Public Health Committee Discussion Paper

Title: Hospital and Clinical Services Section Update

Date: January 2019

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I. General Introduction: Overview of Activities

The hospital provides 24/7 care to patients in a secondary care setting. We carry out the following activities within the hospital:

- Ambulance / Pre hospital emergency response staffed on an on call basis outside of 08:30-16:00 Monday -Friday.
- Fully functional emergency department open 24/7
- Fully operational Theatre currently operating two days per week, and on call service 24/7
- Surgical and Medical Inpatients
- Psychiatry
- Paediatrics
- Maternity
- Receptionist duties for the whole Health Directorate
- Catering for inpatients
- Handymen duties for the whole Health Directorate
- Training and Education for staff in the health directorate and others (e.g. Police, Sea Rescue, Airport FRS, SHG FRS)

Clinical Specialities with local specialist present on the island:

Anaesthetics
General Surgeon
Orthopaedic Surgeon
Obstetrician/Gynaecology
Emergency Medicine & Intensive Care (Hospital Lead)
Internal Medicine
General Practice

Nursing Areas Covered:

Surgical (acute and elective)
Medical (acute and long term)
Pre-Hospital Care
Emergency Department (ED)
Triage (in outpatients and ED)
Theatre (scrub, anaesthetics and circulating, recovery)
Intensive Care
Paediatrics
Neonatal

Midwifery (antenatal, perinatal and post-natal)
Psychiatric (where possible and with the CPN team)

Medical Areas Covered: All of the above
General Practice includes

- Chronic Disease Management
- Ear Nose Throat
- Ophthalmology
- Musculoskeletal
- Rheumatology
- Paediatrics
- Dermatology

Within the hospital there are 3 shifts in 24 hours. Early, late and Night. Early shifts are 08:00 – 15:00, the late shift is 14:30 – 21:00 and the night shift is 20:30 – 08:30. The ½ hour overlap allows a handover period between shifts.
The standard staffing pattern for services is as follows:
Hospital (per shift): 2 Nurses
2 Healthcare Assistants

Outpatients: 1 Nurse (for triage and appointments)

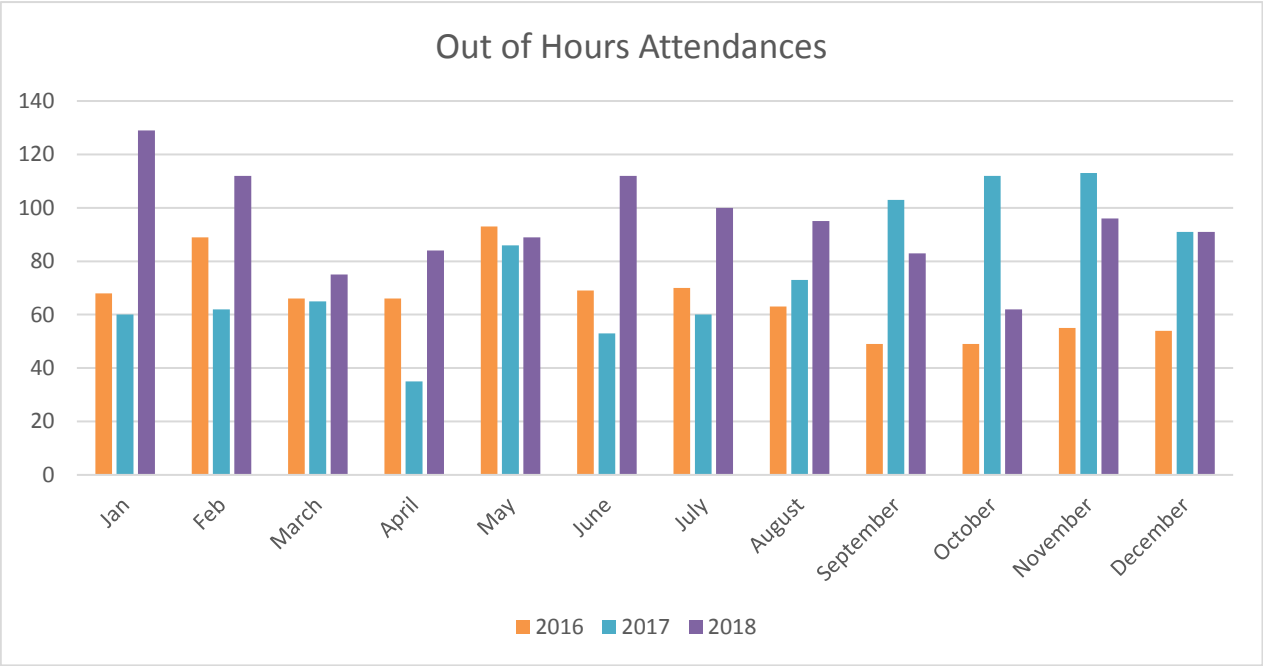
Doctors work from 08:30 until 16:00 Monday to Friday. However each Doctor will take a 24 hour period on call rotating throughout the week.

The Anaesthetist, Obstetrician, Orthopaedic Surgeon and General Surgeon will always have the potential for call outs 24/7.

- **No of patients attending the Emergency Department out of hours**

The number of patients attending to the Emergency Department out of hours continues to increase year on year. We have seen a 30% increase in patients over the past two years 2016-18. When patients arrive in the Emergency Department this reduces the number of available staff to tend to inpatients.

	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS	↑2016
2016	68	89	66	66	93	69	70	63	49	49	55	54	**791**	
2017	60	62	65	35	86	53	60	73	103	112	113	91	**913**	**↑13%**
2018	129	112	75	84	89	112	100	95	83	62	96	91	**1128**	**↑30%**

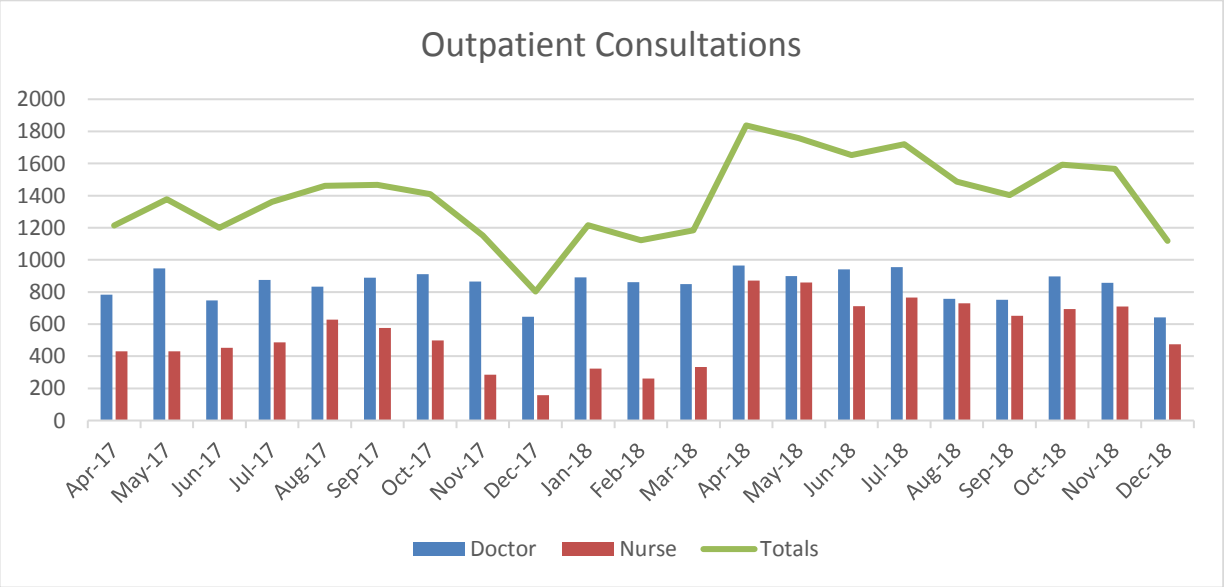


- **No of Patients attending Jamestown Outpatients**

As is illustrated in the graph below we are seeing more patients in 2018 than we did in 2017 when you combine visits to both Doctors and Nurses.

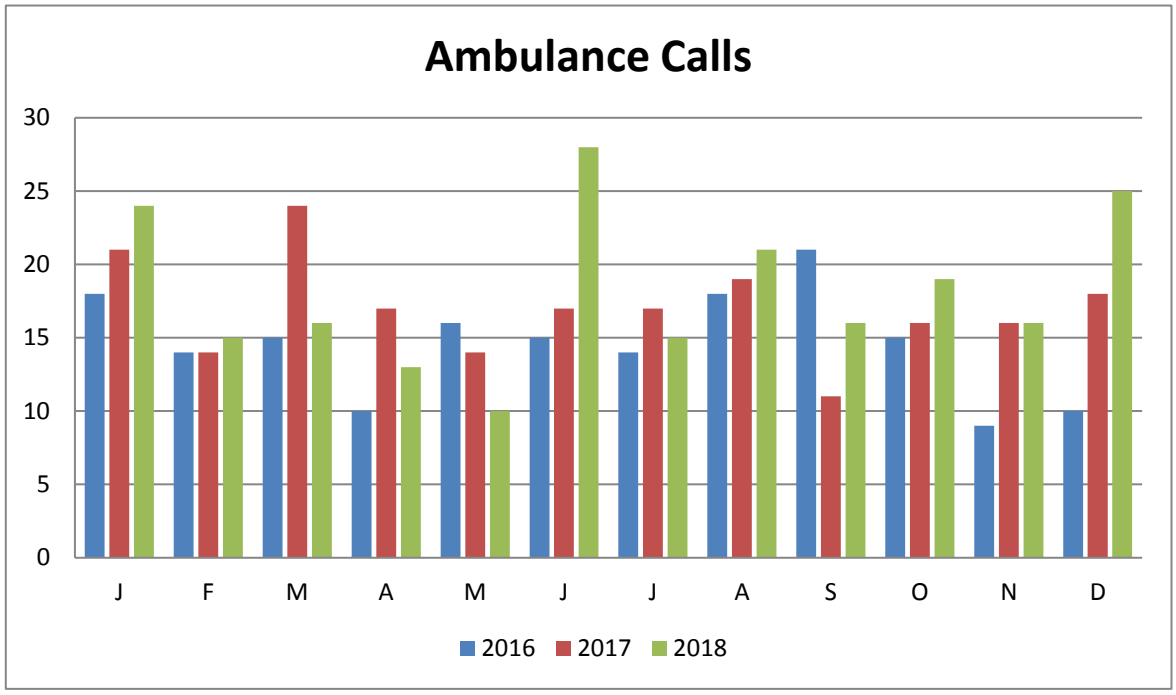
Despite the usual seasonal dip in the number of outpatients visits in December, in Dec 2018 there were still 300 more patients seen compared to December 2017.

The nurses are consistently seeing more patients for triage and treatment, and this trend will continue in 2019.

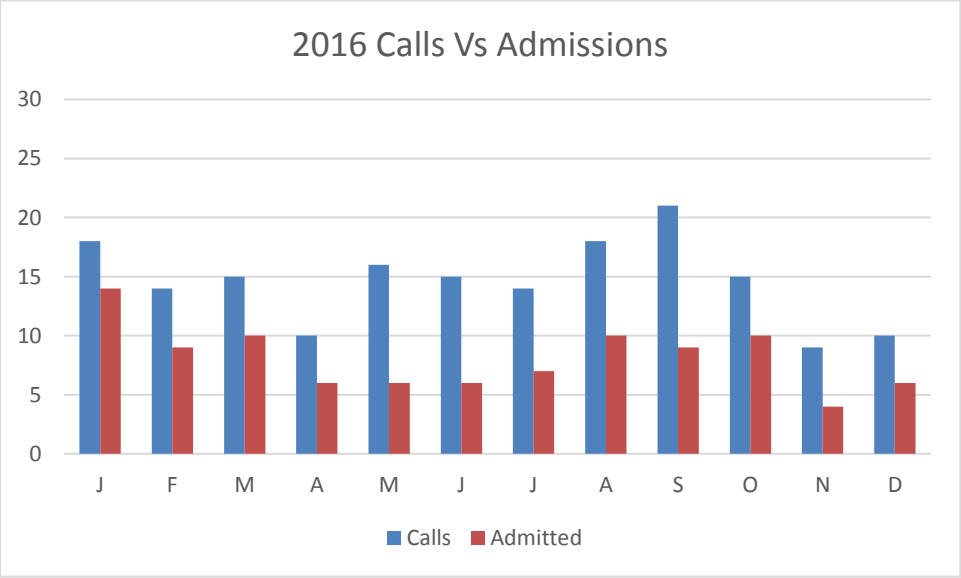


- **No of Ambulance calls**

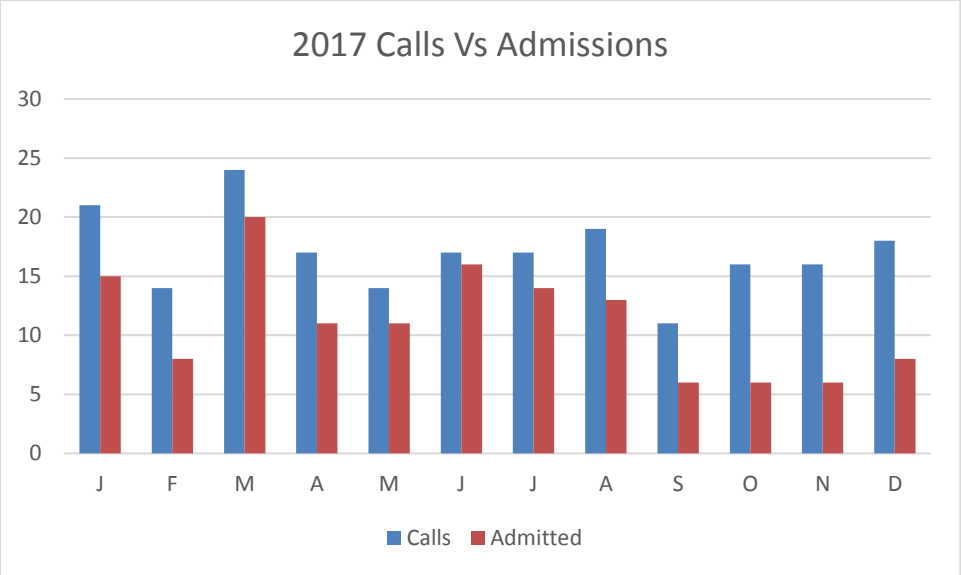
Over the last 3 years we have seen an increase in the number of ambulance calls. There has been a 25% increase since 2016. Below is a comparison of each year (2016-2018) and a breakdown of month by month showing total numbers and number admitted. Each ambulance call takes 50% of the hospital staff away for a minimum of an hour and quite often over 2 hours.



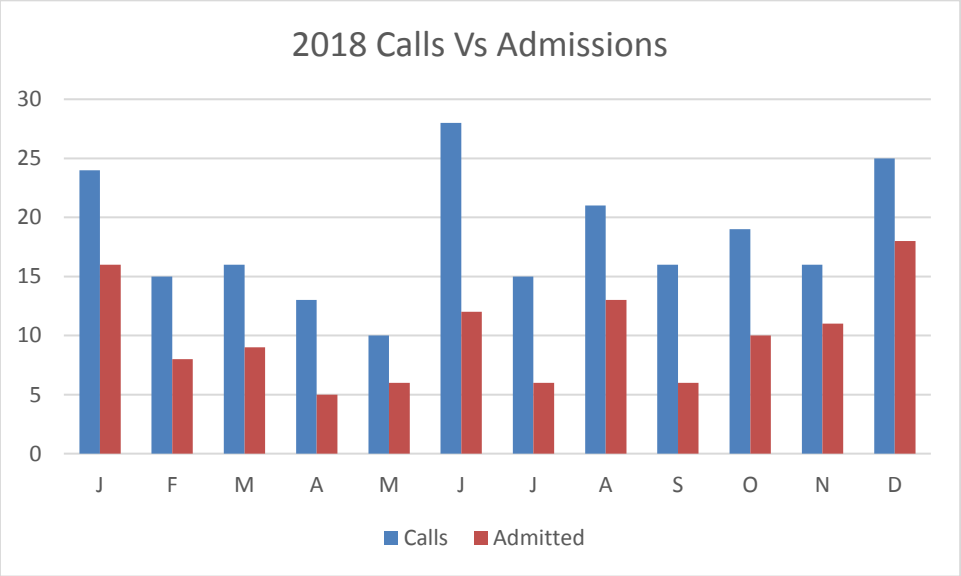
The following graphs illustrate the number of calls vs the number of those patients admitted.



55% of all ambulance calls were then admitted to hospital in 2016.



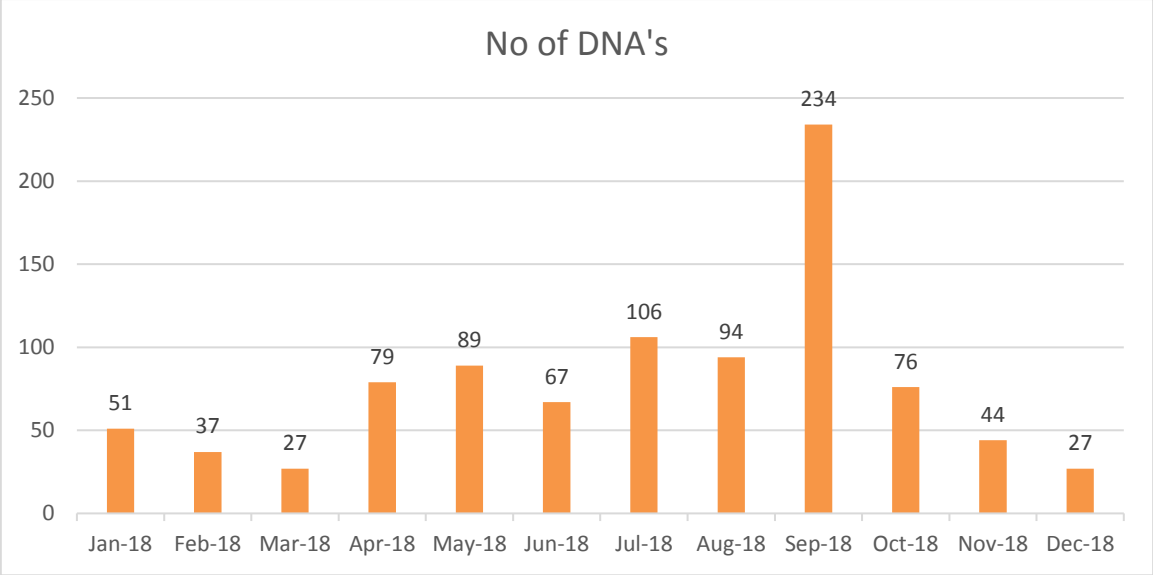
65% of all ambulance calls were then admitted to hospital in 2017.



55% of all ambulance calls were then admitted to hospital in 2018.

- **No of patients who Did Not Attend (DNA) and outpatient Doctor appointment**

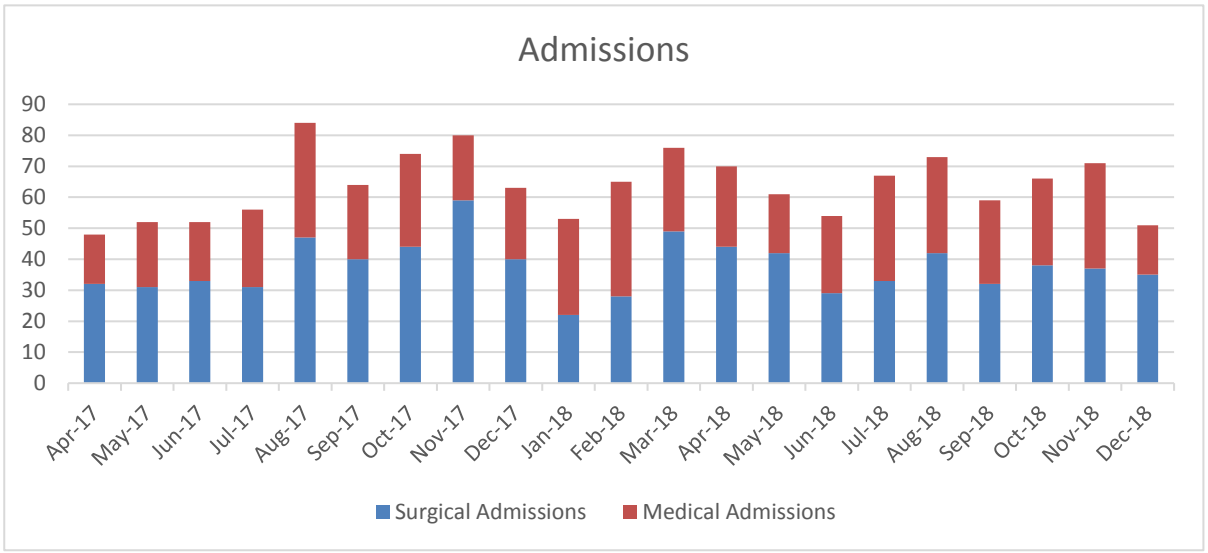
As you can see from the below graph, we can have a significant number of patients who do not attend for their appointments. These are slots that would and should have been available to the public, but as we did not receive any notification that the patients were unable to attend, we were unable to reallocate these slots for other patients to use.



- **No of patients admitted (surgical/medical)**

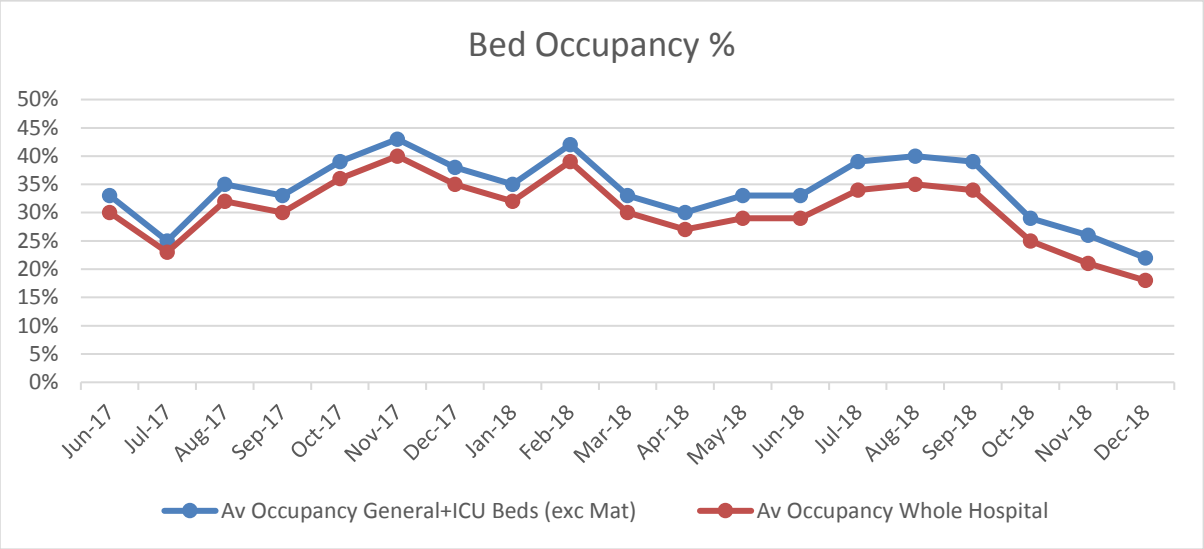
The graph shows the total number of admissions per month, split into Medical vs Surgical Admissions. Since April 2017 we have averaged 37 surgical admissions per month and 26 medical admissions per month. This totals an average of over 60 admissions per month.

We have started compiling data on average length of stay, and so far the data shows that we are averaging between 2 and 3 days for admission.



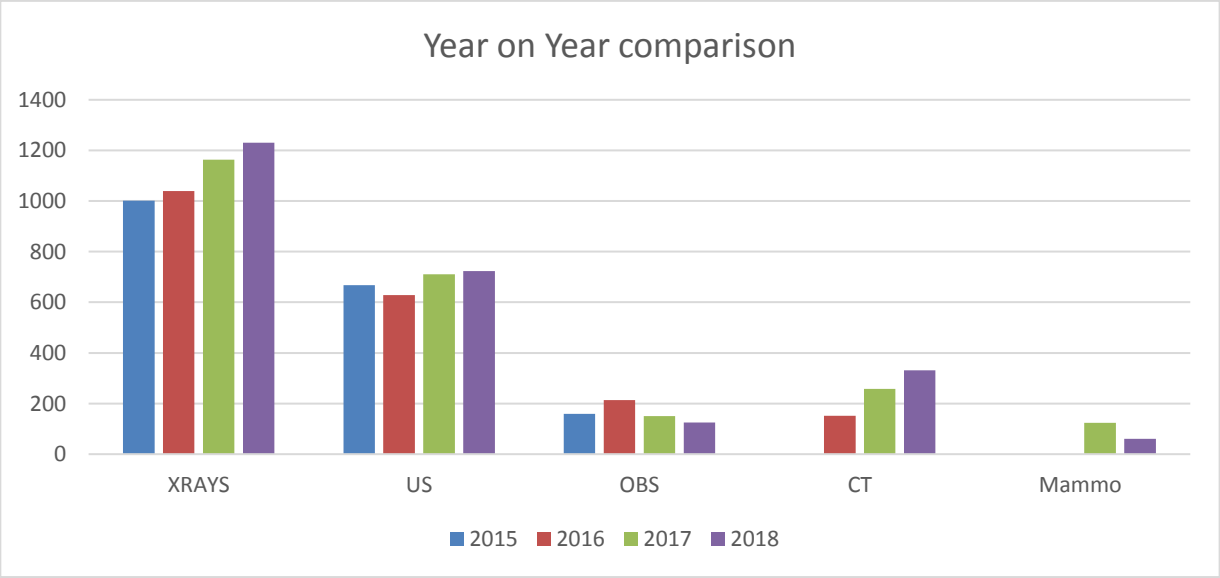
The below graph illustrates the average (per month) bed occupancy percentage. The two figures are showing the average occupancy for general beds (adults, paediatrics and ICU), but excluding the maternity patients. This is because the majority of our patients fall under the first category.

We have plotted the same data again, including all available beds (so including the maternity).

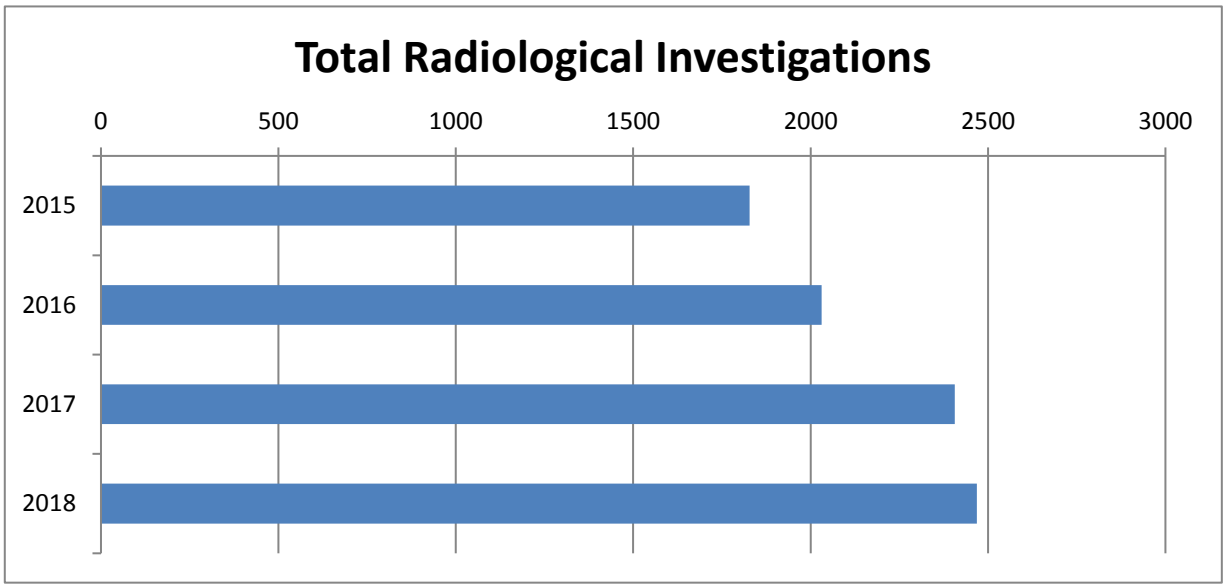


- **Radiology**

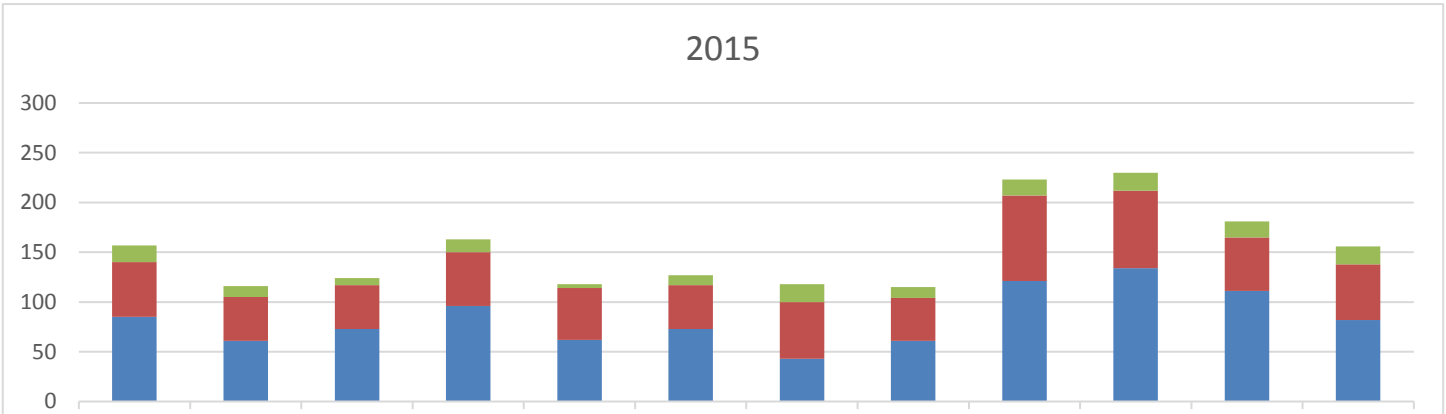
The charts below show a continued increase in the number of X-Rays since 2015. The number of Ultrasound scans is also up, but is relatively static since 2015. Obstetric exams are dependent on our numbers of expectant mothers.

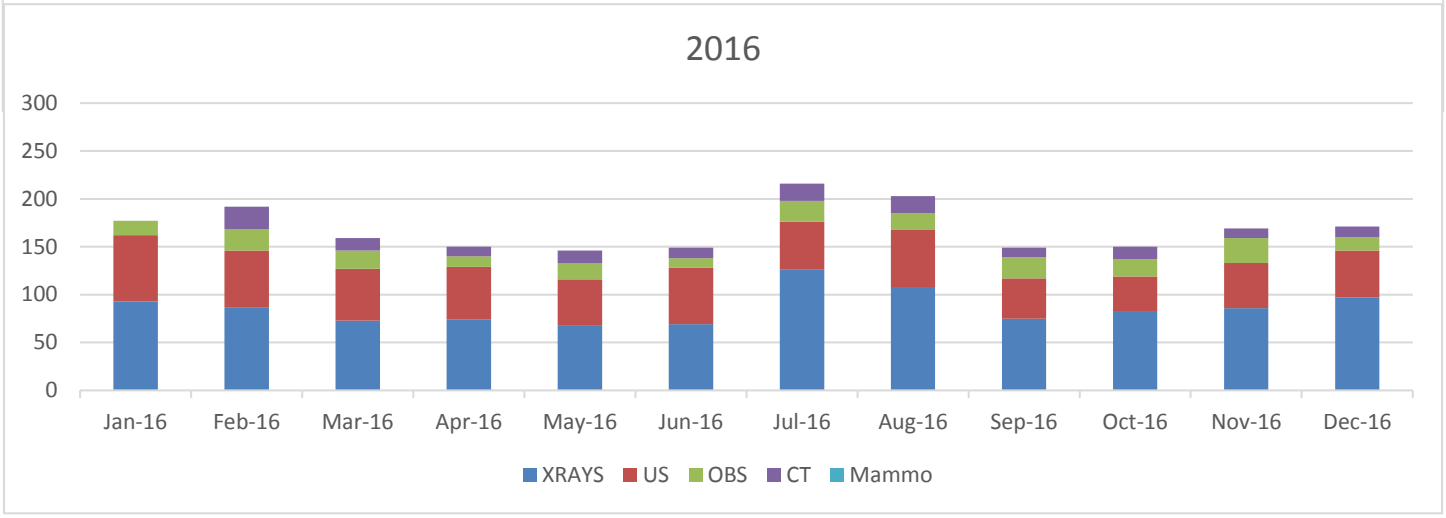


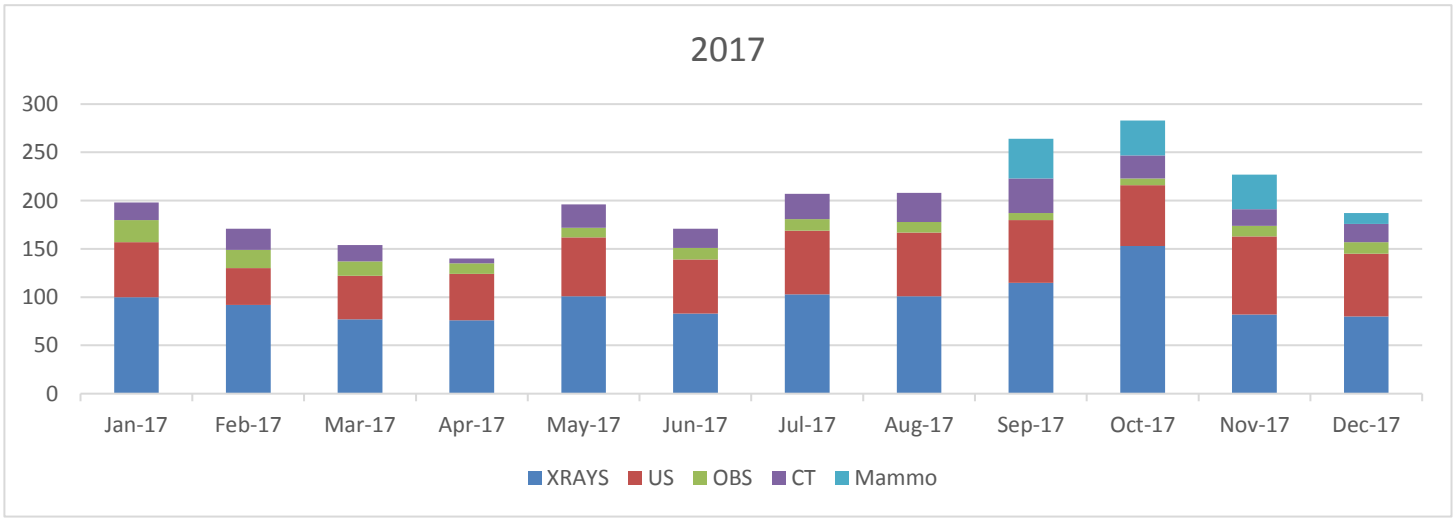
Since 2015 we have seen a 35% increase in the total number of investigations performed within the radiology department.



The following charts show monthly workload broken down by modality.


2015
300
250
200
150
100
50
0


2016
300
250
200
150
100
50
0
Jan-16
Feb-16
Mar-16
Apr-16
May-16
Jun-16
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
XRAYS
US
OBS
CT
Mammo


2017
300
250
200
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50
0
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
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Aug-17
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Nov-17
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XRAYS
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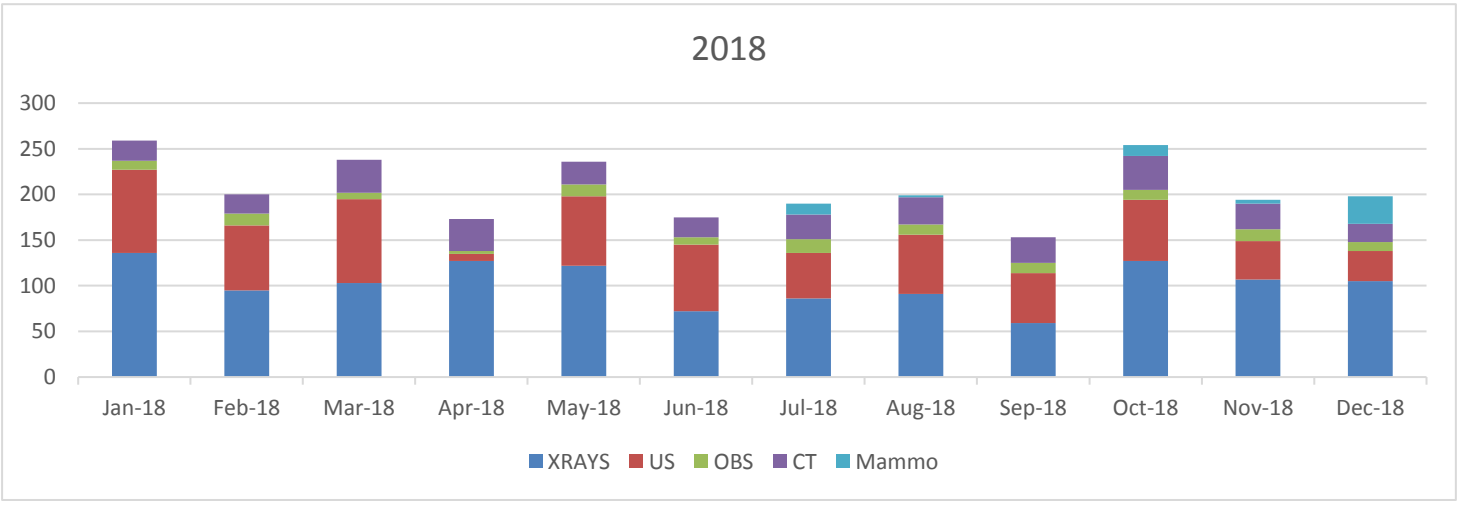
OBS
CT
Mammo


2018
300
250
200
150
100
50
0
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
XRAYS
US
OBS
CT
Mammo

Daily Routine (non-theatre day)

- 08:00 Nurse Handover (Night Shift to Early Shift)
- 08:30 Doctor Board Round
- 09:00 Hospital Doctor Ward Round with Nurse in Charge
- 09:30 Doctors Clinics start (except Hospital Doctor)
- 10:30 Hospital Doctor Clinic starts
- 13:00 Clinics break for lunch
- 14:00 Clinics resume
- 14:30 Nurse Handover (Early Shift to Late Shift)
- 16:00 Clinics finish and On-Call Doctor system starts
- 20:30 Nurse Handover (Late Shift to Night Shift)

Each day a doctor is allocated to be on call. However during normal working hours (08:30-16:00), it can be covered by any of the doctors in the hospital vicinity – as the on call doctor could be in theatre, out in the country clinics etc. The Doctor on call runs from 16:00 until 08:30 the following morning. Therefore the Hospital Outpatient Clinics can be disrupted with Emergency Care work.

The Senior Nurses on call operate an on call system (one week allocations), to support Nursing staff in decision making, understanding or clarifying doctors' treatment plans. Shifts will be covered by the on call Senior Nurse where necessary.

The Theatre team also have a 24/7 on call rota, however if any of the theatre staff are on a shift then the Senior Nurse will cover their ward duties, whilst they attend theatres.

Although on the same site and often referred to as the Hospital, the Outpatient Clinic is a separate entity. It is a mix between Primary (General Practice) and Secondary Care. Anyone coming for an appointment for a speciality (i.e. Gynaecology, Medicine, Paediatrics, General Surgery, Orthopaedics), is part of Secondary care. However those who have made an appointment for an assessment are accessing Primary Care.

Primary Care is often the first point of contact for people in need of healthcare, and may be provided by professionals such as GPs, dentists and pharmacists.

When patients attend during the day without an appointment, they will be seen by the allocated nurse within Outpatients. They will be assessed and triaged accordingly. If patients are deemed to be a RED triage they will be seen by a Doctor immediately, if they are a YELLOW a Doctor's appointment will be made at an appropriate time (within the next 3 days), if they are a GREEN they will be given education and advice (possibly over-the-counter [OTC] medication) and advised of any red flags to be concerned of and to come back if any of them occur. This same process occurs on during out-of-hours consultations.

Physiotherapy and Occupational Therapy are mainly community based, but have to respond to acute needs within the hospital setting frequently. This can have a disrupting effect on their scheduled clinics.

II. Workforce Development

Currently we have

	T.C	Local	Vacancy
General Surgeon (SMO)	1	0	0
Anaesthetist	1	0	0
Orthopaedic Surgeon	1	0	0
Obstetrician/Gynaecologist	1	0	0
Internal Medicine	2	0	0
G.P	0	0	1
HNO	1	0	0
Sister / Charge Nurse	4	1	0
Senior Staff Nurse	0	0	3 (1 TC, 2 Local)
Staff Nurse	0	11	2
Senior Healthcare Assistant	0	5	0
Healthcare Assistant	0	7	0
PDN Lead	1	0	0
PDN	0	1	0
PDN Designate	0	1	0
Midwife	0	2	0
Cook	0	1	0
Assistant Cook	0	2	0
Receptionist	0	3	0
Ambulance Technician	0	3	0
Radiographer	2	0	0

All Healthcare professions require proof of Continuous Professional Development (CPD) to maintain their registration.

Doctors, Nurses and Radiographers have to complete a set number of hours of clinical practice, combined with a set number of theoretical hours (as a minimum requirement).

We have a Practice Development Team (PDN) who run training and education programmes for the CPD programme for nurses. They also provide the mandatory training for the whole directorate. The PDN team are supporting locally qualified nurses through their top up UK BSc in Adult Nursing from

Derby University. To date 11 nurses have started their degree course, and funding permitting the aim is for all locally qualified nurses to obtain their BSc.

We need to maintain the current number of nurses (T.C and Local) to run the services we have. If a T.C post can be succeeded into, we need to fill the gap left by their successor (Staff Nurse or Senior Staff Nurse). We have an acute shortage of Nurse Trainees as Nursing is a degree only course in the UK now, and is currently only achievable by going overseas full time for 4 years. We are looking to identify ways that we could bridge that gap and explore a training programme with a mixture of overseas and St Helena based training.

III. Service Development

In 2016/17, we expanded our Intensive Care capability. We now have:

- State of the art Servo ventilators (that support neonates, paediatrics and adults);
- Non-invasive CPAP and BIPAP breathing machines to help prevent intubation;
- Sipap Breathing machine – specifically for neonate use, this is a specialist breathing machine to help support most new-born respiratory conditions without the need for invasive ventilation;
- Optiflow – high flow humidified oxygen with some pressure. This can help prevent patients using non-invasive or invasive ventilation which have accompanying risks, and
- Central and Arterial monitoring – this enables split second interpretation of pressures enabling us to react to changes appropriately and immediately.

We can undertake most of the functions of a General and Paediatric ICU (except Haemofiltration i.e. supporting kidney function). However for the ICU to be fully self-sustaining our nurses need exposure and fully supported 1:1 training. This is still an area that needs work, as our current staffing situation has meant we staff a local nurse and a T.C Nurse 24/7 (which would be the ideal to enable maximisation of learning opportunities).

In 2018, we expanded our theatre remit to include more orthopaedics procedures specifically joint replacement surgery.
To date we have completed 26 total knee replacements and 3 total hip replacements. We have cleared all patients from the original backlog except those patients who are now awaiting their second joint to be operated on.
Apart from those needing a second limb operated on, all other patients waiting have only been on the list since October. Many were given the opportunity to have their joint replacement surgery at the end of 2018, but chose to wait until after Christmas and New Year period.

We have initiated a limited Chemotherapy service, which is due to be expanded in 2019 with the addition of specialist nursing staff. This will be a life changing service on St Helena meaning Cancer patients will not need to spend months in South Africa away from friends and family whilst undergoing serious and often very difficult treatment. It would be necessary to reorganise bed usage and duty allocation to ensure safe delivery of the service. 2 of the inpatient beds will be allocated to the service leaving 25 beds for general admissions.

Additional services could be developed but would require revenue and staffing, which could potentially be acquired, however space is a key restricting factor within the Hospital and Outpatient areas. We have no room for further expansion (Hospital, Outpatients or Community). A specific service in this regard will be haemodialysis service for patients with end-stage kidney failure who currently have to emigrate overseas to receive treatment.

IV. Constraints

As previously mentioned, we are constrained by the building, staffing and budgets.

Recruitment and maintaining staffing levels in the face of expansion is a challenge and with more recent service developments, this can impact on time available to take out for training. This is particularly important when there are several acute patients, staff are unwell or new recruits fail to take up posts when offered or are late arriving to the island.

Public expectation and demand for service and in particular the perceived need to see a doctor for every ailment. Friday evening and weekends are often seen as additional outpatients by the public. This can create additional strain on the system and impact on specific staff who are theoretically on call 24/7.

We are now conducting a service audit to ensure that the triage system is safe and effective and we will also be able to identify other areas for improvement for on-demand outpatient care.

The topography of the island means that each ambulance call can take at least an hour to fully complete and requires 2 staff members. The number of calls are increasing and not necessarily for urgent clinical conditions only. This is an area for further exploration and to ensure that we can safely deliver more effective and safe pre-hospital care on the island. This will eventually require a new ambulance and training in advanced life support and pre-hospital care for the relevant staff.

V. Budget Management

The Hospital manages to keep within budget. However this is mostly because the increased workload of patients (more patients and more complex) does not impact on our budget, but heavily on the pharmacy (including consumables) and laboratory budgets. The increased workload does however impact significantly on doctor and nurse time.

The ability to undertake more radiological tests (including CT has impacted on our available budget (to spend elsewhere) due to the increase in electricity and reporting costs. We have managed to offset this by reducing any planned spending (staggered replacement of equipment/furniture) and some basic efficiencies in our general water and electricity consumption. We mainly utilise our budget to replace larger volumes of lower cost (equipment as needed and upgrade items as they come to the end of their lifespan.

VI. Clinical Governance

The Hospital follows UK NICE Guidance where possible, and adapts local policies to reflect that. In 2018 and in this year, multiple new policies have been developed and now in use. This piece of work will continue throughout 2019. The policies have review dates that ensure they stay up to date.

Our incident reporting system was revised in 2018 to capture more detail and make it more robust tool for service improvement, learning and clinical governance. Each incident is dealt with and action taken as soon as possible to deal with the root cause be that rectifying service gaps or providing needed education or to replace broken equipment etc.

For 2018 there were a total of 49 recorded incidents raised by hospital and outpatient staff. This is an increase on the previous year (previous years reported total incidents), however this is the trend we want to encourage. We are actively promoting the reporting of incidents to ensure we can identify gaps in service, process or training. Our Incidents for 2018 are grouped as follows:

Medication	Equipment	Sharps	Patient Injury	Patient Dissatisfaction	Staff	Stock	Transfusion	Pressure Sore	Missed treatment	Others	Total
15	6	3	1	2	9	2	1	1	4	5	49

As you can see, our biggest single category in Medication. We have analysed the forms and we have identified contributing factors. One major factor is distraction. Distraction during Medication rounds by patients, visitors, other staff etc. This contributed to missing signatures when medications had been given, medications being missed when due etc. To combat this some of the steps taken have been to purchase “Medication Round” tabards in a bright colour stating “Do Not Disturb”, we have also implemented handover of drug charts between the nurse in charge of each shift to check and omissions, errors or ask questions.

We have also encouraged staff to incident report if patients, visitors or relatives seem unhappy/dissatisfied (even if they are not making a formal complaint or do not wish to make a report). This is to enable us to see if there are themes, if education or information is what is lacking and contributing to these issues. It helps identify if a change in approach is needed to reduce dissatisfaction. It helps us to come up with strategies to combat misunderstandings. The staff category encompasses a few subgroups. Abuse of staff came in with 4 incident forms, which is concerning. Staff injury had 2 incidents. Both incidents happened when standard procedures had not been followed. Staff dispute, staff safety and staffing all had 1 incident each.

With the full time position of Clinical Governance Lead being filled (due to take up position soon), this will enable better analysis and follow through of these incidents. We hope 2019 will bring a further increase in incident forms to enable us to identify more areas for improvement and a clear strategy and improvement targets for these areas.

In the financial year 2017-2018 there were 2 complaints relating to Jamestown Outpatients or the hospital. In the financial year 2018-2019 so far there have been 5 complaints relating to Jamestown Outpatients or the hospital. Each complaint is investigated fully and thoroughly, learning points and lessons learned are identified and strategies and action plans to achieve this are developed.

VII. Anticipated Developments

1. Improvement in Non-Communicable Disease Interventions

Despite Secondary Care having its core in Emergency or Acute care as it is needed, a big challenge for all Health Staff within the hospital and outpatients is tackling Non Communicable Diseases. It is the burden of these illnesses that increases the demand on Secondary Care.

Poorly controlled diabetes, hypertension and obesity all increase incidents of strokes, heart attacks, cardiac arrests, chronic kidney disease and eye disease to name some. They increase the need for interventions for complications (for e.g. amputations), prolong wound healing and recovery, and increase referrals overseas (for e.g. angiography).

We would like to support the nurses to take on link roles, to enable a deeper knowledge of specialist areas. These nurses would then be expected to nurture, support and teach their colleagues.

2. Development of Specialist Service Areas based on current and future needs

- Chemotherapy services: as previously outlined
- Haemodialysis: to cater for end-stage kidney failure patients and avoid emigration overseas. This is being explored as part of the strategic plan and the developing bilateral relationship with the Ministry of Health in Mauritius.

3. Visiting Specialist Programme

This is ongoing and require further strengthening and mitigating the usual recruitment constraints. This is an area of work being explored within the directorate's strategic plan and the developing bilateral relationship with the Ministry of Health in Mauritius