# Infection Management and Control Service

## Annual Report
## July 2018 – June 2019

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# July 2018 – June 2019

*Healthcare associated infection must not be considered a normal part of contemporary healthcare*

IMACS' mission statement

## Introduction

The Illawarra Shoalhaven Local Health District (ISLHD) Infection Management and Control Service (IMACS) was established in 2008 to consolidate infection prevention and control expertise across the District into one team, and facilitate effective collaboration between the infectious diseases clinical specialty and infection prevention and control services. The service is established as a key component of the Clinical Governance Unit. IMACS' core aim is simple: to make sure our patients have the lowest possible chance of acquiring an infection whilst in our care, and that our staff are properly prepared and protected against infection risks whilst at work.

Site-based infection prevention and control clinical nurse consultants (CNCs) are responsible for the provision of an effective and broad-based day to day infection prevention and control service across our 9 inpatient facilities organised as the Northern Illawarra Hospitals Group (NIHG), the Southern Illawarra Hospitals Group (SIHG), and the Shoalhaven Hospitals Group (SHG)) and community health settings known as the Integrated Community Services (ICS). These community settings provide the location of services provided by ISLHD Mental Health Service, ISLHD Drug and Alcohol Service, ISLHD Ambulatory and Primary Care (APHC), ISLHD Oral Health Service and the ISLHD Child and Family Service.

IMACS CNCs also carry individual portfolio responsibilities for specialty areas such as hand hygiene, clinical equipment cleaning disinfection and sterilisation, environmental cleaning, and education across the entire LHD. The CNCs report to the IMACS Nurse Manager but also retain a professional reporting line to their respective site-based directors of nursing and midwifery. IMACS is supported by local infectious diseases specialists, clinical microbiologists and the Pathology NSW microbiology laboratory.

This Annual Report describes the activities and achievements of the IMACS team during the period from July 2018 to June 2019 and by referring to ISLHD strategic priorities establishes the future strategic framework for the service.

## Executive summary
- IMACS aims to provide and promote a person-centred infection management and control service across ISLHD.
- Prior to this reporting period IMACS was reviewed by the ISLHD internal audit department. The subsequent report found that the risk of healthcare associated infection (HAI) is being appropriately mitigated. A number of recommendations for improvement were made.

- The Infection Control Link Programme was replaced with an Infection Prevention and Control Mentorship programme from January 2019. This report describes the activities of both programmes throughout the transition.

- A poster display of hand hygiene and infection rates is available on all wards with the objective of enhancing transparency and engagement with consumers and staff.

- Education of staff and consumers remains a key priority, with infection prevention and control components being included within ISLHD orientation and mandatory update training sessions to all categories of staff including volunteers and construction contractors working on ISLHD sites.

- Training of ward-based hand hygiene auditors has continued in order to support the mandatory requirement for compliance with the NSW Health Hand Hygiene policy to be monitored and reported. During this reporting period a total of 46,125 hand hygiene opportunities were observed, with 40,389 being achieved correctly – an overall hand hygiene compliance rate of 87.6%. This represents an increase from last year's rate of 87.2%.

- An environmental cleaning audit programme has been introduced within all ISLHD sites including community bases, with results and action plans now reported through the LHD electronic quality audit reporting system (QARS).

- IMACS continues to support aseptic technique training and auditing.

- Mandatory face to face personal protective equipment (PPE) training has been provided to clinical staff at all sites.

- Surveillance activities include mandatory reporting to NSW Health and voluntary reporting to the Australian Council on Healthcare Standards (ACHS), Health Round Table, and the National Antimicrobial Utilisation Surveillance Program (NAUSP). Surveillance has identified;
  - An increase in numbers of patients developing healthcare associated *Staphylococcus aureus* bacteraemia from last year (41 compared with 38 during 2017-18). Rates remain within NSW Health performance parameters.
  - One ICU-related central line associated bacteraemia occurred at Wollongong Hospital.
  - Surgical site infection following elective and emergency orthopaedic surgery at Shoalhaven Hospital increased to 3.10 % in 2017-18 and has now reduced to 2.74%. The rate for 2016-17 was 2.5%.
  - The working party that was convened at Wollongong Hospital to address surgical site infection rate of 4.49% following caesarean section during the 2nd half of 2014 has achieved sustained improvements during this reporting period with rates falling to 0.84% in the first half of 2016, 1.3% during the first half of 2017 and 0.22% during the first half of 2018.

- Cases of Carbapenamase-producing Enterobacterales (CPE) became formally notifiable to NSW Health during this reporting period. One instance of healthcare transmission of CPE was identified and an outbreak management team was convened in response. No further transmission or ongoing risk was identified.

- Outbreaks of communicable disease were dominated by influenza and gastro-intestinal infections including Norovirus.

- Continuing presentations of people with chickenpox infection to ISLHD hospitals led to the need for IMACS to direct significant contact-tracing activities during this reporting period.
- The successful introduction of improved access to safety engineered sharps devices (SESD) in reducing rates of potential bloodborne virus exposure reported in the 2013-14 report has been sustained.
- The number of staff seeking advice on hand hygiene technique and appropriate product choice, for the first time, has decreased from 67 in 2013-4 to 29 during this reporting period.

IMACS activities during the forthcoming year 2019-20 will be directed using the information gained through surveillance and audit findings, and the ISLHD strategic plan.

Priorities include;
- Supporting ISLHD in compliance with the recommendations made in the 2017 Internal Audit Report into healthcare associated infection risk management within ISLHD.
- Focussed activity to achieve a reduction in surgical site infections following hip and knee prosthesis surgery at the Shoalhaven Hospital
- Continued achievement of accreditation of all sites against the 2nd edition of National Standard 3; "The prevention and control of healthcare associated infection".
- Focus on the management of environmental sources of potential healthcare associated infection
    - Completion of legionella risk management plans for all facilities
    - Provision of consistent advice and support to construction projects across ISLHD
- Action planning to enable compliance with AS/NZS 4187:2014 "Reprocessing of reusable medical devices in healthcare" by December 2021
- Promoting equity of IMACS service provision for all sites and services within ISLHD including the community-based services
- Supporting infection control education and awareness through the infection prevention and control mentorship programme and targeted education strategies, particularly for medical colleagues and for non-clinical personnel
- Continued provision of feedback and support to hand hygiene auditors

# ISLHD Infection Management and Control Service objectives

**Mission**
Healthcare associated infection must not be considered a normal part of contemporary healthcare

**Vision**
Through collective expertise IMACS aims to provide a service that is equitable, safe, person centred and of the highest quality. Systems and processes necessary to support IMACS' Mission are identified, developed, implemented and evaluated regularly.

The NSW Health CORE values are an integral part of our service aims and objectives and the entire team is committed to modelling them throughout all our activities.

## *Collaboration*
The importance of networking, both within and outside of ISLHD, in developing a clear understanding of the issues affecting the delivery of an effective service cannot be understated. IMACS will continue to strengthen these links and to engage broadly in the development and implementation of our service strategies in order to maximise and sustain a person-centred and accessible service.

## *Openness*
IMACS will continue to produce information and reports for distribution within and outside the District in order to inform the public, the wider community and health colleagues about the incidence and prevalence of healthcare associated infection (HAI) amongst ISLHD patients.

## *Respect*
IMACS aims to demonstrate respect for our consumers and our colleagues by listening to their concerns and by taking every opportunity to identify and resolve situations where people are discriminated against as a direct or an indirect result of infection prevention and control policy interpretation and implementation.

## *Empowerment*
Some infection prevention and control precautions pose significant and particular challenges to patients who may feel extremely isolated and stigmatised by the practices that are employed. These feelings will add to the frequently-described state of disempowerment experienced by patients and their families. IMACS aims to improve empowerment of patients, clients and staff through the provision of easily accessible information and support.

In support of these CORE values, IMACS follows a 5 E's ethos that in the implementation of any infection prevention and control practice or initiative it is essential to;

> **Engage** all stakeholders by providing sound evidence and answering concerns.
> **Enable** the practice by providing a policy framework and resources.
> **Educate** all stakeholders throughout so that barriers to implementation can be identified and addressed.
> **Evaluate** the progress of the initiative, and only **Enforce** compliance when all other strategies have proven ineffective.

# Structure of infection prevention and control services in the Illawarra Shoalhaven Local Health District

Within the Illawarra Shoalhaven Local Heath District, infection prevention and control (IPC) services are provided as a district-wide function. Rather than having IPC staff based within inpatient facilities, reporting to the Director of Nursing and Midwifery, as is commonly the case in NSW, ISLHD took the decision, in 2008, to improve efficiency and effectiveness of the service by creating a cohesive service that is placed within the Clinical Governance directorate. This was an important move as it brought the IPC service out of the nursing silo, and placed it squarely in the patient safety and clinical quality space. In doing this, the LHD made explicit the intention that IPC services would be provided equitably to patients and staff in all sites and services across the LHD, not only the acute inpatient services.

The move also meant that the service could facilitate consistency in working practices, and implementation of key initiatives such as the national hand hygiene initiative, in an effective way through the designation of portfolio areas of responsibility to the various team members. This has meant that district-wide programmes have been able to be developed at a strategic level, paving the way for the operational roll-out to be achieved at local level in a more streamlined and measured way. This helps ISLHD staff in all facilities and services to encounter less variation, not only in policy requirements but also in the products they are expected to use in following those IPC policies. The IMACS organisational structure is shown below.
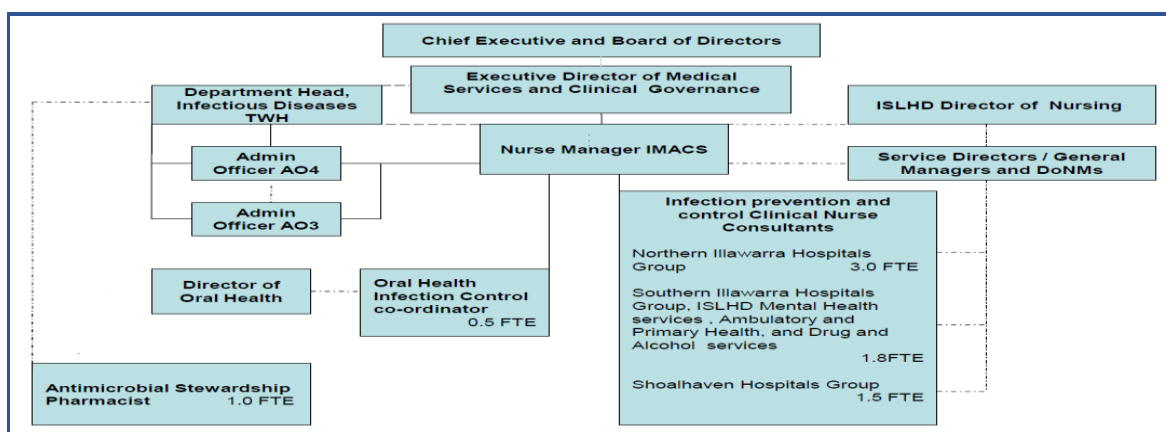


**Figure 1. IMACS organisational chart 2018-2019**

Led by a Nurse Manager, the clinical nurse consultants (CNCs) who provide the operational aspects of the service are well supported, and are a strong and collaborative team. There are currently 7 CNCs working to provide 6.8FTE service provision. One CNC is aligned to the oral health service on a 0.5FTE basis as this has been identified as a high risk service within the LHD by virtue of the service it provides, and the fact that local reprocessing of critical reusable devices is undertaken. One CNC is aligned to provide IPC services to the integrated community services and another is aligned to provide IPC services to the LHD mental health services. Each of these CNCs also has responsibility for inpatient settings at Port Kembla Hospital and Shellharbour Hospital respectively. These are innovative roles, unusual in NSW, where IPC service are generally acute hospital inpatient service focussed. It is a key strength of IMACS that the service can provide appropriate and relevant IPC advice and support to staff working outside of the hospital setting.

Benchmarking of IPC services is challenging, due to the different requirements for support in various different healthcare systems across the world. Internationally recognised recommendations for IPC service provision traditionally derive from the pivotal study on the efficacy of nosocomial IC (SENIC) conducted in the 1970s. This established a standard of 1:250 IC nurses per acute hospital beds for optimal infection prevention. With increasing complexity of patients' care this figure has been recently challenged and ratios of 1:100 beds in acute care and 1:150 to 250 beds in long-term care facilities have been suggested (Dickstein et al 2016).

Within ISLHD the CNC provision for the various services are shown below. The ratios of IMACS CNCs to the bed base they cover are within the recommended ratios for the longer term inpatient settings, but are not at the recommended levels for the acute inpatient settings. There are no immediate plans to increase the establishment until key decisions have been made about the future service provision at Shellharbour Hospital and the Shoalhaven District Memorial Hospital.

| Facility or service | Number of beds including acute ambulatory care ie cancer care, renal | Number of IMACS CNCs (FTE) | Ratio |
|---|---|---|---|
| Wollongong, | 600 | 2.5 | 1:240 |
| Bulli and Coledale | 100 | 0.50 | 1:200 |
| PKH and SHH including mental health inpatients | 300 | 1.2 | 1:250 |
| SDMH, MUH and DBH | 350 | 1.5 | 1:233 |
| ICS, community mental health and oral health | Approx. 400,000 population | 1.1 | |
| All inpatient | 1350 | 6.8 | 1:198 |
| | | 7.8 including IMACS NM | 1:173 |

**Figure 2. Ratio of IMACS CNC to service provision 2018-2019**

Leave cover is provided when a team member is away for more than 3 weeks, and this has provided the opportunity for other staff to join IMACS on secondments. This in turn has provided a mechanism for succession planning which can be a considerable concern in specialist teams. A 24 hour IPC service is provided to the LHD as the Nurse Manager provides out of hours on-call for the majority of the time, and CNCs provide cover when the NM is on leave.

## Support to IMACS

IMACS is extremely well supported by the clinical microbiology service provided by the laboratory team based at Wollongong Hospital.

Infectious Disease expertise is provided to IMACS at all sites, with infectious disease specialists and their teams based at Wollongong Hospital (WH), Shellharbour Hospital (SHH) and Shoalhaven Hospital (SDMH).

The Public Health Unit is a valuable resource in addition to providing the statutory function of communicable disease surveillance.

The ISLHD Clinical Governance Unit (CGU) supports IMACS in the collation of NSW Health key performance indicator (KPI) submissions and the creation of reports as required. Incident and Injury Management System (IIMS) reporting includes incidents relating to HAI.

The staff vaccination service, staff health screening, and blood and body substance exposure follow up is provided to ISLHD under the remit of the respiratory medicine and chest clinic teams. Staff vaccination reports are provided to IMACS, the ISLHD infection prevention and control committee, and site executive teams.

Effective antimicrobial stewardship is an essential component of contemporary infection prevention and control programmes. Antimicrobial Stewardship Pharmacists have been appointed since April 2011, and an automated antimicrobial prescribing support system (Guidance MS™) introduced in May 2012. There are now well integrated systems across ISLHD to monitor and effectively control the use of antimicrobial agents.

## Infection prevention and control committee

The ISLHD infection prevention and control committee is co-chaired by the Director of Infectious Diseases, Wollongong Hospital and the IMACS Nurse Manager. The Committee meets every month. Membership of the committee is given below:

- Manager IMACS (Co-chair)
- Director of Infectious Diseases (Co-chair)
- Consultant Clinical Microbiologist
- IMACS Clinical Nurse Consultant representatives from NIHG, SIHG, SHG and ICS
- NIHG executive representative
- SIHG executive representative
- SHG executive representative
- ICS executive representative
- Mental Health Services executive representative
- ISLHD Director of Nursing and Midwifery representative
- ISLHD medical services representative
- Sterilising Services management representative
- Staff vaccination service representative
- ISLHD antimicrobial stewardship pharmacist
- ISLHD Public Health representative
- ISLHD Maintenance Services representative

The role of the infection prevention and control committee includes:

- To review HAI surveillance and patient safety outcomes and identify issues requiring escalation to higher committees
- To provide guidance and direction for the activities of ISLHD infection prevention and control programmes,
- To provide feedback of locally collected data to relevant clinicians, clinical and service manager, the executive, and committees concerned with clinical and quality programmes
- To advise of risks faced by the organisation related to infection prevention and control

The ISLHD infection prevention and control committee reports to the ISLHD Clinical Governance Council and the minutes are available on the ISLHD intranet.

## Strategic Plan

The IMACS Strategic Plan reflects the strategic objectives of the ISLHD Health Care Services Plan 2012-2022 and ISLHD Operational Priorities 2019-20

The IMACS Strategic Plan is supported by the IMACS work-plan which is updated by the IMACS manager and reviewed on a monthly basis by the EDMS&CG.

Written monthly reports are completed by IMACS infection prevention and control practitioners in order to communicate progress of the various programmes in place at each site to the IMACS manager. IMACS team meetings are held monthly.

## Infection prevention and control team

The IMACS team provides the service to the ISLHD from a number of bases with the central office being situated in Lawson House at Wollongong Hospital where the IMACS team covering the NIHG are co-located with Infectious Diseases specialists working within the NIHG and SIHG hospitals.

Each of the infection prevention and control CNCs carries responsibility for their designated sites and services as well as responsibility for a number of specific LHD-wide 'portfolios'. This arrangement allows strategic programmes and resources to be developed across the LHD as necessary.

When developed, these programmes are then delivered locally by the relevant IMACS team with LHD-wide oversight and reporting being the ongoing responsibility of the portfolio holder.

| Position | Facility | ISLHD Strategic / Project area | |
|---|---|---|---|
| Manager | Overall responsibility for the provision of person-centred Infection Prevention and Control service across all areas and services provided by and/or based at the facility. | Line management of IMACS CNCs and admin staff<br><br>To provide the link between IMACS and all facilities, services and units across ISLHD.<br><br>To ensure that Infection Prevention and Control aspects of service planning, delivery and monitoring are effectively incorporated. | |
| | IMACS management | Laundry | Waste |
| CNC WH | Wollongong Hospital wards and departments, plus Bulli Hospital and Coledale Hospital | MROs | |
| CNC WH | | IT strategy | |
| CNC WH | | Education | |
| CNC SHH | Shellharbour and Kiama Hospitals.<br>ISLHD Mental Health | Equipment | |
| CNC PKH | Port Kembla Hospital, ISLHD Integrated Community Services | Hotel services and environmental cleaning | |
| CNC SDMH | Shoalhaven, David Berry and Milton Ulladulla hospitals | Policies and procedures | Consumer engagement |
| Oral Health IPC CNC | Oral Health Service | Hand hygiene | Reprocessing |

**Table 1. IMACS designated portfolios 2018-19**

As noted on the IMACS Organisational Chart, each of the infection prevention and control CNCs reports directly to the Nurse Manager, IMACS, and also has an indirect relationship with the executive unit of their designated sites and facilities.

The IMACS team also includes two administration officers who work with IMACS as well as supporting the Wollongong and Shellharbour Hospitals' Infectious Diseases teams. A key role for these team members is the data entry and recording of a number of surveillance activities including the Hand Hygiene audit sheets, bloodstream infection review forms, and supporting the infection prevention and control link programme and mentorship programme.

## Collaboration and committee membership

In addition to fortnightly team meetings, IMACS team members participate in various committees and working groups as detailed below;

| Position | Facility / Service | Meeting / Committee | Frequency |
|---|---|---|---|
| Manager | NSW Ministry of Health / CEC | HAI Steering Committee | Bi-monthly |
| | | Bloodborne Virus Advisory Panel | 3 Monthly |
| | ISLHD | Infection Prevention and Control Committee (co-chair) | Monthly |
| | | New Interventions Assessment Committee | As required |
| | | Nursing and Midwifery Leadership Committee | Monthly |
| | | ISLHD Senior leadership Forum | Quarterly |
| | | ISLHD Occupational Assessment Screening and Vaccination Committee | Monthly |
| | | ISLHD Legionella risk management committee (chair) | Monthly |
| | | ISLHD Radiation Safety Committee | Quarterly |
| Wollongong Hospital CNCs | ISLHD | Infection Prevention and Control Committee | Monthly |
| | | ISLHD CNC meetings | As scheduled |
| | NIHG | Health Emergency preparedness | Quarterly |
| | | NIHG Infection Control sub-Committee | Monthly |
| | WH | Bed Management meetings | Daily |
| | | WH Department Managers Meeting | Monthly |
| | | WH&S Committee | Monthly |
| | | ICU infection control meeting | Monthly |
| | | Operating Theatres and IMACS | Co-opted |
| | Coledale Hospital | Department Managers Quality Meeting | Monthly |
| | Bulli Hospital | WH&S Committee | Monthly |
| | | Bulli Department Managers Meeting | Monthly |
| Shellharbour Hospital CNC | NSW HealthShare | NSW Health State Contract 819 Beds and Mattress Tender Evaluation Committee | Project timeframe |
| | ISLHD | ISLHD CNC meeting | As scheduled |
| | SIHG | Infection prevention and control sub-committee | Monthly |
| | | Emergency Management Committee | Quarterly |
| | | Learning and Development Committee | Monthly |
| | | Patient safety and quality | Monthly |
| | SHH | WH&S Committee (report tendered) | 6 Monthly |

| Position | Facility / Service | Meeting / Committee | Frequency |
|---|---|---|---|
| | | SHH Mortality and Morbidity meeting | Monthly |
| | Mental Health | Consumer and Staff Safety | As scheduled |
| PKH CNC | ISLHD | Infection Prevention and Control Committee | Monthly |
| | | ISLHD CNC meetings | As scheduled |
| | SIHG | Patient Safety Committee | Monthly |
| | | Learning and Development Committee | Monthly |
| | | SIHG Standard 3 Governance Committee | Monthly |
| | Port Kembla Hospital | WH&S Committee | Monthly |
| | | Department Heads Meeting | Monthly |
| | Integrated Community Services (ICS) | Standard 3 Governance Committee | Monthly |
| | ISLHD Drug and Alcohol Service | WH&S Meeting | As required |
| SDMH CNC | ISLHD | Infection Prevention and Control Committee | Monthly |
| | | Nursing and Midwifery Policy and Practice Committee | Monthly |
| | | ISLHD CNC meetings | |
| | SHG | SHG DoNM and IMACS update meeting | Monthly |
| | | SHG Infection Control sub-Committee | Monthly |
| | | SHG Emergency and Disaster Committee | Bi-Monthly |
| | | Learning and Development Committee | Monthly |
| | | Consumer Advisory Committee | Bi-Monthly |
| | SDMH | WH&S Committee – report provided | Monthly |
| | | Bed Management meetings | Daily |
| | | Nursing and Midwifery Leadership meeting | Monthly |
| | | Patient Safety and Quality meeting | Monthly |
| | DBH | Patient Safety and Quality | Monthly |
| | | WH&S Committee – report provided | Monthly |
| | MUH | WH&S Committee – report provided | Monthly |
| | | Patient Safety and Quality –report provided | Monthly |
| Oral Health IC co-ordinator | ISLHD | Infection Prevention and Control Committee | Monthly |
| | Oral Health Service | Clinical Governance meetings | Monthly |
| | | ISLHD Dental Assistants meeting | Monthly |

**Table 2. IMACS committee membership 2018-19**

## Hub highlights

The following section of this report provides an overview of achievements and quality activities and outcomes for each of the three inpatient service 'hubs' known as hospital groups.

## Northern Illawarra Hospital Group

**ISLHD Standard Precautions model**
In 2015 IMACS coordinated a general roll out of the use of Standard Precautions rather than automatically–assigned Contact Precautions for patients found to be colonised with an antibiotic resistant organism. Later on this model was extended to include other inpatient facilities across the LHD including Bulli and Coledale Hospitals. This involved numerous education sessions reinforcing how to perform a risk assessment for transmission of infection and the requirement for single room accommodation. IMACS also advised on the location of products required to comply with this model including PPE, ABHR and cleaning equipment. Resources to support this model were developed and distributed across the district including updated transmission precautions signage and a quick reference guide on the requirements for common communicable diseases.

Evaluation of the impact of making these changes, by comparing rates from 2018 with rates from 2014, has identified that within the NIHG there have been significant reductions in the rates of healthcare-acquisition of MRSA, and the rates of VRE and gram negative bacterial acquisition have not increased. More detail is provided in the surveillance chapter of this report.

**NIHG Infection Prevention and Control mentorship program**
The IMACS mentorship program is in its pilot year and NIHG is currently mentoring four exceptional registered nurses with a keen interest in infection control. These staff are employed in Paediatrics, Neonatal ICU, Day-only surgery unit and Ambulatory Care. They are currently in the implementation phase of their projects with topics including improvements in aseptic technique, clinical equipment cleaning, improved storage of sterile stock, and standard precautions. It is anticipated that the program members present their findings at the annual infection control seminar in October 2019.  Six candidates were accepted to complete the one year mentorship program on its inception in January 2019. This program involves one on one mentorship with an Infection and Prevention CNC and includes a project specific to their area of practice.  One applicant withdrew from the program due to furthering her nursing studies and another withdrew due to employment in another area.

**NIHG CNC succession management**
IMACS has achieved positive succession planning with the appointment of a candidate for a 12 month maternity relief position commencing in February 2019 and the appointment of one of the NIHG IMACS nurse mentees to a short term secondment to further develop the future IMACS talent pool.

# Southern Illawarra Hospital Group

**SIHG Infection Prevention and Control mentorship program**
The IMACS Mentor program commenced in January 2019 and is designed to develop nurses to become role models and advocates for infection control within their departments. It also will provide a pathway for those interested in a career move to the Clinical Nurse Consultant (CNC) role as part of succession planning for the service. One of the requirements of the Mentor program is for the mentees to complete a quality improvement project within their department.
The programme has attracted two nurse mentees from within the SIHG. Both of these nurses are conducting quality improvement projects related to increasing consumer awareness of hand hygiene practices.

**Team approach to IMACS service across SIHG**
IMACS team members based at SHH and PKH continue to work as a combined team across the SIHG, enabling greater efficiencies. The arrangement has allowed IMACS CNCs dedicated time for project work while their partner is managing day-to-day infection prevention and control activities across all SIHG sites and services.

# Shoalhaven Hospital Group

**ISLHD Standard Precautions model**
As reported in last year's report, an earlier review of single room usage identified that transmission-based precautions being prioritised as the rationale for single room accommodation accounted for less than 50% of single room usage at SDMH. This information has been used to support and reinforce the need for a risk managed approach to patient placement decisions as part of a focussed education campaign supporting implementation of horizontal infection prevention and control precautions and the implementation of the ISLHD Standard precautions model in this hub.   Standard Precautions Preparation:
A large educational strategy continued across the SHG to prepare for the implementation of the Standard Precaution model. This also included consultation and information to the DBH Palliative Care and Milton Ulladulla medical officers.

**SHG CNC succession management**
IMACS is fortunate to have the support of the SHG management team who this year have enabled the provision of cover for IMACS CNC leave arrangements, and secondment opportunities. This has enabled business continuity for the SHG IMACS service, and has also facilitated the ongoing professional development and skills progression for three SHG nurses who have in interest in furthering their infection prevention and control knowledge and experience.

# Integrated Community Services

**Standard 3 Governance Committee**
February 2019 saw the inaugural convening of the ICS National Safety and Quality Standard 3 committee. The committee comprises representation from ISLHD Ambulatory Primary Health Care Stream Leader, Ambulatory Primary Health Care Nursing Nurse Unit Manager, Targeted Clinical Services Nurse Manager, Diabetes Service Nurse Manager, Child and Family Nurse Unit Manager, Drug and Alcohol Service Manager, Oral Health

Manager, Integrated Community Services Quality Representative and ISLHD Infection Management and Control Service (IMACS) Clinical Nurse Consultant (CNC).

This committee has begun monitoring and evaluating the progress on Standard 3, ensuring that all services are preparing for ACHS accreditation. The committee provides a monthly report, documenting any Red Flags relating to ICS to the following committees: ISLHD Infection Prevention and Control Committee and the ICS Accreditation Governance Committee. This committee is monitoring compliance with audits and provides support to implement and monitor compliance with Service/District/State policies, procedures and guidelines related to infection prevention and control. Importantly it has provided a forum, to table and discuss any quality improvement initiatives/research activities being undertaken across ICS and ensure appropriate consumer involvement.

**Oral Health infection prevention and control Link programme**
Within the Oral Health service it has been determined that the well-established infection prevention and control Link Programme was an appropriate and valued arrangement that was worthy of continuation rather than full transition to the Mentorship programme that has been initiated in other areas of the LHD.

The staff in all clinics have implemented a number of quality projects around policies and procedures, waste minimisation and work flow to support improved infection prevention and control.

In summary; many Oral Health staff and HH auditors continue to do great work across the service. We are looking toward increasing the numbers of Link Programme members over the coming year in order to accommodate various types of upcoming leave.

**Hand hygiene policy compliance**
The Oral Health service continues to have outstanding results across all clinics in regards to Hand Hygiene and 'Bling' compliance over the course of the year.

In this service a consistent result of 96% has been achieved in Hand hygiene compliance, an excellent result when compared with the benchmark at 90%. Some issues have arisen in reaching audit numbers across a couple of clinics due to decreased service days and staff numbers. The average Bare Below the Elbows 'Bling' compliance for the past year is at 99%. Both results exemplify a sustained commitment to these areas by all staff.

The Ambulatory Primary Health Care Hand Hygiene audit results identify that a total of 1,133 moments were collected of which 1,057 were correct. Hand hygiene compliance is 93.3% (91.7-94.6%) which is above the current ISLHD benchmark of 90%.

The ICS Standard 3 committee is currently finalising a QARS version of the Consumer Infection Control survey that will be attended during each of the three Australia Hand Hygiene cycles. The aim of this survey is to engage service users in order to gather valuable hand hygiene data to supplement the submitted observational hand hygiene audit findings.

# ISLHD Mental Health Services
**Standard 3 Governance Committee**
The ISLHD Mental Health Service established its Standard 3 governance committee in late 2018. The committee meets monthly and is provided with infection prevention and control advice by the IMACS CNC.

The committee provides a monthly report, documenting any Red Flags relating to the Mental Health service to the ISLHD Infection Prevention and Control Committee.

# Infection prevention and control link programme 2009-2018

The ISLHD infection prevention and control link nurse programme was established in 2009 and in January 2013 the programme was extended to include non-nursing colleagues.

The link survey undertaken in the SHG as reported in the previous Annual Report was followed by a series of focus groups to identify strategies to overcome barriers to link personnel attending meetings. As a result, the Link Programme was replaced by an Infection Prevention and Control mentorship programme available to staff from all clinical disciplines across the LHD. This programme commenced in January 2019 with each IMACS CNC providing mentorship to up to 3 staff who will follow a goal-oriented programme for a period of 12 months to increase their skills in infection prevention and control and quality improvement. Evaluation of the first 12 months of this programme will be provided in next year's IMACS Annual Report.

In addition to the Mentorship programme, the Oral Health infection prevention and control Link Programme has continued with IMACS facilitation of a collaborative, dental specific bi monthly meeting.  The Oral Health Link Programme now has members at each clinical site who have undertaken responsibility for all Infection Control related auditing and troubleshooting within their specific service. This initiative has improved compliance with the audit schedule with all Links to use the QARS system. The Oral Health Links have also started addressing their teams in their morning huddles and have shown increased frequency of liaising with the IMACS CNC on several initiatives.

The final Link Programme seminar took place in October 2017 and was replaced with the Annual Infection Prevention and Control Seminar which took place on 19th October 2018 and was open to all clinical staff rather than only Link Programme members as was previously the case. The day also marked the official launch of the Infection Prevention and Control Mentorship Programme.

Participants were invited to explore fact and fiction in the world of infection prevention and control. A group of 74 infection control enthusiasts from various services across the district registered for the day.

Myths that were busted on the day included *infection control nurses only care about hand hygiene*, *gloves are always good*, and *shiny floors means a clean hospital*. Attendees also participated in personal protective equipment (PPE) and Aseptic non touch technique (ANTT) practical workshops.

# Building and refurbishment consultation

IMACS has provided expert advice and consultancy to the following building and refurbishment programmes across the ISLHD;

## Northern Illawarra Hospital Group
**Wollongong Hospital paediatric ward and Ronald McDonald Unit development**
The Wollongong Hospital paediatric refurbishment project has required input from the NIHG CNCs throughout this reporting period, collaboratively working in partnership with the trades and ISLHD representatives in order to facilitate the construction in accordance with standards. Works have been conducted in a series of stages and each have required careful preparation, surveillance and guidance from IMACS.

### Birthing unit refurbishment
An exciting upgrade to the Wollongong Hospital birthing unit commenced in 2019, preparations for this include the refurbishment of the old vacant ICU as a temporary birthing unit while the works are completed. The IMACS NIHG CNC has been involved in this planning for temporary department accommodation and the stages of construction within the birthing suite in consultation with ISLHD and consumer groups.

### Bulli Hospital Rebuild
Bulli Hospital rebuild has been in the planning and construction phase since 2016 and is due for completion in November 2019. This new capital works project is in conjunction with the private aged care sector leader IRT and the building aims to deliver an aged care centre that is a both modern and in line with best practices for aged persons. The NIHG CNC has consulted on the both the planning and construction phase to ensure finishes, fixtures and flow support the prevention of infection to future patients.

### Endoscopy-Theatre ERCP project
During 2019 the Wollongong Hospital Endoscopy department moved its ERCP procedure room to the theatre complex. Works are in the planning stage to install a new ERCP machine in theatres with an expected go live date of September 2019. The NIHG CNCs have collaborated with the installation team to ensure an installation that prevents construction related infection with minimal disruption to operating theatre workflow.

## Southern Illawarra Hospital Group
Planning for the redevelopment of Shellharbour Hospital has begun. This has resulted in significant infection prevention and control involvement in the schematic and detailed design and the medical equipment tender evaluation review process. Early works have commenced.

## Shoalhaven Hospital Group
A significant capital investment programme has been underway within the SHG during this reporting period including the upgrades to lighting fittings and bathroom flooring across the SDMH site. Construction of an upgraded car park facility at the SDMH site has commenced and this has required input from IMACS due to the proximity of the site to the Shoalhaven Cancer Care Centre.

**ISLHD Mental Health services**

During this period, the Eloura AAA building underwent internal renovations aimed to improve the environment for the consumers. Infection Prevention and Control advice was provided during the preplanning and construction phases of this work.

**Integrated Community Services**

IMACS has provided expertise to the planning teams involved in several capital works projects including a school dental project, HealthOne planning and design for new community-based clinics in Ulladulla and Dapto.

An extensive programme to improve the condition and management of cleaning points in the many community bases across the LHD has also been completed during this reporting period.

The Wollongong dental clinic in the Piccadilly Centre has been undergoing a refurbishment, with the waiting room painted and new seating installed. A new cleaning point has been constructed along with improvements in workspaces and storage in surgeries. The majority of the work has occurred in remodelling the sterilisation room with completion of work on track for July 2019.

# Communication strategy

## Public reporting

Public reporting of Healthcare associated infection rates is achieved in every ISLHD facility providing inpatient services by the display of posters depicting the hospital rates of Staphylococcal bloodstream infections, *Clostridium difficile* infections, and the ward hand hygiene compliance rate.
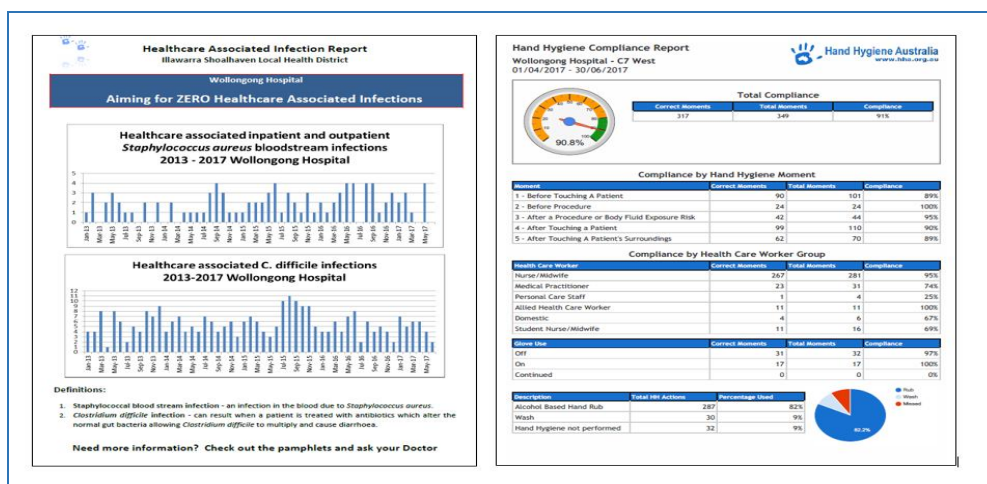


**Figure 3. Public reporting display board posters 2018-19**

In the previous report it was noted that a project undertaken at SDMH during 2017 identified that consumers are generally not aware of these boards, or of the availability of information that is available for them to understand the incidence of HAI at the hospital.

The ISLHD Clinical Governance Unit has an ongoing project being implemented across the LHD that has the objective of increasing the availability of patient safety and healthcare quality information to patients and their families.

Although not yet implemented, it is planned that the information displayed on these boards will be made available to the public through the IMACS section of the ISLHD internet page as soon as this has been established.

## Intranet page

IMACS has established an intranet page which provides links to infection prevention and control policies, external resources, and local information and data about infection rates and hand hygiene audit results. http://islhnweb/IMACS/default.asp

The numbers of visits to intranet pages relating to infection prevention and control between November 2018 and June 2019 are shown below (data obtained from SESLHD ISD support officer with thanks)

| Website/Page/Information | Views |
|---|---|
| Factsheets | 694 |
| IMACS posters | 551 |
| IMACS Education | 388 |
| IMACS Toolkit | 250 |
| IMACS Contacts | 197 |
| Link / Mentorship Program | 101 |
| Surveillance | 76 |
| FAQs | 72 |
| Clinical products including PPE | 24 |
| External links | 120 |
| IMACS Audits | 222 |
| **IMACS Total** | **2481** |

Table 3. Numbers of visits to IMACS intranet pages 2018-19

## ISLHD Chief Executive Newsletter (The Rounds)

IMACS is a regular contributor to the ISLHD newsletter and has used this forum to provide information to staff regarding hand hygiene audit findings, activities during events such as the World Health Organisation Hand Hygiene Day on 5th May each year, and the International Infection Prevention and Control week held each year in October. A report of key educational activities is also provided to raise awareness of this aspects of IMACS' role and function. Examples are the annual infection prevention and control Seminar day, and annual hotel services infection control update.

# Education

## ISLHD IMACS representation at prestigious infection prevention and control conference

IMACS represented ISLHD at the 7th International Australasian College for Infection Prevention and Control (ACIPC) conference held in Brisbane in November 2018. Three abstracts were accepted as oral and poster presentations following peer review:-

| Title of presentation | Type of presentation | Conference | Presenter |
|---|---|---|---|
| Autonomy and Justice; experiences of patients and clinicians experiencing Contact Precautions implemented to manage hospital transmission of multi-resistant organisms | Poster presentation | ACIPC, Brisbane, Nov 2018 | Joanna Harris |
| Healthcare –associated infection outside the hospital walls: benefits of including | Poster | | Annmaree Wilson |

| Title of presentation | Type of presentation | Conference | Presenter |
|---|---|---|---|
| ambulatory and primary healthcare services in case reviews | | | |
| Catheter Associated Urinary Tract Infection, A Different Perspective With A Focus on Long Term Urinary Catheterisations | Oral Presentation | | Fiona Hamilton |

**Figure 4. Conference presentations by IMACS 2018-19**

It was particularly pleasing that one of the SIHG IMACS CNCs presented an oral presentation which focused on the prevention of catheter-associated urinary tract infection in patients that have long term urinary catheterisations. This involved the investigation of the effect of an education package that was presented to Primary Health Nurses. The ACIPC oral presentation was well received with positive feedback on the day and follow up enquires regarding resources from microbiology and infectious diseases staff ensued.

Delegates from around the world have expressed to the team the value of these presentations and will be continuing to network with IMACS for advice and assistance in moving forward with many of the initiatives presented by our team during the conference.

**Further professional development for the IMACS team**
Two IMACS CNCs took up the exciting challenge of completing three month secondments to Far West Local Health District, based at Broken Hill and providing infection prevention and control expertise as well as strategic and operational advice while the substantive vacant CNC position was recruited to. These secondments offered Infection Prevention and Control cover for the Far West Local Health District while sharing innovations from ISLHD IMACS.

IMACS contributes to ISLHD staff education by the provision of face to face education in a number of different fora:-

## Orientation programmes
**Corporate orientation** The effective orientation of staff members newly employed by ISLHD is an important component of the organisational risk strategy. Infection prevention and control information is provided to all categories of newly employed staff including medical staff at JMO and registrar level. During this reporting period a total of 797 new staff completed the corporate orientation programme.

**Medical officer orientation** Both qualified medical officers and medical students undertaking placements within ISLHD attend an infection prevention and control update provided by IMACS CNCs, within their orientation to Wollongong and the Shoalhaven Hospitals

**Nurses orientation** In addition to corporate orientation nurses newly employed by ISLHD attend a separate infection prevention and control orientation which includes practical PPE application and other skills-based information. A total of 315 nurses attended this orientation during this reporting period.

## Mandatory training updates

There is a requirement for all staff to undertake a selection of infection prevention and control on-line modules as part of their mandatory training requirements. The following graphs show the numbers of staff within the LHD who had completed this training as at June 2019, and the compliance rates for these modules.
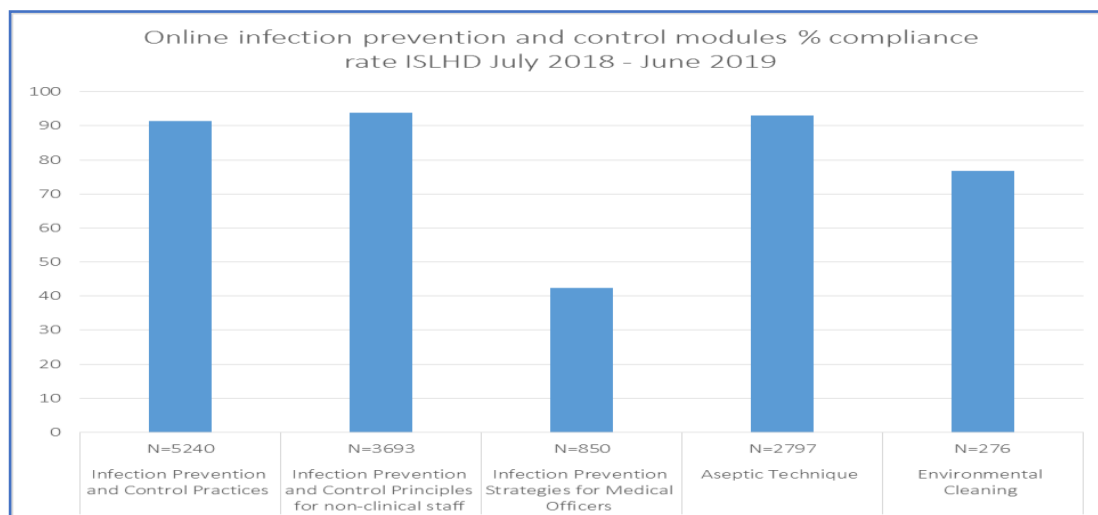


**Figure 5. Mandatory IPC online module compliance rate 2018-19**

## PPE Practical skills

In addition to these online modules, clinical staff are required to have practical education in the donning and doffing of PPE used in their infection prevention and control practices. A 'train the trainer' model has been used to roll out the mandatory requirement for all clinical staff to have practical training in the use of PPE every 5 years. IMACS CNCs have provided training to key educators and other staff across the LHD and have also undertaken a significant amount of this training themselves to support the required level of completion at their designated clinical settings.

During this reporting period 1865 staff members received this training, bringing the compliance rate to 83% across the LHD.

## Volunteers

Volunteers working within ISLHD facilities are also required to undertake an annual face to face update for Infection Prevention and Control. During this reporting period 110 volunteers attended face to face opportunities for an update on infection prevention and control.

## In-service education

In addition to the orientation and mandatory training sessions described above IMACS staff have provided specific infection prevention and control education and updates to staff according to need or on request including IMACS contribution to a series of education opportunities entitled 'Lunchtime Lectures' at SDMH. Communicable disease updates have included the topics of influenza, gastroenteritis, travel-related infections such as MERS-CoV and the management of patients presenting with primary varicella or shingles. Invasive device management updates have included the use of safety engineered sharps to reduce the risk of occupational exposure in staff.

This year a series of sessions to support staff responsible for undertaking environmental cleaning audits were also provided.

# Hand hygiene auditor training

## Ward based auditor training

The ward and unit-based hand hygiene auditors are responsible for completing the required number of audits within their site or service.

During 2018-2019 IMACS has provided education for hand hygiene auditing in line with the National Hand Hygiene Initiative from Hand Hygiene Australia. The eight hour course is comprised of both face to face and practical learning sessions and is delivered by the IMACS CNCs. Seven sessions were offered during this reporting period enabling attendance from across the LHD. Auditor competency is assessed at the end of this course with a 90% score being required for candidates to be authorised as auditors.

The following graphs show the numbers of staff attending each training session, and the number achieving accreditation as hand hygiene auditors.
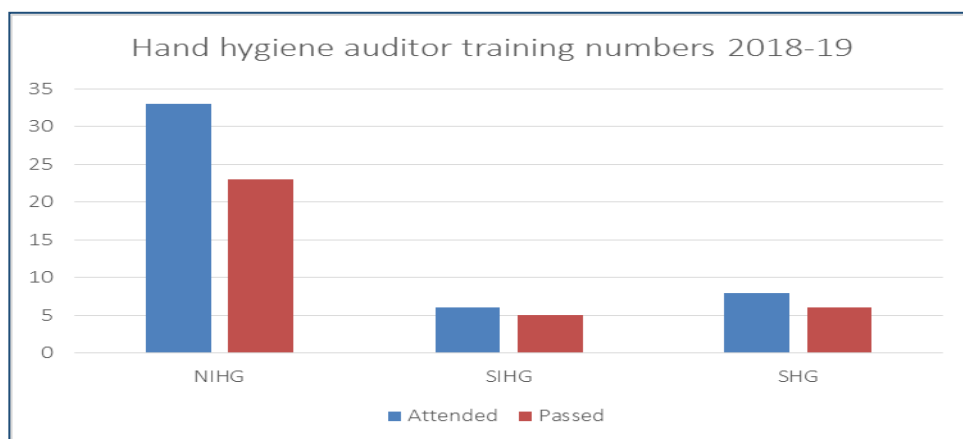


**Figure 6. Hand hygiene auditor training session outcomes 2018-19**

During this reporting period 34 staff achieved accreditation as unit-based auditors, from the 47 who attended training sessions. This brings the total number of staff trained as ward-based auditors for ISLHD since 2009 to more than 350 staff.  A number of these are no longer actively auditing due to a change in role and many have moved out of employment within ISLHD. Around 250 staff remain active in the HH auditor role.

In response to research conducted by IMACS on the experience of the hand hygiene auditor IMACS provide educational feedback sessions to the auditors at the completion of each hand hygiene cycle. During these sessions information on the auditing compliance is discussed with the aim of highlighting areas for improvement and discussing strategies the auditor can use to improve compliance. These sessions also offer an environment that the auditors can network with each other providing collegial support.

## Infection Control education for environmental cleaning staff

IMACS began delivering education sessions annually in 2014 for hotel services cleaning staff and wards people, Hospital and Security Assistants (HASAs), Emergency Department Support Officers (EDSOs) and hotel service managers working in hospital and community based settings.  These education sessions provide an update, covering NSW Health PD 2012_061 Environmental cleaning policy and the Clinical Excellence Commission (CEC) environmental cleaning standard operating procedures.

Thirteen training sessions were completed, from April to May 2019 across the local health district. Sessions were held at Milton, Ulladulla, Shoalhaven, Shellharbour, Port Kembla, Wollongong and Bulli hospitals.

Hotel services staff, Hotel services managers, HASAs (Health and Security assistants), wards people and contractors who provide cleaning services in the hospital, Integrated Community Services (ICS), Oral Health (OH) and Mental Health (MH) were invited to attend.

This year the format included an hour power point presentation delivered by IMACS staff. This was followed by the second hour where three company representatives presented a practical demonstration on Chlorclean (Helix), Cutan Hand Hygiene products (Bunzl) and Oates mops. This second hour provided the chance for staff to interact and engage with the company representatives. The positive written responses reflect the importance of including the practical demonstration.

The evaluation results were very positive with four of the questions scoring 97% or above. One question regarding the venue scored 90%.

In total, **158** participants attended the sessions and 147 evaluations were completed.

| Coledale Hospital | Bulli Hospital | Wollongong Hospital | Port Kembla Hospital | Shellharbour Hospital | Kiama ward |
|---|---|---|---|---|---|
| 0 | 11 | 68 | 17 | 21 | 0 |
| Berry Hospital | Shoalhaven Hospital | Milton Ulladulla Hospital | Mental Health service | Ambulatory Primary Health Care | |
| 1 | 34 | 6 | 0 | 0 | |

**Table 4. Hotel services education attendees by facility**

| Session | Yes | No |
|---|---|---|
| Did you learn something from the presentation? | 99% (144) | 1% (2) |
| Did you learn something from the practical sessions? | 97% (141) | 3% (5) |
| Did you feel like you could join in with the group activities? | 99% (141) | 1% (2) |
| | Good | Average | Bad |
| Venue | 90% (130) | 10% (15) | |
| Overall education day | 97% (142) | 3% (4) | |

**Table 5. Evaluation of hotel service infection control education**


## AS4187:2014 Reprocessing of reusable medical devices

A full review of the ISLHD facilities and services undertaken prior to this reporting period has successfully identified all departments in which reusable medical devices categorised as either critical or semi-critical are reprocessed between used on patients. In addition to the Sterile Service Departments (SSD) at Wollongong, Shellharbour and Shoalhaven hospitals, identified areas include endoscopy and medical imaging departments across the LHD and the Wollongong cardiac diagnostics and early pregnancy services.

With support from the IMACS team, the managers of each of these services has completed a formal review, gap analysis and action plan to bring their department to compliance with AS4187:2014 by December 2021 as required.

As a component of compliance with this Standard, endoscopy units are also required to ensure forced air drying and storage cabinets are in place to reduce the risk of the channels of endoscopes becoming contaminated with carbapenemase-producing Enterobacteriales (CPE). The use of these cabinets also extends the duration of allowable storage time for reprocessed endoscopes which is expected to reduce wear and tear caused by increased handling. Installation of these cabinets is expected to have been achieved by 2020.

All departments have made progress towards achieving compliance however the SSD at Shellharbour Hospital (SHH) poses significant challenges due to limitations of the available building footprint. The forthcoming development of this hospital includes a new SSD and theatre complex however, completion will not be achieved prior to the December 2021 target. The SHH General Manager and executive team are aware of this situation and are developing strategies to mitigate the risk to the organisation.

## Policy implementation

A wide range of ISLHD infection prevention and control policies are in place that support the framework provided by NSW Health policies, Australian Standards and relevant national guidelines. These policies are available on the ISLHD intranet pages. IMACS has nominated one of the infection prevention and control CNCs to lead the process for evaluation, review and development of the local infection prevention and control policy framework.

The following table illustrates the policies that have been published during this reporting period.

| Number | Title | Published |
|--------|-------|-----------|
| ISLHD Ops BR 82 ISLHD Ops F 623 | Bare Below the Elbows policy compliance guidelines and action plan template | Oct 2018 |
| ISLHD Clin PD 49 | Preventing and Controlling Healthcare Associated Infections – National Standard 3 | Dec 2018 |
| ISLHD Ops Proc 119 | Refrigerators: Food use and care in ISLHD | Aug 2018 |
| Mat Gen Clin Proc 06 | Reprocessing infant feeding and associated equipment – management of | Aug 2018 |

**Table 6. Policies developed and published 2018-19**

Unfortunately it is not possible to draw statistics showing policy downloads, as was provided in previous annual reports.

# Infection prevention and control audit programme

As shown in figure 7 there is an extensive schedule for auditing of infection prevention and control policies which is reviewed and ratified annually by the ISLHD infection prevention and control committee (IPCC). All IMACS audits are reported into QARS in order to enable unit and department managers to develop and monitor action plans to address deficits revealed through the audit process.

Results of audits and associated local action plans are reported to the relevant hub IPCC, and where relevant, to the ISLHD IPCC according to the schedules below, with recommendations ratified and progressed where appropriate.

**ISLHD INFECTION PREVENTION AND CONTROL AUDITING & IPCC REPORTING SCHEDULE – 2018**

| QUALITY AUDITS & ACTIVITIES | RESPONSIBLE OFFICER/S | REPORTING TOOL | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSW Health Performance Report and ISLHD KPI reporting Dashboard | IMACS Nurse Manager | NSW Health Performance report | X | X | X | X | X | X | X | X | X | X | X | |
| Clinical Indicators ACHS | IMACS Nurse Manager | ACHS Clinical Indicators report | | | | | | | X/x | | | | X/x | |
| IMACS Annual Report | IMACS Nurse Manager | | | | | | | | | | X | | | |
| Aseptic non touch technique | IMACS Nurse Manager | QARS | X | | | | | | | X | | | | |
| Environmental Cleaning audit report | IMACS CNC with portfolio | QARS | | X | | | | | | X | | | | |
| AS4187:2014 action plan update | NIHG, SIHG, SHG representatives | QARS | | | X | | | X | | | X | | | |
| Hand Hygiene audit report | IMACS CNC with portfolio | HHA report | | | | X | | | X | | | | X | |
| WHO Hand Hygiene Day 5th May | Site IMACS CNC / Infection Control Links | IMACS Report | | | | | | | X | | | | | |
| Infection Prevention & Control Week (October 2018) | Site IMACS CNC | IMACS Report | | | | | | | | | | | X | |
| Sterile stock storage Audit | Site IMACS CNC / Infection Control Links | IMACS QARS audit tool and report | | | x | x | x | | | | | | | |
| Apron use | Site IMACS CNC | IMACS audit tool and report | | | | | x | x | x | | | | | |
| Bling Audit | Site IMACS CNC / Infection Control Links | IMACS QARS Bling Audit tool and report | | | | | | x | x | | | | | |
| Cleaning point audit | Site IMACS CNC / Infection Control Link | IMACS QARS audit tool and report | | | | | | | | x | x | x | | |
| Renal Unit audit including ANTT, HH, environmental cleaning and consumer survey | Site IMACS CNC / RDU staff | IMACS audit tool and report | | | | | | | | x | x | x | | |
| Drainage device | Site IMACS CNC | IMACS QARS audit tool and report | | | | | | | | | | | x | x |

**ISLHD INFECTION PREVENTION AND CONTROL AUDITING & IPCC REPORTING SCHEDULE – 2019**

| QUALITY AUDITS & ACTIVITIES | RESPONSIBLE OFFICER/S | REPORTING TOOL | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NSW Health Performance Report, HACs and ISLHD KPI reporting Dashboard | IMACS Nurse Manager | NSW Health Performance report | X | X | X | X | X | X | X | X | X | X | X | |
| Clinical Indicators ACHS | IMACS Nurse Manager | ACHS Clinical Indicators report | | | | | | | X/x | | | | X/x | |
| IMACS Annual Report | IMACS Nurse Manager | | | | | | | | | | X | | | |
| Aseptic non touch technique | IMACS Nurse Manager | QARS | X | | | | | | | X | | | | |
| Environmental Cleaning audit report | IMACS CNC with portfolio | QARS | | X | | | | | | X | | | | |
| AS4187:2014 action plan update | NIHG, SIHG, SHG representatives | QARS | | | X | | | X | | | X | | | |
| Hand Hygiene audit report | IMACS CNC with portfolio | HHA report | | | | X | | | X | | | | X | |
| CVAD/PICC and PIVD audits | Hub Quality Managers/NUMs | QARS audit tool and report | | | | x | x | x | | | | | x | x |
| Infection Prevention and Control week | Site IMACS CNCs | IMACS report | | | | x | x | | | | | | | |
| Sterile stock storage audit | Site IMACS CNC / Infection Control Links | IMACS QARS audit tool and report | | | x | x | x | | | | | | | |
| Standard and Additional Precautions | Site IMACS CNC | IMACS audit tool and report | | | x | x | x | | | | | | | |
| Bling Audit | Site IMACS CNC / Infection Control Links | IMACS QARS Bling Audit tool and report | | | | | | x | x | | | | | |
| Renal Unit audit including ANTT, HH, environmental cleaning and consumer survey | Site IMACS CNC /RDU staff | IMACS audit tool and report | | | | | | | | x | x | x | | |
| Linen Management | Site IMACS CNC / Infection Control Links | IMACS QARS audit tool and report | | | | | | | | | x | x | x | |

**Figure 7. Audit schedules 2018 and 2019**

## Hand hygiene

In order to monitor compliance with NSW Health Hand Hygiene policy PD2010_058, hand hygiene auditing has been fully implemented across the ISLHD including within the Ambulatory and Primary Care services, inpatient Mental Health settings, and Oral Health services. During this reporting period a total of 46,125 hand hygiene opportunities were observed, with 40,389 being achieved correctly – an overall hand hygiene compliance rate of 87.6%, an increase from last year's rate of 87.2%.

As seen below, all ISLHD services achieved an overall hand hygiene compliance rate of at least 80% during this reporting period. Most staff groups also exceeded the NSW Health target of 80%.
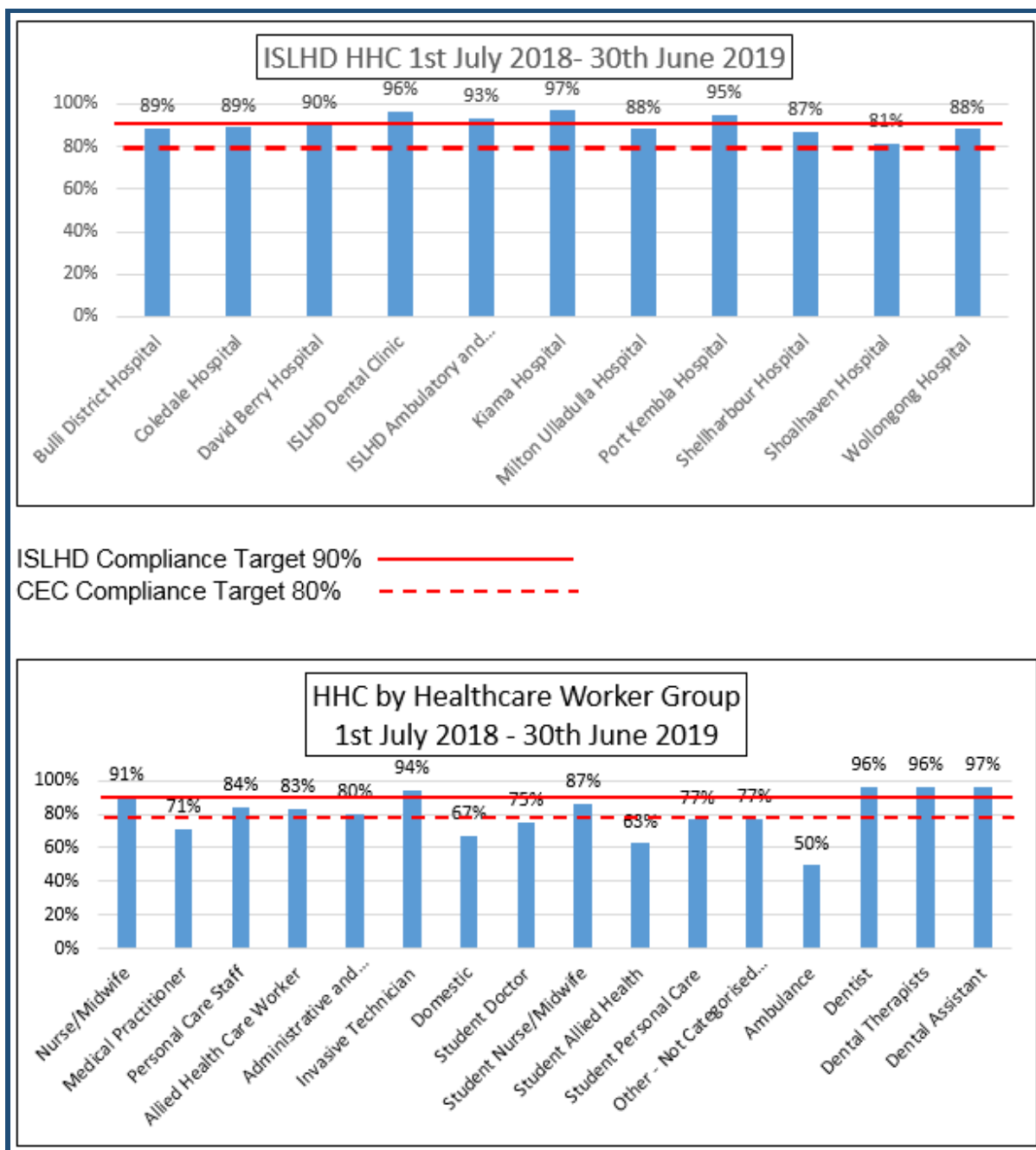


**Figure 8. Hand hygiene rates 2018-19 by site and by staff group**

During the previous reporting period the ISLHD IPCC agreed that a 90% compliance target would be appropriate for ISLHD.

The following table provides further detail by showing the numbers of Moments that were audited at each site.

| Site/Service | Total moments audited | Correct moments audited | Compliance across 12 months |
|---|---|---|---|
| Bulli District Hospital | 1568 | 1389 | 89% |
| Coledale Hospital | 681 | 606 | 89% |
| David Berry Hospital | 1405 | 1268 | 90% |
| Illawarra Shoalhaven Dental Clinic | 2033 | 1960 | 96% |
| ISLHD Primary & Ambulatory Care | 1133 | 1057 | 93% |
| Kiama District Hospital | 296 | 287 | 97% |
| Milton Ulladulla Hospital | 1982 | 1750 | 88% |
| Port Kembla District Hospital | 1855 | 1763 | 95% |
| Shellharbour Hospital | 5598 | 4872 | 87% |
| Shoalhaven Hospital | 9308 | 7571 | 81% |
| Wollongong Hospital | 20266 | 17866 | 88% |

**Table 7. ISLHD 2018-19 hand hygiene audit results**

The recently published report of hand hygiene compliance in Australia identifies that ISLHD rates compare favourably with state-wide statistics, often significantly exceeding the rates reported from other jurisdictions. The following table compares ISLHD hand hygiene rates for different professional groups and shows the improvements that have been made since 2014.

| | ISLHD 2014-2015 | ISLHD Apr-Jun 2018 | National Nov 17 - Mar 2018 | ISLHD 2018 - 2019 |
|---|---|---|---|---|
| **Overall compliance** | 83.4% | 87% | 85% | 88% |
| **Compliance by healthcare worker** | | | | |
| o   Nurse/midwife | 88.0% | 90% | 88% | 91% |
| o   Doctor | 69.5% | 69% | 73% | 71% |
| o   Dentist | | 100% | 92% | 96% |
| o   Allied Health | 81.0% | 82% | 83% | 83% |
| o   Other | 66.3% | 91% | 76% | 77% |
| o   Patient support assistant | 74.8% | 81% | 80% | 84% |
| o   Blood collector | 84.6% | 92% | 86% | |
| o   Student Nurse | 84.3% | 83% | 84% | 86% |
| o   Student Doctor | 62.3% | 100% | 77% | 75% |
| o   Student Allied Health | 80.4% | 74% | 82% | 62% |

**Table 8. Comparison of ISLHD and NSW State hand hygiene audit findings**

Areas that do not meet the 80% benchmark expected by NSW Health are highlighted in red, and include hand hygiene compliance by doctors. The improvement in doctors' hand hygiene compliance must be noted. These results are not dissimilar from globally observed practice according to the published literature. IMACS will be increasing opportunities for providing education and awareness of the importance of hand hygiene and locally observed findings to medical colleagues as an ongoing priority area.

Emergency Department (ED) hand hygiene compliance has been variable since the programme commenced with rates for Wollongong, Shellharbour and the Shoalhaven hospital EDs being 52%, 38.4% and 61% respectively in June 2016. In response to this Wollongong, Shellharbour and Shoalhaven Hospital EDs initiated improvement strategies and have been able to demonstrate improvements with Shellharbour and the Shoalhaven ED achieving a 68% compliance during the auditing period to June 2019. There is a need

for continued focus on this in the Wollongong ED where the hand hygiene rates was only 54% in the auditing period to June 2019.

In response to a request from the auditors for more timely feedback and education, a series of feedback sessions have been conducted in each of the hubs at the completion of each audit cycle. These sessions provide feedback, education and an opportunity to network with other auditors. In addition to this opportunity for staff to review hand hygiene compliance hand hygiene reports are now included in SPaRC dashboard reports for each unit manager and are also available at http://islhnintranet/IMACS/Audits/default.asp

Observation hand hygiene compliance auditing is not considered appropriate in certain community-based settings such as some departments within Ambulatory and Primary Health Care (APHC), ISLHD Child and Family (C&F) service and the ISLHD community mental health services (CMHS). In order to meet the need for hand hygiene compliance to be monitored, these services have each undertaken surveys of their clients. The results of these surveys are reported within the periodic hand hygiene audit reports where relevant.

**Environmental cleaning audit programme**

In response to the publication of NSW Health PD2012_061 Environmental Cleaning policy, IMACS implementation of the auditing programme commenced across ISLHD from early 2013. Monthly audits are undertaken in all clinical areas, with findings reported to hotel service managers for collation and distribution to site managers as required. Environmental cleaning audit results and action plans for ISLHD inpatient units are managed through QARS and the expectation is that a 90% score is required for clinical areas to be passed as satisfactory. The following graph shows the trended audit results for clinical areas (both inpatient and outpatient or community) across the LHD.
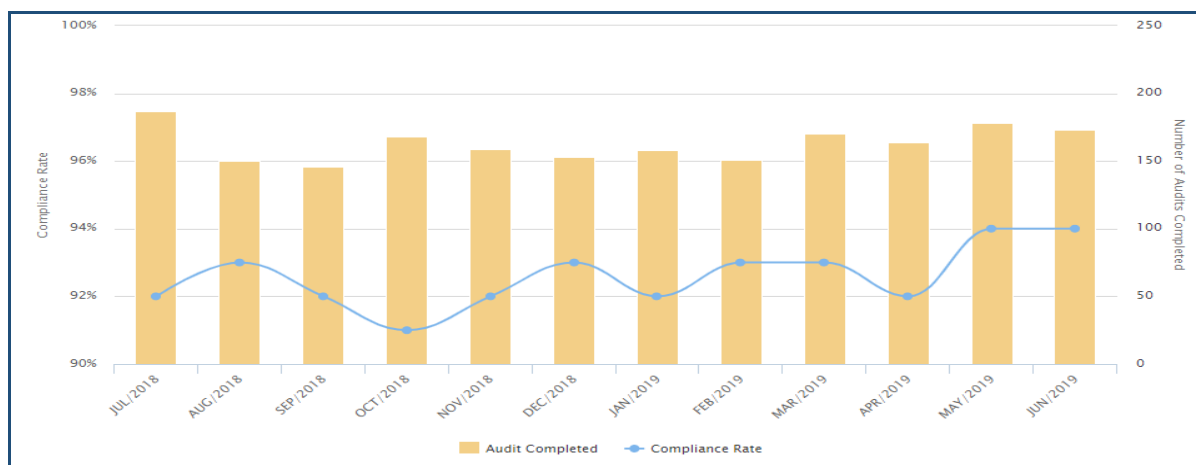


**Figure 9. Environmental cleaning audit findings in clinical areas 2018-19**

Community health centres are serviced by a hotel service contract provided by an external cleaning contractor, Joss. Each setting is audited on a regular basis with results retained at each site, in addition to the audits that are entered into QARS.
Mechanisms for failed clinical audits are well established and reported directly through hub based ICCs and where necessary the ISLHD IPCC.

# Surveillance

## Reporting framework

The infection prevention and control service is required to provide information to the NSW Ministry of Health 'Health System Information and Performance Reporting' division every month following policy directive PD2005 and using definitions provided within the Healthcare Associated Infection Clinical Indicator Manual version 2; 2008. This information is used to measure the performance of the ISLHD as detailed in the Key Performance Indicator (KPI) Dictionary for the 2018-19 Health Service Performance Agreements. Once it has been validated the information provided by IMACS is submitted for publication on the MyHospitals website www.myhospitals.gov.au

Hand hygiene audit data is submitted to Hand Hygiene Australia at the completion of each cycle, three times a year. Surveillance information is also provided to the Australian Council on Healthcare Standards and to the Australian Health RoundTable (ACHS) on a six monthly basis. This reporting mechanism provides for national rather than limited State-wide comparisons to be made.

ISLHD is also a contributor to the Australian National Antimicrobial Utilisation Surveillance Program (NAUSP) which facilitates surveillance of hospital antimicrobial prescribing and usage. This is a voluntary programme funded by the Commonwealth Department of Health and Ageing. The ISLHD Antimicrobial Stewardship intranet site is a valuable resource for staff http://islhnweb/Antimicrobial_Stewardship .

## Central-line associated bacteraemia (CLAB) in intensive care units

NSW Ministry of Health 'Health System Information and Performance Reporting' department requires the submission of numbers of bloodstream infections occurring in patients who have had a central venous access device (CVAD) inserted whilst admitted to, or recently discharged from, intensive care units (ICU). These are very rare occurrences within ISLHD however during this reporting period one patient at Wollongong Hospital ICU was identified as having an ICU-related CLAB.

| Facility | 2018 | | | | | | 2019 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jul | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| SDMH | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WH | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ISLHD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Table 9. Numbers of ICU-related CLABSI 2017-18**

## *Staphylococcus aureus* bloodstream infections

NSW Ministry of Health requires the submission of numbers of bloodstream infections caused by *Staphylococcus aureus* (SAB) every month.

The following graph depicts the total numbers of healthcare associated inpatient and outpatient (to include renal dialysis and other significant service areas) SABs that have occurred each quarter since 2010.
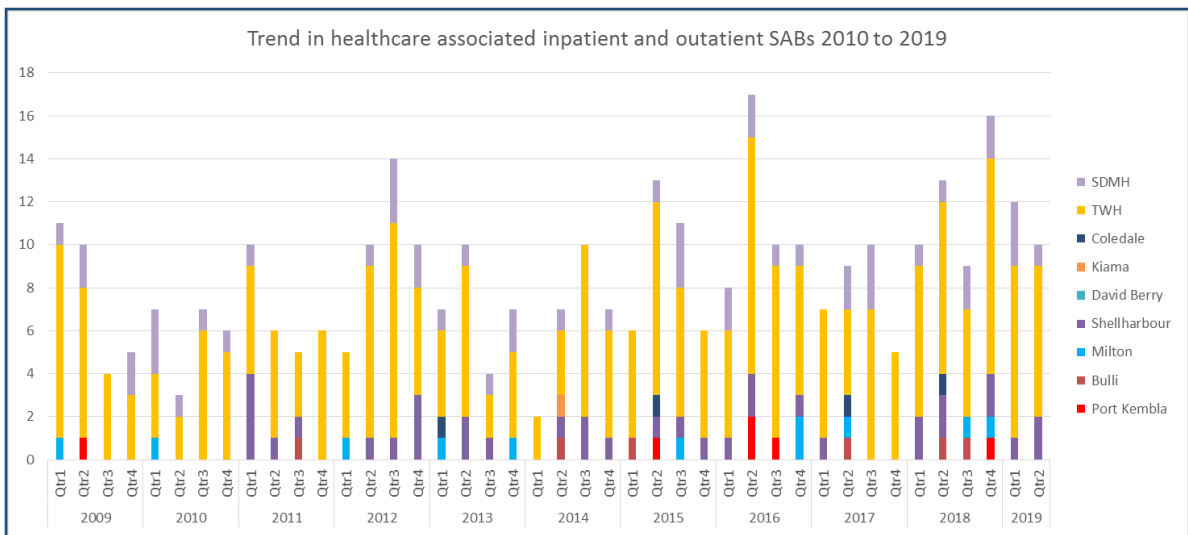
**Figure 10. Trend in healthcare associated SABs 2010-19**

The graph identifies a recent increase in healthcare associated SABs during this reporting period. Detailed case review of each SAB is undertaken. The results of these reviews have revealed a number of opportunities for improvement in the management of centrally-inserted venous access devices (CVADs) at Wollongong Hospital.

The following graph provides monthly detail of the healthcare associated SAB numbers (inpatient and outpatient) that have occurred in our facilities during the reporting period July 2018 – June 2019.
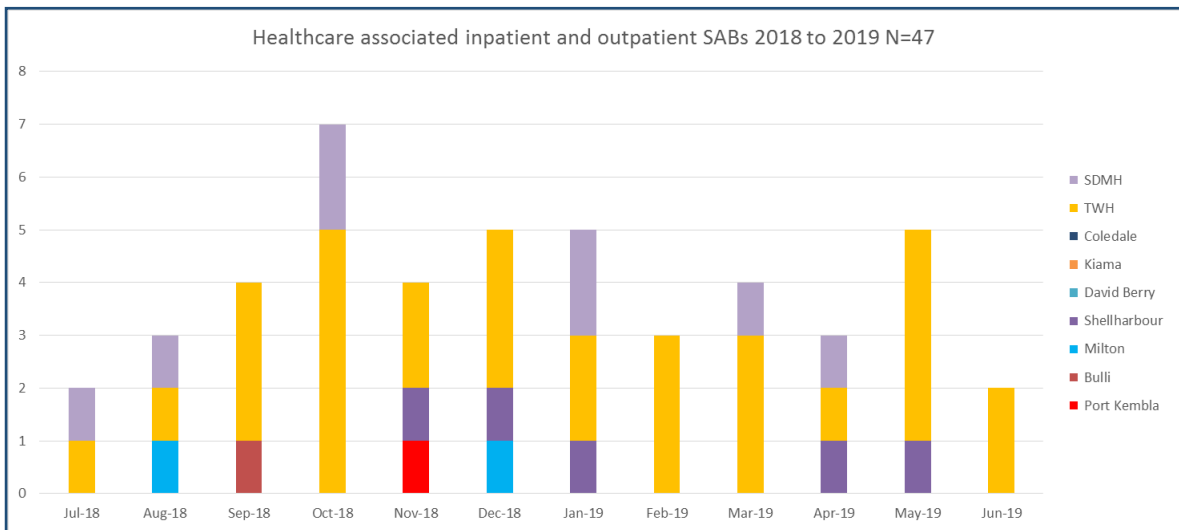

**Figure 11. Monthly incidence of healthcare associated SABs 2018-19**

For this reporting period NSW Health required LHDs to maintain a healthcare associated in-patient and out-patient SAB rate of less than 2 per 10,000 occupied bed days (OBD) per month. This benchmark has been breached when single SAB infections have been reported at the smaller facilities due to the small number of occupied bed days at these facilities per month. From 2019-20 the benchmark will be set at 1/10,000OBD which may be challenging for the LHD to meet.

Trends in ISLHD SAB rates at each of the ISLHD facilities are shown in the graphs below.

30
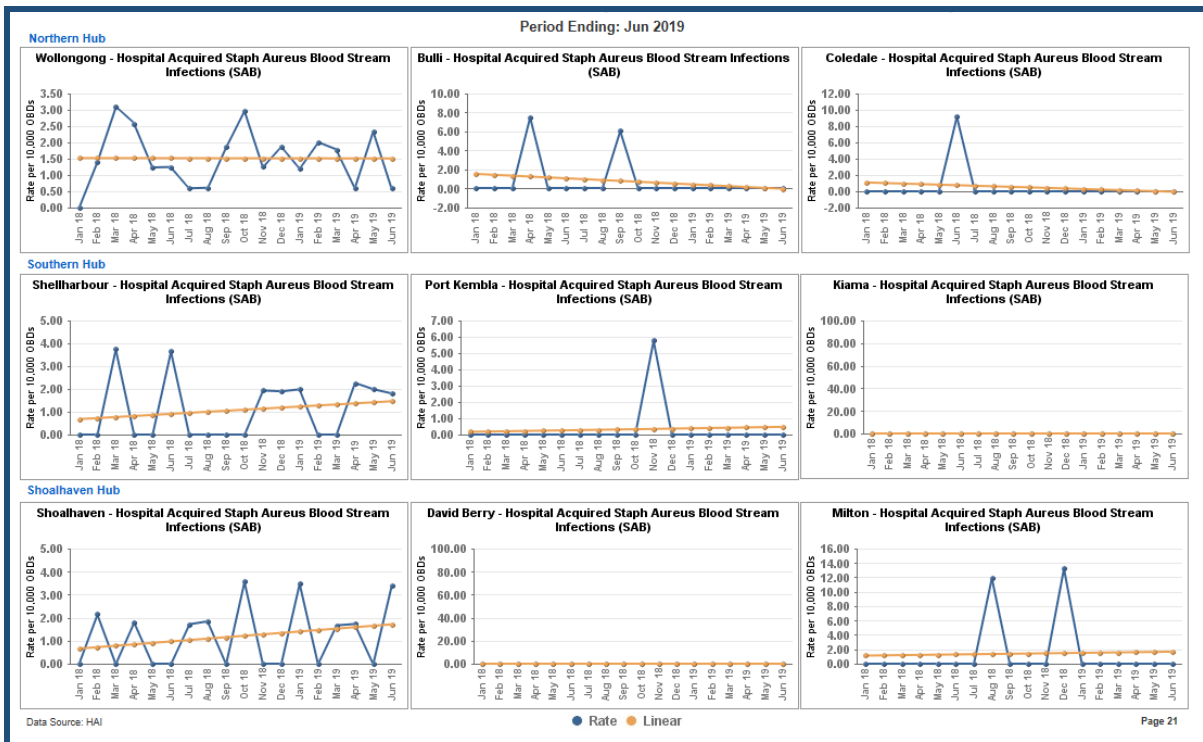
**Figure 12. Trend in SAB rates Jan 18 - June 2019**

During this reporting period a total of 150 SABs were identified and reported to IMACS for review. Of these cases, 103 were identified as community onset with no identified ISLHD healthcare association.
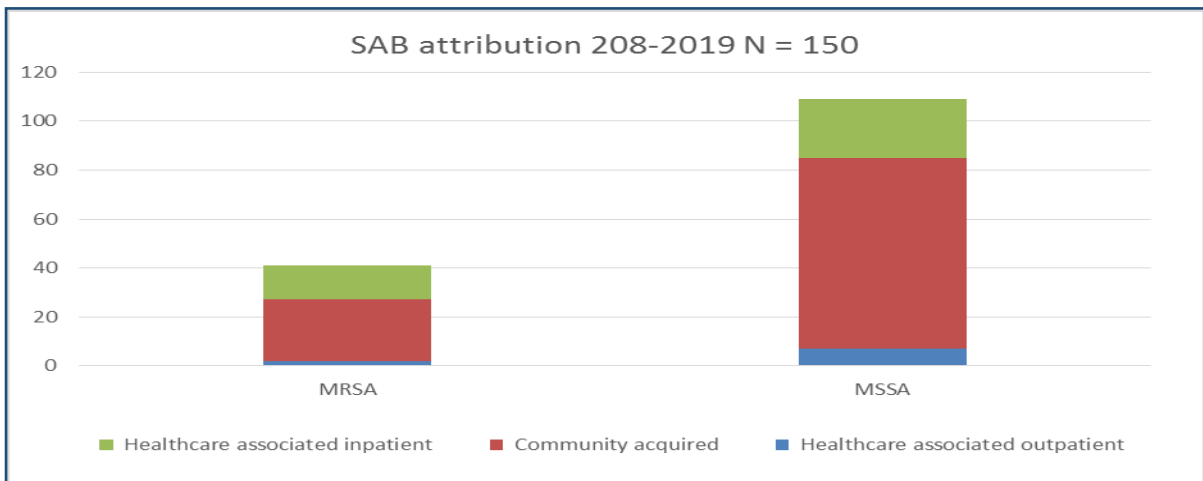


**Figure 13. Attribution of SABs following IMACS case review**

Individual case reviews of the remaining 47 healthcare associated SABs have identified that 38 affected inpatients and 9 occurred in people who had recently been in receipt of healthcare within ISLHD but were not admitted to hospital at the time that the SAB occurred (healthcare associated outpatient SABs). This year 2 of the 9 healthcare associated outpatient SABs were caused by MRSA. This is similar in number to the previous year's report where 3 of the 10 HCA Outpatient SABs were caused by MRSA and an increase on the previous two years when no outpatient associated SABs were caused by MRSA.

Of all healthcare associated (inpatient and outpatient) SABs 34% (16/47) were identified as MRSA this year, compared with 46% (17/37) last year. The following table shows the proportion of inpatient SABs that were caused by MRSA and MSSA respectively.

| | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 |
|---|---|---|---|---|---|---|---|---|---|
| **MRSA bacteraemia (% of total)** | 5 (20%) | 3 (17%) | 15 (43%) | 4 (33%) | 16 (53%) | 12 (40%) | 10 (28%) | 14 (52%) | 14 (37%) |
| **MSSA bacteraemia** | 15 | 15 | 20 | 12 | 14 | 20 | 19 | 13 | 24 |
| **Total InPt SAB** | 20 | 18 | 35 | 16 | 30 | 32 | 29 | 27 | 38 |

**Table 10. Numbers of healthcare associated inpatient SABs 2018-19**

## Surgical site infections - Lower Segment Caesarean Section

Surveillance of surgical site infections (SSI) associated with lower segment caesarean sections (LSCS) has been monitored and reported to the ACHS for both Wollongong Hospital and the Shoalhaven Hospital from January 2012.

| | 2nd half 2017 | | 1st half 2018 | | 2nd half 2018 | | 1st half 2019 | |
|---|---|---|---|---|---|---|---|---|
| SSI Rate per 100 procedures | Site rate | Peer rate | Site rate | Peer rate | Site rate | Peer rate | Site rate | Peer rate |
| Wollongong (S) | 1.31% | 0.68% | N/A | N/A | N/A | N/A | N/A | N/A |
| Wollongong (D) | 0.52% | 0.15% | 0.22% | 0.10% | 0.24% | 0.36% | 0.42% | 0.15% |
| Shoalhaven (S) | 2.09% | 1.27% | N/A | N/A | N/A | N/A | N/A | N/A |
| Shoalhaven (D) | 0% | 0.05% | 1.61% | 0.39% | 0.93% | 0.36% | 0% | 015% |

(S) superficial   (D) deep surgical site infection - according to ACHS Clinical Indicator Manual definitions
**Table 11. Rates of surgical site infection - LSCS**

An above-peer rate of LSCS SSI (4.5%) identified at Wollongong Hospital during the first half of 2014 prompted the foundation of a working group to identify and address potential causative factors. The identification of a number of opportunities for improvement has led to the implementation of initiatives to improve the time of administration and maternal weight-related dosage of antibiotic prophylaxis, placement of antiseptic soap solution in maternity service bathrooms, and improved pre-operative skin preparation practices. Improvements in the rates of surgical site infection following LSCS at Wollongong have been sustained as shown in table 15.

## Surgical site infections - Orthopaedic

NSW Ministry of Health requires the submission of the numbers of patients who develop a superficial or a deep surgical site infection following elective orthopaedic surgery for the insertion of a hip or knee prosthesis. Wollongong Hospital and the Shoalhaven Hospital are the two facilities within ISLHD that patients attend for these elective procedures.
The infection rate following elective hip and knee prosthetic surgery is shown below:

| Hospital | Nº Elective hip and knee procedures 2018-19 | Nº Elective hips and knees infected 2018-19 | SSI rate per 100 procedures | | | |
|---|---|---|---|---|---|---|
| | | | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| SDMH | 146 | 4 | 1.94 | 2.5 | 3.10 | 2.74 |
| TWH | 549 | 5 | 2.38 | 1.05 | 0.62 | 0.91 |
| ISLHD total | 695 | 9 | 2.29 | 1.34 | 0.72 | 1.29 |

**Table 12. Surgical site infection rates – elective orthopaedic**

In a previous IMACS Annual Report a surgical site infection (SSI) rate of 4.92% was reported to affect patients having elective orthopaedic surgery at Shoalhaven Hospital. In response to the increased rates a Clinical Practice Improvement initiative was facilitated by the ISLHD CGU, which identified opportunities for improvement that have been sustained during this reporting period, as demonstrated by the reduction in SSIs following elective orthopaedic surgery at the hospital.

Trended orthopaedic surgical site infection rates for this reporting period are shown below.
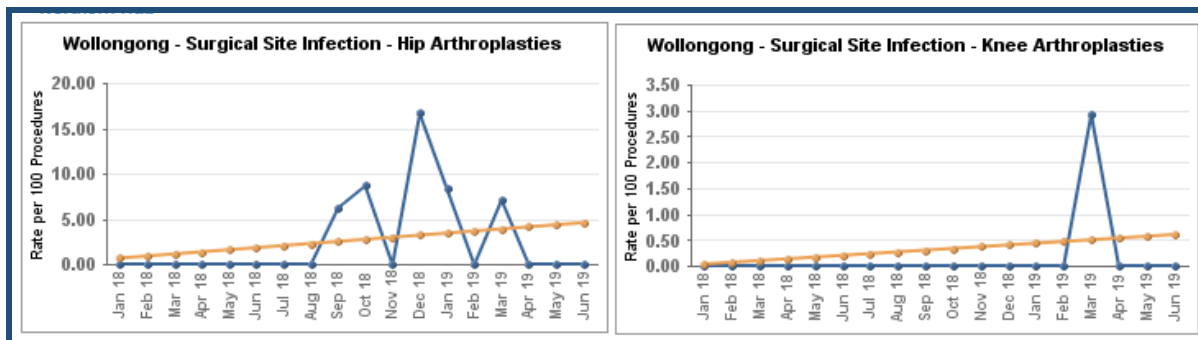


**Figure 14. Wollongong Hospital orthopaedic SSI rates Jan 2018 - June 2019**
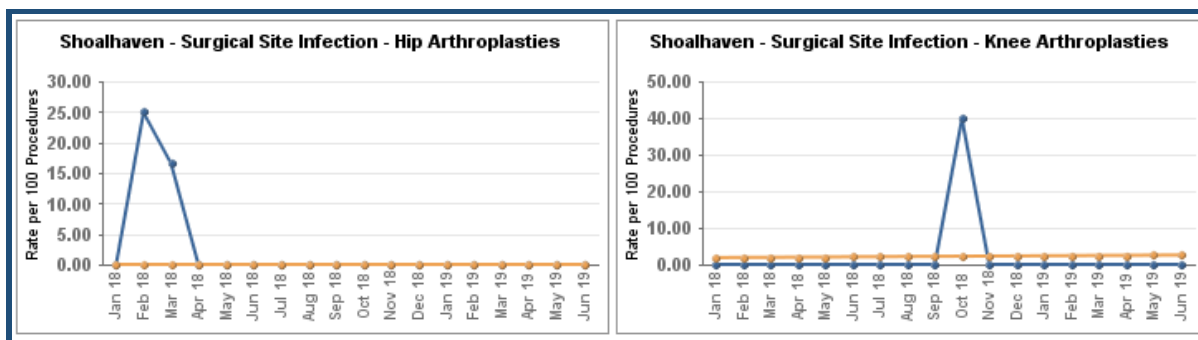


**Figure 15. Shoalhaven Hospital orthopaedic SSI rates Jan 2018 - June 2019**

### *Clostridium difficile* infection

*Clostridium difficile* is an important healthcare associated infection because of the impact of the infection on individual patients as well as the communicability of this organism in acute care areas. The importance of a clean environment is paramount for the prevention and control of *C. difficile* as it has the ability to form spores which can remain viable in the environment for many weeks in the hospital setting.

Additional prevention and control measures include effective antimicrobial stewardship and appropriate prescribing of antimicrobial agents as certain antibiotics are particularly likely to cause the infection in some people.
NSW Health requires the submission of total numbers of infections caused by *Clostridium difficile* that are identified at each facility every month.

The following graph shows the numbers of patients acquiring *Clostridium difficile* through healthcare contact in each of the ISLHD facilities since July 2010 when improved testing processes were implemented in the microbiology laboratory.
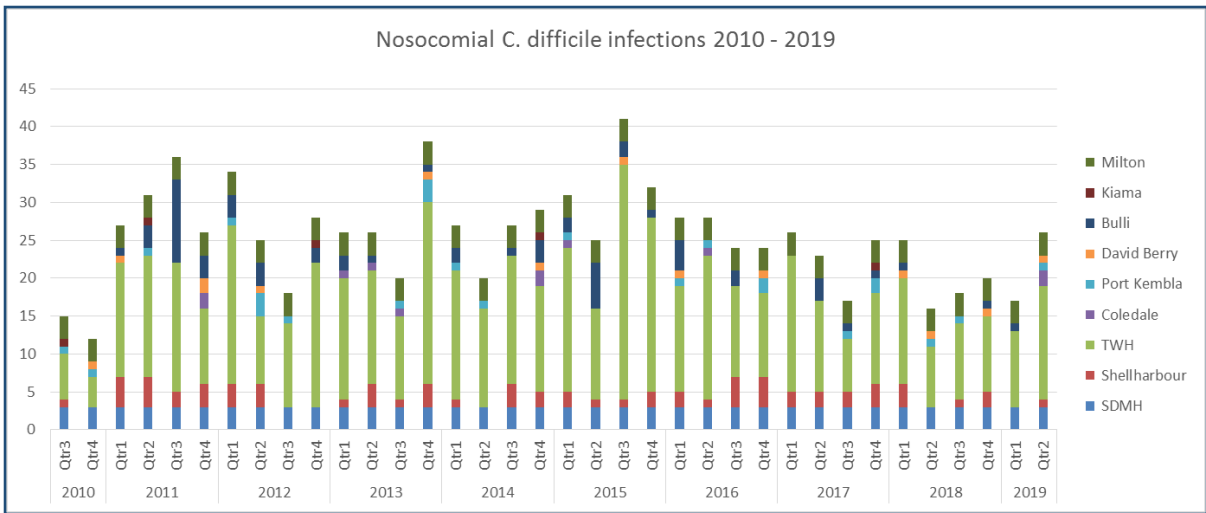
**Figure 16. Numbers of nosocomial *C. difficile* infections 2010-19**

Whilst the previous graph depicts numbers of nosocomial (healthcare associated *C. difficile* infections), the following charts illustrate the total numbers of *C. difficile* identified in patients at each facility. This will include infections that were acquired in the community in people with no previous ISLHD healthcare contact.



**Figure 17. Trend in total *C. difficile* Jan 2018 - June 2019**

The IMACS team and ISLHD antimicrobial stewardship pharmacist are closely monitoring the numbers of *C. difficile* infections occurring throughout the District.

# Outbreaks and incidents

Outbreak identification and management is a key responsibility for IMACS. During this reporting period 52 significant outbreaks and incidents were managed by the team as described below. The most commonly identified outbreaks of communicable disease were exemplified by gastrointestinal symptoms.



**Figure 18. Outbreaks and incidents 2018-19**

## Gastrointestinal infection

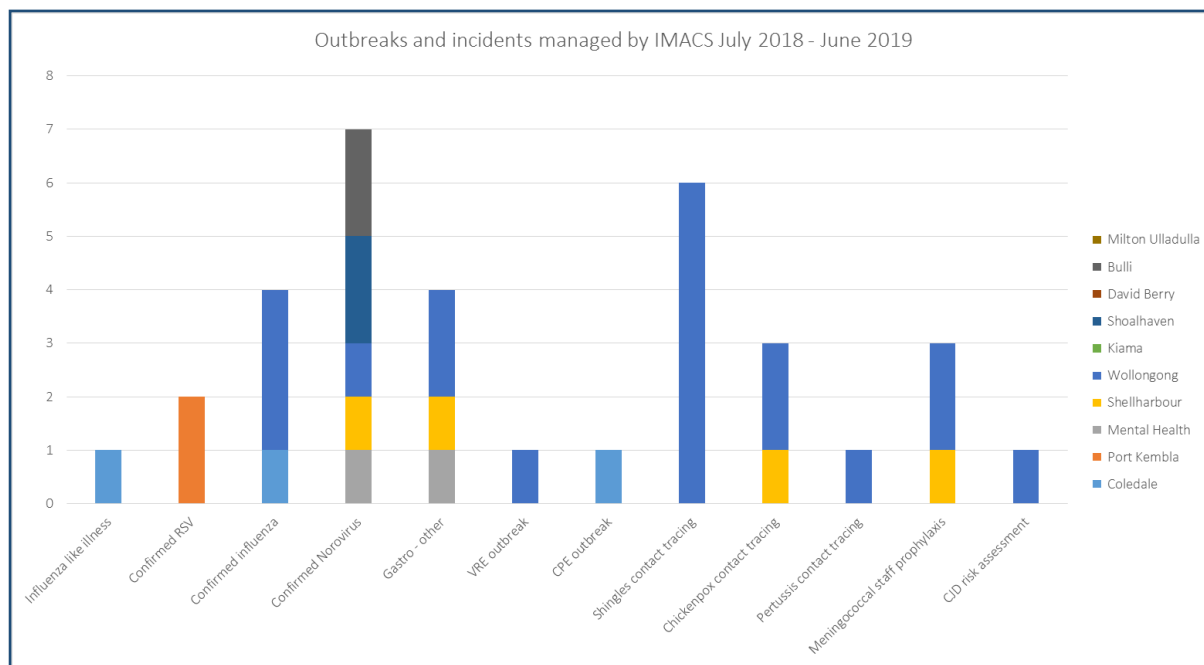As in previous years, outbreaks of gastrointestinal infection accounted for the majority of outbreaks that were managed by IMACS across the LHD. Seven of the 11 gastrointestinal infection outbreaks were confirmed as being caused by Norovirus. Outbreaks of gastrointestinal infection involved a total of 33 patients and 20 staff across the LHD. It is noticeable that in many cases staff have initiated effective control measures immediately they suspect an outbreak to be starting. This is a testament to the work that IMACS has done over the years within the LHD, empowering staff in clinical settings to take early measures and shorten the duration and reduce the impact of these events.

## Influenza

As reported in last year's Annual Report, the emergence of influenza as a significant healthcare associated infection during this reporting period prompted a renewed focus on developing a coordinated and effective staff flu vaccination strategy in preparation for the 2019 influenza season. A target of 70% of ISLHD staff receiving influenza vaccine during the campaign was set. The strategy was successful in improving staff vaccination rates to more than 60% by June 2019.

The local NSW Pathology laboratory notifies IMACS of each patient identified as having influenza. For each case IMACS undertakes a review of each of these patients to identify whether the influenza was community acquired or healthcare associated.

The 2017 'flu season was notable as being the most significant for several years. The season extended to September 2017 and a total of 1001 patients admitted to LHD facilities between June and October were confirmed as having influenza and reported to IMACS by

the microbiology laboratory. The picture for 2018 was very different with little flu activity being reported in the community and only sporadic acquisition within ISLHD facilities. During 2018 only 100 cases of influenza affecting people admitted to or presenting to ISLHD facilities, were reported to IMACS. This was not the case for the 2019 season however with 253 cases being reported to IMACS in the first 6 months of the year, before the expected onset of the flu season in NSW. Numbers of cases continued at a higher than the usual community influenza baseline level from the end of the 2018 season, with an increase occurring as early as February 2019. At the time of this report flu activity within the LHD remains high.
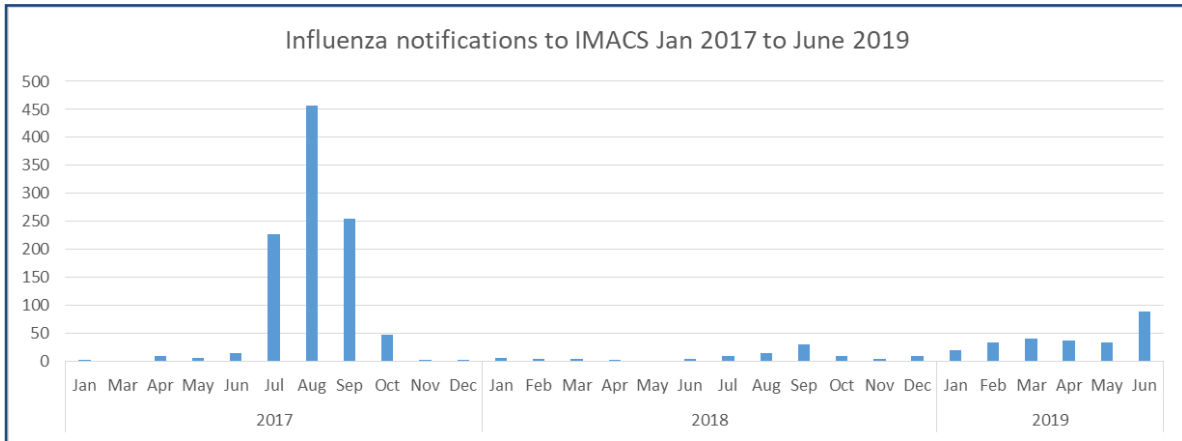


**Figure 19. Influenza notifications 2017 - 2019**

When the level of influenza infection is high within the general population, the chances of healthcare acquisition increase. There are many reasons for this; people may require hospitalisation for treatment of flu, or their visitors as well as staff members may acquire the infection and then come to the hospital whilst infectious.

The following graph illustrates the numbers of patients who were identified as developing their flu symptoms after 48 hours of being admitted to an ISLHD facility.
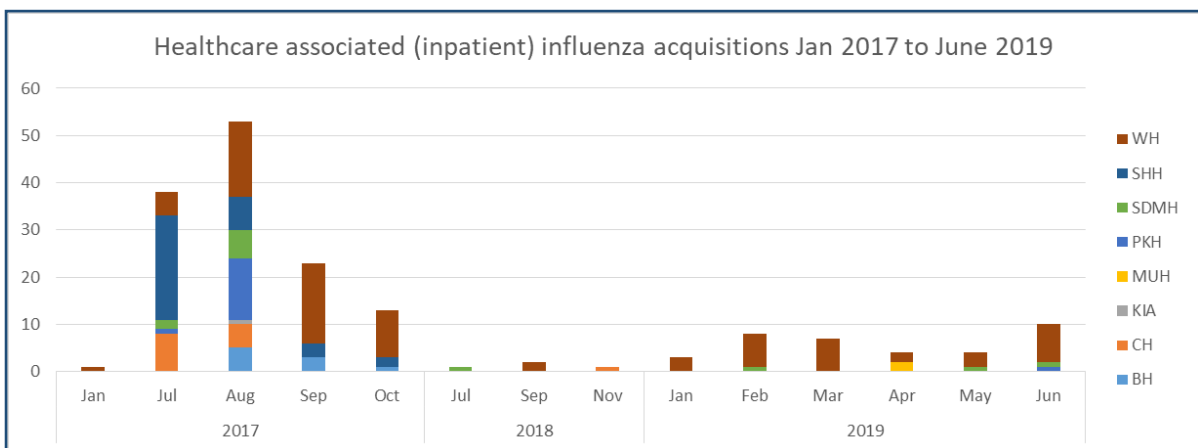


**Figure 20. Inpatient influenza acquisitions 2017-2019**

Influenza-like illness outbreaks (defined as the hospital-onset of flu-like symptoms in more than 3 patients in the same ward or clinical area within a 7 day period) affected 16 patients and 13 staff at Coledale, and Wollongong Hospitals.

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**MRSA ST45-V and VRE van A**

From the beginning of 2014, IMACS noticed an increase in a strain of MRSA with an unusual antibiotic resistance pattern. Genome sequencing was undertaken in 2014 and the strain was provided with the nomenclature MRSA 1296. An epidemiological study utilising individual case review of the first 50 patients identified as colonised with the new MRSA strain, and hospital information system data identified a small number of clusters indicating healthcare transmission, however for the majority of patients, no particular risk factors were identified.

The progress of healthcare associated acquisitions of this new strain from its initial identification in 2013 to June 2015 are shown in the chart below.
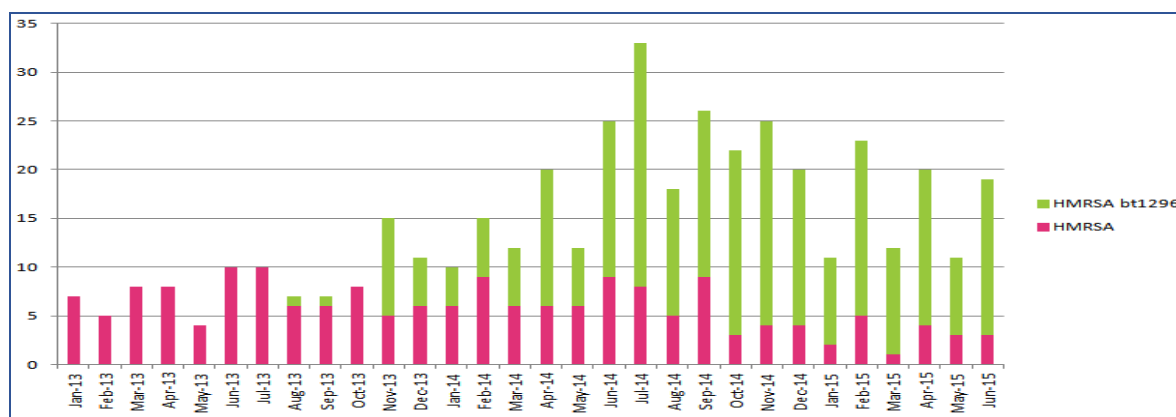


**Figure 21. Emergence of MRSA ST45-V**

Since this time this MRSA has been identified as being coded for possible reduced susceptibility to chlorhexidine due to its qacA gene. The strain is now recognised across Australia and Asia particularly in Western Australia and China. The nomenclature has been revised to MRSA ST45-V and this type is now the most frequently isolated healthcare associated MRSA within ISLHD as shown in the following graph.
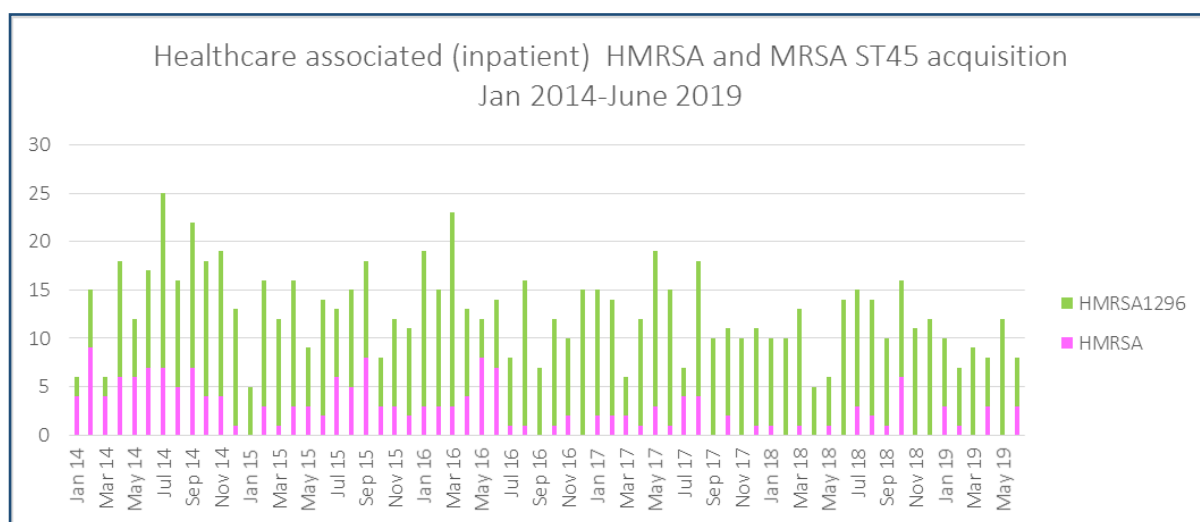


**Figure 22. Healthcare associated acquisitions of MRSA and MRSA ST45-V 2014-19**

In addition to the emergence of MRSA ST45-V as the predominant strain of MRSA within ISLHD, IMACS identified an increase in rates of healthcare associate VRE acquisition during 2017, particularly at the Wollongong Hospital where it was identified through the routine VRE screening of patients admitted to the ICU. A number of outbreak strategies were implemented at all ISLHD sites, including an education campaign focussing on

Standard Precautions, the use of ChlorClean™ to clean all beds and mattresses between patients, and attention to environmental and equipment cleaning.

This strategy has resulted in a reduction in VRE acquisition during this reporting period as shown below.
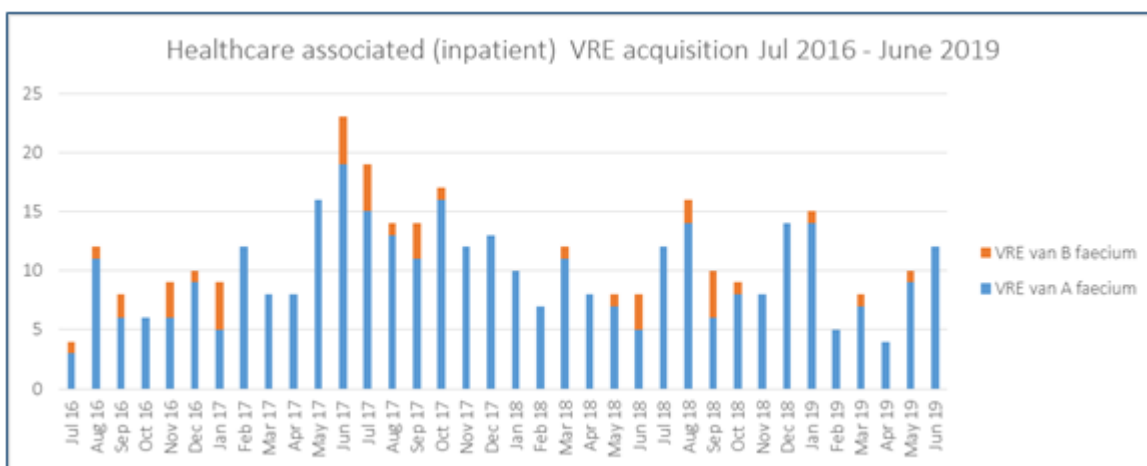


**Figure 23. Healthcare associated VRE 2016-2019**

The ISLHD IPCC received advice from the Clinical Microbiologist and Infectious Diseases team that the van A strain of VRE and MRSA that exhibits the qacA gene may both enable a reduced susceptibility to chlorhexidine in those pathogens. As a result of this, the IPCC recommended that the LHD move away from the use of hand hygiene products that contain chlorhexidine. This transition has now been completed.

# Research

### Renal services peritoneal dialysis project

During 2018-2019 ISLHD renal services has undertaken a research project with an aim to reduce the number of exit site infections related to peritoneal dialysis. This is stage two of the original project complete in collaboration with IMACS in 2016-2017 that was successful in reducing the number of peritonitis cases in peritoneal dialysis patients. One of the NIHG IMACS CNCs has consulted on both the design and the data management for this project. Results are anticipated by the end of 2019.

### ISLHD IMACS pilot service review

A pilot audit of HCWs satisfaction with IMACS service provision was conducted in the SHG acute facilities (MUH and SDMH) in May 2019.

Staff were asked if they could name their IMACS CNC, if they had to contact them for advice and if so did they get advice in timely manner. They were asked how they access infection control advice after hours and to rate their overall satisfaction.

Staff were also asked what improvements SHG IMACS could make to better support them.

39 staff took part in this survey. 77% of staff could identify their IMACS CNC and 93% believed they had received advice in a timely manner. There were no reports of staff being unhappy with the service provided by the IMACS. 64% of staff reported being very happy with the IMACS service provision, and 36% of staff reported being somewhat happy with the IMACS service provision. Suggestions were made by staff for improvement in service provision which will be incorporated into an action plan to be implemented in the coming year.

# Staff Health

## Blood and body substance exposures

IMACS is responsible for the accurate reporting of blood and body substance exposures affecting ISLHD staff. The management of the staff member sustaining the exposure is shared between the local Emergency Departments for the immediate risk assessment and management, with the necessary follow up being managed by the infectious disease physicians hosted in outpatients' clinics.

Ongoing monitoring of exposures is maintained by IMACS with regular reports being submitted to the Work Health and Safety committees covering all ISLHD sites. Rates are reported to ACHS and to NSW Health.

Rates of occupationally-sustained parenteral blood and body fluid (BBF) exposures compared with peer hospitals are detailed below (source ACHS). Cells shaded in red identify rates less favourable than rates within peer facilities.

| Parenteral BBF exposures per total OBD (ACHS) | 2nd half 2017 | | 1st half 2018 | | 2nd half 2018 | | 1st half 2019 | |
|---|---|---|---|---|---|---|---|---|
| | Site rate % | Peer rate % | Site rate % | Peer rate % | Site rate % | Peer rate % | Site rate % | Peer rate % |
| Wollongong | 0.037 | 0.04 | 0.021 | 0.030 | 0.03 | 0.03 | 0.031 | 0.025 |
| Shellharbour | 0.005 | 0.025 | 0.023 | 0.024 | 0.02 | 0.03 | 0.011 | 0.033 |
| Shoalhaven | 0.02 | 0.025 | 0.030 | 0.038 | 0.05 | 0.03 | 0.027 | 0.025 |
| Kiama | 0.035 | 0.02 | 0.038 | 0.024 | 0.00 | 0.03 | 0.000 | 0.033 |
| Bulli | 0 | 0.03 | 0.013 | 0.024 | 0.03 | 0.03 | 0.011 | 0.033 |
| Coledale | 0 | 0.02 | 0.00 | 0.024 | 0.01 | 0.03 | 0.000 | 0.033 |
| Port Kembla | 0.01 | 0.03 | 0.011 | 0.024 | 0.01 | 0.03 | 0.010 | 0.033 |
| David Berry | 0 | 0.02 | 0.028 | 0.024 | 0.03 | 0.03 | 0.025 | 0.033 |
| Milton | 0.04 | 0.02 | 0.040 | 0.024 | 0.04 | 0.03 | 0.000 | 0.100 |
| Mental Health | 0.005 | 0.025 | 0.005 | 0.024 | 0.00 | 0.03 | 0.016 | 0.034 |

**Table 13. Occupational parenteral blood and body substance exposures 2017 – 2019**

## Hand skin sensitivity consultation

IMACS has established a process for the assessment and onward referral for dermatological review if required, for staff members experiencing skin problems affecting their ability to comply with the NSW Health Hand Hygiene policy PD2010_058 (rescinded June 2017 and incorporated into NSW Health PD2017_013 Infection Prevention and Control policy).

IMACS assessment includes an evaluation of the individual's skin condition and an assessment of their hand hygiene technique, with the provision of advice as necessary. The staff member is required to complete a daily diary to record their skin condition and to note their work patterns. During this period 33 of these assessments were made by IMACS. Twenty nine of these were initial assessments and 4 were follow up appointments where 2 staff were found to require no further action and the others were advised to limit their glove use and to increase moisturiser applications to their hands.

# IMACS Business plan and operational priorities for 2018-19

The following section of this report describes key objectives and measurable deliverables that will ensure that IMACS meets the strategic objectives in safeguarding patients, visitors and staff from the risk of healthcare associated infection.

The following table shows the 47 recommendations that were made in the 2016 Internal Auditor report into the management of healthcare associated infection risk within ISLHD.

| Area to be addressed | Number of agreed actions | Executive sponsor |
|---|---|---|
| Legionella risk management systems and processes | 5 | Executive Director of Finance and Corporate Services |
| | 2 | Executive Director of Medical Services and Clinical Governance |
| Environmental cleaning | 2 | Executive Director of Medical Services and Clinical Governance |
| | 2 | Executive Director of Clinical Operations |
| Reprocessing of reusable medical devices | 5 | Executive Director of Clinical Operations |
| | 1 | Executive Director of Medical Services and Clinical Governance |
| Waste management | 1 | Executive Director of Strategic Improvement Programs |
| | 1 | Executive Director of Finance and Corporate Services |
| Capital planning, asset replacement and maintenance recording | 5 | Executive Director of Finance and Corporate Services |
| | 2 | Executive Director of Clinical Operations |
| Staff blood and splash exposure | 2 | Executive Director of Medical Services and Clinical Governance |
| | 1 | Executive Director of Clinical Operations |
| Monitoring of staff vaccinations | 2 | Executive Director of Clinical Operations |
| | 1 | Executive Director of Medical Services and Clinical Governance |
| Information systems management | 1 | Executive Director of Medical Services and Clinical Governance |
| | 1 | Executive Director of Clinical Operations |
| | 1 | Director of Corporate Services and Chief Information Officer |
| Standard and transmission-based precautions | 1 | Executive Director of Medical Services and Clinical Governance |
| Prescribing of restricted antimicrobials | 2 | Executive Director of Clinical Operations |
| Site and service infection control committees | 1 | Executive Director Integrated Care, Mental Health, Planning, Information & Performance |
| | 1 | Executive Director of Clinical Operations |
| Utilisation of QARS | 1 | Executive Director of Medical Services and Clinical Governance |
| Infection control mandatory training | 2 | Executive Director of Medical Services and Clinical Governance |
| Policy and procedures | 2 | Executive Director of Medical Services and Clinical Governance |
| Hand hygiene | 1 | Executive Director of Medical Services and Clinical Governance |
| Documentation supporting surveillance data submissions | 1 | Executive Director of Medical Services and Clinical Governance |
| Total | 47 | |

Table 14. Internal audit recommendations

The IMACS 2018-19 business plan was developed to continue the support of these recommendations and the requirements of NCSQHC Standard Three. It has been approved by the ISLHD Infection Prevention and Control Committee and progress will be scrutinised though monthly reports from the IMACS Nurse Manager to the Committee's executive sponsor, the Executive Director of Medical Services and Clinical Governance.

**ILLAWARRA SHOALHAVEN LOCAL HEALTH DISTRICT    INFECTION MANAGEMENT AND CONTROL SERVICE**

Business Plan July 2018 - June 2019

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| That all ISLHD staff and consumers are provided with an effective and equitable infection prevention and control (IC) service. | Ensure IC establishment is appropriate for demand based on internationally recognised DoHA recommendations of 1.5 infection prevention and control professionals per 200 acute beds (1 ICP for every 135 acute beds) and develop strategies for succession planning. | Current staffing establishment = 6.8 infection control nurses for 1050 beds (ratio 1/154).  Increase in capacity and service at TWH, SHH and SDMH will create extra demand on IMACS. | FTE reports as approved | Executive Director of Medical Services and Clinical Governance (EDMS&CG) Nurse Manager IMACS | Staffing level maintained |
| | | Transition of the Link Programme for all areas of the LHD except Oral Health to a supportive mentorship programme as a development opportunity and IMACS succession planning strategy. | Progress of each mentee through the programme as the year progresses. | Nurse Manager IMACS | Program requires overt support from service managers. |
| | | Support professional and personal development opportunities within resources. | Staff performance review 100% | Nurse Manager IMACS | PEDs all up to date |
| | | Monitor activity. | 100% CNC monthly reports completed | IMACS CNCs | All CNC monthly reports up to date |
| | Favourable financial management | Negotiate appropriate budget and monitor and maintain budgetary control. | Favourable management of appropriate budget | Nurse Manager IMACS | Budget favourable $57,249  June 2019 |
| That ISLHD staff are able to access appropriate and | MyHealthLearning reports to ICC for all sites and services | Area orientation program. | MyHealthLearning 100% | Organisational Learning Unit Manager IMACS | IMACS support to orientation program at 100% events |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| evidence-based infection prevention and control education and development opportunities | | Mandatory training program including e-learning | MyHealthLearning 100% | Site Managers | |
| | | In-service training as required and in response to identified service needs ie outbreak response etc. | MyHealthLearning record that in-services are provided at each site | IMACS CNCs | All in-services provided by IMACS are recorded in MyHealthLearning |
| | | Development of increased awareness of infection control across the LHD | MyHealthLearning record of meeting attendance | IMACS CNCs | Update dates and venues for 2019 agreed and circulated |
| | Facilitation of appropriate education and development opportunities for IMACS staff | Financial support and study leave approval to IMACS staff in accordance with PED agreements and CNC competency framework | 100% IMACS CNCs meet AHPRA CPD requirements | IMACS Nurse Manager | Education opportunities discussed at PED and supported by IMACS NM as required. |
| That a full range of infection prevention and control policies are available for staff, and that they are used to support best clinical practice | Audit of available infection control policies | Development and maintenance of appropriate policy framework based on requirements of ACSQHC National Standard Three governance requirements | Appropriate policies are in place and 100% are up to date | Infection Control Committee | 100% policies up to date and published on intranet |
| | Compliance with hand hygiene component of PD2017_013 NSW Health Infection Control policy | Facilitate the public display of hand hygiene compliance rates by ensuring full commitment to HHA program and timely reporting to CGU, HHA, Health Round Table and CEC. | Clearly formatted reports displayed in all areas audited | EDMS&CG Nurse Manager IMACS GMs Site Managers NUMs | Audit not completed during 2019 |
| | | | HH rate >90% compliance across ISLHD | Executive Director Clinical Operations (EDCO) Site Managers NUMs Co-directors | HH audit period ended 30 June 2019. All areas achieving 80% and some >90% |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | Compliance with PD2017_013 NSW Health Infection Control policy And AS/NZS4187:2014 Reprocessing of reusable medical devices in health care organisations | AS4187:2014 and AS4185:2006 audit.<br><br>Ensure effective decontamination of all critical and semi-critical reusable equipment through regular evaluation and monitoring of processes.<br>All critical and semi-critical reusable medical devices are to be reprocessed within designated highly controlled environments as agreed by the site / service executive and IMACS manager | All SSDs to be compliant with AS/NZS4187:2014, or have a documented action plan towards compliance by December 2021. | EDMS&CG EDCO SSD managers | Action plans are all entered into QARS. Quarterly review of progress required at IPCC. |
| | | | 100% compliance with AS/NZS4185 within ISLHD Oral Health services. | Oral Health service Director | Audit undertaken mid-2018 |
| | | | 100% areas and services involved in local reprocessing of critical or semi-critical reusable medical devices meet the requirements of AS/NZS4187:2014 | Site managers Department managers | Gap analysis has been completed and action plans entered into QARS. Medical Imaging at SDMH, SHH and TWH, Cardiac Diagnostics at TWH and early pregnancy service at TWH |
| | | Implementation of ISLHD legionella control policy ISLHD Ops PD 50 | Legionella risk assessment and management plan is in place | ED Finance, Facility Operations Managers, General Managers | IMACS NM has met with Estates Director and DPH. Formally reviewed at IPCC. Legionella risk analysis completed for Coledale and commenced at Wollongong. Awaiting advice re timeframe for completion of risk assessments at other ISLHD sites. Legionella Risk Management |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | | | | | Committee established. |
| | | Aseptic technique audit in QARS | Aseptic technique audits completed in all relevant areas at each facility and service | Site managers Department managers | Bi-monthly ANTT audits required. Policy updated to clarify requirement for competency assessment of ANTT (can be within the competency assessment for relevant procedures). ANTT audit report available from QARS for monitoring and review by hub ICCs. |
| | | Surveillance and audit of newly acquired multi-resistant organisms. | 100% submissions of surveillance data by expected date | IMACS Nurse Manager | All reported MROs are in IMACS database and relevant alerts entered in patient records. |
| | | Monitoring of MRO patient identification and isolation strategies. | Surveillance reports aim for zero healthcare associated infections. | IMACS team | Log sheets in use by IMACS CNCs. VRE acquisitions in TWH ICU and haemodialysis-related bloodstream infections under particular scrutiny. |
| | | Implement risk management strategies in order to rationalise and prioritise patient placement according to PD2017_013, including increasing efforts to identify patients who no longer | Zero incidents occurring attributable to MRO management decisions | IMACS team | No incidents reported |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | | require Additional Precautions. | | | |
| | PD2012_061 NSW Health Environmental cleaning policy audit programme | Support implementation of audit programme and monitoring of progress against agreed action plans | 90% compliance identified on environmental cleaning audits confirmed by QARS reports | Site DONMs/Operations Managers, Hotel Service Managers | All audit findings to be recorded in QARS including community bases managed under the Menzies contract. Environmental cleaning audit report tabled at IPCC February and June 2019. Rates improving across the LHD. |
| That the requirements of Australasian Health Service Facility Guidelines are met for all new construction / refurbishment works | Provision of expert infection prevention and control advice to construction project teams involved in infrastructure upgrades across ISLHD | Designated CNC to each site responsible for consistent provision and focus including but not restricted to Aspergillus and Legionella prevention during projects | Infection control plan incorporated into 100% construction projects | ISLHD executive Project manager IMACS Nurse Manager | IMACS input has been provided to the HealthOne projects at Dapto and Ulladulla. Also to redevelopment projects in a variety of facilities across the LHD |
| | | | Zero infections associated with construction | ISLHD executive Project manager | None identified |
| That rates of healthcare associated infection are accurately monitored and reported, with the objective of achieving reductions over time. | Monitoring of healthcare-associated influenza | Influenza surveillance is commenced to facilitate prompt identification of healthcare-associated acquisition, and through on-time reporting, to promote increased awareness of influenza as a potential HAI through regular reporting of numbers per week throughout | Zero acquisitions of influenza within ISLHD inpatient services | IMACS CNCs Nurse Manager IMACS Site and Service Managers NUMs | Non identified |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | | seasonal influenza activity | | | |
| | Reduction in rates of multi-resistant organism acquisition, specifically, MRSA and MRAB acquisitions in ICU patients | Data collection and submission to NSW Health KPIs, ACHS Clinical Indicators and Health Round Table | Zero acquisitions of MRSA and MRAB in ICU | IMACS CNCs Nurse Manager IMACS Site and Service Managers NUMs | Wollongong Hospital ICU MRSA acquisitions have increased and are being monitored closely |
| | Reduction in VRE and *Staphylococcus aureus* blood stream infections (SABSI), all haemodialysis-associated BSI and central line associated bacteraemias (CLABSI) regardless of pathogen | Case review process for all VRE, CRE, *Staphylococcus aureus* and haemodialysis-related blood stream infections.<br><br>Include PIVC presence as indication of PIVC as factor in healthcare associated bacteraemias. | Aim for Zero preventable healthcare-associated SABSI, haemodialysis-related BSI. PIVC-related and CLABSI rates;<br><br>ACHS and NSW Health KPIs to be met | IMACS CNCs Nurse Manager IMACS Site and Service Managers NUMs | Bacteraemia case reviews commenced for all reported events. |
| | | Data collection and submission to NSW Health KPIs, ACHS Clinical Indicators and Health Round Table | | Nurse Manager IMACS | ACHS PIRT data entry completed for all sites Feb 2019. PIRT peer reports confirm rates for all facilities within expected parameters. |
| | Reduction in rates of SSI | Case review process for all eligible hip, knee and LSCS surgical procedures<br><br>Increase cooperative working with surgical stream and obstetric services. | Aim for Zero surgical site infections associated with LSCS and eligible hip and knee procedures. ACHS and NSW Health KPIs to be met | IMACS CNCs Nurse Manager IMACS Div. Co-Directors | SSI rates for orthopaedic surgery at Wollongong and SDMH seem slightly higher than baseline, but not significantly so. Monitoring continues |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | Reduction in rates of nosocomial *Clostridium difficile* infection | Reporting of nosocomial C. difficile numbers to ISLHD ICC Rigorous communication strategies and investigation of local risk factors | Zero outbreaks of C difficile infection, and year on year reduction in incidence. NSW Health KPIs to be met | EDMS&CG Nurse Manager IMACS IMACS team Pharmacy | Sporadic cases of HAI C. diff reported across LHD. No outbreaks identified. |
| | Monitoring and management of emerging pathogens including carbapenamase-producing *Enterococci* (CPE). | Reporting of all identified CPE and other emerging pathogens of interest to ISLHD ICC | Zero healthcare associates outbreaks of CPE | IMACS Nurse Manager | One incident of local transmission of CPE identified at Coledale Hospital. Outbreak Management team convened. Contact tracing underway and as of June 2019 no further cases identified on active surveillance. |
| That rates of staff vaccination, blood and body substance exposures and skin sensitivity issues are reported, and improvement strategies are developed, implemented and evaluated. | Reduce numbers of staff BBF exposures | Ongoing benchmarking of exposure rates with peers through ACHS and Epinet reporting. | Rates are below ACHS benchmark | EDMS&CG Site and Service Managers | Rates are within ACHS benchmark for 1H 2019 |
| | | Identification, implementation and evaluation of system improvements as necessary. | | Nurse Manager IMACS OH&S Committees | EPiNET files have corrupted. New disc requested from BD for possible remediation of the problem was not successful. Excel spreadsheet is to be kept up to date for all sites to enable necessary reporting |
| | Monitoring of staff complaining of skin sensitivity preventing | Monitoring through IMACS record-keeping | Reduction in numbers of staff unable to comply with | IMACS CNCs | All reports and management actions are recorded in IMACS |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | compliance with PD2017_013 Infection Control policy | | PD2017_013 hand hygiene requirements due to skin sensitivity issue | | for inclusion in the Annual Report. |
| | Staff vaccination | Improve uptake of influenza vaccine. | 80% staff receive 'flu vaccine each year. | Dept. Resp. Medicine Manager | Approximately 60% were vaccinated during 2018. 2019 Flu Strategy ratified by IPCC and CGC and rolled out from 1st May 2019. |
| | | Ensure vaccination status of all staff is documented and non-compliant staff provided with vaccine as required. | Aim for Zero numbers of staff with immune status for vaccine preventable infections not recorded within HealthShare | Staff vaccination CNC | OASV Committee will review local policy once revision from NSW Health is available. HealthShare system operational for new appointments. |
| That IMACS uses a range of appropriate and effective communication methods to inform service users and consumers of issues relating to healthcare associated infection. | Use a range of communication options providing information to staff, patients and visitors. | Regular reports to clinical staff and ISLHD facility administration teams describing hand hygiene audit results and infection rates and trends | 100% ISLHD Infection Control Committee minutes posted on the ISLHD intranet | EDMS&CG Nurse Manager IMACS | All minutes are posted once approved and signed by relevant chairperson. |
| | | IMACS submission to ISLHD newsletters | Regular infection-related topics covered | ISLHD communications team | Periodic reports submitted as appropriate. |
| | | Ensure IMACS page on ISLHD intranet site is accessible and relevant to all staff | IMACS Annual Report produced annually | EDMS&CG Nurse Manager IMACS | IT Portfolio established at 2018 Planning Day. Work ongoing with internet expected go Live September 2019 |
| | | Utilisation of appropriate | 100% translated | IMACS Nurse | Accessible from |

| OBJECTIVE | MEASURABLE DELIVERABLES | ACTIONS | TARGET | RESPONSIBLE OFFICER | PROGRESS June 2019 |
|---|---|---|---|---|---|
| | | information sheets for patients, staff and contractors including in languages other than English | information sheets are accessible on the intranet when needed. | Manager CGU manager | internet |
| That IMACS is fully engaged in sourcing, sharing, undertaking and using relevant research in all service areas | Active involvement from IMACS CNCs in research activities | IMACS involvement in research projects to inform local operational requirements and national evidence base through publication of findings | >1 IMACS publication per annum | IMACS Nurse Manager | Helen enrolled in EHLP 2019. Standard Precautions paper under development (team). Emotional Touchpoints paper submitted to AJIC (JH) March 2019 but rejected. Glove use in physios papers under development (MB) |
| | | IMACS participation in dissemination of local research findings | > 2 IMACS presentations at State, National or International conferences per annum | IMACS Nurse Manager | ACIPC Brisbane accepted posters (JH and AW) and oral presentation (FH) Abstracts submitted by JH and SA for ACIPC conference 2019 |

# References

ISLHD Capital Works update. http://www.islhd.health.nsw.gov.au/Capital_Works/default.asp

ISLHD Infection Control policy framework at;
http://islhnweb/Policies_Procedures_Guidelines/default.asp

NSW Health Infection Control policy framework at;
http://www0.health.nsw.gov.au/policies/groups/ph_infcontrol.html

ISLHD Antimicrobial Stewardship Annual Report 2012 at;
http://islhnweb/Antimicrobial_Stewardship/documents/2012-Antimicrobialstewardshipannualreport060913.pdf

Australasian Healthcare Facility Guidelines at; https://healthfacilityguidelines.com.au/

National Safety and Quality Health Service Standards at;
https://www.safetyandquality.gov.au/our-work/assessment-to-the-nsqhs-standards/nsqhs-standards-second-edition/

Hand Hygiene Australia at; http://www.hha.org.au/

Australian Immunisation Handbook 10th edition at;
https://immunisationhandbook.health.gov.au/

Dickstein et al.  Staffing for infectious diseases, clinical microbiology and infection control in hospitals in 2015: results of an ESCMID member survey. *Clinical Microbiology and Infection 2016.* 22; (9)