Kiunga Hospital by numbers in 2013

- **36,062** Attendances at outpatients
- **6,650** Vaccinations given to babies and children
- **1,170** Attendances at the STI clinic
- **3,423** Attendances at Antenatal clinics
- **3,153** Babies and children assessed for nutritional status
- **849** Births
- **429** TB patients admitted and treated
- **2,447** Rapid diagnostic tests done for malaria
- **792** Major and minor surgical procedures done
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### Acronyms and Abbreviations

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<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;E</td>
<td>Accident &amp; Emergency</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal care</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral Treatment</td>
</tr>
<tr>
<td>CHW</td>
<td>Community Health Worker</td>
</tr>
<tr>
<td>DHMC</td>
<td>District Health Management Committee</td>
</tr>
<tr>
<td>DOTS</td>
<td>Directly Observed Therapy, Short-course</td>
</tr>
<tr>
<td>FRPG</td>
<td>Fly River Provincial Government</td>
</tr>
<tr>
<td>GOPD</td>
<td>General Outpatient Department</td>
</tr>
<tr>
<td>HEO</td>
<td>Health Extension Officer</td>
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<tr>
<td>HIIO</td>
<td>Health Information Officer</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>LLG</td>
<td>Local Level Government</td>
</tr>
<tr>
<td>MCH</td>
<td>Maternal and Child Health</td>
</tr>
<tr>
<td>NDoH</td>
<td>National Department of Health</td>
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<tr>
<td>NFHSDP</td>
<td>North Fly Health Services Development Program</td>
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<tr>
<td>NHIS</td>
<td>National Health Information System</td>
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<tr>
<td>OTML</td>
<td>Ok Tedi Mining Limited</td>
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<tr>
<td>PA</td>
<td>Provincial Administrator</td>
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<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
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<tr>
<td>PNGSDP</td>
<td>Papua New Guinea Sustainable Development Program</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>VCCT</td>
<td>Voluntary Confidential Counselling and Testing</td>
</tr>
<tr>
<td>WFA</td>
<td>Weight for age</td>
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</tbody>
</table>
Kiunga Hospital is a district hospital on the move. With the support of our colleagues and counterparts in health services, corporate sponsors and the community, recent years have seen significant improvements in health service delivery at the hospital.

Hospital statistics show that in 2013:

- 54% increase in admissions
- 33% increase in outpatient attendances
- 849 babies born, an increase of 21%
- 792 operating theatre procedures conducted, an increase of 66%.

These statistics are all in comparison to 2012.

In terms of improving facilities for patients and staff, some notable achievements this year included:

- building a new surgical ward
- building a new TB ward
- renovating and extending the morgue
- renovating three on-site staff houses.

These achievements would not have been possible without our major supporters. Ok Tedi Mining Limited, through the North Fly Health Services Development Program contributes with funding and in-kind support to supplement the government services. This funding has enabled us to recruit two medical officers and an anaesthetist, and to have the ongoing management support of Graeme Hill as Hospital Administrator. Without all of this support, as well as that from other local health and business organisations, we would not have seen many of the improvements detailed in this report.

This 2013 Annual Report is the first annual report produced by the hospital and I am confident that the achievements will only continue.

I am proud to see such improvements at Kiunga Hospital and I commend this report to you.

Dume Wo’o
North Fly District Administrator
Executive Summary

I am proud to present the 2013 Kiunga Hospital Annual Report on behalf of the District Management and staff of Kiunga Hospital. The 2013 Annual Report captures the significant achievements of staff and stakeholders who have supported the hospital over the year as we continue to improve services for the people of Kiunga and the North Fly District. I hope the report will encourage even greater community and stakeholder support including local and international businesses either financially or in-kind, to enable us to continue to improve services at Kiunga Hospital.

This is my second year as hospital administrator, employed by Abt JTA under an agreement between Ok Tedi Mining Limited (OTML) and the Fly River Provincial Government (FRPG) to assist with the management and development of the hospital.

I am a member of the District Health Management Committee (DHMC), an advisory forum where all North Fly health service providers are represented. The committee was delighted to welcome Mr. Dume Wo’o, the North Fly District Administrator to his first committee meeting in April this year of which he is now the chairperson.

We were successful in attracting and maintaining additional good quality medical personnel to the hospital in 2013 who have worked with the nursing, paramedical and support staff to provide the people of Kiunga and North Fly with essential clinical and primary health care services.

In an effort to improve our communications we continued to produce a quarterly hospital newsletter that communicates positive stories and a host of other news items to our staff and to the general public. A Kiunga Hospital brochure was also developed this year to let people know where we are in Kiunga, the services we offer and how to contact us.

The 54% increase in patient throughput is recognition of the improvements made at the hospital. While being a major achievement in itself it has also presented challenges in maintaining services, due to inconsistent supply of essential drugs and medical consumables and limited resources such as operational funding, staffing, housing and infrastructure.

As these issues are also challenges for all health service providers in the district and are beyond the hospital management’s scope to solve, I have worked with the DHMC again this year to not only institute interim solutions but to also discuss long term strategies to address these problems. As we move into 2014 and beyond we look forward to working more closely with the FRPG to develop and implement sustainable solutions.
On behalf of the management team and staff at Kiunga Hospital I would like to thank the following people and organisations for their support in 2013:

- The Provincial Administrator, the District Administrator and their teams;
- OTML and the North Fly Health Services Development Program (NFHSDP);
- OTML, Kiunga Stevedoring, Castlemaine Rotary Club of Victoria, Australia and Griffith University, Queensland, Australia for their kind donations of a range of hospital equipment and assistance; and
- The volunteers who kind-heartedly give of their time to assist our staff in many departments throughout the hospital.

I would also like to thank the hospital staff for their support and hard work throughout the year and as a team we look forward to continuing to improve the services we provide to the people and communities of Kiunga and North Fly.

Graeme Hill
Hospital Administrator
POLITICAL MAP OF WESTERN PROVINCE

North Fly

Middle Fly

South Fly

Indonesia

Southern Highlands

KIUNGA
Kiunga and Surrounds

Kiunga Hospital is the district hospital for North Fly and has been in operation since 1985. The hospital is a government facility with a bed capacity of 60. The hospital offers a range of inpatient and outpatient services and is a level four health facility as classified under the National Health Service Standards for PNG (2011-2020)\(^1\).

The North Fly district of Western Province of Papua New Guinea is the northernmost, smallest of the three districts, and contains the local-level government (LLG) areas of Kiunga Rural, Kiunga Urban, Ningerum Rural, Olsoibip Rural and Star Mountains Rural and the townships of Kiunga, Tabubil and Ningerum.

North Fly shares a district border with Middle Fly to the south, and provincial borders with Sandaun in the north and Southern Highlands in the east. It shares an international boundary with the Papua province of Indonesia to the west.

The population of the province in the 2011 national census was 180,455 made up of 34,573 households with 92,992 males and 87,463 females. The first most populous district is Middle Fly, which comprises 35.4 % (63,805) followed by North Fly with a population of 60,256 (33.4 %) and South Fly with a population of 56,394 (31.2%).

Kiunga town is the administrative centre of North Fly District. Kiunga Rural LLG has a population of 13,848 with Kiunga Urban LLG representing a smaller population of 11,260 residents. Thirty-two kilometres up the highway is Ningerum LLG which has a population of 16,115 residents and at the end of that highway, approximately 130 kilometers from Kiunga is the township of Tabubil in the Star Mountains, an LLG which has a population of 15,458.

The majority of the district is situated on a plain. The total land mass of North Fly is 13,138 km\(^2\) and the district is home to the sources of the Fly and the Ok Tedi rivers. The district is landlocked and is heavily reliant on high rainfall for shipping.

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\(^1\) National Department of Health (2011) Health System Standards for Papua New Guinea 2011-2020, Volume 1
Most of the economy of the North Fly district revolves around the Ok Tedi mine and more recently oil and gas exploration. Ok Tedi is the largest economic entity in Western Province accounting for over half of the entire province’s economy and is a large contributor to PNG’s export earnings. Ok Tedi’s base of operations is Tabubil. There is also a productive rubber industry situated around Kiunga. Kiunga holds the main port of the province where supplies for the district enter and copper from Ok Tedi Mining as well as rubber and timber are shipped out. There are also a number of other established businesses in the town with many new ones opening gradually.

Kiunga is linked by road to Rumginae and Tabubil and by Fly River to Middle and South Fly. Air Niugini and Airlines PNG provide airline transportation into the capital, Port Moresby as well as other provinces in PNG and within Western Province itself. The Mission Aviation Fellowship has its North Fly base in Rumginae and also provides a passenger and cargo service to other remote locations.
Introduction

Kiunga Hospital is the district hospital for North Fly and has been in operation since 1985. The hospital is a government facility with a bed capacity of 60. The hospital offers a range of inpatient and outpatient services and is a level four health facility as classified under the National Health Service Standards for PNG (2011-2020)2.

Under the NFHSDP agreement, Abt JTA is contracted to support the District Administrator and the District Health Manager and their teams to oversee the day to day operations of the hospital. Public private partnerships such as this are an innovative way for resource-constrained governments to improve health infrastructure and simultaneously improve provision and delivery of clinical services.

As a public hospital, Kiunga Hospital relies on government funding. During the year, the hospital conducted its operations within the allocated financial resources from the national government, which is channeled through the Provincial and District Administrations to the hospital on a quarterly basis. The management team did its best in overcoming operational challenges, as only 70 per cent of the requested operational budget for 2013 was received from the national government.


Bank of South Pacific (BSP) organised a clean-up day at Kiunga hospital in May.

The container of donated medical equipment from Castlemaine Rotary Club.
INSET BOX 1: AUSTRALIAN MEDICAL STUDENTS RAISE FUNDS FOR KIUNGA HOSPITAL

Four final year medical students from Griffith University in Queensland, Australia arrived in Kiunga in July for six weeks work experience with a further two students arriving in September for four weeks.

The students were also members of HOPE 4 HEALTH, who organised a fundraising ball which raised AUD$20,000 for medical equipment for health services in Western province.

Apart from their experience at the hospital, three of the students accompanied North Fly Health Services Development Program and district health staff on a water and sanitation/environmental outreach health patrol to Kungim, to install water tanks at the Catholic Health Service managed facility in August. The three-hour boat ride followed by a two hour road trip back to Kiunga took a detour on the way back, with the students accompanying an emergency case (a child who sustained an injury after a sago palm fell on him) back to Rumginae hospital.

The students said that the knowledge and experience gained in primary health care in Papua New Guinea was invaluable. There are plans for this partnership between Griffith University and Kiungo Hospital to continue in 2014.

Griffith University final year medical students (left to right) Ashlee, Dan, Tim and Marilo giving a health talk on paediatric resuscitation at Kiunga hospital in September.
The hospital received additional funding under the Tabubil-Kiunga health agreement signed by FRPG and OTML to support the Kiunga and Tabubil Hospitals. This additional funding was used to upgrade the hospital buildings so that it could function more efficiently as a district hospital. These funds were used in 2013 to begin constructing a 10-bed tuberculosis (TB) ward, an 11-bed surgical ward as well as an extension to the mortuary.

Insufficient funding has impacted service delivery in that regular maintenance, repair and replacement of general and specialist equipment, as well as hospital infrastructure and upkeep of staff housing has given rise to a bad state of neglect. Professional development of staff was also impacted by the limited funding.

As a stop-gap measure, the hospital administrator and his team are continuously sourcing donations, grants and sponsorships to purchase equipment, undertake capital work and provide professional opportunities for staff. Thankfully the private sector has been very forthcoming to such requests (refer to inset box 1).

One key contributor is OTML whose kind contributions include assistance to purchase flights for staff travel, computers, medical consumables and assistance with minor works and maintenance.

Based on an increase in population within the Kiunga LLG and the resulting increase in demand on inpatient and outpatient services at the hospital, a proposal to increase staff numbers at the hospital from 52 to 108 was presented to the Provincial Administrator (PA). Of the current staff complement of 92 at the hospital, 52 are paid under the Provincial Government Account Salaries system and the remainder paid by the National Department of Health in Port Moresby. The PA gave assurances that every effort would be made to address staffing issues in the immediate future. It is anticipated that these provincial staffing structure issues will be addressed in 2014 (refer to inset box 2).

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3 The Tabubil-Kiunga Health Agreement was signed by Fly River Provincial Government and OTML in 2011, authorising OTML to deduct payment directly from royalties due and allocate these funds for use at Tabubil and Kiunga hospitals.
INSET BOX 2: 
PIATALOK: HEALTH IS A PRIORITY

The Fly River Provincial Government has made health a top priority, according to Deputy Governor, Hon. Boeok Pitalok (pictured right).

During his visit to Kiunga Hospital in February, Mr. Pitalok said that the FRPG will make every effort to see that the services and the well-being of health workers are well looked after. His visit was timely in that hospital staff were under pressure and frustrated over non-payment of their 2012 dues, an issue that has since been resolved.
Operational Review

A range of inpatient and outpatient services are provided at Kiunga Hospital and are delivered at outpatient clinics and inpatient wards. These core services are supported by a range of essential paramedical and ancillary services.

Outpatient services are provided in:
• General outpatient department (GOPD);
• Accident and emergency (A&E);
• Specialist maternal and child health (MCH) clinics (i.e. Family Planning, Antenatal care and Well baby clinic);
• Tuberculosis (TB) clinic; and
• A sexually transmitted infections (STI) clinic that offers voluntary confidential counselling and testing (VCCT) and anti-retroviral treatment (ART) for the human immune-deficiency virus (HIV).

In-patient services are provided in:
• General ward
• TB ward
• Obstetrics and gynaecology ward; and
• Operating theatre

During the period under review, a new surgical ward and a new TB ward were under construction. The new surgical ward will increase bed capacity by 11 beds and the new TB ward will see an increase in bed capacity from 10 to 20. The two wards are expected to be commissioned in 2014 pending availability of sufficient staff.

Paramedical support services offered at the hospital include a dispensary, basic pathology, x-ray and ultrasound, dental services and inpatient physiotherapy. Other key support services include biomedical engineering and maintenance department, housekeeping services including a kitchen and laundry. The hospital also provides mortuary services.

Kiunga hospital receives patient referrals from across Western Province. During the year, apart from patients arriving from remote areas of North Fly including Nomad, Mougulu, Debeperi and East Awin, doctors from Rumginae hospital also referred patients from Suki in South Fly as well as Balimo and Lake Murray in Middle Fly (refer to inset box 3). Referrals from Kiunga Hospital to Post Moresby General Hospital included those who required further medical assessment and management or specialist surgery - typically children needing cardiac or neurological investigation and surgery. High risk pregnancies are referred to Tabubil Hospital where a specialist obstetrician is available.
The provision of medical services at Kiunga Hospital continues to strengthen with the hospital now able to offer support to neighbouring hospitals. This is a major achievement considering that just a few years ago there was no permanent doctor at the hospital.

The two doctors on permanent staff since January 2012 was made possible through funding provided under the Tabubil-Kiunga health agreement. This agreement is a public-private partnership agreement between Fly River Provincial Government (FRPG) and Ok Tedi Mining Ltd (OTML) which outlines OTML’s and the FRPG’s financial support toward the Kiunga and Tabubil Hospitals.

Dr. Julius Plinduo, one of the two doctors based in Kiunga, stated that in addition to providing clinical services in their specialty areas the doctors are contributing to improvements in other programs such as TB, HIV and AIDS as well as the overall administration of health services.

In recent months Kiunga Hospital was able to accept surgical patients referred from Rumginae hospital for a few days when the latter experienced water problems. This was possible because of the presence of surgeon John Maihua.
Clinical Services

The following section provides a snapshot of the range, nature and reach of services provided at the hospital in 2013, classified here by clinical services, primary health care services, paramedical services and support services.

**Accident and Emergency, General Outpatient Department and consultation clinics.**

The A&E department operates 24 hours a day, seven days a week and is staffed by a health extension officer (HEO), a nursing officer and 2-3 community health workers (CHW) during the day and a community health worker at night with an HEO on call. The A&E physician, who coordinates all medical services at the hospital, is also on call 24/7 to attend to emergencies and complex cases. A&E also provides an outreach ambulance service that picks up emergency cases in and around Kiunga town and also transfers patients to Tabubil Hospital. During the year, a total of 13 patients were referred to Tabubil Hospital for specialist care and further medical investigations that were beyond the capacity of Kiunga Hospital.

The GOPD is located in the same area as the A&E and is one of the busiest departments in the hospital. A total of 36,062 patients presented to the GOPD/A&E during the year and of these, 3,606 (10%) were children. One CHW covers both the GOPD and A&E at night, with an HEO on call.

Two specialist outpatient clinics operate during the week: a surgical clinic on Mondays staffed by the surgeon, and a medical clinic on Wednesdays staffed by the hospital’s resident A&E physician. These clinics operate from the GOPD and due to a lack of adequate space for consultation rooms, GOPD clinics are suspended during specialist outpatient’s clinics. If additional space were available, both specialist and general outpatient services could be held concurrently, which would serve to provide a more comprehensive outpatient service.
**General Ward**

The General Ward is a 20-bed open plan ward with one private room typically used for patients requiring specialised treatment or in need of isolation. A total of 800 patients were admitted in the General Ward during the year of which, 44 per cent were adult surgical cases, 29 per cent were adult medical cases and 27 per cent were children (refer to Figure 1).

**Figure 1: Total admissions to General Ward in 2013**

The most common reasons for surgical admissions were:
- Infections;
- Fractures and dislocation of bones;
- Hernia;
- Appendicitis;
- Prostate enlargement causing urinary tract infection and
  indwelling urinary catheter change while awaiting surgery.

The leading causes for medical admissions included:
- TB;
- Hypertension leading to cerebral vascular attack (stroke);
- Asthma; and
- Other chronic respiratory illnesses.

The leading causes of paediatric admissions included:
- Diarrhoea and/or gastroenteritis;
- Respiratory illnesses;
- Anaemia;
- Maternally transmitted retro-viral infections;
- Pulmonary TB;
• Other lung conditions; and
• Retro-viral infections.

During the year, a total of 23 deaths were recorded in the general ward of which:
• Four were adult post-surgical patients from post-operative complications related to primary diagnoses/illnesses and other confounding co-morbidities;
• Four were children of whom two were from severe gastroenteritis, one from severe recurring bronchiolitis and one from a brain related infection; and
• Fifteen were adult medical patients who succumbed to a range of severe medical conditions with associated co-morbidities.

**Maternity Ward**

The Maternity ward has a 17-bed capacity of which six beds are in the prenatal observation ward, two beds in the delivery room and nine beds in the postnatal recovery ward.

During the year the hospital had a total of 939 obstetrics and gynaecology admissions: 83 gynaecology related and the remainder obstetric admissions (refer to table 1, next page).

This is the busiest ward in the hospital and has a high turnover rate averaging 78 admissions per month. As the population increases in Kiunga town, it is expected that admissions to this ward will also increase, putting further pressure on obstetrics and gynaecology services.

The purchase of a new incubator and baby warmer for the obstetrics ward was made possible due to funds donated by Kiunga Stevedoring. These items allowed for a better quality of care to be provided to babies born and cared for at the hospital.

A total of 106 obstetrics and gynaecology related surgical procedures including three vasectomies were performed during the year (refer to Figure 2).
Eri and Kina Hmenai from Giponai village were overjoyed to add three boys to their family of girls. The boys were born on 18 May between 9:15am and 9:35am by normal deliveries. The boys weighed in at 3.2kg, 3kg and 2.3kg. All, including mum were stable and discharged after three days in the hospital.

“I waited long enough to see these triplets and I give credit to God for blessing me,” a smiling Mr. Hmenai said.
Operating rooms and anaesthetic services

Kiunga Hospital has two operating rooms that can handle major and minor surgical procedures. During the year the services of a full time general surgeon were secured, who joined the two CHW and an anaesthetic technician.

During the period under review, a total of 792 surgical procedures were performed of which 338 were major, 145 minor and 309 (other) surgeries. The average number of operations per month from January to October was 40 with the average across November and December dropping to 27. Three of the key limitations in relation to operating room services are:

- The need for operating room nursing officers;
- Limited supplies of medical consumables and essential drugs. This is a challenge across North Fly and Western Province; and
- Limited blood supply especially in emergency situations. The hospital relies on the goodwill of staff, patient families and the general public to donate blood in times of need.

During the year, the purchase of precision surgical instruments helped boost the quality and level of surgeries performed.

Tuberculosis Ward

There were 429 patients admitted to the TB ward in 2013. The patients who are admitted are those from the more remote areas of the district who do not have support at home to help with administering the TB DOTS program or who are debilitated. Some of the more acute TB cases were admitted to the General Ward and once stabilised and on treatment, either transferred to the TB ward or discharged to the outpatient DOTS program.

Construction of the new TB ward was completed this year and the building will be commissioned for use in early 2014. The old TB ward will then be refurbished with three isolation rooms for infectious TB cases undergoing treatment as well as for those who are high suspect cases awaiting test results.
Three Kiunga Hospital TB officers attended a training refresher in TB DOTS from 2-6 December. The training was funded by the NFHSDP and facilitated by Dr. Rendi Moke, the TB specialist from Daru Hospital. The key training topic was the basic management of TB/DOTS using the current edition of the TB DOTS manual for PNG.

The management of TB in Kiunga Hospital and indeed across Western Province requires a more vigorous multi-agency approach. The hospital team will continue to work with key stakeholders and service providers in 2014 to ensure a current best practice approach to identifying suspect cases, investigating as well as confirming diagnosis, treating, and following up TB cases and their contacts.

VISITING SPECIALISTS BOOST SERVICE DELIVERY

Kiunga Hospital patients benefited from visits by specialist doctors in May and June 2013. Patients suffering from long-term heart and eye problems were the beneficiaries of these services including two children with congenital heart defects, who were subsequently referred to Port Moresby General Hospital for open heart surgery. Fifteen other children were also screened by the cardiac specialist. The eye team screened more than 30 patients some of whom were given spectacles while another 15 patients had surgery to remove cataracts. Other specialist visitors to the hospital this year included Dr. Angela Segani (Obstetrician/Gynaecologist) and Dr. Rendi Moke (TB physician) from Daru Hospital.
Primary Health Care Services

The following section provides an overview of the types of primary health care services provided at the hospital’s fixed specialist clinics and the number of people who attended these clinics in 2013.

Maternal and child health - antenatal, family planning and well-baby clinics

Two of the major issues affecting children in North Fly are diarrhoeal disease and pneumonia. The number of children seeking care for diarrhoea has been increasing steadily, with North Fly continuing to have the highest cases of the disease in the province. However, a positive trend is emerging with the pneumonia case fatality rate in North Fly decreasing to 1.74 per cent in 2013, compared to 3.23 percent in 2012. Similarly, the number of children with diarrhoeal disease decreased from 540 per 1,000 children under five years of age in 2012 to 503 in 2013.

One of the priority needs for the PNG national immunisation program is the “Strengthening Reaching Every District to Reach Every Child strategy using the integrated expanded immunisation program mother and child health outreach sessions”. In 2013, 58 per cent of children in North Fly received the 9-11 month dose of the measles vaccine, an improvement of 13 per cent when compared to a 45 percent coverage rate in 2012. However, this is still below the recommended NDoH target of 85 per cent. The hospital’s MCH team will continue to work with other health service providers in the district to promote these services to families in North Fly in an effort to increase immunisation coverage.

Pentavalent vaccine coverage for children under one-year of age was 74 per cent in 2013, a coverage rate unchanged from 2012. This vaccine protects children against diphtheria, tetanus, pertussis (whooping cough), hepatitis B and Haemophilus influenzae type b and although the base medical store in Port Moresby, responsible for providing drugs to all registered health facilities in the country, has been unable to provide a reliable supply of Pentavalent throughout the year; the NFHSDP has assisted with supplementary supplies when requested.

4 PNG NDoH (2014), Annual Sector Review 2009-2013, Western Province District Performance

5 Sourced from http://www.wpro.who.int/immunization/documents/epi_country_poster_2012_PNG.pdf
A major issue affecting pregnant women is the need to attend regular antenatal clinics so that the health and nourishment of both mother and baby can be checked and any concerns addressed or treated at the earliest.

There is also a need for expanded family planning practices as this remained low in 2013 with only 82 per 1,000 women between the ages of 15-44 years using some form of family planning method. This suggests a need for continuous promotion and awareness programs. Methods available at Kiunga Hospital include sterilisation, injectable Depo-Provera, oral contraceptives and intra-uterine devices.

Kiunga Hospital’s MCH clinics provide a range of services to families (refer to Figure 3) including:

- Immunisation against vaccine preventable diseases;
- Provision of long-lasting insecticide-treated nets to pregnant mothers and children;
- Antenatal care (ANC);
- to improve both mother and child nutrition; and
- Family planning advice and methods for women and men.

Figure 3: Service utilisation at Kiunga Hospital MCH clinics in 2013

The clinic is staffed by two nursing officers and three or four community health workers per shift.

The total number of presentations to the MCH outpatients in 2013 was 3,582. Table 2 shows a breakdown of the numbers attending antenatal, well baby and family planning clinics.
TABLE 2: MCH clinic attendances in 2013

<table>
<thead>
<tr>
<th>Clinic Type</th>
<th>Total number of attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal</td>
<td>3,423</td>
</tr>
<tr>
<td>Children assessed for nutritional status (at MCH clinics)</td>
<td>3,153</td>
</tr>
<tr>
<td>Family Planning</td>
<td>3,706</td>
</tr>
</tbody>
</table>

The assessment of the nutritional status of children provides a good indication of whether they are well nourished, moderately nourished or malnourished.

In 2013, 25 per cent of children assessed at North Fly clinics were reported as having a less than 60 per cent or 60-80 per cent weight for age (WFA). This has decreased from 21 per cent in 2012. Figure 4 shows that 98 per cent of the 3,153 children attending the nutritional assessment at Kiunga Hospital were moderately to well-nourished. This is a positive reflection of the overall nutritional status of children attending. All parents and guardians who attend with their children are provided nutritional counselling including the importance of exclusive breastfeeding of all children up to the age of six months.

Figure 4: Nutritional status of children assessed at Kiunga Hospital in 2013

6 PNG National Department of Health (2014), Annual Sector Review 2009-2013, Western Province District Performance
**Tuberculosis clinic**

The TB clinic is staffed by an HEO, four CHW and a laboratory assistant. A total of 384 patients were seen at the clinic this year with 36 (9%) returning positive sputum smears. They were subsequently counselled and treated. Table 3 provides a breakdown of attendances by age group.

**TABLE 3: Attendances to TB clinic in 2013 by age group**

<table>
<thead>
<tr>
<th>Age</th>
<th>0-10 years</th>
<th>11-20 years</th>
<th>21-30 years</th>
<th>31-40 years</th>
<th>41-50 years</th>
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<tr>
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<td>53</td>
<td>67</td>
<td>53</td>
<td>60</td>
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<td>384</td>
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<td>Positive sputum smears</td>
<td>0</td>
<td>10</td>
<td>11</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>36</td>
</tr>
</tbody>
</table>

The detection rates for TB are declining in the North Fly, yet TB - both pulmonary and extra-pulmonary - account for the largest burden for the Kiunga and Rumginae hospitals. In addition, TB management has become complicated by the emergence of HIV and AIDS.

There has been evidence of a rising incidence of primary transmission of multi-drug resistant TB within Western Province suggesting the potential for a major public health crisis. Thus, there is a need to create more awareness amongst communities alongside strengthening the multi-agency approach to addressing this very serious public health issue (refer to inset box 4). To this end, Kiunga Hospital will continue to work with key stakeholders in the district, province and nationally to strengthen and implement the TB program to address and combat this grave public health issue.

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INSET BOX 4:
TUBERCULOSIS IN FOCUS

What is TB?

TB is a disease caused by bacteria which spreads from person to person through the air. TB usually affects the lungs but it can also affect other parts of the body such as the brain, kidneys, or spine. A person with TB can die without treatment.

What are the symptoms of TB?

The general symptoms of TB include feelings of sickness or weakness, weight loss, fever and night sweats. The symptoms of TB of the lungs also include: coughing, chest pain and the coughing up of blood. Symptoms of TB disease in other parts of the body depend on the area affected.

How is TB spread?

TB bacteria are put into the air when a person with TB of the lungs or throat coughs, sneezes, or speaks. These germs can stay in the air for up to several hours, depending on the environment. Persons who breathe in the air containing these TB germs can become infected. This is called latent TB infection. People with TB are most likely to spread the germs to people they spend time with every day such as family members or co-workers because it usually takes prolonged exposure to someone with TB disease for one to become infected.

Want more info?

If you think you or someone you know has TB, or would like more information about TB, please contact the TB clinic at Kiunga Hospital or your nearest health facility.
Sexually transmitted infections (STI) clinic

Apart from providing medical testing and treatment for sexually transmitted diseases, the STI clinic also provides voluntary confidential counselling and testing (VCCT) services and anti-retroviral therapy (ART) for people living with the human immunodeficiency virus (HIV). A total of 1,170 people attended the STI clinic this year, 131 of whom were treated for sexually transmitted infections and 1,039 who were tested for HIV. Of those tested for HIV, 12 tests were reported as positive and were treated accordingly.

In March, it was agreed by all heads of wards and departments, HIV counsellors and clinical supervisors that apart from VCCT at the STI clinic, a provider initiated counselling and testing (PICT) service would be provided in selected wards throughout the hospital. It was also agreed as per best practice for VCCT and PICT, that approval and counselling must be initiated by a trained PICT health worker in the ward prior to testing for HIV.

Booked and unbooked expectant mothers admitted for delivery are now offered VCCT in the labour ward, antenatal mothers are offered testing at the MCH clinic and all other mothers are advised to visit antenatal clinics as soon as they miss a menstrual period. General Ward, GOPD and TB Ward providers would initiate PICT and refer patients to the STI clinic for full counselling and testing. The team also conducted outreach with public servants in Kiunga (refer to inset box 5).
INSET BOX 5:
MOBILE VCCT AND AWARENESS PROGRAM FOR PUBLIC SERVANTS IN KIUNGA

Staff from the Kiunga hospital STI clinic conducted a mobile voluntary confidential counselling and testing (VCCT) and awareness program at a number of public offices in Kiunga from 8-12 July. Supported by the North Fly Health Services Development Program (NFHSDP), the team visited the district health office, the public works office and Awae Ambip North Fly House which houses the offices for provincial and district government departments.

Basic information about the human immunodeficiency virus (HIV), the acquired immunodeficiency syndrome (AIDS), sexually transmitted infections (STIs) as well as the purpose of VCCT and strategies to minimise risks associated with contracting these communicable diseases was explained to public officers. The officers also had the opportunity to have a counselling session with a qualified health worker followed by an HIV test.

The public campaign was an important step towards curbing the spread of HIV as well as reducing the stigma that surrounds the disease. Changing attitudes is not an easy task and research suggests that something can be done through a variety of interventions such as focused information dissemination and counselling.

“Stigma remains the single most important barrier to public action. It is a main reason why too many people are afraid to see a doctor to determine whether they have the disease, or to seek treatment if so. It helps make AIDS the silent killer, because people fear the social disgrace of speaking about it, or taking easily available precautions. Stigma is a chief reason why the AIDS epidemic continues to devastate societies around the world”. - UN Secretary –General Ban Ki-moon

A public servant who attended the VCCT session said: “This program on HIV and AIDS awareness is the first of its kind in North Fly and we are very happy to receive the team from the STI clinic and the NFHSDP. Most times we do not think of going to do an HIV test at the hospital. This program should be conducted here in Awae Ambip every 6 months”.


2 UNAIDS (2011), 'People Living with HIV Stigma Index', Asia Pacific Regional Analysis.
Paramedical Services

**Laboratory**

The laboratory plays a key role in providing pathology services that assist clinicians to diagnose and subsequently treat patients. Services provided include haematology, biochemistry, serology and microbiology including parasitology. Some tests requiring specialist equipment not available at Kiunga Hospital like CD4 HIV testing are sent either to Tabubil Hospital, Port Moresby General Hospital or to Cairns in Australia for processing. A total of 17,172 laboratory tests were processed during the year (refer to Figure 5).

**Figure 5: Laboratory tests processed at Kiunga Hospital (by nature of test)**

A key issue for the laboratory is not having a full time supply of reagents necessary for processing biochemistry and serology tests. When not available through Base Medical Stores in Port Moresby, these basic tests are sent to Tabubil Hospital for processing until the reagents can be sourced.

The laboratory also provides a blood bank service with blood donations frequently requested from hospital staff, families of sick patients and the general public.

**Radiology**

The radiology department offers x-ray and ultrasound services and like other paramedical services supports A&E as well as the inpatient and outpatient departments. During the year, 2,331 people received radiographic and sonographic services for a total of 2,773 x-rays performed. Of these x-rays, 137 (5%) were of poor quality hence were not reported on but pictures were re-taken until an acceptable quality of x-ray was produced.
Also seen were 193 people for ultrasounds for obstetric and gynecology cases, abdominal and other body parts.

All major items of equipment in the department were serviced in October apart from the portable x-ray machine which has been out of order for the last 10 years. A proposal for a new portable x-ray has been submitted to Horizon Oil but as yet they have not been in a position to assist. The hospital administrator and radiologist will continue to pursue avenues for funding this useful machine that would allow for a mobile x-ray service to be provided to very sick patients.

The x-ray machine and ultrasound machines currently in use at the hospital.

Daniel Amdebop, x-ray assistant wearing a lead apron donated by Bendigo Radiology in Australia.
Pharmacy

The dispensary is staffed by one pharmacy assistant and a volunteer assistant. The key role of this department is to fill prescriptions as prescribed by our on-site medical team and to ensure there are adequate supplies of essential drugs and medical consumables available for all wards and clinics.

A total of 6,056 prescriptions were filled during the year, a 40 per cent increase compared to 3,578 prescriptions filled in 2012. Of the prescriptions dispensed, 4,708 were provided free of charge to pensioners and children and a nominal fee of K2 was charged for the remaining 1,348 prescriptions dispensed.

The key issue for pharmacy services again during the year was the inconsistent supply of essential drugs and medical consumables. In an effort to improve the supply chain, the DHMC endorsed the quarterly travel of the NFHSDP logistics and cold chain officer, the Kiunga Hospital pharmacy assistant and the Rumginae Hospital pharmacy assistant to Base Medical Stores in Port Moresby to follow up, pack, collect urgent orders and organise the freighting of non-urgent supplies. This arrangement is an interim measure in need of a more comprehensive resolution to ensure timely delivery of essential drugs and medical consumables such as syringes, needles, gauze and basic instruments for dressing wounds to the hospital in the future.

The NFHSDP also provided additional support for preliminary work at the Kiunga Hospital dispensary in preparation for the introduction of stock cards and imprest systems in the wards. This system will continue to be developed in 2014.

Rehabilitation (physiotherapy)

Physiotherapy services are provided by a community based rehabilitation officer. An average of 15 patients per month received this service in 2013, a service that is an important adjunct to both the surgical and medical teams’ work. The nature of the physiotherapy services provided include:

- Post-operative mobility, breathing and leg exercises;
- Rehabilitative exercises for stroke patients; and

The lack of space for physiotherapy equipment and office space for administrative record keeping is a key issue for this service area. However, with the construction of the new surgical ward due to open in 2014, additional space for physiotherapy services may be available.
Support Services

Ancillary services are coordinated by the hospital secretary and implemented by 15 staff in general cleaning, security, kitchen and laundry services, ground maintenance and revenue collection.

Housekeeping Services

Housekeeping services include:

- Three general cleaning staff;
- Three cooks/kitchen hands;
- One laundry staff;
- Four security officers (who also attend to mortuary duties and ground maintenance); and
- Four drivers;

Maintenance (includes biomedical engineering)

The maintenance department is headed by a manager who is responsible for coordinating the maintenance, repair and replacement of infrastructure and equipment throughout the hospital. Minor maintenance jobs are attended to in-house with larger capital works outsourced using the government tender process.

Apart from routine minor maintenance work, a number of major repair and replacement activities were undertaken during the year namely:

- The new TB ward;
- The construction of the new surgical ward;
- Completion of the mortuary project in April;
- Opening of the new incinerator and steriliser in June;
- Renovations to three staff houses;
- Installation of a water tank at the nursing officers’ quarters; and
- The installation of twenty smoke detectors throughout the hospital.

Other equipment purchases and donations aimed at improving service delivery included:

- The donation of four orthopaedic beds, six new bassinets, 10 new mattresses, a ride-on lawnmower and a range of medical equipment including mattresses, wheelchairs, walking frames, bed tables and bedside lockers from the Castlemaine Rotary Club of Victoria, Australia;
• The purchase of a new suction machine for the obstetrics and gynaecology ward;
• The donation of a steriliser and incinerator by the Papua New Guinea Sustainable Development Program (PNGSDP) (refer to inset box 6); and
• The donation of a baby warmers and incubator by Kiunga Stevedoring. These were installed by Premier Medical who also trained staff in their use.

**Mortuary Services**

Providing a bio-hazard free environment for the deceased until burial is also a service provided by Kiunga Hospital. The current storage capacity is for 22 bodies made possible following the purchase and installation of 12 additional refrigerators as well as other minor works to upgrade the mortuary.

**Revenue collection**

Two revenue clerks provide services across two shifts from 8am-4pm and 12pm-8pm daily.

**INSET BOX 6: PNGSDP DONATES EQUIPMENT**

The Papua New Guinea Sustainable Development Program (PNGSDP) donated an incinerator and steriliser to Kiunga hospital as part of their commitment to improving health services in Western province. Mr. Rollins Stevens, PNGSDP project manager, handed over the equipment valued at K500,000 to the hospital in June.

North Fly District Health Manager, Mr. John Lari thanked the PNGSDP on behalf of the hospital and the North Fly district administration for their continued support.
Our People

Administration
As a government service, Kiunga Hospital is governed by the North Fly District Administrator.

The Hospital Administrator works with the Hospital Executive committee comprised of a senior medical officer, the director of nursing and the hospital secretary with two administrative support staff (refer to Figure 7, p. 32 for Kiunga Hospital’s organisational structure).

The Hospital Administrator provides day to day support to the operations of the hospital. The government retains responsibility for general oversight of quality and performance standards to ensure public health goals are achieved. As a non-government employee the Hospital Administrator has no financial or human resources delegation, and is contracted through the NFHSDP, a public private partnership funded by OTML and implemented by Abt JTA, to support health service providers in North Fly District.

Human resources
During the year the hospital operated with 92 staff: 41 community health workers, 20 support staff, 12 registered nurses, eight paramedical staff, seven medical staff and four senior administrative staff.

Medical services at the hospital were provided by:
- One resident surgeon;
- One anaesthetic technician;
- One emergency management physician;
- Three clinical health extension officers (HEO); and
- Two resident HEOs.

The medical services were supported by a team of eight paramedical staff including:
- One laboratory technician and three laboratory assistants;
- One radiologist and a radiology assistant;
- One rehabilitation officer;
- One pharmacy dispenser; and
- One biomedical technician.

There are also volunteers who work in the pharmacy and laboratory.
Nursing care was provided by a team of 12 registered nursing officers and 41 community health workers (CHWs).

The complement of registered nurses is below the recommended NDoH ratio of one nursing officer to one to two community health workers for a level four district hospital, specifically in the areas of inpatient services, delivery ward and operating theatre⁹.

Support services were provided by 17 staff including:

- Two revenue clerks
- One laundry attendant;
- Three cooks;
- Three housekeepers;
- Four drivers; and
- Four security guards.

To meet with service demand, a change in roster hours was implemented in February for revenue staff from one 8am to 4pm shift per day to two shifts of 8am to 4pm and 12pm to 8pm per day. This has helped decrease waiting times for patients and it has also allowed the nursing staff who previously oversaw revenue collection in the evenings, to dedicate more time to patient assessment and care.

**Training and professional development**

In addition to a weekly in-service medical lecture (refer to inset box 7), continued professional development is important to ensure that primary health and clinical services staff provide services based on current best practice. During the year the following training and seminars were provided to hospital staff:

- Weekly in-service training delivered by resident staff as well as visiting specialists and medical students;
- A team leaders’ planning day for senior staff held at the hospital in February and a follow up meeting at the end of October to review goals and objectives set earlier in the year;

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• Start of a two-year bachelor of medical laboratory science training in Port Moresby for the head of the laboratory department;
• A certificate in laboratory assistant in Madang for two medical laboratory assistants;
• A short course in epidemiological studies at the NDoH in Port Moresby for one clinical HEO;
• The national medical symposium in Lae was attended by the senior medical officer and the medical imaging technician in September where the medical imaging technician presented a paper on Hirschsprung’s disease.
• The 12th annual national administrators conference held in Kokopo in October was attended by the hospital receptionist;
• A 10-day occupational health and safety and risk management training attended by the hospital secretary in Lae in December; and
• A TB training refresher in TB DOTS from 2-6 December in Kiunga was attended by three TB officers.
During the year, the hospital was fortunate to have external support from other medical professionals which enhanced patient care and services as well as provide learning opportunities for hospital staff. These included:

- A visit by Dr. Steve Cramb from Queensland Rural Medicine in preparation for a six week rural medicine attachment in July 2013 for the first group of four final year medical students from Griffith University in Queensland, Australia. In addition to clinical work, the students conducted lectures at the Rumginae Community Health Workers Training School and participated in a NFHSDP environmental health patrol to Kungim to install water tanks;
- An Australian speech pathologist living at Rumginae commenced a voluntary one-day a week clinic in October for inpatients and outpatients; and
- An HEO and a management student from Divine Word University undertook attachments at the hospital during their Christmas break.

**INSET BOX 7: WEEKLY LECTURES HELP IMPROVE PATIENT MANAGEMENT**

Efforts to improve patient care and clinical service delivery prompted the accident and emergency physician, Dr. Julius Plinduo to convene the weekly one hour medical lectures in March for all hospital staff.

Held in the training room from 8am-9am every Wednesday, the weekly Grand Rounds as it’s called, sees a specialist topic allocated to staff from the various disciplines to deliver at the sessions.

An invitation is extended to all health and non-health workers to attend and learn more about the subject being presented. The program is now embedded in the hospital’s continuing medical education culture with a good number of staff attending each week.

The Grand Rounds are also an opportunity for the respective departments to share knowledge of their disciplines with visiting specialists also invited to present when the opportunity arises.

The weekly lecture topic is displayed in advance on the hospital notice board.
**Health information**

The health information unit is staffed by one health information officer (HIO) who also fulfills the role of District HIO. Key duties currently undertaken at the hospital include the collection of monthly national health information system (NHIS) reports from the officers-in-charge of each ward and clinic.

The data for the hospital is collated alongside that for the rest of North Fly District and sent to the Provincial HIO in Daru where it is forwarded to the monitoring and evaluation unit at the NDoH.

At the NDoH the data is analysed and findings reported in the annual health sector review. In 2013, the NFHSDP data manager provided training in basic data management and analysis to all health service partner HIOs in the district which allowed them to improve data collection and collation methods as well as perform simple analysis of the data collected.

In 2013, 99% of NHIS monthly health facility reports from North Fly District were submitted to the NDoH, an improvement from 95% in 2011 and 97% in 2012. This has been achieved with NFHSDP support for training the District HIO and assistance in following up outstanding reports.

A quarterly hospital newsletter, compiled by Negege Foxy Kekela, our medical imaging technologist, communicates good news stories and a host of other news items to the hospital’s staff and to the general public. A Kiunga Hospital brochure was also developed this year to let people know about our location in Kiunga, the services we offer and how to contact us.
INSET BOX 8: STAFF PROFILE

Kekela, as he is fondly known to his work colleagues, has worked at the Kiunga hospital radiology department since 1997. Employed as a radiographer, he quickly stepped up to his officer in-charge of the radiology department duties, which he has fulfilled for 17 years. Given that the hospital has always had limited resources, Kekela has faced his fair share of challenges over the years, but continues to stay positive and motivated, qualities he also encourages in his staff and students.

“These challenges have created avenues that have progressed into positive outcomes and now the reality is the Kiunga hospital radiology department has advanced to become a modern imaging technology service that provides quality technical support for patient management,” Kekela said.

After four years of studies at the University of Papua New Guinea, Kekela graduated with a bachelor’s degree in medical imaging science in 2012. An opportunity he says, to further advance in his professional field of practice.

With a qualified medical imaging technologist on staff, the hospital is able to perform general x-rays, special x-ray examinations and ultrasounds. Quality x-rays and ultrasounds also enable doctors to better assess and diagnose medical conditions as well as design a plan of care for patients.

Kekela continuously seeks out professional development opportunities to enrich his radiology knowledge and in September, presented a paper on Hirschsprung’s disease at the Medical Association’s annual conference in Lae. Kekela also mentors radiology students imparting that, “radiology is a fundamental diagnostic work up for patient management, therefore be smart, creative and give the best radiology service in terms of quality work output, fast diagnosis and treatment”.

Kekela’s next big professional development opportunity is an attachment at Bendigo Radiology in Victoria Australia, a trip he will make in June 2014. Apart from his medical imaging work, Kekela helped compile a quarterly newsletter as well as an information brochure for Kiunga hospital.
Kiunga Hospital’s reporting structure

FIGURE 6: Kiunga Hospital’s reporting structure

District and Provincial Government administrative structure and reporting channels

Kiunga Hospital Executive
Hospital Administrator
Hospital Secretary (coordinates and supports the hospital’s support services team)
Senior Medical Officer (coordinates and supports the outpatient services and paramedical services)
Director of Nursing (coordinates and supports the nursing team and inpatient services)
FIGURE 7: Kiunga Hospital's organisational structure.

* The current hospital administrator supports the Executive to oversee day to day operations and as a non-government employee has no financial or HR delegation.
2014 And Beyond

Although many improvements have been made at the hospital in 2013, there is still a lot of room for improvement in order to reach a standard that will meet minimal accreditation for district hospitals in PNG including the need for all staff to continue to improve general cleanliness and tidiness of all hospital facilities.

There also needs to be continued commitment from North Fly District and FRPG teams to address funding, staffing, housing and health facility infrastructure to meet the anticipated future demand for health services in Kiunga and the North Fly district.

In an effort to improve the quality of services provided at Kiunga Hospital and to attract well qualified experienced staff, key areas for future expenditure include:

- Re-designing and building a new outpatients department;
- Upgrading of the general and obstetrics and gynaecology wards;
- Extension of the TB clinic;
- Staff meeting room;
- Additional staff housing; and
- A new ambulance (refer to inset box 9)

INSET BOX 9: KIUNGA HOSPITAL NEEDS A NEW AMBULANCE

Pictured left is the Kiunga hospital vehicle that is used for patient transport (ambulance service), pickup and drop off of staff, transport services for the mortuary as well as for the transportation of clinical waste.

The cost of a new ambulance, with the proper fit-outs (pictured left) is approximately K150,000 - funds that are currently beyond our reach. We will however, continue to factor such necessities into our strategic plans for a better health service delivery.
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