed to service improvement and a **significant reduction of 96%** in HAIs at TTH.

### Aim

To reduce the incidence of inpatient HAIs with SABs to meet or exceed NSW Health benchmarks,

To accomplish this by support from TTH Executive and education, auditing, reporting, monitoring, evaluation and feedback to all staff.

HAIs are an unnecessary, costly and avoidable burden on patients and the hospital system and to improve patient outcomes we need to reduce the incidence of HAIs.

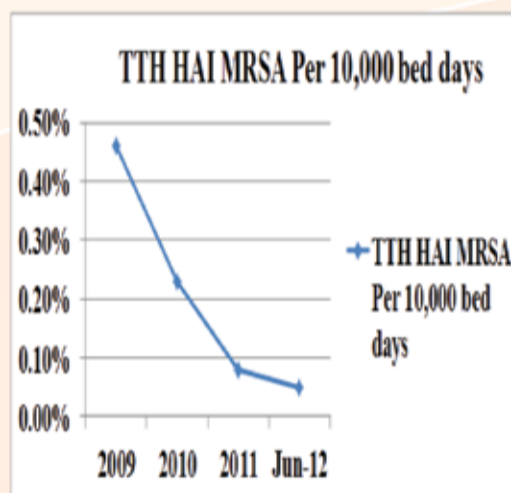
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Image Credit: Disney Pixar

### Method

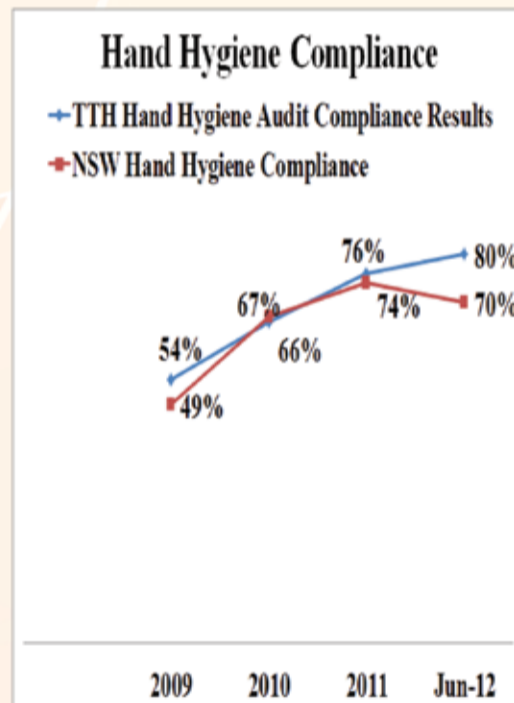
- Detailed investigation of each SAB to identify the possible causes and any trends.
- Audits undertaken of hand hygiene (HH) compliance, peripheral intravenous cannulas (PIVC) documentation, contact precautions for Multiple Resistant Staphylococcus Aureus (MRSA), cleaning of patient care equipment and environmental cleaning.
- Continuous surveillance of infection prevention and control activities.
- Data analysis of audit results with comparison to NSW Health benchmarks identified TTH was an outlier hospital within NSW Health.
- Action plan developed to assist with implementation and monitoring of practice and process change.
- Results publically displayed outside wards and on notice boards.
- Continual education and feedback delivered across all services.



### Results

Possible causes related to non-compliance with HH, non-compliance with cleaning patient care equipment, inappropriate use of skin antiseptics and deficit in clinical knowledge regarding correct procedure for a clinically clean technique for insertion of PIVC.

The total number of SABs (outcome measure) related to HAIs decreased from 21 in 2009 to 4 in 2011 to 2 in first 6 months 2012; Intravenous line related infections (process measure) have decreased from 10 in 2010 to 2 in 2011 and zero in the first 6 months of 2012. The HAI MRSA rate per 10,000 bed days has decreased from 46 in 2009 to 5 for first 6 months 2012. HH compliance (process measure) from 54% in 2009 to 80% in 2012, and has exceeded the NSW state average.



### Conclusion

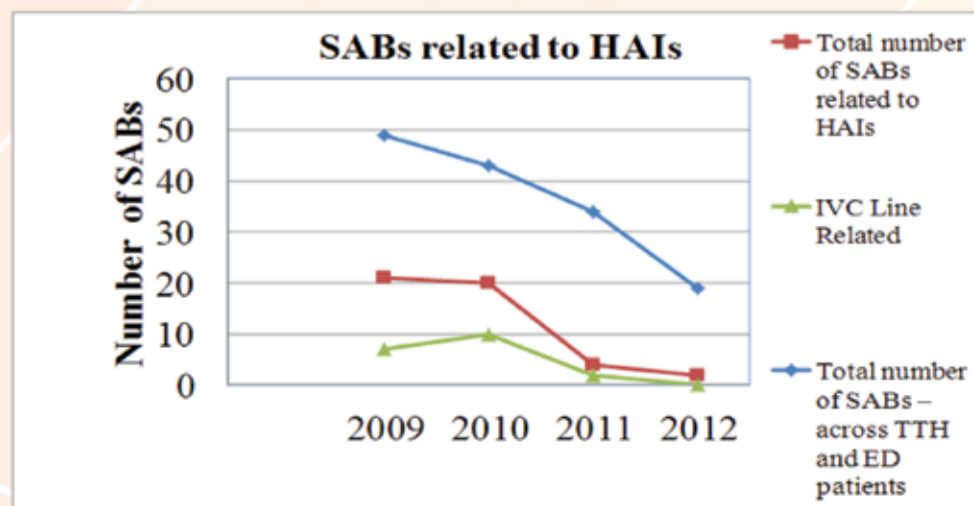
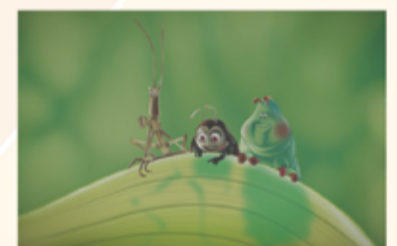
TTH achieved its aim of reducing inpatient HAIs lower than NSW Health benchmarks.

This was accomplished by –

- HH which was the simplest key factor in reducing HAIs.
- Implementation of practice changes to the insertion of PIVCs.
- Continual auditing, education, feedback and public reporting of results.

TTH Executive and Clinical Managers provide strong support for all strategies implemented to reduce HAIs. Infection Prevention & Control (IP&C) needs to be widespread and continuous to bring about long term cultural change.

This reduction has been consistent and sustained over the last 2 years. The IP&C Clinical Nurse Consultant, with strong support from TTH Executive, has led a cultural change through focused attention on processes and systems, application of practice improvements, feedback, and ongoing monitoring and reporting.



### Acknowledgements

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