Infection Management and Control Service

Annual Report
July 2017 – June 2018

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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 2017 to June 2018 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 is being appropriately mitigated. A number of recommendations for improvement were made.

- The Infection Control Link Programme continued across the District with good attendance at the seminar day held during this reporting period. However, attendance at bi-monthly meetings has been disappointing at some sites. This report describes the introduction of an Infection Prevention and Control Mentorship programme from January 2019.

- 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 55,076 hand hygiene opportunities were observed, with 48,015 being achieved correctly – an overall hand hygiene compliance rate of 87.2%. This represents an increase from last year's rate of 86.2%.

- 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;
  - A small increase in numbers of patients developing healthcare associated *Staphylococcus aureus* bacteraemia from last year (38 compared with 36 during 2016-17). Rates remain within NSW Health performance parameters.
  - One ICU-related central line associated bacteraemia.
  - Surgical site infection following elective and emergency orthopaedic surgery at Shoalhaven Hospital has increased to 3.10 % from the rate of 2.5% reported for 2016-17.
  - 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.

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

- A high number of chickenpox infections affecting healthcare workers and patients led to the need for IMACS to direct significant contact-tracing activities within a number of ISLHD hospitals 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 34 during this reporting period.

IMACS activities during the forthcoming year 2018-9 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 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

IMACS retains a clear reporting line through the Executive Director of Medical Services and Clinical Governance (EDMS&CG) to the ISLHD Chief Executive and ISLHD Board of Directors, whilst maintaining close links with the executive teams of the Hospital Groups, facilities and services.
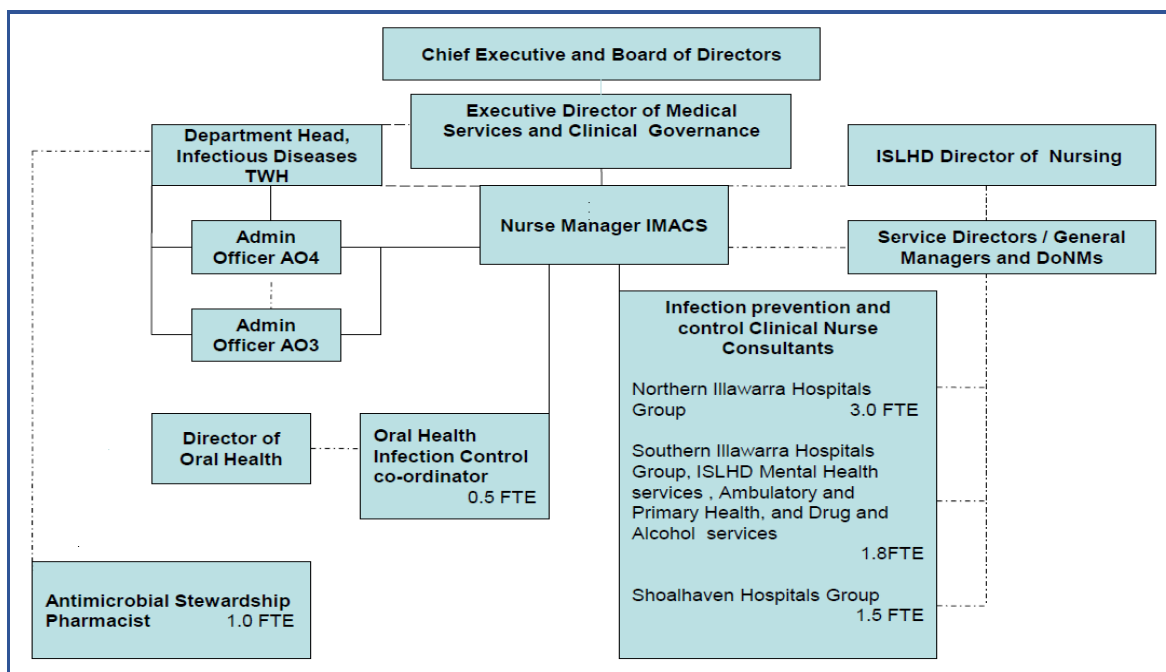
Figure 1. IMACS organisational chart 2017-18

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 healthcare associate infection.

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. An Antimicrobial Stewardship Pharmacist was appointed in 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 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 control and management.

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.

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' where strategic programmes and resources are required to be developed across the LHD. When developed, these programmes will be delivered locally by the relevant IMACS team with LHD-wide oversight and reporting being the ongoing responsibility of the portfolio holder.

Position title	Facility	ISLHD Strategic / Project area	
Manager	Overall responsibility for the provision of patient-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 To provide the link between IMACS and all facilities, services and units across ISLHD. 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. ISLHD Mental Health	Equipment	
CNC PKH	Port Kembla Hospitals, ISLHD Ambulatory and Primary Care, ISLHD Child and Family services, ISLHD Drug and Alcohol Service	Hotel services and environmental cleaning	
CNC SDMH	Shoalhaven, David Berry and Milton Ulladulla hospitals	Policies and procedures	Consumer engagement
Oral Health IC CNC	Oral Health Service	Hand hygiene	Reprocessing

Table 1. IMACS designated portfolios 2017-18

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.

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	Monthly
		New Interventions Assessment Committee	As required
		Nursing and Midwifery Leadership Committee	Monthly
		ISLHD Senior leadership Forum	Quarterly
Wollongong Hospital CNCs	ISLHD	Infection Control Committee	Monthly
		ISLHD CNC meetings	As scheduled
	NIHG	Health Emergency preparedness	Quarterly
		Patient Safety	Monthly
		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	
	Coledale Hospital	Department Managers Quality Meeting	Monthly
	Bulli Hospital	WH&S Committee	Monthly
		Bulli Department Managers Meeting	Monthly
Shellharbour Hospital CNC	ISLHD	ISLHD CNC meeting	As scheduled
	SIHG	Infection prevention and control sub-committee	Bi-Monthly
		Emergency Management Committee	Quarterly
		Learning and Development	Monthly
		Hand hygiene working party	Monthly
	SHH	WH&S Committee (report tendered)	6 Monthly
		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
	Port Kembla Hospital	WH&S Committee	Monthly
		Department Heads Meeting	Monthly
	A&PHC	Standards of Practice Meeting	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	

Position	Facility / Service	Meeting / Committee	Frequency
	SHG	SHG DoNM and IMACS update meeting	Monthly
		SHG Infection Control sub-Committee	Monthly
		SHG Emergency and Disaster Committee	Bi-Monthly
	SDMH	WH&S Committee	Monthly
		Learning and Development Committee	Monthly
		Bed Management meetings	Daily
		Nursing and Midwifery Leadership meeting	Monthly
		Patient Safety and Quality meeting	Monthly
		SDMH Theatre meetings	Weekly
		SDMH Surgical Site Infection working party	Monthly
	DBH	Patient Safety and Quality	Monthly
	MUH	WH&S Committee	Monthly
		Patient Safety and Quality	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 2017-18

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

IMACS has coordinated a general roll out of ISLHD standard precautions model and multi-resistant organism (MRO) risk assessment across Bulli, Coledale and Wollongong hospitals. This included 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.

Management of infant feeding equipment

During accreditation survey in September 2017 the assessment team raised concerns about the use of Milton™ for soaking cleaned reusable infant feeding equipment and accessories. This led to a review of current practices at both Wollongong and the Shoalhaven Hospital and the development of a policy that has been implemented across the LHD.

Redevelopment of the Wollongong Hospital paediatric clinic

A major redesign of the Wollongong Hospital paediatric department incorporates the relocation of the school to the opposite end of Children's ward. This area has been renovated and Paediatric assessment unit has been relocated to old school area. This includes a child-friendly waiting area and clinic rooms. Access to Children's ward is now via Paediatric assessment unit during work hours.

Flu vaccination at Coledale Hospital

During the 2017 influenza season there were two significant outbreaks of influenza associated with Coledale Hospital. In response to this the hospital executive team supported by IMACS and the Dept. Resp. Medicine successfully implemented a staff influenza vaccination campaign that resulted in 73.9% of the staff based at the hospital being vaccinated in readiness for the 2018 influenza season.

Southern Illawarra Hospital Group

Installation of nurse call system at Shellharbour Hospital

The replacement of the nurse call system across Shellharbour Hospital has been underway for most of this financial year. From an Infection Prevention and Control perspective, this project involved setting up work practices to ensure patient safety as workmen accessed the roof space from patient rooms to install electrical cable and alert lights and ensuring the new equipment could be cleaned according to NSW Health specifications.

IMACS review of the Port Kembla Hospital radiology department

IMACS has been working with staff from the medical imaging department at PKH to improve the clinical environment, stock storage arrangements and management of the environment.

Team approach to IMACS service across SIHG

Transition of IMACS team members based at SHH and PKH to working as a combined team across the SIHG which has enabled greater efficiencies, less duplication and allowed IMACS CNCs dedicated time for project work while their partner is managing day-to-day activities across all SIHG sites and services.

Shoalhaven Hospital Group

Single room utilisation review at SDMH

A 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 detailed in ISLHD Clin PD 99 Multi-resistant organism Clostridium difficile Infection Prevention and Control.

Operating theatre environmental review at SDMH

An increase in surgical site infections (SSI) following orthopaedic surgery was identified through active surveillance. As part of the investigation and improvement project, an environmental review was undertaken that revealed a number of opportunities for improvement to the environment and processes in place for environmental cleaning and

storage of equipment within the setting. Since these improvements have been implemented there has been a reduction in SSI for these procedures. Since this time, rates of orthopaedic and LSCS-related SSI have been satisfactory.

Accreditation Report

During this reporting period all nine inpatient facilities and the integrated community services were the subject of periodic inspection and assessment by survey teams from the Australian Council on Healthcare Standards (ACHS) to evaluate the LHD's compliance with the requirements of the National Standards for Quality and Safety in Healthcare including Standard 3; Preventing and Controlling Healthcare Associated Infections.
During these reviews the survey team expressed their satisfaction with the systems and processes that are in place across the LHD to safeguard against HAI.
Areas for ongoing improvement were identified as a need to strengthen coverage of the practical application of aseptic technique practice, and the requirement for all reusable equipment to be reprocessed according to manufacturer's instructions as well as relevant Standards and policies. These requirements have been reflected in the ongoing IMACS strategy and business plan.

Infection prevention and control link programme

The ISLHD infection prevention and control link nurse programme was established in 2009 and has continued throughout this reporting period. In January 2013 the programme was extended to include non-nursing colleagues and the program now includes representatives from oral health, drug and alcohol services, mental health, SEALS South, and transport services as well as wide range of allied health professionals.

Infection prevention and control link meetings have been facilitated by IMACS for staff working in all facilities and services. These meetings have been attended as shown below.

2016-2017	August	October	December	February	April	June
Theme	Barriers to infection prevention and control	ICLP Day '	Food Safety	Project Planning	Influenza and gastro preparedness	MRO/C.diff infection prevention and control policy update
TWH	5	25	4	6	3	6
Bulli	0		0	0	0	0
Coledale	0		0	0	0	0
Shellharbour and Kiama	6	12	3	2	3	4
Port Kembla	2		0	1	3	0
David Berry	0		0	0	0	0
Shoalhaven	5	7	2	0	0	3
Milton	0		3	0	2	4
Mental Health	2	5	2	1	0	3
Oral Health	0		0	0	0	0
APHC	4	9	1	3	3	4
Child & Family	0		0	1	0	0
Drug & Alcohol	1		0	0	1	0
Totals	**25**	**58**	**15**	**13**	**15**	**24**

Table 3. Link programme meeting attendance 2017-18

Attendance at the annual Link Programme seminar day was evaluated favourably by the attendees who travelled to Wollongong for the event from across the LHD
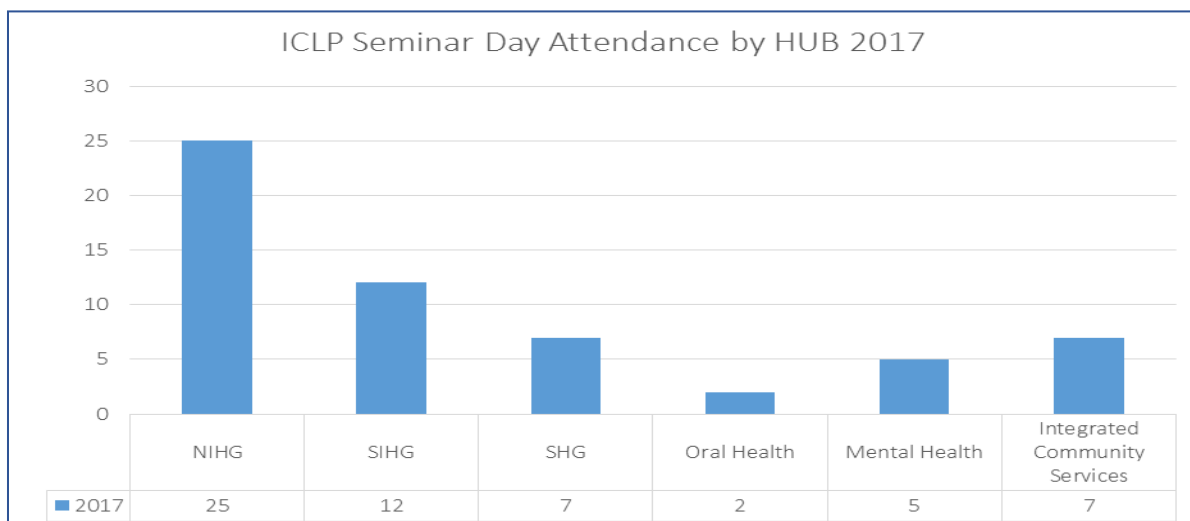

ICLP Seminar Day Attendance by HUB 2017

	NIHG	SIHG	SHG	Oral Health	Mental Health	Integrated Community Services
2017	25	12	7	2	5	7

Figure 2 Link programme seminar day 2017 attendance by hub

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 will be replaced by an Infection Prevention and Control mentorship programme available to staff from all clinical disciplines across the LHD. Each IMACS CNC will provide 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.

As a result of this decision, in October 2018 the annual Link Programme seminar day will be opened to any ISLHD staff member wishing to participate, and the new mentorship programme will be launched at that event.

In addition to these changes to be implemented across the LHD the IMACS CNC for Oral Health has identified opportunities for improvement for the Link programme based on a survey of the Oral Health Links. A pilot project has been developed aiming to add clinical context to the Oral Health Link Programme by bringing the Link staff to a collaborative, dental specific bi monthly meeting. This model was presented at the Australasian College of Infection Prevention & Control (ACIPC) conference in Canberra in November 2017. 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 Infection Control CNC on several initiatives.

The final Link Programme seminar took place on 13th October 2017 when 58 infection control link programme members from across multiple disciplines in the ISLHD participated in a full programme. This was structured in such a way as to follow an imaginary patient through their complex healthcare journey. The day included presentations on the preparation of elective surgical patients for their procedure including screening for MRSA and using a bundle approach to SSI prevention. A theoretical session on the management of outbreaks was followed with an opportunity to consolidate the information provided

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through participation in a workshop. A further workshop covered the potential for the environment to pose a risk of healthcare associated infection associated with construction works. The identification of wound infection and the interpretation of microbiology lab reports was covered and there was also a presentation that described the management of patients following discharge from the acute care setting. The day concluded with the popular 'ask the ICP' session that provides an opportunity for delegates to ask those questions that have been raised during the day in order to support their clinical practice more effectively.

Attendees were asked their requirements for education during the 2018 Link meeting programme and this information was used to design the themes for the year's meetings accordingly.

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

NIHG has had numerous refurbishment and construction projects that IMACS have provided infection control advice surrounding environmental controls to prevent infection. These included the full refurbishment of the Pharmacy Sterile Suite, repair of Block C sewerage stack, floor repairs in Endoscopy, front of house and Link Bridge between Block A and B, construction of the offices of IHMRI and the new Aboriginal liaison office.

Some of the projects involved replacement of large capital items including the replacement of Cancer Care Centre Water chillers, Renal Unit air conditioner system and Medical Imaging and Cancer Care Centre CT machines.

Southern Illawarra Hospital Group

Kiama Hospital has successfully moved into a wing of Shellharbour Private Hospital. IMACS was involved in all stages of the move from the initial planning to the location of brackets and equipment once the move was completed. Renovation of the wing to accommodate the move was undertaken by the Shellharbour Private hospital in consultation with ISLHD staff.

The replacement of the nurse call system across Shellharbour Hospital has been underway for most of this financial year. From an Infection Prevention and Control perspective, this project involved setting up work practices to ensure patient safety as workmen accessed the roof space from patient rooms to install electrical cable and alert lights and ensuring the new equipment could be cleaned according to NSW Health specifications.

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.

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 following table depicts the range and scope of construction and refurbishment projects to which IMACS has provided expertise.

Site/service	Name of project	Completed
Wollongong Hospital	Alkira Lodge refurbishment	Yes
	Ring main repairs Block B	No
	Internal lighting upgrades	No
	Fracture Clinic	No
	Cancer Care Centre CT replacement	Yes
	Floor repair Front of House	Yes
	Endoscopy vinyl floor repair	Yes
	Construction aboriginal liaison office	Yes
	Cancer Care Centre Water chiller replacement	Yes
	Renal Unit air conditioner replacement	Yes
	Block C sewerage stack replacement	Yes
	Block A Repair of flushing rim sinks	Yes
	Medical Imaging Installation of CT	Yes
	Floor resurfacing/wall repairs B4 East sterile stock room	Completed
Bulli Hospital	Aged Care Centre of Excellence (ACCE)	Ongoing.
Coledale Hospital	Clinic room refurbishment	Yes
	Sterile stock refurbishment	Yes
Shellharbour Hospital	Replacement of air conditioning chillers	Yes
	Redevelopment of SAHH: Initial functional Brief meeting	No
	Review of CSSD and Endoscopy reprocessing areas to comply with AS4187:2014	No
Mental Health services	Creation of separate medication room in Eloura	Yes
Port Kembla Hospital	Installation of air conditioning 2nd floor Rehab ward	Yes
SDMH	Installation of patient bathroom in 23hr ward	Yes
	Autoclave installation	Yes
	Elevator installation	Yes
	Internal lighting upgrades	Yes
	Med North and Med South refurbishment	Yes
	Bathroom flooring upgrades in various wards	Yes
	Hospital car park extension	No
David Berry Hospital	Mortuary	Yes
Nowra Oral Health	OH new build	Yes
A&PHC	Planning and design input for the Dapto and Ulladulla HealthOne projects	No
	Renovations to the Helensburgh Community Clinic sterile stock room	Yes
	Renovations to the Nowra Community Clinic	Yes

Table 4. Construction and refurbishment projects 2017-18

In early 2018 the Ministry of Health announced that planning for the redevelopment of the Shellharbour Hospital would commence in 2018. It is expected that early works in preparation for the construction will commence by the end of 2018. Provision of IMACS support to this project has been incorporated into the business plan.

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.
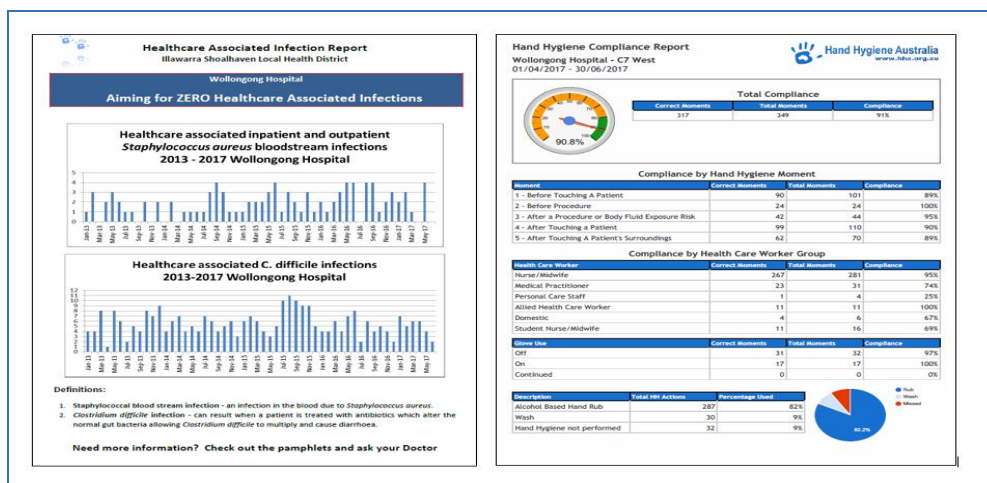
Figure 3. Public reporting display board posters 2017-18

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 healthcare associated infections at the hospital. These results confirm the need for further improvements to these boards and of the mechanisms used for public reporting.

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 are shown below (data obtained from Web Trends Reporting Center: http://ranmgt05:7099/wrc/bin/WebTrendsReportingCenter)

Website/Page/Information	Total Visits	Views
IMACS Overview	4944	9218
IMACS Contacts	485	2418
Link Program	332	2176
Surveillance	265	2148
FAQs	260	1929
PPE	207	1902
IMACS Audits	207	1825
Guidelines	204	1826
Hand Hygiene Audit Reports	44	252
TOTALS	**6948**	**23694**

Table 5. Numbers of visits to IMACS intranet pages 2017-18

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 Link Programme 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 6th International Australasian College for Infection Prevention and Control (ACIPC) conference held in Canberra in November 2017. Seven abstracts were accepted as oral and poster presentations following peer review:-

Title of presentation	Type of presentation	Conference	Presenter
How does it feel to be 'on the other side'?	Oral presentation	ACIPC, Canberra, Nov 2017	Joanna Harris
Physiotherapist adherence to standard precautions: Knowledge and practice	Oral presentation		Sam Agars and Megan Brown
Making an Infection Control Link Program Work; an Oral Health Perspective	Poster		Scott Lang
Standard Precautions: Doing the right thing for everyone	Poster		Helen Newman
The Journey from Novice to Infection Prevention and Control Specialist Nurse	Poster		Fiona Hamilton
Hotel service education – a framework to inspire good practice	Poster		Suzanne Alexander
Setting the Standard: A collaborative approach to improving reprocessing of Transesophageal Echocardiogram Probes	Poster		Julie Rieck

Figure 4. Conference presentations by IMACS 2017-18

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.

We are particularly pleased that physiotherapist Sam Agars and IMACS CNC Megan Brown received a commendation for submitting a Top Ranking abstract, and that Fiona Hamilton, one of the ISLHD Link Programme members and community nurse was awarded Delegates Choice Poster for "The Journey from Novice to Infection Prevention and Control Specialist Nurse".
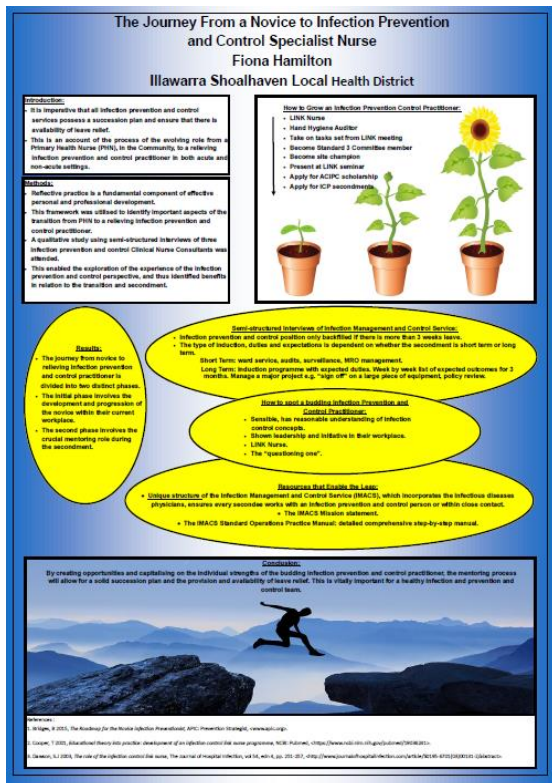
Figure 5. Prizewinning poster at 2017 ACIPC conference

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 881 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 IMACCS CNCs, within their orientation to Wollongong and the Shoalhaven Hospitals
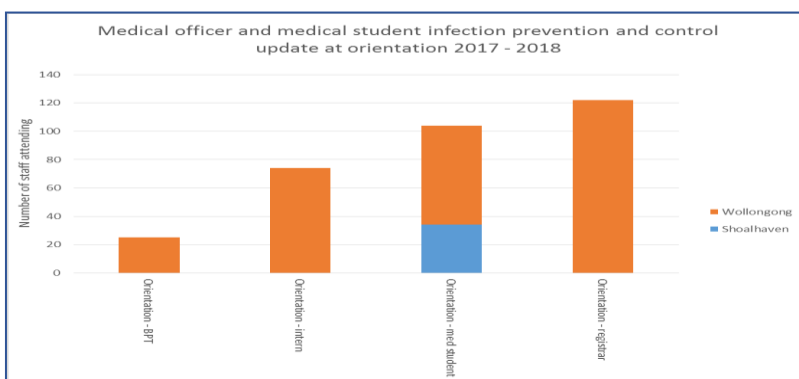
Figure 6. Medical officer IC update at orientation

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. The numbers attending for each hub are shown below.
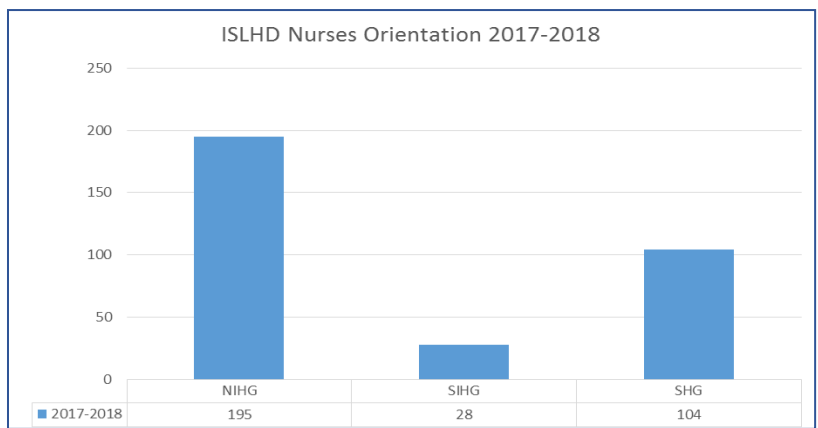
Figure 7. Numbers attending nurses orientation by hub

Mandatory training updates

There is a requirement for all staff to undertake an Infection Prevention and Control on-line module as part of their annual mandatory update. The following graphs show the percentage of staff at each facility who had completed this training as at June 2018.
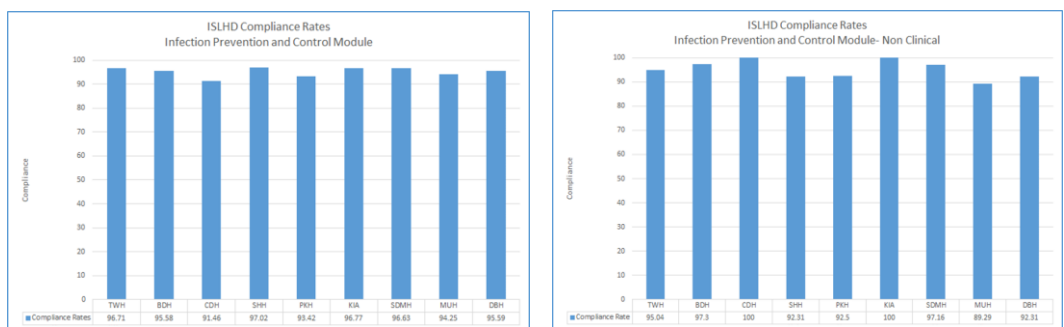
Figure 8. Mandatory training completed 2017-18

Volunteers working within ISLHD facilities are also required to undertake an annual update for Infection Prevention and Control. During this reporting period 221 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. The wide variety of infection prevention and control-related topics covered is shown below.
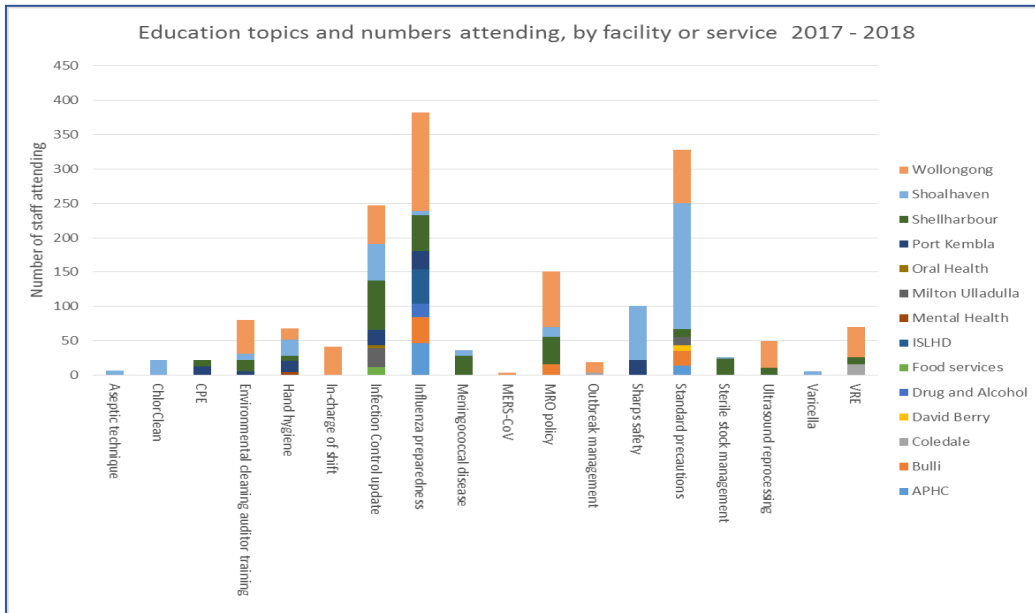
Figure 9. Infection control in-service education 2017-18

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 2017-2018 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. Six 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.
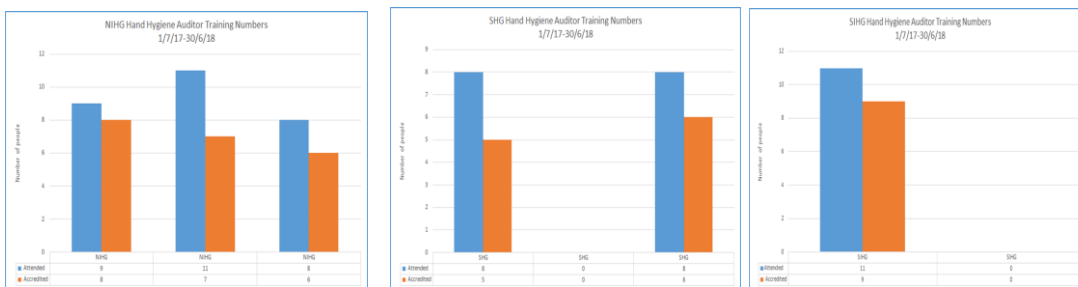
Figure 10. Numbers attending and achieving hand hygiene auditor accreditation

During this reporting period 41 staff achieved accreditation as unit-based auditors, from the 55 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.

Aseptic non-touch technique

The National Standards for Safety and Quality in Healthcare form the framework for ACHS accreditation of healthcare services provided by ISLHD. An important component is the requirement for all clinical staff to be trained in aseptic technique (ANTT). The following graphs show the percentage of staff identified as requiring aseptic technique training who have completed this mandatory requirement as at June 2018, and the numbers of staff at each facility who have completed a practical assessment of their aseptic technique.
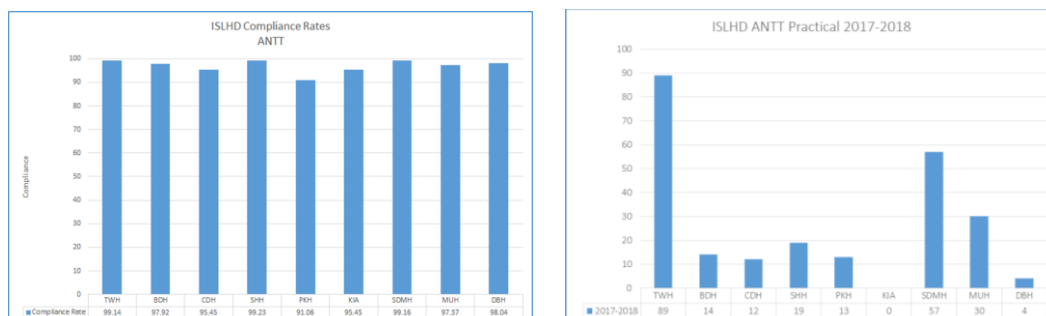
Figure 11. Aseptic technique training completed per facility to June 2018

Personal Protective Equipment practical training

The practical application of PPE used in the context of infection prevention and control is provided as a face-to-face education session to all staff identified as requiring it. The percentage of staff identified as requiring this training, and the numbers of staff who have received this training at each facility during 2017-18 is shown below.
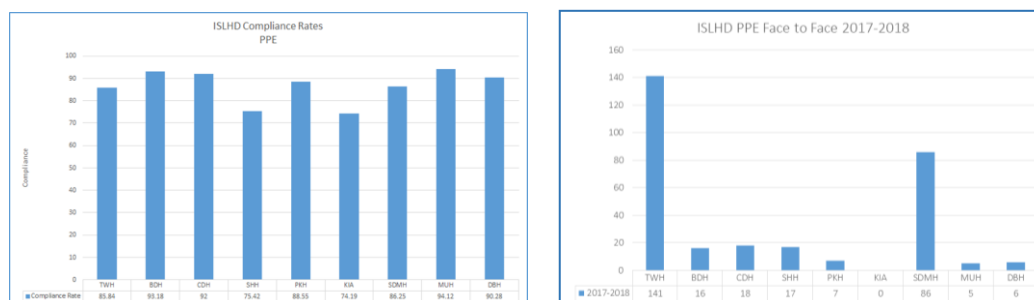
Figure 12. Practical PPE training 2017-18

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.

Infection Control 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.

During this reporting period IMACS held Hotel Services Infection Control education sessions between the months of March and May 2018 across the LHD. Twelve sessions were held across the LHD at Bulli, Wollongong, Port Kembla, Shellharbour, Shoalhaven and Milton Ulladulla hospitals. The content of these sessions comprised standard precautions including ISLHD standard precautions model, personal protective equipment, hand hygiene, risk ratings, Chlorclean™ use, cleaning zones and staff health. Theoretical content was supported by the opportunity to develop practical skills.

A total of 157 staff participated and 144 evaluations were completed.

Coledale Hospital	Bulli Hospital	Wollongong Hospital	Port Kembla Hospital	Shellharbour Hospital	Kiama ward
2	10	74	14	14	0
Berry Hospital	Shoalhaven Hospital	Milton Ulladulla Hospital	Mental Health service	Ambulatory Primary Health Care	
2	29	0	0	0	

Table 6. Hotel services education attendees by facility

Session	Yes	No
Did you learn something from the presentation?	97% (139)	3% (4)
Did you learn something from the practical sessions?	96% (135)	4% (6)
Did you feel like you could join in with the group activities?	99% (139)	1% (2)
	Good	Average	Bad
Venue	94% (136)	6% (8)	
Overall education day	96% (138)	4% (6)	

Table 7. Evaluation of hotel service infection control education

As shown in figure9, IMACS has provided education in the process of undertaking environmental cleaning auditing to almost 90 staff during this reporting period in order to strengthen the auditing process and effectively support relevant staff.

AS4187:2014 Reprocessing of reusable medical devices

A full review of the ISHD 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
	Antimicrobial stewardship portal	Jul 2017
ISLHD CLIN PD 81	Antiseptics and disinfectants	Mar 2018
ISLHD CLIN PD 53	Aseptic non-touch technique (ANTT) and competency	Mar 2018
ISLHD CLIN PROC 115	Blood and body substance spills	Apr 2018
ISLHD CLIN PROC 130	Chickenpox and shingles – management and control measures	Jul 2017
ISLHD CLIN PROC 83	Cleaning of Clinical Fixtures and Reusable Equipment Used in Patient Care	May 2018
ISLHD CLIN PD 48	Communicable Disease Health-Related Contact Tracing Policy	Aug 2017
ISLHD OPS BR 31	Hand Hygiene - Ward Based Auditors Verification Process	Aug 2017
ISLHD OPS PD 52	Ice for human consumption	Sep 2017
ISLHD CLIN PROC 191	Meningococcal disease	Sep 2017
ISLHD CLIN PROC 138	Outbreak Management	Jul 2017
ISLHD CLIN PROC 125	Scabies - Management of	Sep 2017

Number	Title	Published
ISLHD OPS PROC 55	Legionnaire's disease - Patient Management	Jan 2018
ISLHD CLIN PROC 192	Occupational Exposure: Health Care Workers Potentially Exposed to Human Immunodeficiency Virus, Hepatitis B and/or Hepatitis C - Management of	Sep 2017
ISLHD CLIN PD 100	Personal protective equipment	Aug 2017
ISLHD CLIN PD 62	Risk Management Framework for Infection Prevention and Control	Sep 2017
ISLHD CLIN PROC 175	Sharps Management	Feb 2018
ISLHD CLIN PD 80	Single Use Medical Devices	Sep 2017
ISLHD CLIN PD 103	Specimen collection and transport	Aug 2017
ISLHD CLIN PROC 158	Sterile Stock Management	Feb 2018

Table 8. Policies developed and published 2017-18

The numbers of downloads from the ISLHD intranet of policies or guidance relevant to Infection Prevention and Control are shown below.

Website Download Information/ Policy	Total Number Downloads	Total Number of Visits
ISLHD CLIN PD 45: Bare Below the Elbows	339	260
ISLHD CLIN PROC 83: Cleaning of Clinical Fixtures & Reusable Equipment	240	206
ISLHD CLIN PD 83: Communicable Diseases & Conditions	233	204
ISLHD CLIN PROC 56: Hand Hygiene	208	157
ISLHD CLIN PD99 MRO & C.diff Infection Prevention & Control	198	170
ANTT	191	144
ISLHD CLIN PROC 175: Sharps Management	162	120
CLIN PROC 158: Sterile Stock Management	150	126
ISLHD CLIN PD 53: ANTT	131	107
ISLHD DOC 73: Communicable Disease Poster (Transmission Based Poster)	110	83
ISLHD OPS PROC 119: Refrigerators Food Use and Care	107	87
ISLHD CLIN PD 63: Standard Precautions	106	90
ISLHD CLIN PD 99: PPE	100	90
ISLHD CLIN PROC 192: Occupational Exposures	95	74
ISLHD CLIN PD 62: Risk Management Framework for Infection Control	89	42
ISLHD OPS PROC 58: Environmental Cleaning Programme	84	68
ISLHD OPS PD51: Food Safety on Wards	62	51
ISLHD CLIN PROC 130: Chicken Pox/Shingles Management	47	41
ISLHD CLIN PROC 54: Emergency Adult Cannula Identification	47	39
ISLHD CLIN PROC 115: Blood and Body Substance Spills	37	31
ISLHD CLIN PD 103: Specimen Collection and Transport	36	26
ISLHD OPS BR 79: Hand Sensitivity Assessment	33	27
ISLHD CLIN PROC 100 – TB Management	32	23
ISLHD CLIN PD 89: Animal in Healthcare	25	18
ISLHD CLIN PROC 171: Intra-cavity Ultrasound Transducer	21	11
ISLHD CLIN PROC 81: Antiseptics and Disinfectants	20	16
ISLHD OPS 55: Linen Handling, Distribution & Collection	17	12
ISLHD OPS PD 52: Ice for Human Consumption	16	16
ISLHD CLIN PD 50: Legionella in Water Systems	16	12
ISLHD CLIN PROC 125: Scabies Management	13	12

Table 9. Policy downloads 2017-18

Infection prevention and control audit programme

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).

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.

During this reporting period an LHD-wide audit reporting system, known as QARS, has been developed. IMACS audit tools are in the process of being updated and revised in order to fit the requirements of this system. All IMACS audits will be 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.

ISLHD INFECTION CONTROL AUDITING & REPORTING SCHEDULE – 2017

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	Chairperson ISLHD ICC	NSW Health Performance report	X	X	X	X	X	X	X	X	X	X	X	
Clinical Indicators ACHS	Site IMACS CNC	Clinical Indicators report							X				X	
IMACS Annual Report	IMACS Manager			X										
Hand Hygiene	Site IMACS CNC / Site Ward Based Auditors	HHA report						X		X			X	
Fridge audit	Site IMACS CNC / Infection Control Link	IMACS audit tool and report	X	X										
Sterile stock storage Audit	Site IMACS CNC / Infection Control Links	IMACS audit tool and report			X	X	X							
Bling Audit	Site IMACS CNC / Infection Control Links	IMACS Bling Audit tool and report				X	X							
ABHR accessibility	Site IMACS CNC	IMACS ABHR Accessibility audit report				X	X							
WHO Hand Hygiene Day 5th May	Site IMACS CNC / Infection Control Links	IMACS Report						X						
AS/NZS4187:2014 audit	IMACS Manager / Site IMACS CNC	NSW Health audit tool						X	X	X				
Renal Unit audit	Site IMACS CNC / RDU staff	IMACS audit tool and report									X	X	X	
Standard, transmission-based precautions & MRO policy compliance including risk assessment	Site IMACS CNC	IMACS audit tool and report										X	X	
Infection Prevention & Control Week (October 2016)	Site IMACS CNC	IMACS Report											X	

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	
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

Figure 13. Audit schedules 2017 and 2018

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 55,076 hand hygiene opportunities were observed, with 48,015 being achieved correctly – an overall hand hygiene compliance rate of 87.2%, an increase from last year's rate of 86.2%.

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 75%.
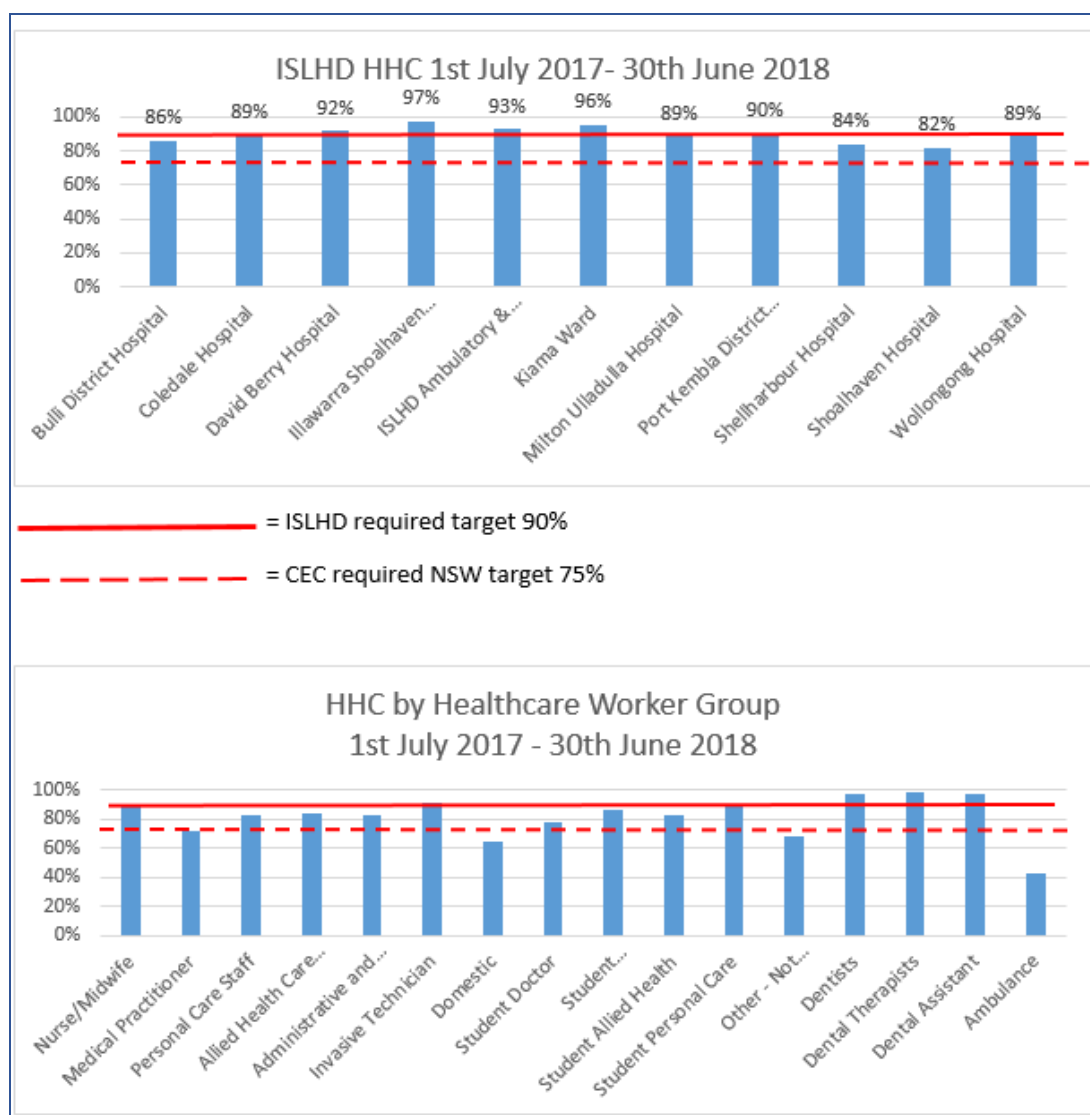

Figure 14. Hand hygiene rates 2017-18 by site and by staff group

During this 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	2079	1794	86%
Coledale Hospital	542	483	89%
David Berry Hospital	1667	1528	92%
Illawarra Shoalhaven Dental Clinic	2108	2054	97%
ISLHD Primary & Ambulatory Care	889	827	93%
Kiama District Hospital	322	308	96%
Milton Ulladulla Hospital	2205	1954	89%
Port Kembla District Hospital	1503	1353	90%
Shellharbour Hospital	6626	5589	84%
Shoalhaven Hospital	11353	9295	82%
Wollongong Hospital	25782	22830	89%

Table 10. ISLHD 2017-18 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 2013.

	ISLHD 2013–14	ISLHD 2014-15	ISLHD Apr-Jun 2018	National Nov 17 - Mar 2018
Overall compliance	82.9%	83.4%	87%	85%
Compliance by healthcare worker				
o Nurse	87.1%	88.0%	90%	88%
o Doctor	66.9%	69.5%	69%	73%
o Dentist			100%	92%
o Allied Health	80.1%	81.0%	82%	83%
o Other	53.2%	66.3%	91%	76%
o Patient support assistant	75.2%	74.8%	81%	80%
o Blood collector	75.9%	84.6%	92%	86%
o Student Nurse	81.5%	84.3%	83%	84%
o Student Doctor	76.3%	62.3%	100%	77%
o Student Allied Health	73.6%	80.4%	74%	82%

Table 11. Comparison of ISLHD and NSW State hand hygiene audit findings

Areas that do not meet the 75% benchmark expected by NSW Health are highlighted in red, and include hand hygiene compliance by doctors. It must be noted that in ISLHD there has been an improvement in doctors' compliance. 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. In response to this Wollongong, Shellharbour and Shoalhaven Hospital EDs initiated improvement strategies and have been able to demonstrate significant improvements since 2016 with Wollongong and Shellharbour EDs achieving a 78% compliance and the Shoalhaven ED achieving a 67% compliance during the auditing

period to June 2018. The rates for these EDs in June 2016 were 52%, 38.4% and 61% respectively.

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 the surveys undertaken during this reporting period are shown below. When reviewing the reported rates it is important to note that some of the staff may not have had any physical contact with the patient during the intervention, so hand hygiene may not have been required.

Service	Findings
APHC	128 respondents – 94% 52% noted hand hygiene was done before contact, and reported that 92.5% HCWs undertook hand hygiene after care of these consumers (142 respondents) Alcohol-based hand rub as used between 64% and 100% of the time, and between 40% and 100% of the respondents reported that they would feel able to challenge a health professional who did not carry out hand hygiene before touching them.
C&F	112 respondents - 90% clients reported seeing staff clean hands
Mental Health service	Oct 2017 - 138 respondents – 52% noted hand hygiene was done before contact, and reported that 51% HCWs undertook hand hygiene after care of these consumers (136 respondents) Feb 2018 – 152 respondents - 49% noted hand hygiene was done before contact, and reported that 50% HCWs undertook hand hygiene after care of these consumers

Table 12. Consumer reported hand hygiene compliance in community-based services

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.
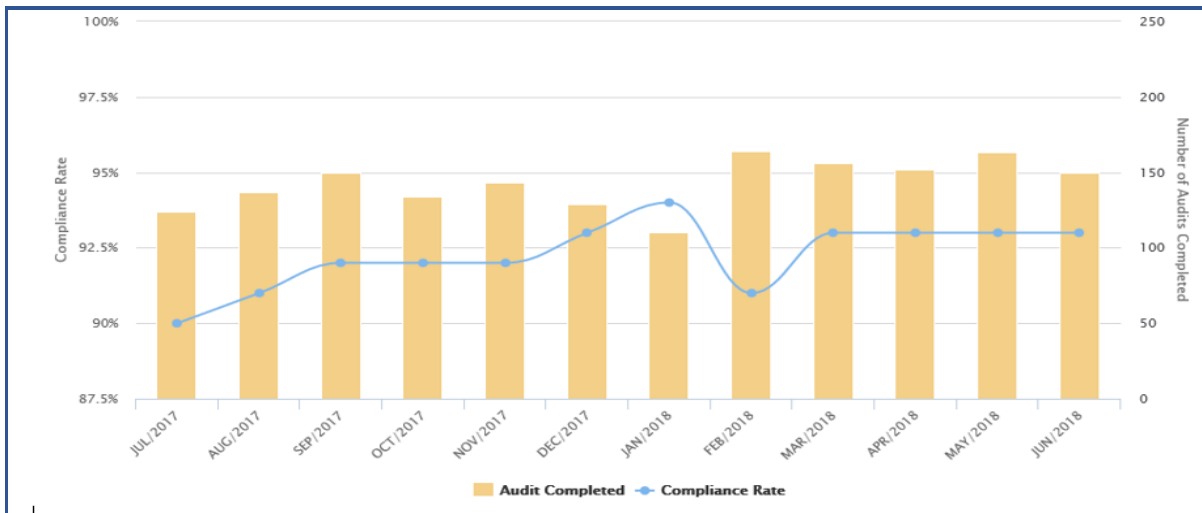
Figure 15. Environmental cleaning audit findings in clinical areas 2017-18

Community health centres are serviced by a hotel service contract provided by Menzies. Each setting is audited by Menzies 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 2017-18 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	2017						2018					
	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	0	0	0	0	0	0	1	0	0	0
ISLHD	0	0	0	0	0	0	0	0	0	0	0	0

Table 13. 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.
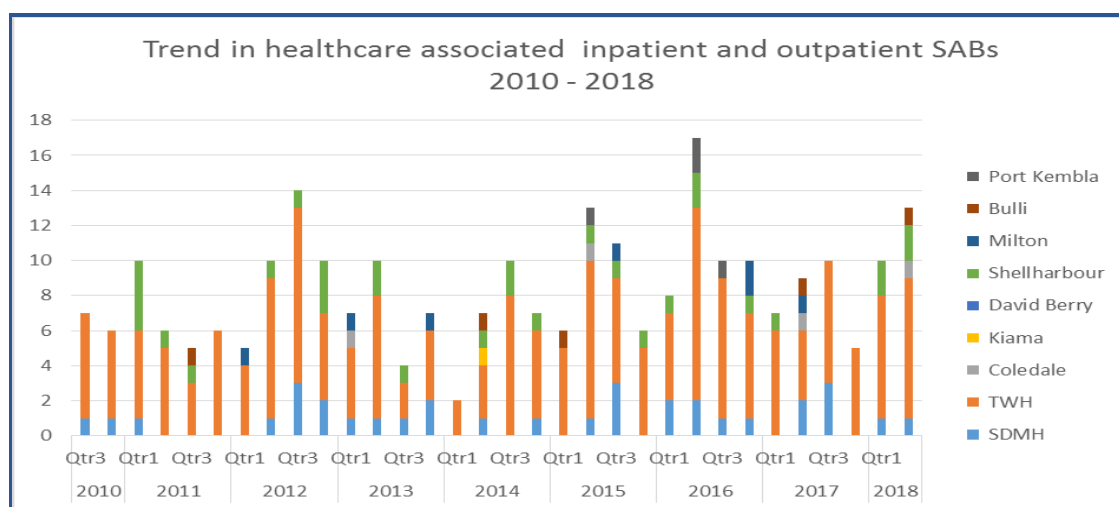

Figure 16. Trend in healthcare associated SABs 2010-18

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 2017 – June 2018.
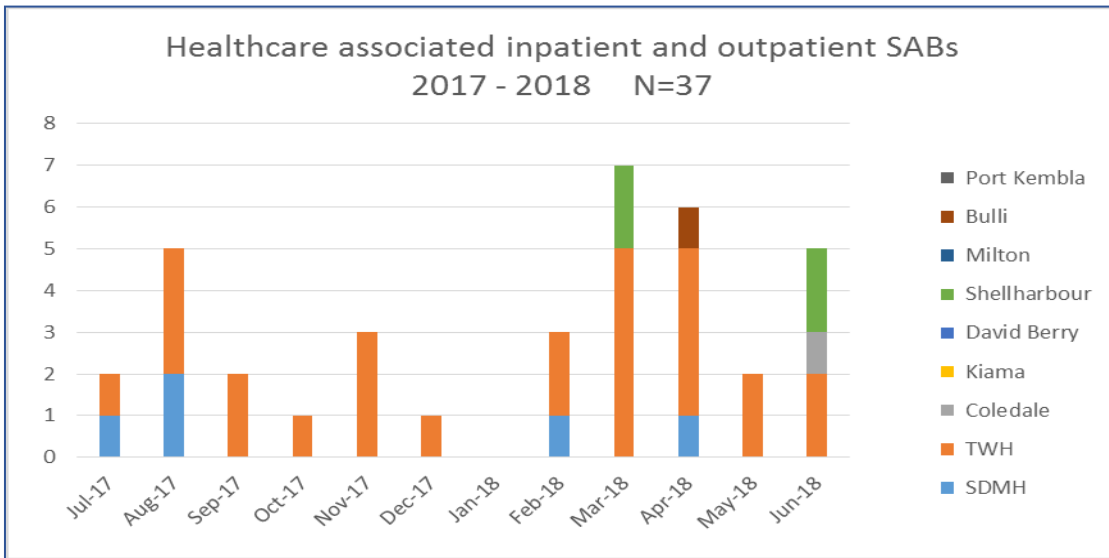
Figure 17. Monthly incidence of healthcare associated SABs 2017-18

NSW Health requires 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. Trends in ISLHD SAB rates are shown in the graphs below.
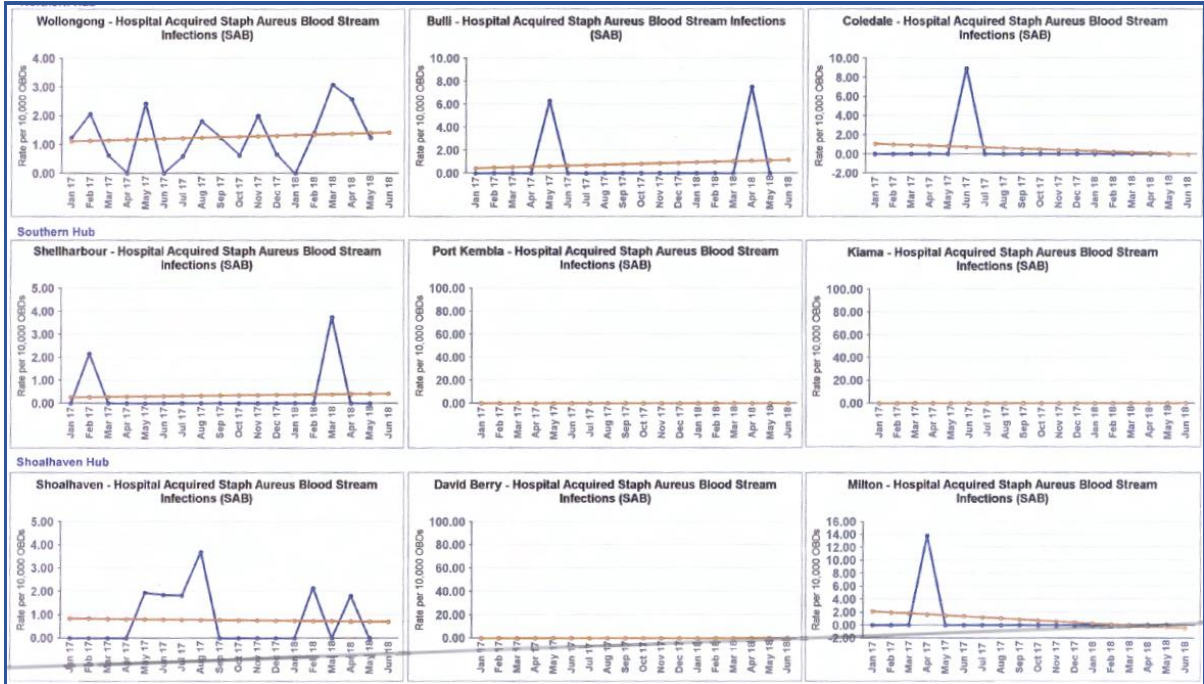

Figure 18. Trend in SAB rates Jan 17 - June 2018

During this reporting period a total of 121 SABs were identified and reported to IMACS for review. Of these cases, 84 were identified as community onset with no identified healthcare association.
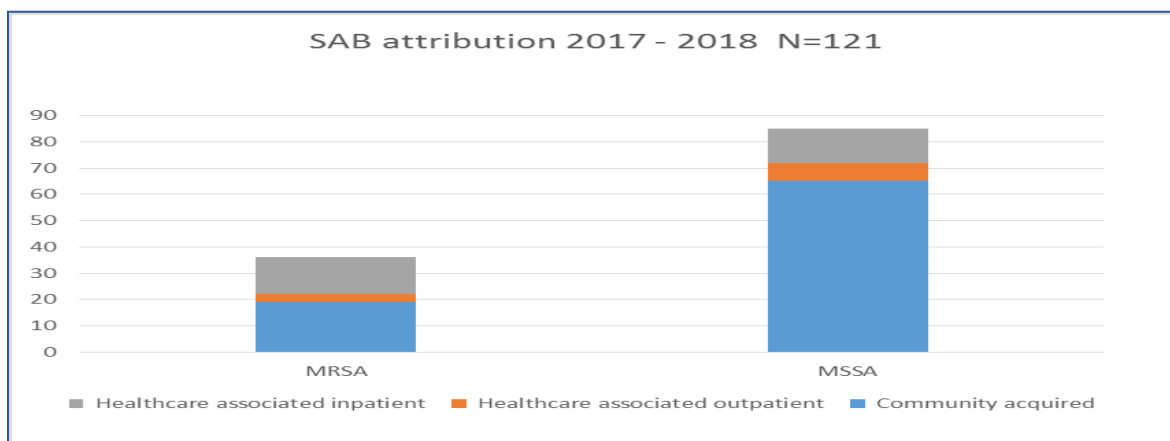
Figure 19. Attribution of SABs following IMACS case review

Individual case reviews of the remaining 37 healthcare associated SABs have identified that 27 affected inpatients and 10 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 3 of the 10 healthcare associated outpatient SABs were caused by MRSA. This is an increase on the previous two years when no outpatient associated SABs were caused by MRSA.

Of all healthcare associated (inpatient and outpatient) SABs 46% (17/37) were identified as MRSA this year, compared with 28% (10/36) last year and 40% (12/42) during 2015-16. The following table shows the proportion of inpatient SABs that were caused by MRSA and MSSA respectively.

	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18
MRSA bacteraemia (% of total)	3 (21%)	5 (20%)	3 (17%)	15 (43%)	4 (33%)	16 (53%)	12 (40%)	10 (28%)	14 (52%)
MSSA bacteraemia	11	15	15	20	12	14	20	19	13
Total InPt SAB	14	20	18	35	16	30	32	29	27

Table 14. Numbers of healthcare associated inpatient SABs 2017-18

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 2016		1st half 2017		2nd half 2017		1st half 2018	
SSI Rate per 100 procedures	Site rate	Peer rate	Site rate	Peer rate	Site rate	Peer rate	Site rate	Peer rate
Wollongong (S)	1.67%	0.55%	0.78%	0.56%	1.31%	0.68%	N/A	N/A
Wollongong (D)	0.84%	0.21%	0.52%	0.06%	0.52%	0.15%	0.22%	0.10%
Shoalhaven (S)	0	0.77%	2.6%	1.25%	2.09%	1.27%	N/A	N/A
Shoalhaven (D)	0	0.39%	0	0.13%	0	0.05%	1.61%	0.39%

(S) superficial   (D) deep surgical site infection - according to ACHS Clinical Indicator Manual definitions
Table 15. Rates of surgical site infection - LSCS

The consistent above-peer rate following the identification of an infection rate of 4.5% identified at Wollongong 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 2017-18	Nº Elective hips and knees infected 2017-18	SSI rate per 100 procedures			
			2013-14	2015-16	2016-17	2017-18
SDMH	129	4	1.07	1.94	2.5	3.10
TWH	479	3	1.90	2.38	1.05	0.62
ISLHD total	608	7	1.54	2.29	1.34	0.72

Table 16. 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.

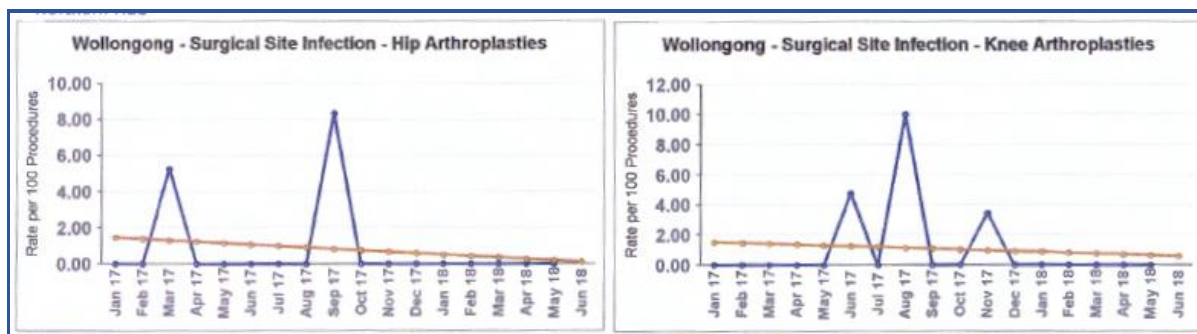Orthopaedic surgical site infection rates for this reporting period are shown below.

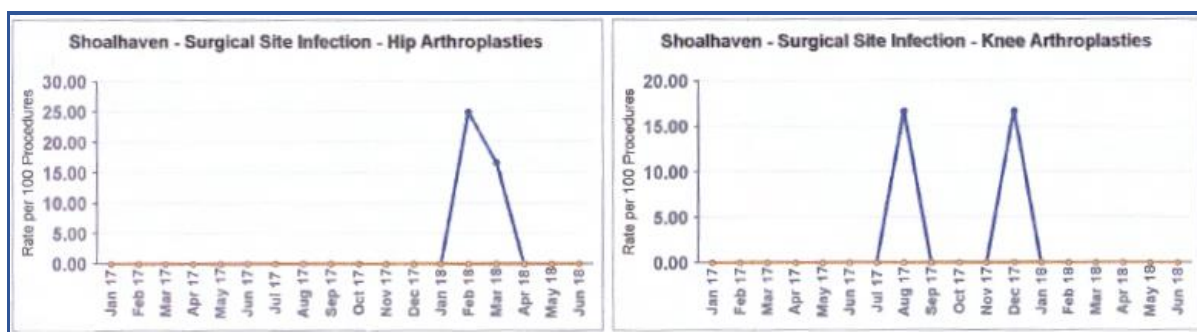**Figure 20. Wollongong Hospital orthopaedic SSI rates Jan 2017 - June 2018**

Figure 21. Shoalhaven Hospital orthopaedic SSI rates Jan 2017 - June 2018

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.

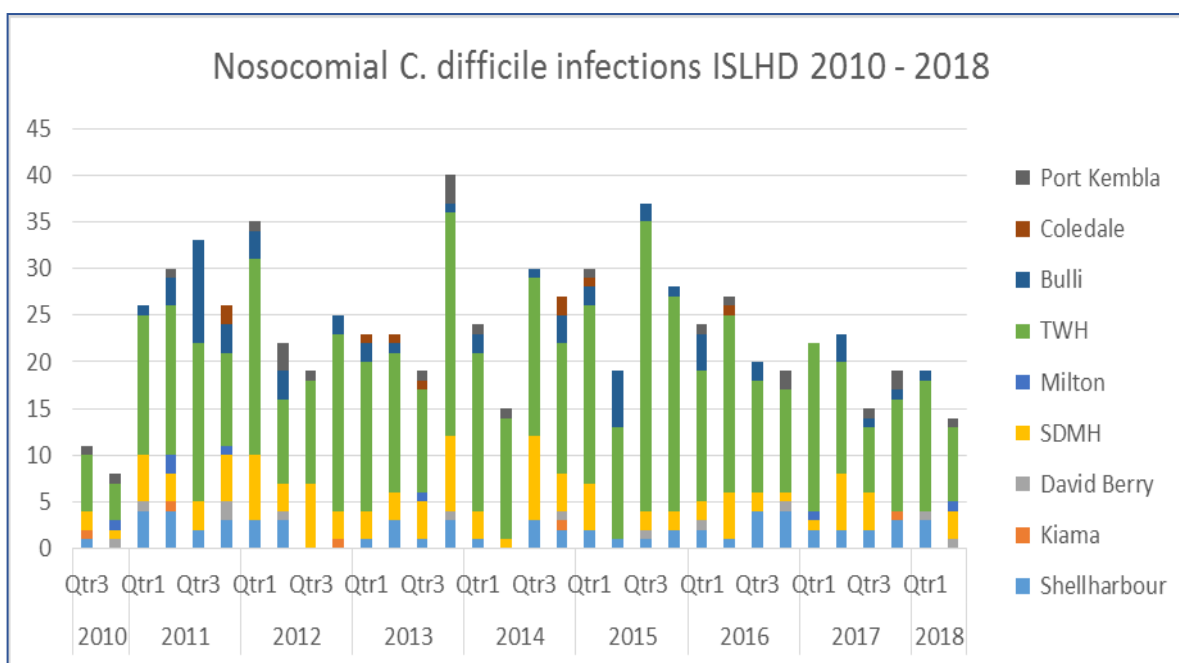**Figure 22. Numbers of nosocomial *C. difficile* infections 2010-18**

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.
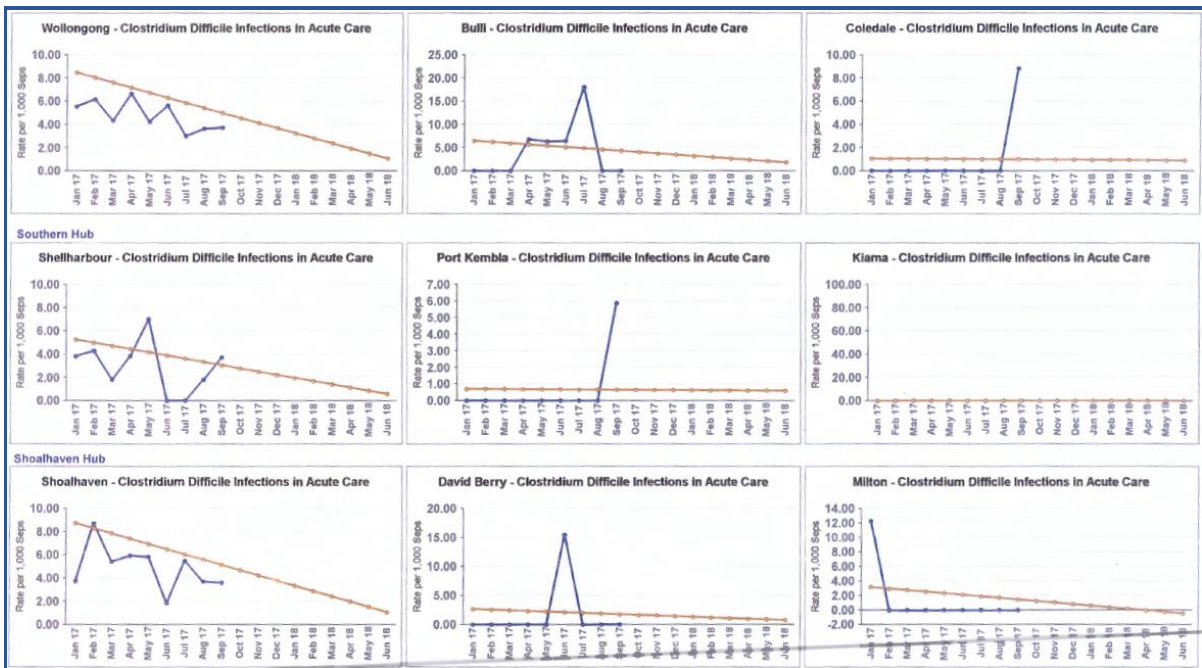
Figure 23. Trend in total *C. difficile* Jan 2018 - June 2018

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 24. Outbreaks and incidents 2017-18

Gastrointestinal infection

In July 2017 Seven patients and 1 staff member on the Medical ward at SHH reported symptoms. Six patients were confirmed as having Norovirus inf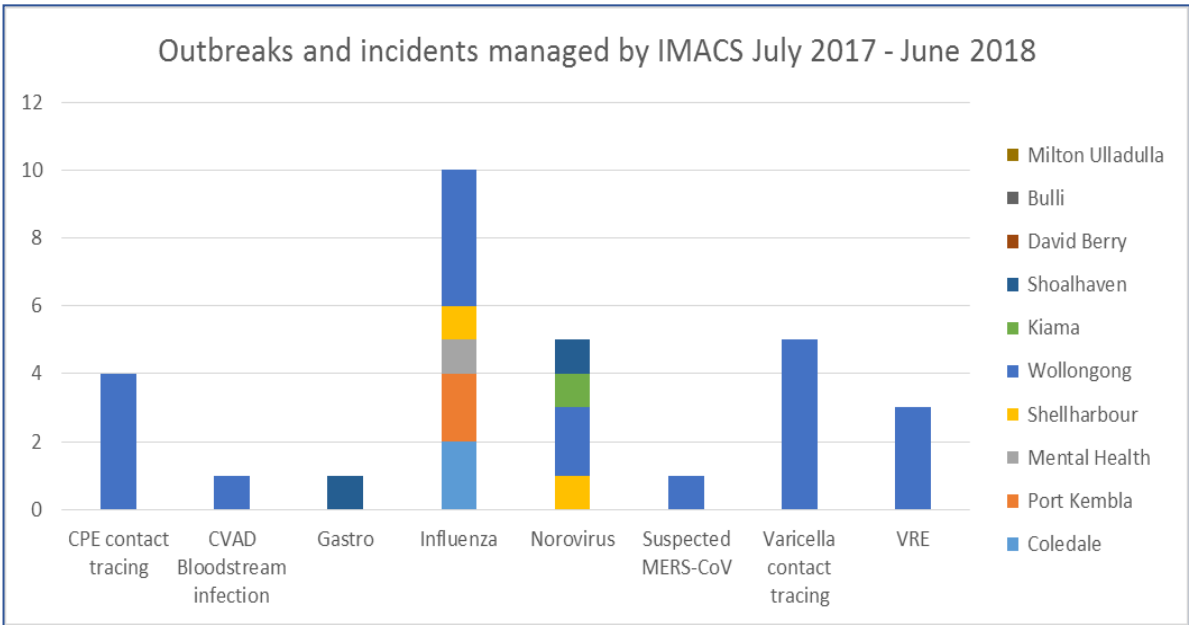ection. All patients were from 3 rooms within the ward. The outbreak was managed well and resolved quickly once additional precautions were implemented.

Further outbreaks of confirmed Norovirus were also identified and effectively managed at Kiama, Shoalhaven and Wollongong.

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 2017 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 50% by June 2017.

The 2017 'flu season was notable as being the most significant for several years in terms of numbers of people affected, the numbers of people who were seriously affected and required hospital presentation or admission, and the extended duration of the season well into September 2017. A total of 971 patients admitted to LHD facilities were confirmed as having influenza and reported to IMACS by the microbiology laboratory
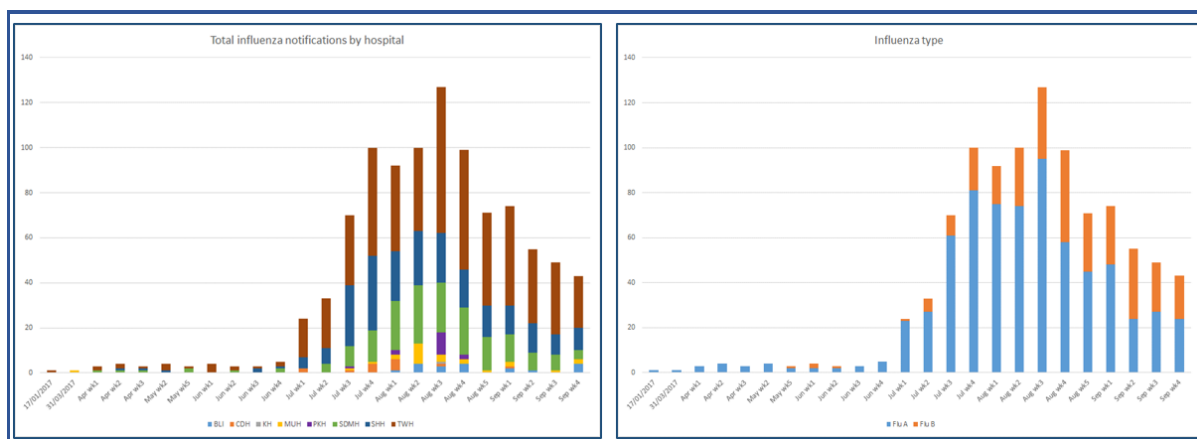
Figure 25. Influenza notifications to IMACS 2017

IMACS undertook a review of each of these patients to identify whether the influenza was community acquired or healthcare associated. The results of this review is shown below and confirms that for any week, between 80% and 95% of all cases had been acquired before hospital admission. Considering the infectiousness of influenza and the large numbers of patients with influenza within our hospitals at this time, these low rates of healthcare acquisition must be noted as representing successful management of patients to prevent further healthcare acquisition throughout the LHD.
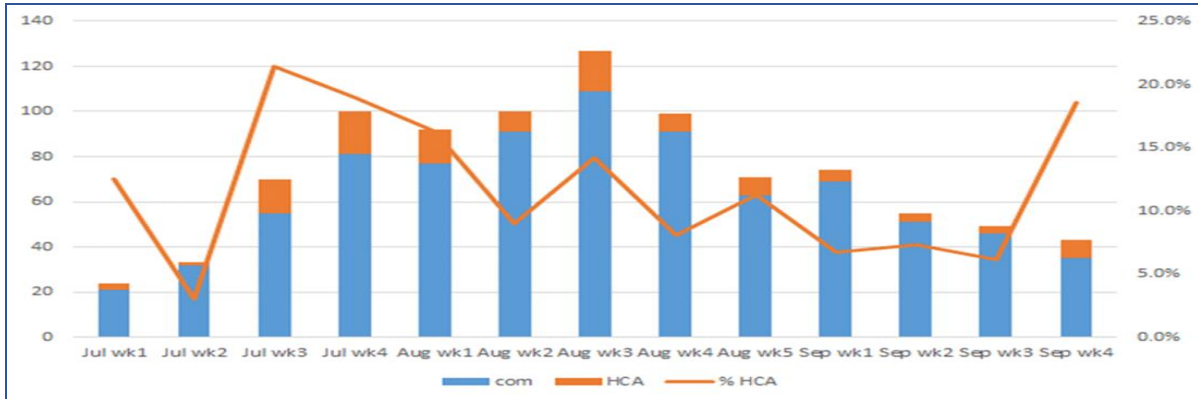
Figure 26. Community vs healthcare acquisition 2017

Further detail on the patients who were assessed as having acquired their influenza during their hospital admission is provided below. Influenza outbreaks (defined as the hospital-onset of influenza in more than 3 patients in the same ward or clinical area within a 7 day period) affected patients can be identified at Coledale, Shellharbour, Port Kembla and Wollongong Hospitals.
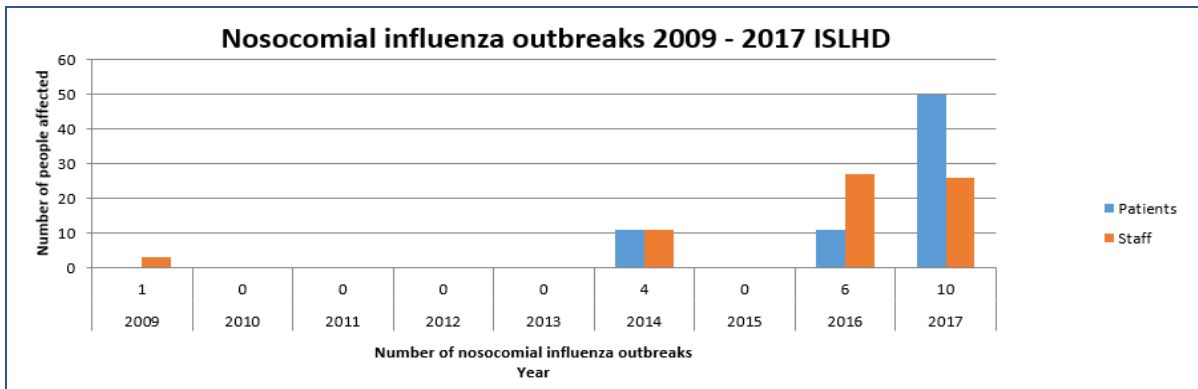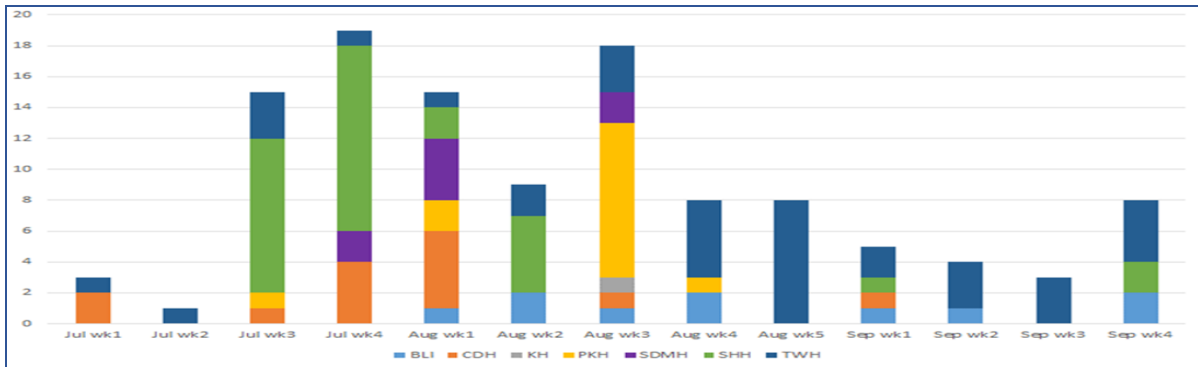
Figure 27. Healthcare associated influenza outbreaks to June 2018

The ISLHD Influenza Strategy continues through this reporting period with coordinated winter management plans and frequent teleconferences to monitor and pre-empt patient flow disruption. The 2018 influenza vaccination rates for staff exceeded 60% Community prevalence of Influenza was extremely low during the first half of 2018 with no outbreaks of healthcare associated infection being identified within the LHD during the period January to June 2018.

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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.
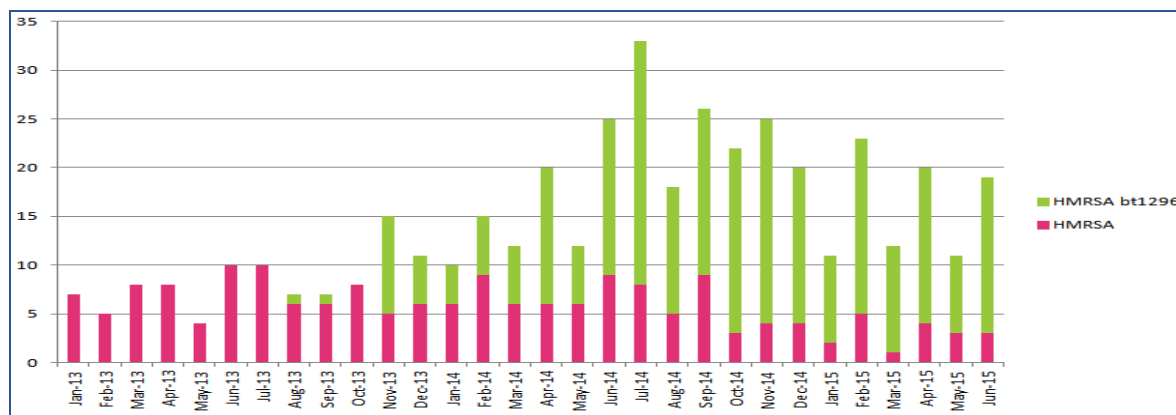
Figure 13. MRSA and MRSA ST45-V acquisitions all sites to June 2015

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 graphs (please note different y axis scales).
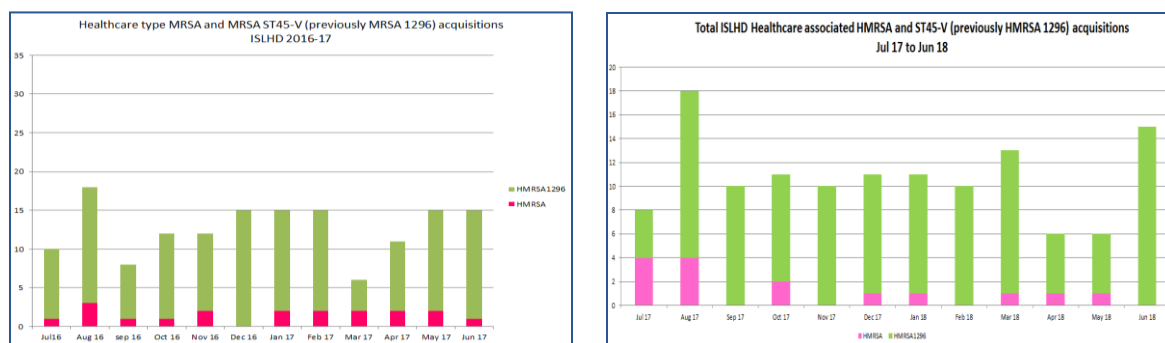
Figure 28. Healthcare associated acquisitions of MRSA and MRSA ST45-V 2016-18

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, 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.
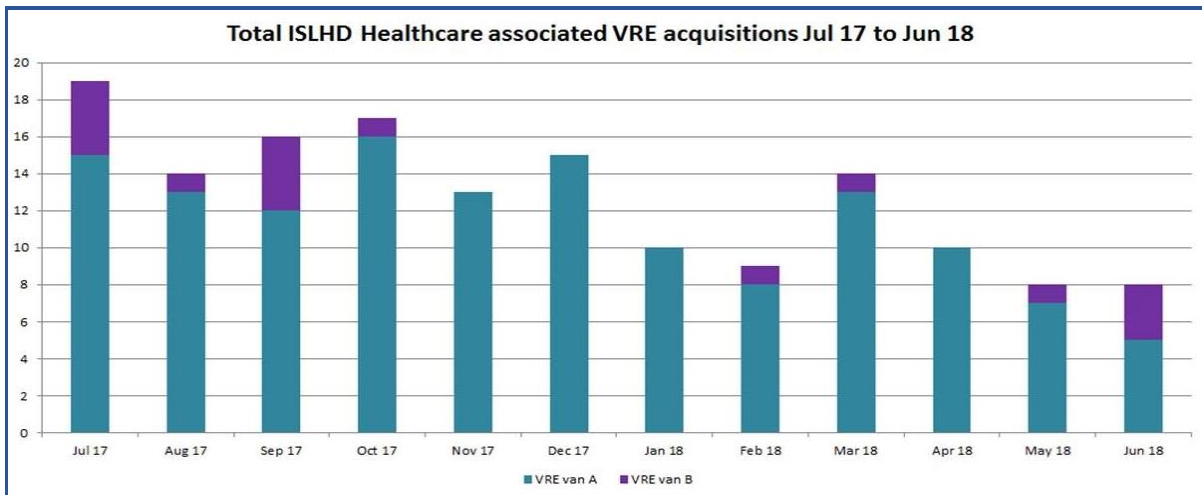
Figure 29. Healthcare associated VRE 2017-18

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 have recommended that the LHD move away from the use of hand hygiene products that contain chlorhexidine.

The outcome of this decision is that IMACS has worked in collaboration with the ISLHD procurement teams as well as site and service-based clinical staff to identify the most suitable alternative hand hygiene product provider. The criteria for product selection are that the alcohol-based hand hygiene product does not contain chlorhexidine, colours or fragrances and that the soaps and moisturisers provided by the same supplier are also colour, fragrance and preservative free. It is expected that the results of this review will be available for the next IMACS Annual Report.

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 2016		1st half 2017		2nd half 2017		1st half 2018	
	Site rate %	Peer rate %	Site rate %	Peer rate %	Site rate %	Peer rate %	Site rate %	Peer rate %
Wollongong	0.03	0.04	0.03	0.03	0.037	0.04	0.021	0.030
Shellharbour	0.03	0.02	0.03	0.02	0.005	0.025	0.023	0.024
Shoalhaven	0.03	0.02	0.04	0.023	0.02	0.025	0.030	0.038
Kiama	0.03	0.02	0	0.024	0.035	0.02	0.038	0.024
Bulli	0	0.03	0.02	0.017	0	0.03	0.013	0.024
Coledale	0	0.02	0	0.015	0	0.02	0.00	0.024
Port Kembla	0	0.03	0.02	0.017	0.01	0.03	0.011	0.024
David Berry	0	0.02	0	0.015	0	0.02	0.028	0.024
Milton	0	0.02	0	0.015	0.04	0.02	0.040	0.024
Mental Health	0	0.02	0.005	0.023	0.005	0.025	0.005	0.024

Table 17. Occupational parenteral blood and body substance exposures 2016 – 2018

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. The following chart shows the numbers of skin integrity and hand hygiene technique assessments that have been undertaken by IMACS during this reporting period (total for ISLHD = 40). Of these, 6 were follow-up assessments.
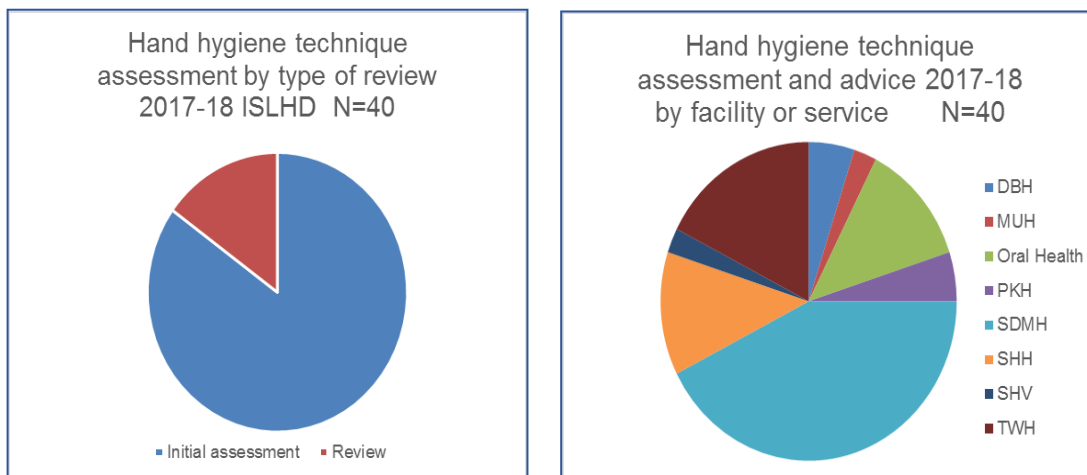

Figure 30. Advice to staff reporting skin integrity concerns

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 18. Internal audit recommendations

The IMACS 2017-18 business plan was developed to support achievement 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 2017 - June 2018

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
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	Achieved
		Continuation and ongoing development of the infection control Link program as a development opportunity and IMACS succession planning strategy.	Attendance >50% of Link members at each meeting	Nurse Manager IMACS Site and Service managers	Poor attendance at Link meetings has prompted development of mentorship programme from 2019
		Support professional and personal development opportunities within resources.	Staff performance review 100%	Nurse Manager IMACS	Achieved
		Monitor activity.	100% CNC monthly reports completed	IMACS CNCs	Achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
	Favourable financial management	Negotiate appropriate budget and monitor and maintain budgetary control.	Favourable management of appropriate budget	Nurse Manager IMACS	Achieved
That ISLHD staff are able to access appropriate and evidence-based infection prevention and control education and development opportunities	MyHealthLearning reports to ICC for all sites and services	Area orientation program.	MyHealthLearning 100%	Organisational Learning Unit Manager IMACS Site Managers	Achieved
		Mandatory training program including e-learning	MyHealthLearning 100%		
		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	Achieved
		Development of multi-disciplinary infection control Link program members in all wards / units	MyHealthLearning record of meeting attendance	IMACS CNCs	Partially achieved
	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	Achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
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	Achieved
	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	Achieved
			HH rate >90% compliance across ISLHD	Executive Director Clinical Operations (EDCO) Site Managers NUMs Co-directors	Partially achieved
	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. Ensure effective decontamination of all critical and semi-critical reusable equipment through regular evaluation and monitoring of processes. All critical and semi-critical reusable medical devices are to be reprocessed within	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 in place - Achieved
			100% compliance with AS/NZS4185 within ISLHD Oral Health services.	Oral Health service Director	Achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
		designated highly controlled environments as agreed by the site / service executive and IMACS manager	100% areas and services involved in local reprocessing of critical or semi-critical reusable medical devices (RMD) meet the requirements of AS/NZS4187:2014	Site managers Department managers	Partially achieved. Continued focus on semi-critical RMD
		Implementation of ISLHD legionella control policy ISLHD Ops PD 50	Legionella risk assessment and management plan is in place	EDFinance, Facility Operations Managers, General Managers	Partially achieved
		Aseptic technique audit in QARS	Aseptic technique audits completed in all relevant areas at each facility and service	Site managers Department managers	Achieved
		Surveillance and audit of newly acquired multi-resistant organisms.	100% submissions of surveillance data by expected date	IMACS Nurse Manager	Achieved
		Monitoring of MRO patient identification and isolation strategies.	Surveillance reports aim for zero healthcare associated infections.	IMACS team	Monitoring achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
		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 require Additional Precautions.	Zero incidents occurring attributable to MRO management decisions	IMACS team	Achieved
	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	Partially achieved
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	Achieved
			Zero infections associated with construction	ISLHD executive Project manager	Achieved
That rates of healthcare associated infection are accurately monitored and	Monitoring of healthcare-associated influenza	Influenza surveillance is commenced to facilitate prompt identification of healthcare-associated acquisition, and through on-time reporting, to promote	Zero acquisitions of influenza within ISLHD inpatient services	IMACS CNCs Nurse Manager IMACS Site and Service Managers NUMs	Not achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
reported, with the objective of achieving reductions over time.		increased awareness of influenza as a potential HAI through regular reporting of numbers per week throughout 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	Not achieved
	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.

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;

ACHS and NSW Health KPIs to be met | IMACS CNCs Nurse Manager IMACS Site and Service Managers NUMs | Not achieved |
| | | Data collection and submission to NSW Health KPIs, ACHS Clinical Indicators and Health Round Table | | Nurse Manager IMACS | Achieved |

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
	Reduction in rates of SSI	Case review process for all eligible hip, knee and LSCS surgical procedures 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	Achieved
	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	Achieved
	Monitoring and management of emerging pathogens including carbapenamase-producing *Enterobacteriacae* (CPE).	Reporting of all identified CPE and other emerging pathogens of interest to ISLHD ICC	Zero healthcare associates outbreaks of CPE	IMACS Nurse Manager	Achieved
That rates of staff vaccination, blood and body substance exposures and	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	Partially achieved
		Identification,		Nurse Manager IMACS	Achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
skin sensitivity issues are reported, and improvement strategies are developed, implemented and evaluated.		implementation and evaluation of system improvements as necessary.		OH&S Committees	
	Monitoring of staff complaining of skin sensitivity preventing compliance with PD2017_013 Infection Control policy	Monitoring through IMACS record-keeping	Reduction in numbers of staff unable to comply with PD2017_013 hand hygiene requirements due to skin sensitivity issue	IMACS CNCs	
	Staff vaccination	Improve uptake of influenza vaccine.	80% staff receive 'flu vaccine each year.	Dept. Resp. Medicine Manager	Achieved
		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	Partially achieved
That IMACS uses a range of appropriate and effective communication methods to inform service users and	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	Achieved
		IMACS submission to ISLHD newsletters	Regular infection-related topics	ISLHD communications team	Achieved

OBJECTIVE	MEASURABLE DELIVERABLES	ACTIONS	TARGET	RESPONSIBLE OFFICER	PROGRESS June 2018
consumers of issues relating to healthcare associated infection.			covered		
		Ensure IMACS page on ISLHD intranet site is accessible and relevant to all staff	IMACS Annual Report produced annually	EDMS&CG Nurse Manager IMACS	Achieved
		Utilisation of appropriate information sheets for patients, staff and contractors including in languages other than English	100% translated information sheets are accessible on the intranet when needed.	IMACS Nurse Manager CGU manager	Achieved
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	Not achieved
		IMACS participation in dissemination of local research findings	> 2 IMACS presentations at State, National or International conferences per annum	IMACS Nurse Manager	Achieved

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/