

# Health Information Bulletin

**4th Quarter Bulletin, 2014**

**Using Health Information For Measuring  
and Improving Health Outcomes**



# HEALTH INFORMATION BULLETIN

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Using Health Information for Measuring and Improving Health Outcomes

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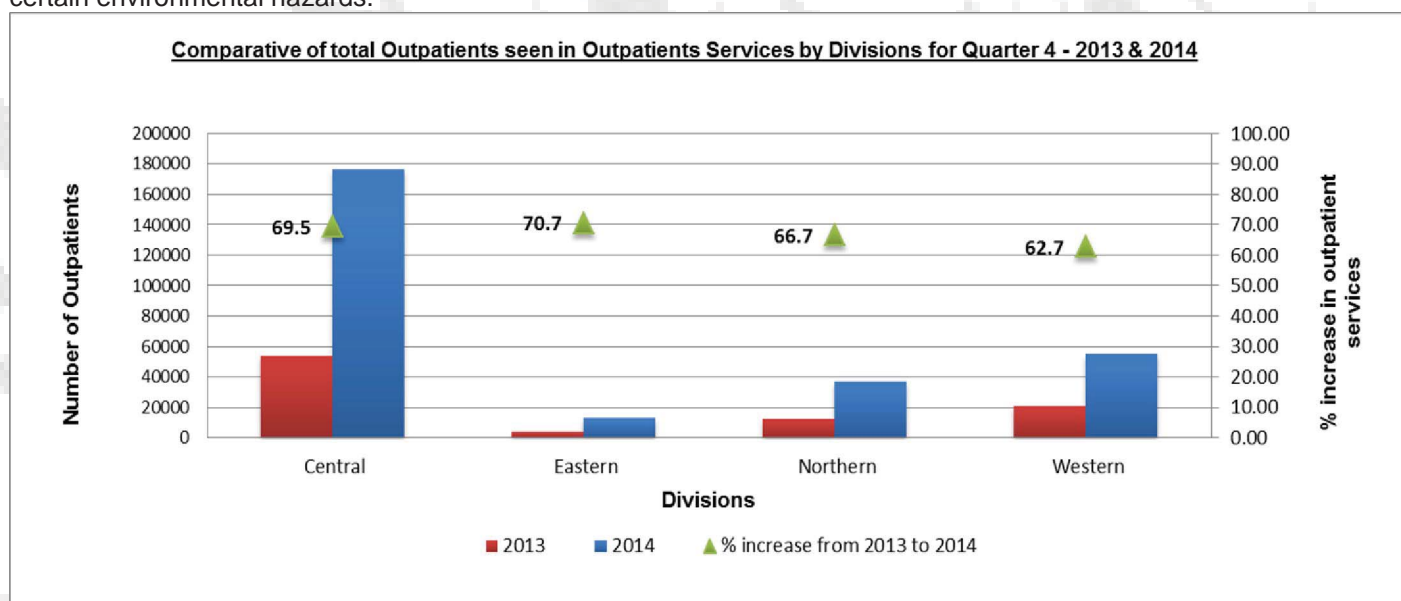
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## 1. Public Health Information System

PHIS is an online software that captures reliable, timely, and quality data. The information from PHIS drives public health activities and facilitates assessing disease comparisons over localities. It manages information proactively to decrease the rate of morbidity and mortality from preventable disease while provisioning an easy to access information source for all data providers. The information is gathered from facilities graded as Medical area and below (made up of Health Centre's, Nursing Stations and Zones). The online PHIS system was introduced in 2013 to the various medical areas and currently, access is being progressed to all areas under this provision.

### 1.1 Out Patient Services

The graph below shows that a total of 281,437 patients seen through the outpatient service in all the divisions in the 4<sup>th</sup> Quarter of 2014 compared to 90,429 outpatients seen through the same period in 2013. This was an increase of 67.9% in the 4<sup>th</sup> Quarter [2014] when compared to the same period last year. This increase is noted for all divisions but more marked in the Central Division. The pattern in increase may be due to improvements in the data reporting and the verification process; secondly, change in climate patterns or disease occurrences over the three month period lead to sudden increase in certain OPD conditions; thirdly, increase in population; and lastly, the influence of certain environmental hazards.



[SOURCE: PHISONLINE, HIU, MOHMS]

A comparison between the 4<sup>th</sup> Quarter, 2014 to the same period last year indicates that Eastern Division demonstrated the largest increase in OPD (70.7%); Kadavu, Lomaiviti and Lomaloma Sub-division were responsible for the increase; followed by Central Division (69.5%); Suva and Serua/Namosi Sub-division were greatly responsible for the increase; followed by Rewa Sub-division, this SD mainly noted an increase in OPD in Mokani & Nausori medical areas; Naitasiri Sub-division specifically noted increases in Laselevu & Nakorosule medical areas; and Tailevu Sub-division particularly in the Korovou medical area.

Northern Division also had an increase in OPD in 4<sup>th</sup> Quarter, 2014 by 66.7%, it was noted that the whole of Cakaudrove and Bua Sub-division were responsible for the increase followed by Macuata Sub-division (mainly in Dreketi, Labasa & Seaqaqa medical area).

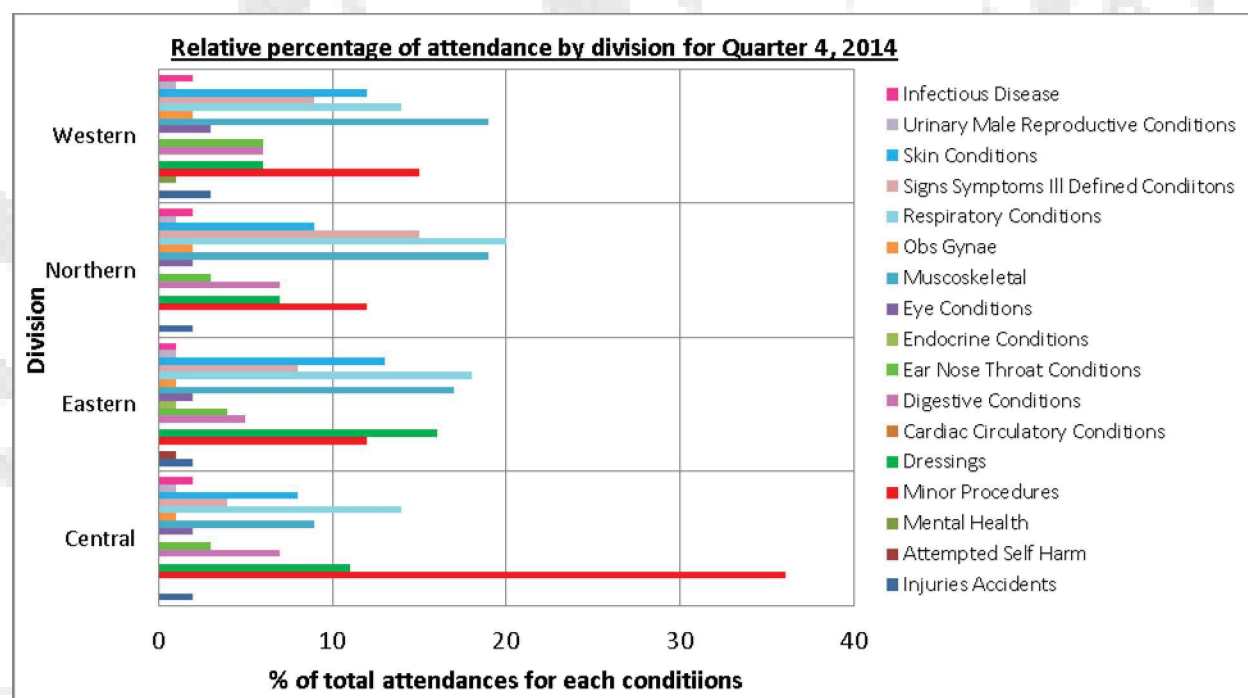
Lastly, the Western Division demonstrated an increase in OPD load by 62.7% in the 4<sup>th</sup> Quarter, 2014 compared to the same period last year. The medical areas identified to contribute to this increase includes the Lautoka/Yasawa Sub-division, Ba Sub-division particularly in Ba & Nailaga medical areas, Nadi Sub-division especially in Nadi & Namaka medical areas and Nadroga/Navosa Sub-division mainly in Keiyasi, Vatulele, Namarai & Nasau medical areas.

Over the quarterly series there was an overall increase of OPD cases in all the Divisions when compared to 2013. This brings to focus the areas which facilitate OPD provision: the facility structure to cater for the burden of health service demand, human resources to cater for this demand, medicines & consumables and supporting technology & equipment.

### Recommendations

There is a need for an OPD policy, allocation of optimal resources and capture of this OPD data (approximately 60% of health service data) in meaningful diagnostic related groups for policy, planning and financing (resourcing).

## 1.2 GOPD Conditions



[SOURCE: PHISONLINE, HIU, MOHMS]

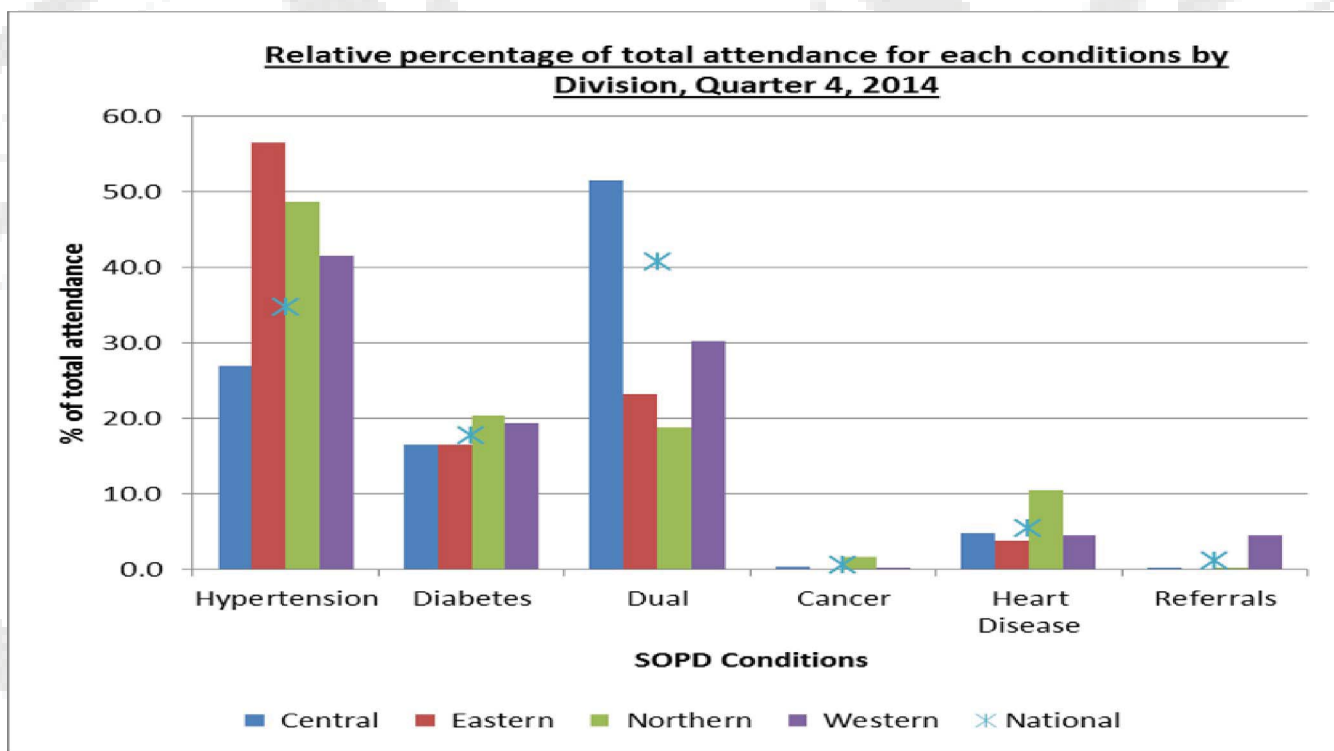
The above graph shows, Minor Procedures and Dressings made up the majority of patients visiting the GOPD particularly in the Central & the Northern Divisions followed by the Western Division. This was mainly due to patients having repeat dressings or repeated procedures over the period of their treatment. Similar trends were observed in the 4th quarter of 2013 with Minor procedures and dressings having the highest frequency followed by respiratory, musculoskeletal and skin conditions as causes of morbidity.

There is a need to code OPD data more accurately so meaningful analysis can be conducted. This data is useful at an operational level in the area of decision making: allocation of funding, resources & man power; development, review of policies, upgrading of health facilities at medical area and below, and programme implementation & evaluation.

### Recommendations

The recommendation is to have more meaningful categories such as diagnostic related groups to ensure evidence for policy, planning and resourcing modified to the Fiji scenario. Progress on coding OPD data should be an imperative for Fiji.





[SOURCE: PHISONLINE, HIU, MOHMS]

There was an increase of 13.4% in 4<sup>th</sup> quarter 2014 (n=21161) in SOPD service delivery rendered to the public from Health Centre level and below, when compared to the same period last year (n=18334). Central (28.4%) and Northern (7.2%) Divisions were responsible for the increase in SOPD load. It was noted that majority of the patients suffered from Dual (n=8607) conditions (hypertension and diabetes mellitus) followed by Hypertension and Diabetes alone. In the Central Division, Nausori, Makoi, Korovou and Nakorosule medical areas were responsible for the increase; whereas in the Northern Division, the entire Macuata and Bua Sub-divisions were responsible for the increase in SOPD cases. The increase in Central and Northern Division have been particularly noted in the major health center levels.

**Recommendations:**

There is a need for strengthening implementation of NCD innovative programs to create awareness and provide wellness education to the general public for their general knowledge and specifically target those who are at risk. Therefore, integrated & holistic community-based approaches would be necessary to tackle the population at risk. The additional benefit of community driven initiatives would be to inform the patients suffering from chronic disease and assist in reducing secondary and tertiary complications.

## 1.4 Maternal Health

### 1.4.1 Normal and At Risk Pregnancy comparative Table

Figure a: Pregnancy category

Pregnancy category	4 <sup>th</sup> Quarter, 2013	4 <sup>th</sup> Quarter, 2014
Normal pregnancies	1490	1671
At Risk Pregnancies	847	965
Total Pregnancies	2337	2636

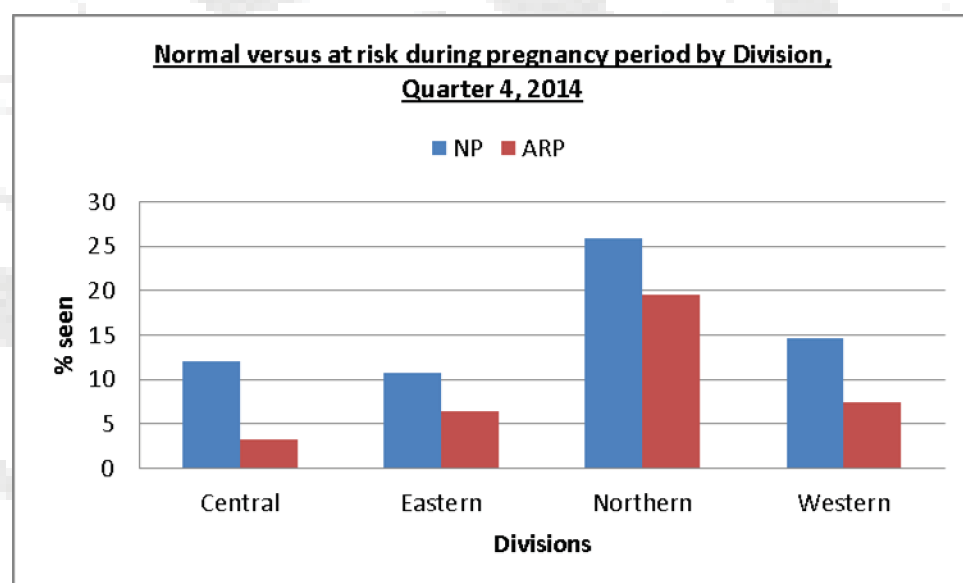
[SOURCE: PHISONLINE, HIU, MOHMS]

Attendances at antenatal clinics in the 4<sup>th</sup> quarter of 2014 demonstrated a total of 1671 normal pregnancies compared to 1490 in the 3<sup>rd</sup> quarter 2013 (a relative increase of 10.8%). In the case of 'At risk pregnancies' there is an increase by 12.2% in the 4<sup>th</sup> Quarter, 2014 compared to same period in 2013.

At risk pregnancy was noted to be highest in the Northern Division particularly in Cakaudrove (n=257), Macuata (n=161) and Bua (n=59) Sub-divisions; followed by the Western Division mainly in Nadroga/ Navosa Sub-division (n=77); then the Eastern Division, particularly in Lomaiviti (n=59) and Kadavu (n=53) Subdivisions; and lastly, the Central Division where the Naitasiri Sub-division (n=49) recording the highest numbers.

It was also noted that women of I'taukei ethnicity were most at risk of developing complications during pregnancy (n=854:32.4%) compared to Fijian Women of Indian Decent (n=63:2.4%) and Other Decent (n=48:1.8%). [Note: The denominator is the total of at risk + normal pregnancy – 2636]. This is reflective of the population distribution and further analysis needs to be undertaken to demonstrate significance of such distributions.

### 1.4.2 Normal and at risk pregnancy detection rate



[SOURCE: PHISONLINE, HIU, MOHMS]

## Normal Pregnancy (NP) & At Risk Pregnancy (ARP)

It was noted that Northern Division (n=514) have more women who were at risk of developing complications during pregnancy followed by Western Division (n=195), Eastern Division (n=169) and the least were from Central Division (n=87). These numbers and trends are due to the data being provided from medical area level and below.

The details of geographical distribution are illustrated below:

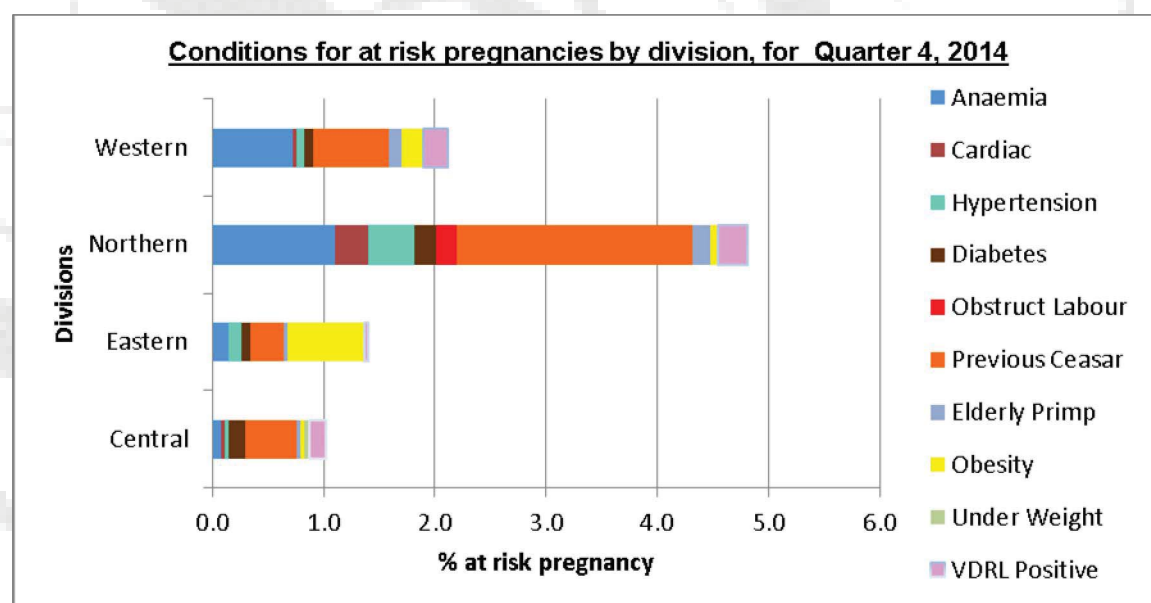
For the Northern Division, Cakaudrove Sub-division (Tukavesi, Korotasere, Rabi and Natewa medical areas) were responsible for the increase in at risk cases; followed by the Macuata Sub-division (Seaqaqa and Dreketi medical areas) and lastly the Bua Sub-division (Wainunu and Lekutu medical areas). The increase of at risk cases in Northern Division may be due to geographical isolation of villages and settlements which renders health service accessibility constraints.

### **Recommendations:**

**There is need for health awareness for mothers who are in the at risk category. The non-addressing of risk factors during pregnancy may cause complications during pregnancy and delivery that may result in death of either the mother, child or both in the most complicated circumstances. Therefore, continual monitoring of at risk cases and addressing these factors at early stages of pregnancy may prevent complications during delivery**

It was also noted 63.4% (n=1671) of the mothers fell under the category of normal pregnancy particularly in Northern and Western Division followed by Central and Eastern Division.

### 1. 4.3 At Risk Conditions



[SOURCE: PHISONLINE, HIU, MOHMS]

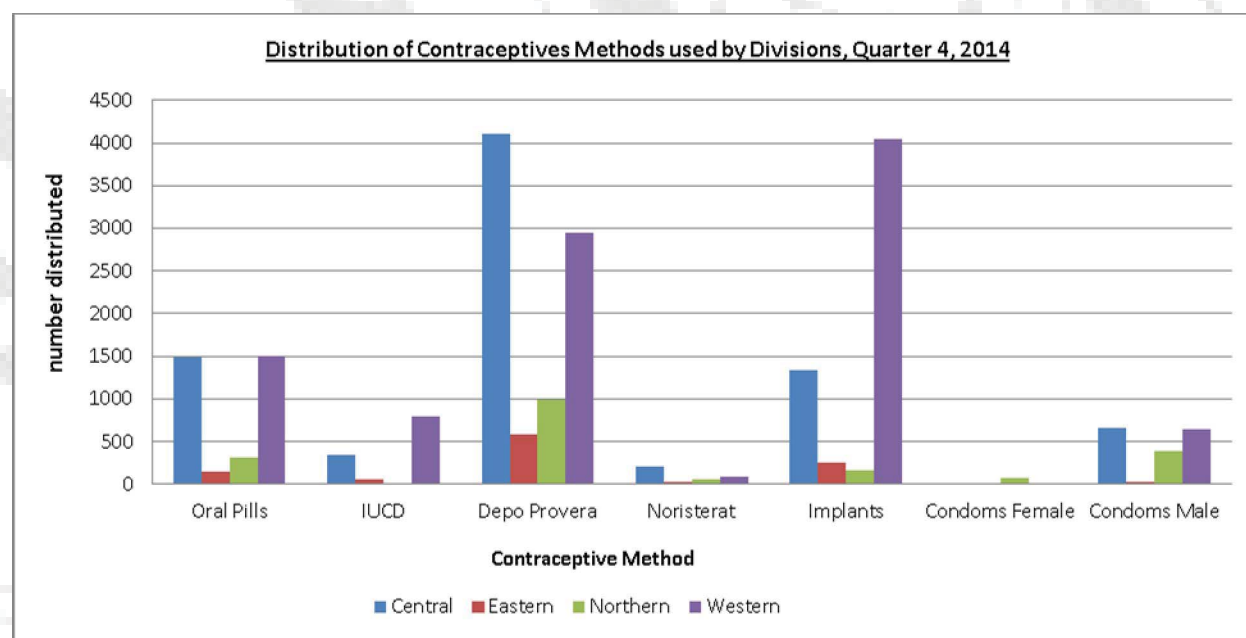
The above shows the relative prevalence of various risk conditions for women attending ANC clinics in the four divisions. The conditions presented above indicate the contributing factors towards complications during pregnancy and later on peri-delivery. The level of care and monitoring of the mother and child during pregnancy is important for safe delivery.

The Western Division had the second highest Anaemia (n=19), Previous Ceasar (n=18) and VDRL positive (n=6) conditions were responsible for the increase in at risk conditions; followed by the Central Division with Anaemia (n=2), Previous Ceasar (n=12) and VDRL positive (n=4) while the Eastern division recorded the lowest Anaemia (n=4), Previous Ceasar (n=8) and VDRL (n=1))

Overall, the Northern division recorded majority of at risk condition during pregnancy, followed by the Western division while the Eastern division recorded the least cases.

## 1.5 Family Planning

### 1.5.1 Contraceptive distribution



*[SOURCE: PHISONLINE, HIU, MOHMS]*

Depo Provera injections and Implants were the most common contraceptive methods used for birth control followed by oral pills and condoms. The Western division noted an increase in Implants followed by the Central division while the Northern division recorded the lowest uptake. However, Depo Provera injection distributions indicate that the Central Division had the highest uptake, followed by Western and the least was recorded from the Eastern Division. Similar patterns were observed in the same period last year. *[Note: This does not account for hospital contraceptive dispensing and private contraceptive dispensing.]*

### 1.5.2 Family Planning Couple of Years Protection, 4<sup>th</sup> Quarter, 2014

Figure b: Family Planning CYP tabular

Division	Years Protection Dispensed							CYP Rate (per 100 Women)
	Oral Pills	IUCD	Depo Provera	Noristerat	Implants	Female Condoms	Male Condoms	
<b>National</b>	<b>646.6</b>	<b>3999.6</b>	<b>2160.0</b>	<b>64.4</b>	<b>22043.8</b>	<b>9.0</b>	<b>155.7</b>	<b>54.2</b>
<b>Central</b>	280.6	1125.3	1028.5	34.2	5103.4	1.2	59.9	35.1
<b>Eastern</b>	27.1	198.0	145.3	5.8	957.6	0.3	2.5	53.0
<b>Northern</b>	57.7	59.4	248.3	9.9	611.8	7.1	35.6	10.5
<b>Western</b>	281.4	2616.9	738.0	14.6	15371.0	0.5	57.7	88.4

[SOURCE: PHISONLINE, HIU, MOHMS]

This table above shows the Years of Protection for each of the contraceptive methods being dispensed. It is the standard international indicator for measuring the effectiveness of family planning program. This table does not show the amount of contraceptives dispensed but only shows the relative length of protection provided by the different methods. *[Note: This does not account for hospital contraceptive dispensing and private contraceptive dispensing.]*

The highest CYP was demonstrated in the Western division for this quarter and the uptake in Depo Provera and Implants were most likely the reasons for this increase in CYP. As demonstrated in the table above, the highest years of protection dispensed is due to implants, followed by IUCD, Depo-Provera, oral pills, male condoms, noristerat and lastly female condoms. When compared to the same period last year, similar patterns were observed.

The following facilities were consistent in the distribution of contraceptive methods. In the Central Division; the Suva Sub-division, Rewa Sub-division (Particularly in the Nausori medical area), Tailevu Sub-division (particularly in the Korovou medical area), Naitasiri Sub-division (particularly in the Vunidawa medical area) and Serua/Namosi Sub-division (Particularly in Navua medical area)

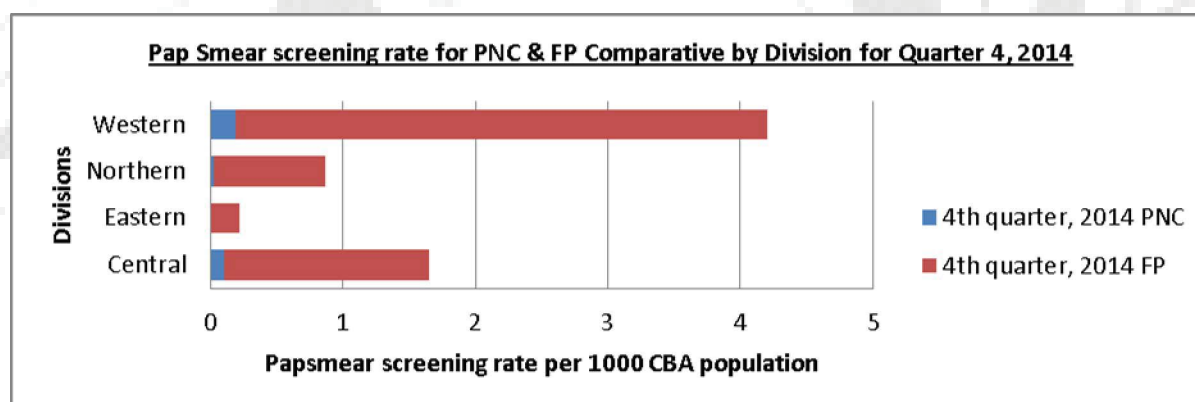
The Western Division also was consistent in the distribution of contraceptive methods; the Lautoka medical area, the Nadi medical area and the Ba medical area.

In the Northern Division; the Savusavu medical area, the Labasa medical area and the Qamea medical area were consistent in the distribution of contraceptive methods.

And lastly, In the Eastern Division; the Vunisea medical area, the Lakeba medical area and the Levuka medical area were consistent in the distribution of contraceptive methods.



## 1.6 PNC and Family Planning Pap Smears



[SOURCE: PHISONLINE, HIU, MOHMS]

A total of 1519 Pap smears were conducted in combined clinics; 95.3% of Pap smears were recorded through family planning clinics and 4.7% through postnatal clinics. This is much less than the numbers reported for the same period in 2013 (n=1622). There was a decrease in Pap smear service by 6.8%. [Note: The denominator is the CBA population from FBOS projection – 218804 for 2014 was used to calculate Pap smear screening rate]. The VIA programme numbers are not available with HIU and may be a plausible contributor to this trend. However, pap smears are screening methods available for cervical cancer detection and must be advocated.

It was noted majority of the Pap smear activities were done in the family planning unit throughout the quarterly series whereby Western and Central had the highest Pap smear conducted at their Family Planning Clinics followed by Northern and Eastern Divisions.

The decrease in numbers may also be due to low attendance by the expected group, unskilled nurses, delay in Pap smear, no Pap smear done during Postnatal Clinic, resources unavailable for conducting pap smears and/or inaccuracy in reporting.

### **Recommendations:**

There is need for implementation of Family Planning programs, review of policies, allocation of fund, training and resources at medical area and below to response to the burden.

## 1.7 Immunization

Figure c: Immunization tabular by Division (#)

Division	HepBO	BCG0	DPT/Hep BHib1	OPV1	Penumo ccal1	Rotaviru s1	DPT/Hep BHib2	OPV2	Penumo ccal2	DPT/Hep BHib3	OPV3	Penumo ccal3	Rotaviru s2	MR1	OPV4
Central	1	1	1,622	1,631	1,629	1,633	1,857	1,854	1,870	2,145	2,145	2,147	2,109	1,564	1,264
Eastern	1	1	66	65	66	66	137	138	137	173	168	169	166	143	156
Northern	7	8	593	595	595	595	666	666	666	767	768	767	765	593	472
Western	4	3	1,290	1,292	1,291	1,292	1,486	1,496	1,479	1,715	1,717	1,717	1,706	1,327	1,171
All	13	13	3,571	3,583	3,581	3,586	4,146	4,154	4,152	4,800	4,798	4,800	4,746	3,627	3,063

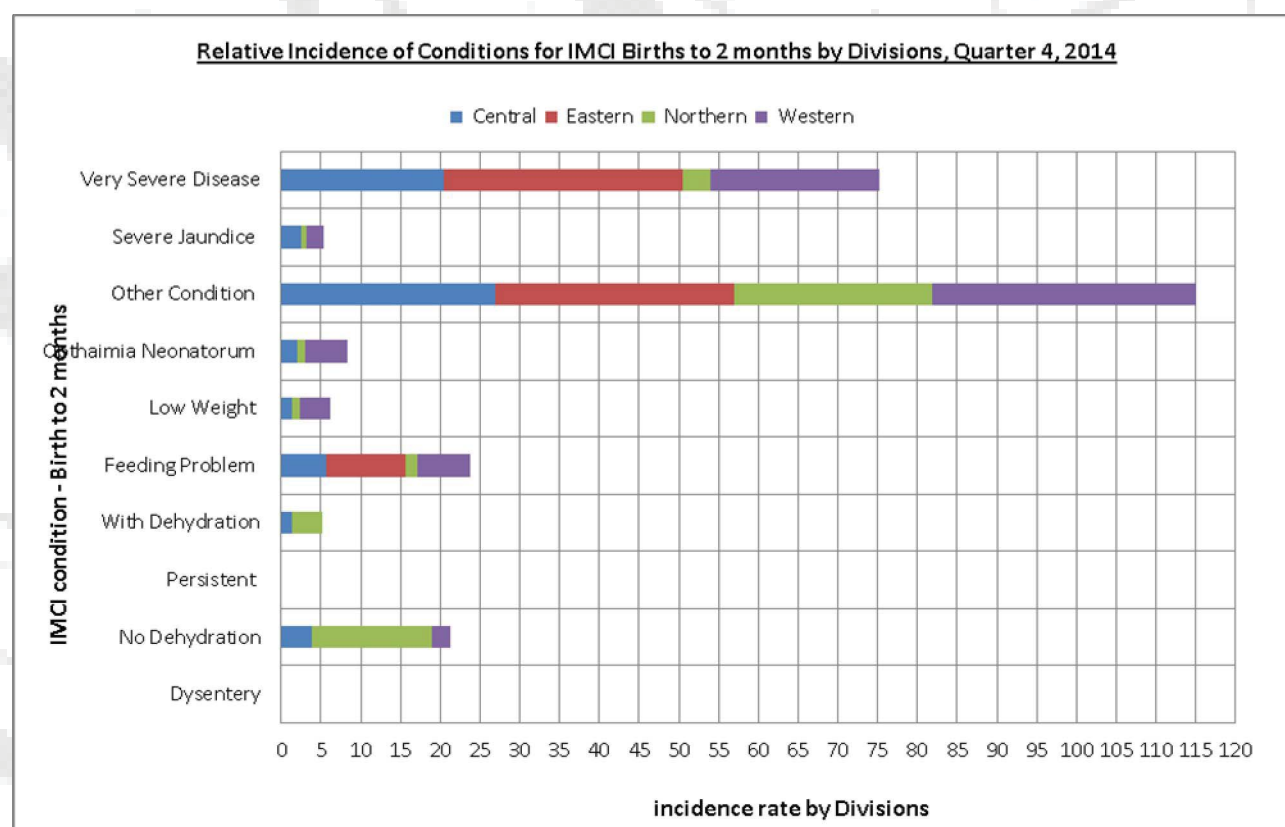
[SOURCE: PHISONLINE, HIU, MOHMS]

The table above indicated that the estimated coverage of MR1 was 69.2%. *[This estimation used is the ¼ of 2013 live births (20970) as denominator]*. This is 1.3% more when compared with the same period in 2013 in which the estimated coverage of MR1 was 67.9%. *[This has been estimated using ¼ of 2012 live births (20178) as denominator]*. Central and Western Division were consistent in reporting and updating their EPI coverage followed by Northern and Eastern Division. The consistency in reporting is based on the number immunized (including the late and on-time) in various health facilities which is at medical area and below.

In the Central Division, Nausori MA (4%), Makoi MA (3%) and Nuffield MA (4%) respectively had the most number being immunized and were responsible for the increase. In the Western Division, the most number immunized was reported from the main health centers and these were Lautoka MA (4%) and Nadi MA (6%).

Vaccine availability for Immunization is a major concern, when there is out of Stock the child is either referred to another health facility where the vaccine is available or given vaccine late when it is in-stock later in the month. The movement of people can also be a contributing factor in low reporting from health facilities. Rural-urban movement is a major issue in Fiji as this lowers the coverage for EPI in rural health facilities while the urban health facilities report higher.

### 1.8 MCH /IMCI: Birth to 2 months



[SOURCE: PHISONLINE, HIU, MOHMS]

Among the birth to 2 months old children attending IMCI clinics, the Northern Division recorded the highest percentage of children presenting with other conditions, feeding problem and low weight followed by Central, Western & Eastern Divisions respectively. However, in the Central Division more children with very severe disease were seen when compared to Northern, Western and Eastern Divisions.

The NNDSS (< 1 year=15<sup>1</sup> : all cases=5404) results when compared to PHIS (73) shows a higher case load of Diarrheal disease in 4th Quarter, 2014. NNDSS reports on cases seen by medical officers and IMCI cases are generally seen by nurses. Contaminated water and change in environmental patterns may also be contributing factors.

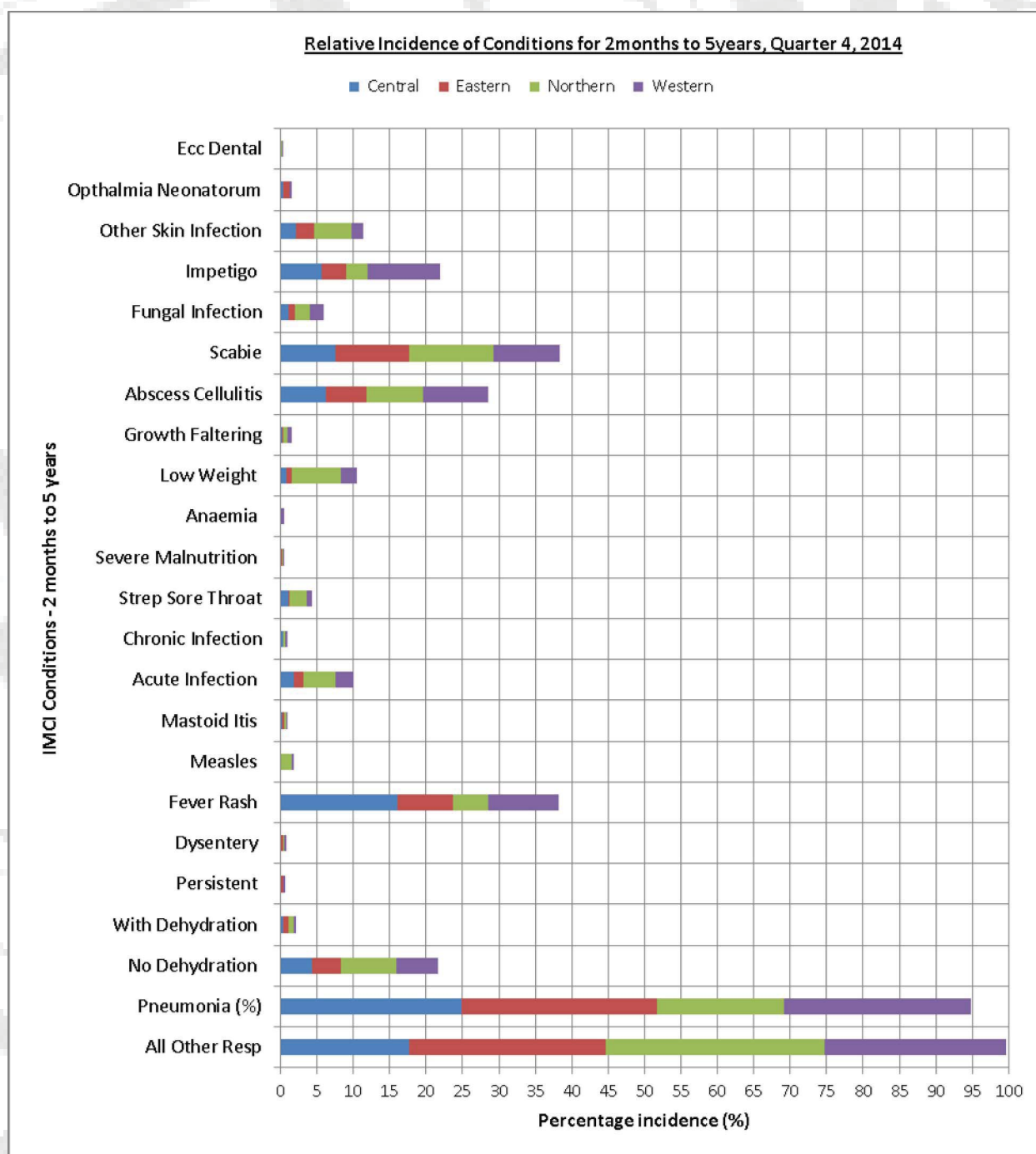
**Recommendations:**

There is a need to incorporate IMCI datasets in national surveillance and continued training of staff at medical area and below on IMCI protocol. The facilitation of resources and man power needs to be considered in fulfilling this recommendation. The classifications under IMCI for this age cohort needs re-examine as there can be overlaps between 'very severe disease' and 'other conditions'.

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<sup>1</sup> Number for all cases for less than 1 year is under reported as age category in NNDSS report is unknown.

## 1.9 MCH /IMCI: 2 months to 5 years



[SOURCE: PHISONLINE,HIU,MOHMS]

This graph represents the percentage of children of 2months to 5years attending IMCI clinic at various health facilities in our country. The above shows that more children were seen under the category of all other

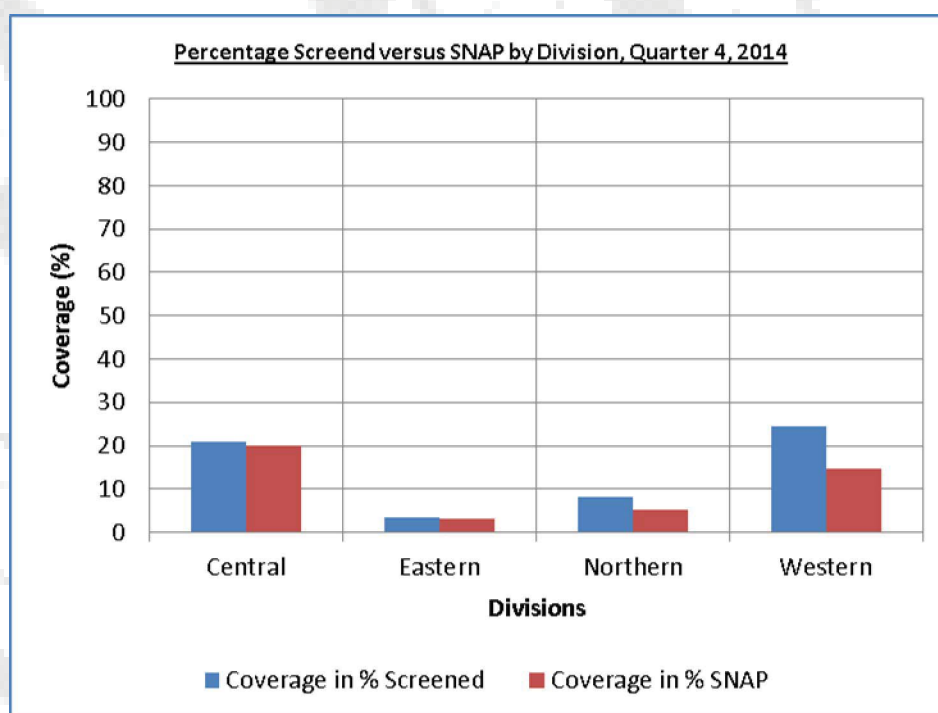
respiratory condition, Pneumonia (NNDSS11, 1425 unknown age cases<sup>2</sup> : PHIS 7479), Abscess Cellulitis, Scabies, Impetigo, Other Skin Condition and Fever Rash where the Central Division had the highest percentage of children under each of these conditions followed by the Western, Northern and Eastern Division. .

#### **Recommendations:**

The above result indicates that there is need for IMCI resources to be put in place such as educational and awareness campaigns for the general public, intervention of new programs that can target the population at risk, ensuring adequate stocking of medication and resources, need of better health facilities that can cater the increase in IMCI patients, GOPD policy and communicable disease policy to incorporate IMCI. The classifications under IMCI for this age cohort needs re-examine as there can be overlaps between disease categories identified currently and discernable conditions will enable better analysis and evidence for resourcing.

### **1.10 Non-Communicable Disease**

#### **1.10.1 Screening versus SNAP results**



*[SOURCE: PHISONLINE, HIU, MOHMS]*

In the 4<sup>th</sup> quarter, 2014 – 12788 people were screened for diabetes and hypertension. Out of this 74.8% received Counseling regarding lifestyle activities, smoking, nutrition, alcohol and physical activities (SNAP). The largest number screened was from the Central division followed by the Western division while the

<sup>2</sup> Many unknown cases as many Medical officers do not fill in the age category in the Notifiable Disease Surveillance forms

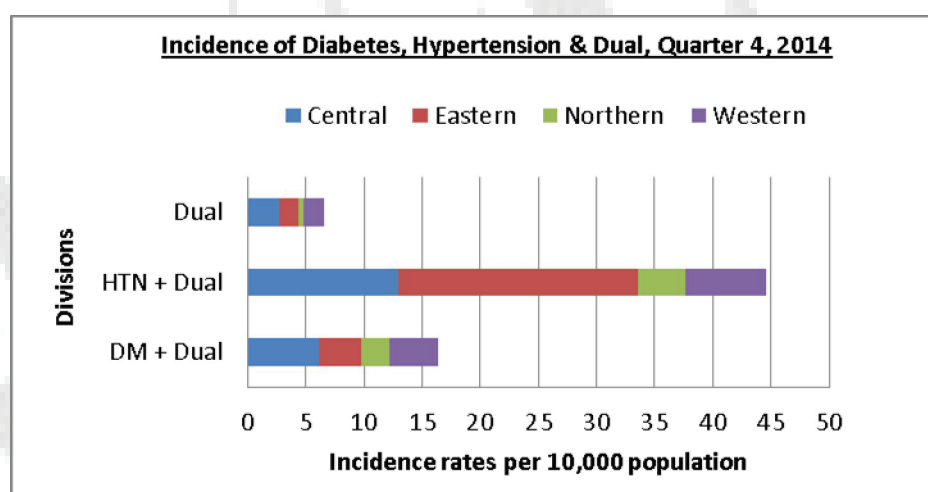


Eastern division had the lowest number screened. Similar trends were seen in the same period last year. [Note: the denominator for the coverage is total of SNAP & Screened – 22348 for the quarter period to calculate the %]

The above results indicate that there was a demonstrable gap in those screened and those who were provided counseling on SNAP which is a major concern. This is clearly evident in the Western Division as demonstrated above, 40.7% of the population screened were not counseled on SNAP; followed by Northern (37.4%), Eastern (9.4%) and Central (5.2%) divisions.

As per the PHIS counting rules the number screened should equal to or be more than the number SNAP. The ultimate goal is to have 100% screened and SNAP however there is still a great difference between the percentage screened and SNAP.

#### 1.10.2 Incidence of Diabetes, Hypertension and Dual per 10,000 populations



[SOURCE: PHISONLINE, HIU, MOHMS]

The bar graph shows the incidence of Diabetes (DM), Hypertension (HTN) and Dual reported through PHIS. Overall, Hypertension (n=869) comprised 6.8% and was the commonest condition reported throughout the four Divisions followed by Diabetes (n=428) which was 3.4% and Dual (n=179) was 1.4%. [Please note DM and HTN rates include the dual cases – both new cases <30 and 30+]. Central Division (3.7%) recorded the highest incidence of hypertension cases followed by Western (2%), Eastern (0.6%) and Northern (0.5%) Divisions out of the total number that was screened (12788).

#### 1.11 NIMS

Division	NIMS					
	6m - 1 yr	1 -2 yrs	2 -3 yrs	3 -4 yrs	4 - 5 yrs	CBA
Central	11	16	13	10	8	2
Eastern	2	1	0	0	0	23
Northern	0	25	5	2	4	33
Western	3	40	10	4	6	82
Total	16	81	28	17	18	140

[SOURCE: PHISONLINE, HIU, MOHMS]

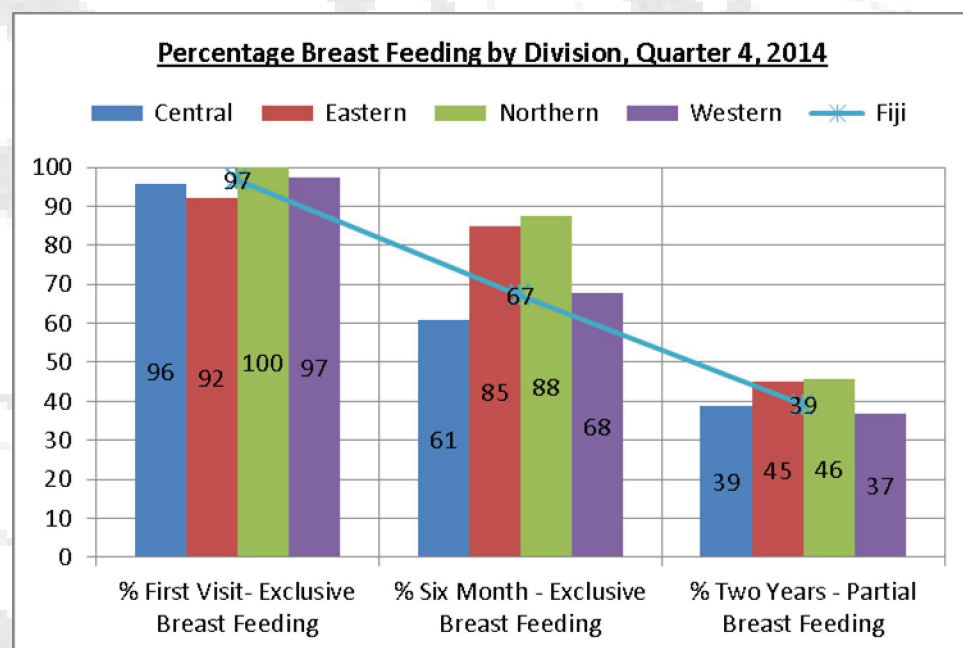
Over the quarterly series the NIMS data has been under reported. The completeness of reporting also relies on data provided by Dietitians. Even the CBA is under reported for the four Divisions.

HIU captures only the complete dose. *[Note: As per in the counting rules, it is stated for CBA NIMS doses, only count the first 'dose'. This is when three components; Ferrous Sulphate, Pyrantel Pamoate and Vitamin A are given. If Only one or two doses are given, record only for your own reference, but this is not reported in PHIS.]* All NIMS are recorded by dietitians/ health professional mainly the nurses where by it is submitted to the Sister in Charge to be entered in the PHIS forms and sent to Sub-Divisional Health Sister or the Divisional Health Sister as a compiled report.

NIMS was commonly distributed in the Central Division, followed by the Northern Division. When compared to the same period last year there was under reporting of NIMS distribution as the number captured in PHIS was recorded only by nurses and lacked reporting from dietitians. Despite the drive by HIU to rectify the reporting issue with Family Health, Nursing division and Dietetics Division – this has not been adequately addressed. The non-availability of the components for NIMS may also result in low reporting rates.

The cohort measures of coverage are dependent upon the true distribution figures by nurses and dietitians.

## 1.12 Nutrition



The Northern Division recorded 92% mothers practicing breast feeding during the birth to 6 months, followed by the Eastern (86%) and Western (78%) Division while the Central division (73%) recorded the lowest numbers. *[Note: the numerator is the total by Division first and six month Exclusive Breast Feeding. The denomination is the Number seen by Division for first, six month up till 2 years Exclusive Breast Feeding].*

The Northern Division also recorded 80% of mothers who continued breast feeding after 6 months and up until 2 years, followed by Eastern (75%) and Western (61%) Division while the Central (55%) division recorded the lowest numbers. *[Note: the numerator is the total by Division first, six month up till 2 years*

*Exclusive Breast Feeding. The denominator is the Number seen by Division for first, six month up till 2 years Exclusive Breast Feeding].*

The increase in mothers practicing breast feeding (first visit) in all the Divisions may be due to improvement in MCH awareness and education programmes at medical area and below levels.

This was similar to the patterns observed same period last year.

### 1.13 Holding beds

Figure d: Holding bed table

	Number Of Beds	Total Patients	No. Referred	No. Discharged	No. Held Over 12 hrs	No. Deliveries	Occupancy Rate (%)	Held Over 12 Hours (%)
<b>Central</b>	104	3094	953	1453	423	1	32.3	13.7
<b>Eastern</b>	78	169	53	102	87	0	2.4	51.5
<b>Northern</b>	81	858	331	524	142	11	11.5	16.6
<b>Western</b>	89	382	266	178	20	4	4.7	5.2
<b>National</b>	<b>352</b>	<b>4503</b>	<b>1603</b>	<b>2257</b>	<b>672</b>	<b>16</b>	<b>13.9</b>	<b>14.9</b>

[SOURCE: PHISONLINE, HIU, MOHMS]

The status of holding beds for the 4th quarter is demonstrated above. The Central Division had the greatest number of holding beds greatest number of total patients and had the greatest number of people held over 12 hours (n=423) followed by Northern division while Western Division recorded the least number held. Patients held over 12 hours should be transferred to hospital as the health centers are not liable to admit patients unless there are genuine reasons such as transportation delays, weather problem and geographical location of the facility. The numbers of delivery were noted to be higher in the North. This is reflective of the greatest number of deliveries occurring at the divisional hospitals in alignment with the practice of Safe Motherhood. The results show similar patterns when compared with the same period last year.

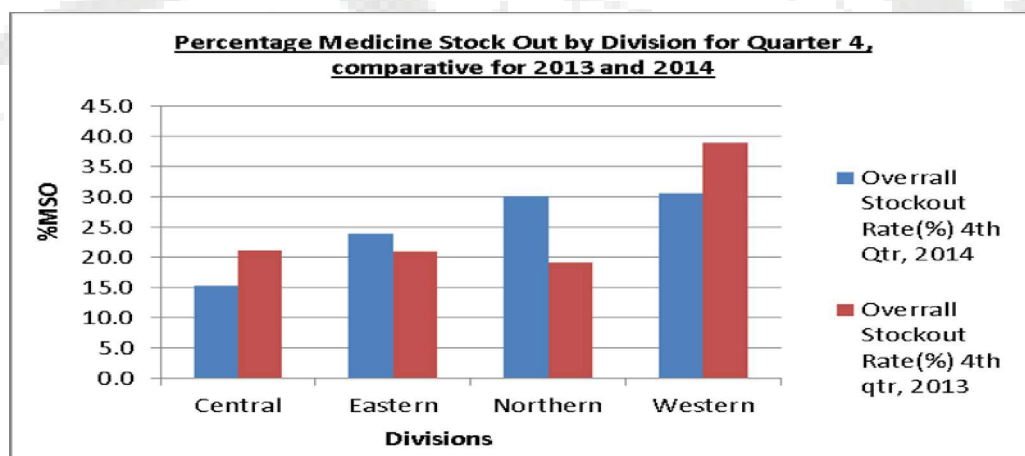
It was noted, Central Division also had the highest number of discharges in the Suva Sub-division (n=876) (Valelevu medical area (n=363) recorded the highest discharge trailed by Makoi medical area (n=249), Samabula medical area (n=163) and Raiwaqa medical area (n=57); and Rewa Sub-Division (n=383) in the Nausori (n=340) medical area .

#### **Recommendations:**

The decentralization of OPD has increased the patient load on Health Centres. Therefore, the need for intervention in development of health facilities (medical area level and below), and resourcing of the same facilities must be an imperative. The change in role delineation must also be considered with increases in number of patients held over 12 hours in facilities.

## 1.14 Pharmacy Indicator

### 1.14.1 Medicine Stock-Out Comparative report

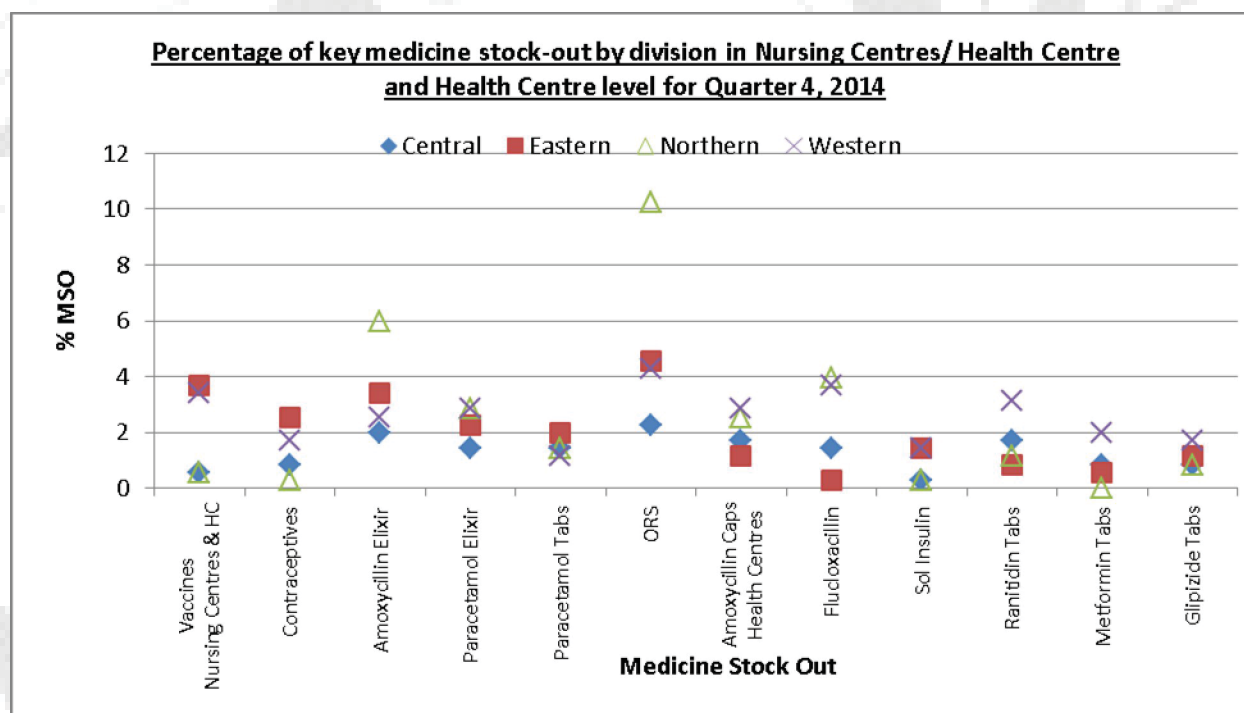


[SOURCE: PHISONLINE, HIU, MOHMS]

### Medicine Stock Out Rate by Sub-Division, 4<sup>th</sup> Quarter, 2014

Division	Sub Division	Overall Stockout Rate(%)
Central	Naitasiri	10
	Rewa	4
	Serua/Namosi	3
	Suva	2
	Tailevu	24
Eastern	Kadavu	19
	Lakeba	27
	Lomaiviti	8
	Lomaloma	3
Northern	Bua	13
	Cakaudrove	22
	Macuata	12
	Taveuni	17
Western	Ba	6
	Lautoka/Yasawa	26
	Nadi	2
	Nadroga/Navosa	9
	Ra	9
	Tavua	2

### 1.14.2 Key medicine stock-out by Division



[SOURCE: PHISONLINE, HIU, MOHMS]

The commonest stock out was in ORS in this quarter. According to the graph above, the Northern Division recorded the highest stock-out of ORS for 4th quarter, 2014, followed by the Eastern division while Central Division recorded the lowest.

Overall, there was a decrease in medicine stock of ORS by 51.9% in the 4<sup>th</sup> quarter, 2014 when compared to the same period last year.

Majority of the ORS stock out was noted in the Northern Division whereby Whole of Cakaudrove noted the greatest that lead to the increase in ORS stock out followed by Macuata Sub-division particularly in Lagi and Seaqqa medical area; Bua Sub-division noted highest stock out in Nabouwalu medical area and Taveuni Sub-division especially in Qamea medical area.

The Eastern Division, whole of Kadavu Sub-division experienced stock outs of ORS, followed by Lakeba Sub-division (particularly in Kabara, Matuku and Moala medical area) and while the Lomaiviti Sub-division noted the least stock out (particularly in Gau medical area).

The Western Division also noted stock outs in the Nadroga/ Navosa Sub-division the highest stock outs (these were noted particularly in the Korolevu medical area and Sigatoka medical area; followed by, Ra Sub-division and Ba Sub-division (particularly in Nailaga medical area) while Tavua Sub-division (particularly in Nadarivatu medical area) recorded the least stock outs.

Furthermore, Central Division ORS was out of stock mainly in Laselevu and Lodonu medical areas respectively.



## 1.15 Compliance to reporting

### 1.15.1 Paperbase compliance to reporting – source PHIS register 2014

Figure e: Paperbase report, PHIS.

Divisions	% Received
Central	100
Eastern	100
Northern	100
Western	100

[SOURCE: PHISONLINE, HIU, MOHMS]

The preceding analysis is based on the 100% of reports received through the paper base reports from the four divisions for 4<sup>th</sup> quarter, 2014. There was 0% decline in the receipt of reports was noted compared to 98.8% reports received for the same period last year whereby western division was noted to have 97% of reports received through the paper base reports at HIU followed by the North (98%). This was good achievement, as the above is based on the follow-up and routine monitoring by SDHS, DHIO's and HIU that had contributed to the improvement in reporting through effective continues feedback from HIU.

### 1.15.2 Online compliance to reporting – source PHIS online register 2014 ([www.phisonline.gov.fj](http://www.phisonline.gov.fj))

Figure f: Online report, PHIS.

Divisions	% Received
Central	100
Eastern	100
Northern	100
Western	100

[SOURCE: PHISONLINE, HIU, MOHMS]

The preceding analysis is based on 100% of reports received through PHIS online 4<sup>th</sup> quarter, 2014. There was a great improvement in online reporting as the difference in percentage coverage was by 1% in this quarter compared to the same period last year (99%).

The discrepancy between the online reporting and paper-based is due to the ability of Sub-divisions to access PHIS online for immediate data entry; the lag time for received paper base reports is due to logistics. There is a continuation of paper-based reports until the online system is able to sustain reporting requirements. The need for monitoring and strengthening data entry personal at sub-divisional level is an imperative.

### 1.15.3 PHIS On-Time compliance to reporting

This is the 4<sup>th</sup> quarter update of the monitoring of on-time submission:-

The figure below shows the percentage of monthly reports received On-Time from each division in 4<sup>th</sup> Quarter, 2014. There has been a great improvement in submission within the 3 month period and it illustrates how the performance of each Divisions consistency in delivering reports from their reporting unit to

Health Information Unit. The Northern and Western Division have been consistent in submitting their PHIS reports (both paper base and online) even though they face challenges according to their geographical location followed by Central and Eastern Divisions.

Figure e: PHIS On-Time report for 4th Quarter, 2014

% of reports received On-Time by Division & by Month [received by 15th of the following month]				Total %
Division	Oct	Nov	Dec	
Central	95	100	100	98
Eastern	87	100	100	96
Northern	100	100	100	100
Western	100	100	100	100
National	96	100	100	99

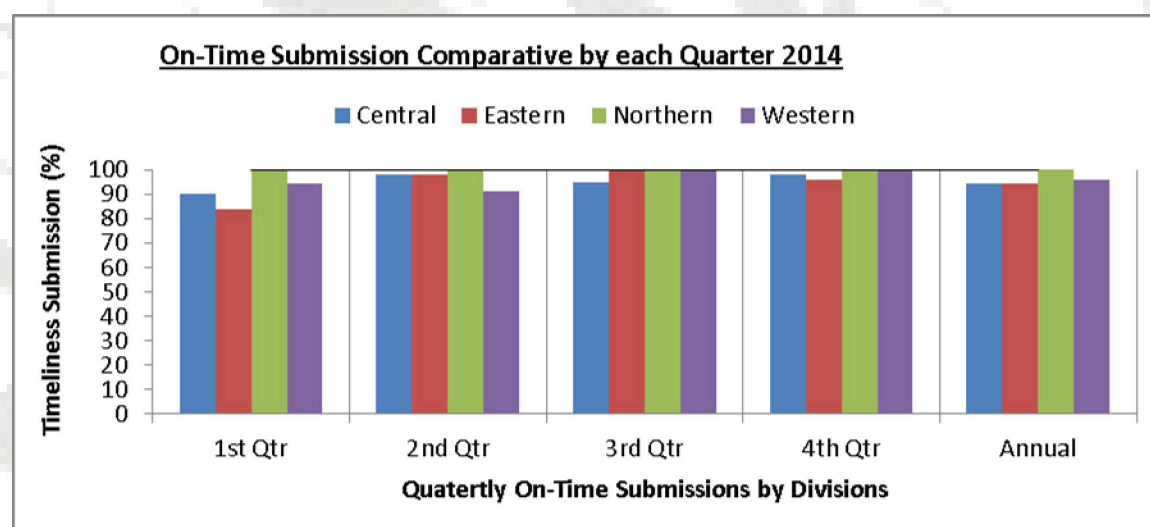
The figure below shows the medical areas that were late in monthly reporting by each division in 4<sup>th</sup> Quarter, 2014. There were no reports pending from Northern and Western Division as they were consistent in submitting their report on-time both online and paper base.

Figure f: PHIS late reporting for 4th Quarter, 2014.

Reports received late by Month from the following Medical Areas [received after 15th of the following month]			
Division	Oct	Nov	Dec
Central	Wainibokasi Medical Area	Nil	Nil
Eastern	Bureta Medical Area	Nil	Nil
	Gau Medical Area	Nil	Nil
Northern	Nil	Nil	Nil
Western	Nil	Nil	Nil

[SOURCE: PHISONLINE,HIU,MOHMS]

#### 1.15.4 Comparative consistency in reporting by four Divisions during the four quarter series, 2014.



[SOURCE: PHISONLINE,HIU,MOHMS]

The above graph shows the results on consistency in submitting On-Time coverage in reporting. Overall, Northern has been consistent in submitting their reports followed by Western while Central and Eastern Divisions struggle in On-Time submission during the 4<sup>th</sup> quarter period of 2014.

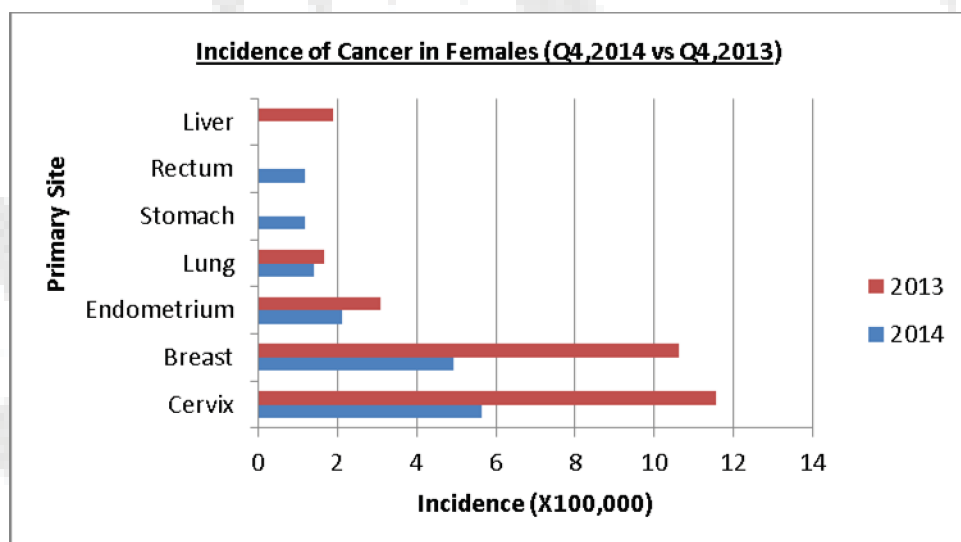
**HIU congratulates, Northern for the achievement of 100% on-time coverage.**

## 2. Non-Communicable Diseases

### 2.1 Cancer:

Cancer is a disease of the cells, which are the body's basic building blocks. Cancer occurs when abnormal cells grow in an uncontrolled way. These abnormal cells can damage or invade the surrounding tissues, or spread to other parts of the body, causing further damage.

(Ref: Cancer definition, url-online address: <http://canceraustralia.gov.au/affected-cancer/what-cancer>)



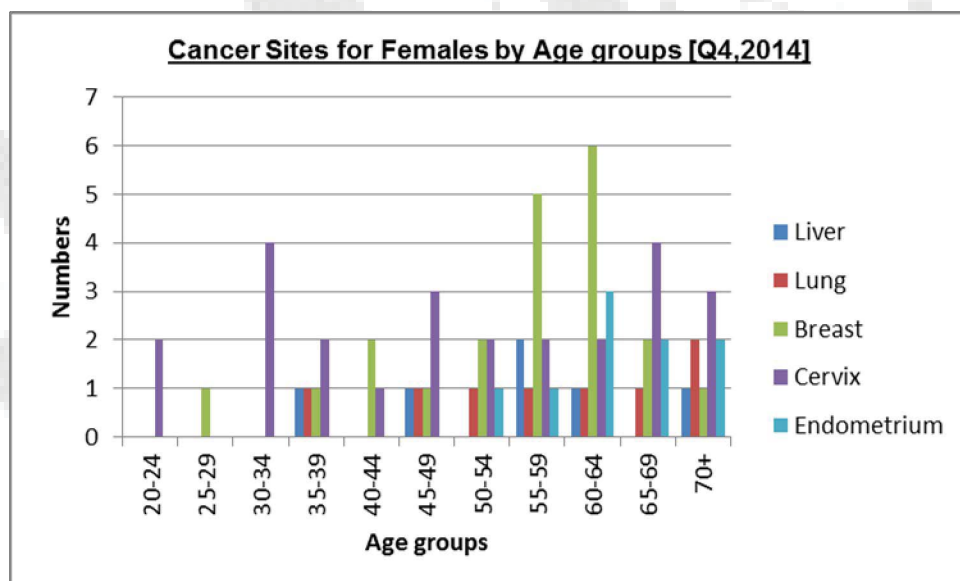
Source: Pathology report, MCDC, Hospital Tear-off & Patis

In Q4 of 2014, a total of 223 cases were received compared to 322 of the same period last year. The decrease was due to the late submission of reports for the 4<sup>th</sup> quarter of 2014. The late reports comprising of 141 cases have not been entered on this analysis since they were received after the due date of reports submission. The 3 leading sites for cancer amongst women are Cervix (n= 24), Breast (n= 21) and Endometrium (n= 9). The incidence rate of the 3 leading female cancer sites were higher in the same period last year as shown in the table below.

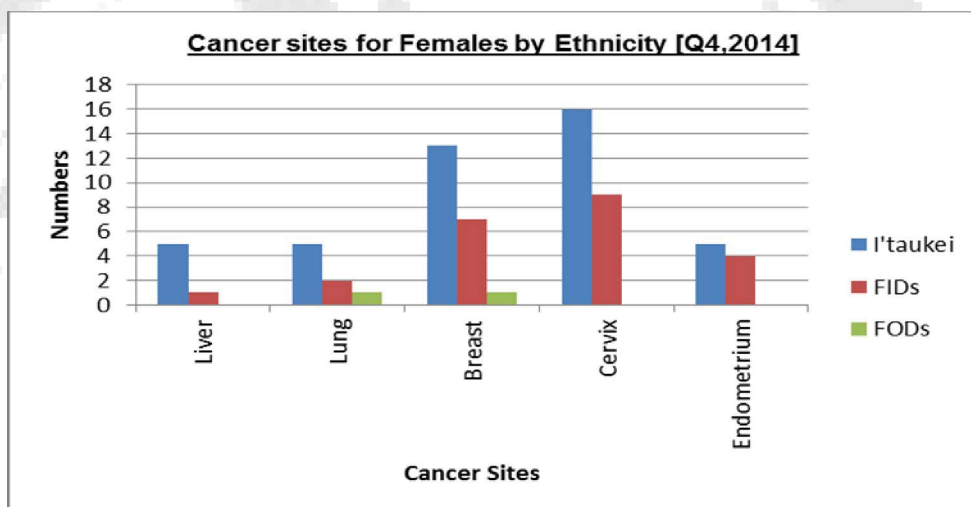
Female Cancer Sites	Incidence Rate (per 100,000 population)	
	2014	2013
Cervix	5.65	11.58
Breast	4.94	10.63
Endometrium	2.12	3.07
Ovary	2.12	
Lung	1.41	1.65
Stomach	1.18	
Rectum	1.18	
Liver		1.89

Cervical cancer was noted to be low in Q4, 2014 when compared to the same period last year, with a decrease of 18%. Breast, Endometrium and ovary were reported to be less in Q4, 2014 when compared to Q4, 2013. This is due to the untimely reporting from the 3 Divisional hospitals. The comparisons of the top 5 female cancer sites in numbers are shown in the table below.

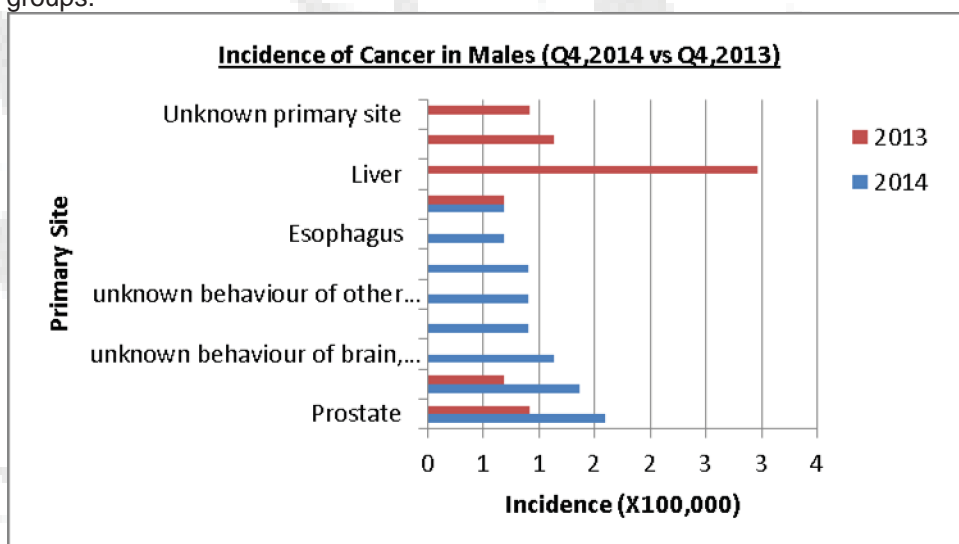
Description	2014 [Q4] - No.	2013 [Q4] - No.
Cervix	24	49
Breast	21	45
Endometrium	9	13
Lung	6	7
Stomach	5	
Rectum	5	
Liver		8



The above graph shows the age groups of women with the top 5 cancer cases. It has been noted that cervical and breast cancer are common in the age group 20-70+. The cases of breast cancer were reported with a higher frequency amongst the 55-64 age groups and peaked in the 60-64 age groups. Compared to the same period last year there was a peak in the 45-49 age group. Cervix has 2 peaks in the 30-34 and 65-69 age groups, similar trend was noted in the same period last year. It was also noted that young women at the age group of 20-24 developed cervical cancer whereas in the Q4, 2013 there were no case.



The I'taukei was noted to have the highest cancer incidence (n=44) followed by the FIDs (n=23) and FODs (n=2). Cases of breast cancer were reported with the higher frequency amongst I'taukei women; with a peak in the 60-64 age groups. Cervical cancer was also higher in I'taukei which had 2 peaks, 30-34 and 65-69 age groups.



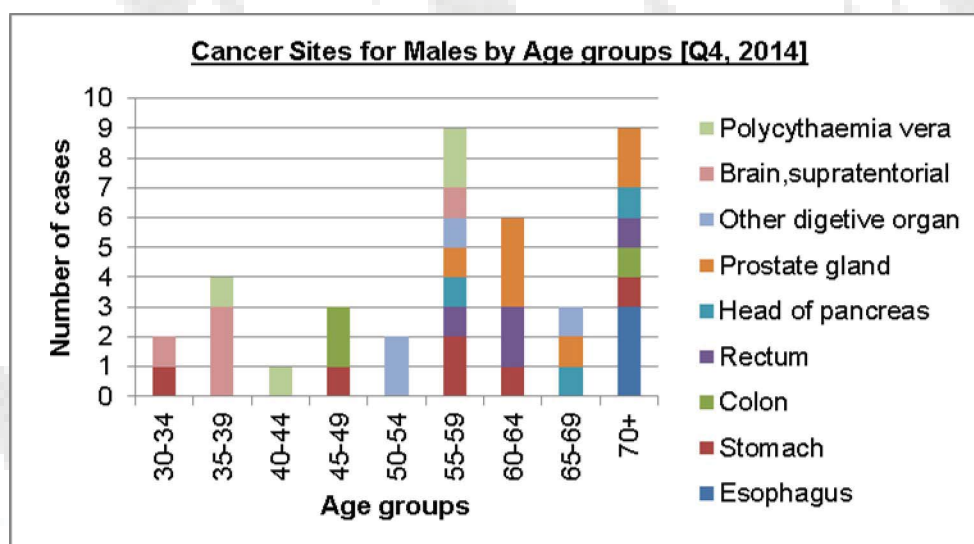
Source: Pathology report, MCDC, Hospital Tear-off & Patis

A total of 91 cases were received in Q4, 2014 compared to 103 for 2013. This result shows the inconsistency in submitting the results to HIU during compilation. The 3 leading sites for cancer amongst men are Prostate (n=7), Stomach (n= 6), Brainsupratentorial (n= 5) The incidence rate of the 3 leading male cancer sites were higher in Q4,2014 compared to Q4,2013 as shown in the table below.

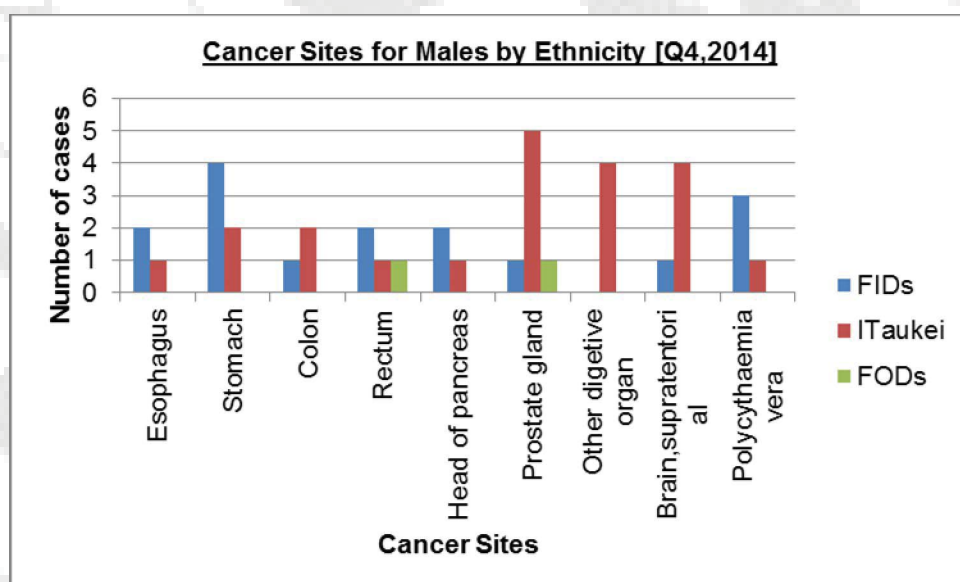
Cancer Sites in Males	Incidence Rate (per 100,000population)	
	2014	2013
Prostate	1.59	0.91
Stomach	1.37	0.68
unknown behaviour of brain, supratentorial	1.14	
Rectum	0.91	



unknown behaviour of other digestive organs	0.91	
Polycythaemia vera	0.91	
Esophagus	0.68	
Colon	0.68	0.68
Liver		2.97
Lung		1.14
Unknown primary site		0.91

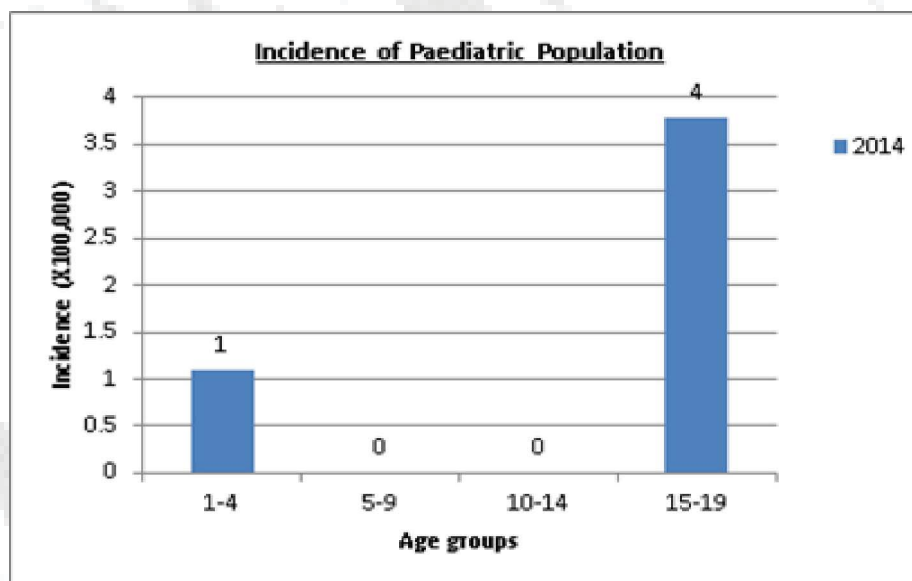


The above graph shows the age groups of men with the top 5 cancer cases. It has been noted that prostate and stomach cancers are common in the age groups 60-64 and 35-39. The cases of prostate cancer were reported with a higher frequency amongst the 60-64 age groups and also noted was a peak in the 60-64 age groups. Compared to the same period last year there was one peak in the age group 70+. Prostate has 1 peak in the 60-64 age groups whereas Esophageal cancer has a peak in the 70+ age group for 4<sup>th</sup> quarter 2014. A similar trend was noted in the same period last year. Polycythemia vera is a slow-growing type of blood cancer in which your bone marrow makes too many red blood cells.



The l'taukei was noted to have the highest cancer incidence (n=21) followed by the FIDs (n=16) and FODs (n=2). Cases of prostate cancer were reported with the higher frequency amongst l'taukei men this had one peak in the 60-64 age groups. Other digestive organ and Brain, supratentorial was also higher in l'taukei. This is reflective of the population dispersal.

## 2.2 Cancer cases in Paediatric Population



Source: Pathology report, MCDC, Hospital Tear-off & Patis

In Q4, 2014 4 cases of Paediatric cancer was reported. This is compared to 1 case for the same period last year. The incidence rates are shown in the table below. There were more cases in the 15-19 age groups compared to the 1- 4 year olds.

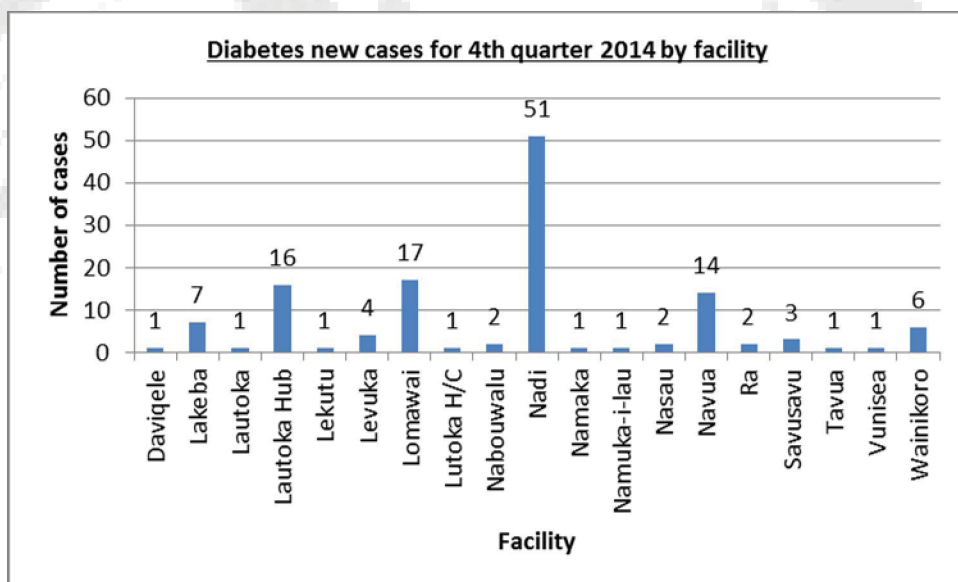
Age Groups	Gender		Incidence	Ethnicity		
	F	M	2014[Rate]	Itaukei	FIDs	FODs
1-4		1	1.42	1	1	
15-19	1	2	2.58	1	1	
Total	1	3		2	2	

## 2.3 DIABETES:

When "diabetes" is used alone, it refers to diabetes mellitus. The two main types of diabetes mellitus insulin-requiring type 1 diabetes and adult-onset type 2 diabetes are distinct and different diseases in themselves.

(Ref: Diabetes definition, url-online address:

<http://www.medicinenet.com/script/main/art.asp?articlekey=11148>)

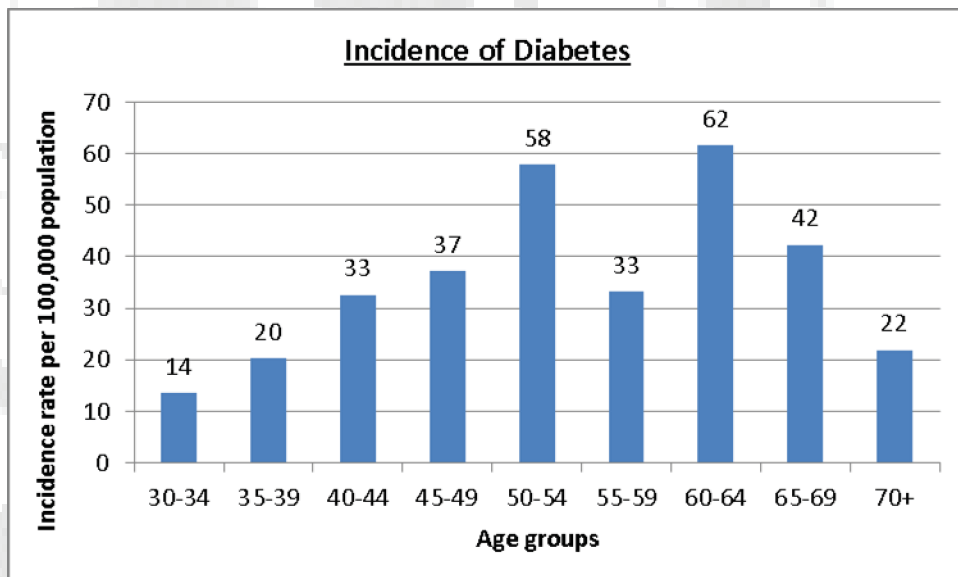


Source: DM Notification Form

132 diabetes notifications were received for the Q4, 2014. This figure is underreported with only 19 facilities submitting reports out of the expected number of 122 (15.6%). PHIS online reports 250 new cases for the same time period. This demonstrates a discrepancy of 89% between PHIS reports and Diabetes Notifications. Please note that there is gross underreporting from all facilities.

**Recommendations:**

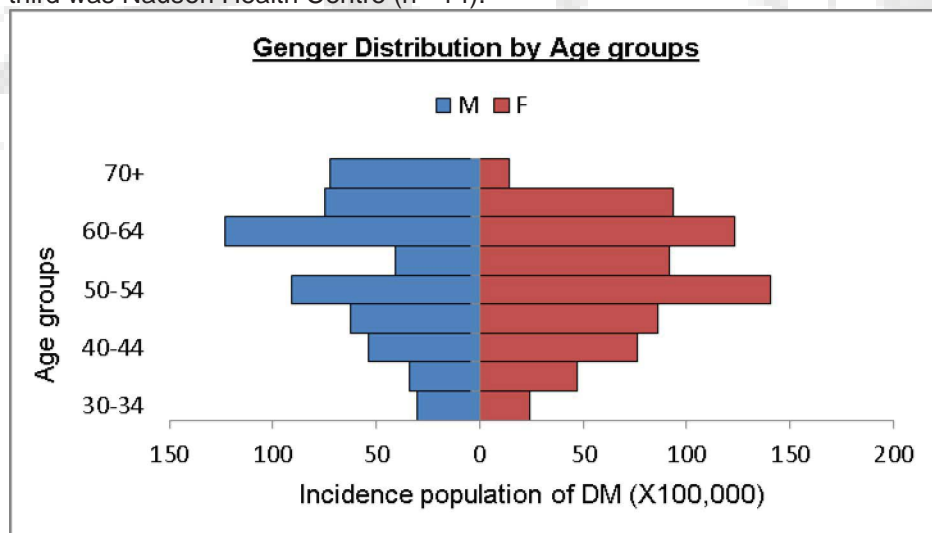
All facilities are reminded that Diabetic notification forms are to be sent to HIU for any new case of DM diagnosed



Source: DM Notification Form

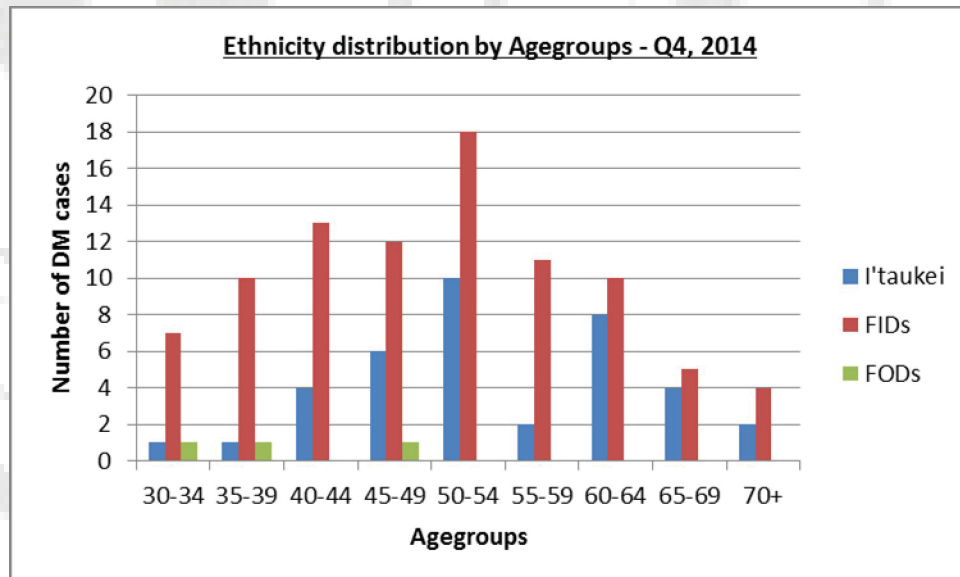
There are 2 peaks noted; 50 -54 age groups (n= 28) and 60 – 64 age groups (n= 18) for Q4, 2014. In comparison to the same period last year, 2peaks were also noted in 50 – 54 age groups (n= 26) and 55 – 59 age groups (n= 18) respectively. It was also noted that in Q4, 2014, the Western Division continued to send

in their DM Forms which resulted in Nadi Hospital recording the highest number of cases (n= 51), followed by Lomawai Health Center (n= 17) and then Lautoka Hub Centre (n= 16). However, in Q4, 2013 Rakiraki Hospital recorded the highest frequency of cases (n= 16), followed by Labasa Hub Centre (n= 15) and the third was Nausori Health Centre (n= 14).



Source: DM Notification Form

The above graph represents the new cases between the age group of 30-70 disaggregated by gender. It indicates that females contributed a higher number of cases in the age groups 50-54, making up the majority of cases in this group. The same period last year demonstrated a similar trend with females between the age group 50-59 making the majority of cases.



Source: DM Notification Form

Fijians of Indian Descent continue to make up the bulk of new diabetes cases. This reflects the overall national trend. The above graph demonstrates that there are two peaks for the FIDs ethnic group, in 40 – 44 age groups (n= 13) and the 50 – 54 age groups (n= 18) respectively. In comparison to Q4, 2013, similar trend of ethnic distribution was also noted having 2 peaks in 50 – 54 age groups (n= 16) and 55 – 59 age groups (n= 10). It also needs to be noted that there is a revised Diabetic Notification Book that should be used by all the reporting facilities to correctly identify new cases of Diabetes Mellitus in our community.

### NOTIFIABLE DISEASES

The Notifiable Diseases analyses has been compiled from the Notifiable Disease Certificates received from 97 sites from public health facilities, 101 private health facilities and 2 private labs nationally. This report has been compiled from 86% data from 4<sup>th</sup> quarter 2014 (public health facilities only).

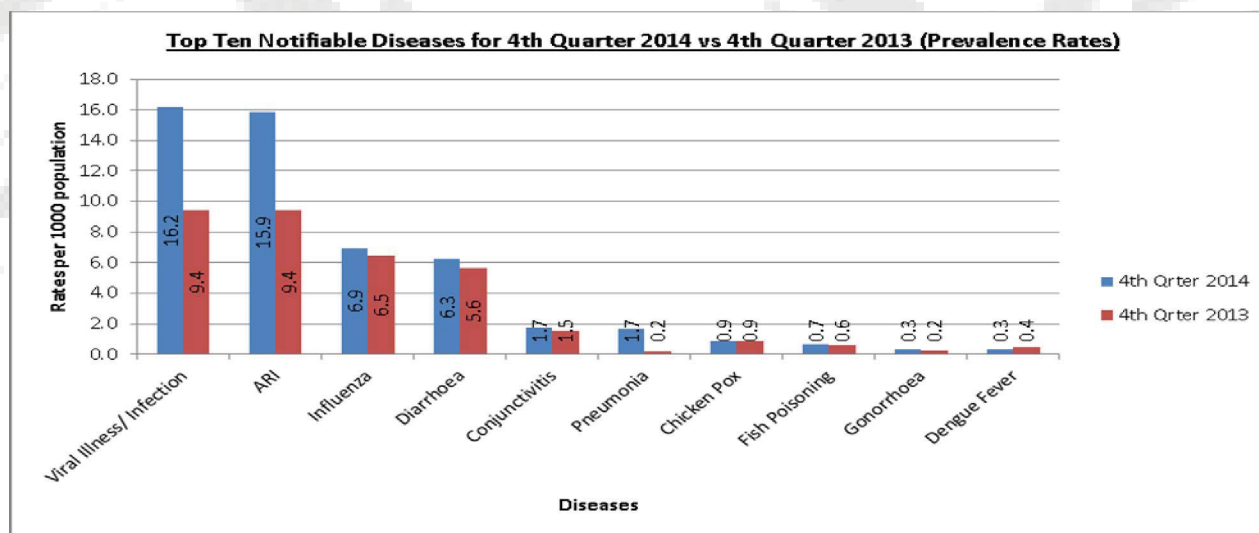
#### 3.1 Notifiable Diseases by Months for 4th Quarter 2014

No.	Diseases	October	November	December	Total
1	Acute Poliomyelitis	0	0	0	0
2	Acute Respiratory Infection	4,404	5,635	3,684	13,723
3	Anthrax	0	0	0	0
4	Brucellosis	0	0	0	0
5	Chicken Pox	289	294	162	745
6	Cholera	0	0	0	0
7	Conjunctivitis	534	536	407	1,477
8	Dengue Fever	66	121	90	277
9	Diarrhoea	1,706	2,043	1,655	5,404
10	Diphtheria	0	0	0	0
11	Dysentery (a) Amoebic	0	1	1	2
	(a) Bacillary	16	11	3	30
12	Encephalitis	0	0	1	1
13	Enteric Fever (a) Typhoid	28	20	13	61
	(b) Para Typhoid	0	0	0	0
14	Fish Poisoning	150	246	190	586
15	Ciguatera Fish Poisoning	0	0	2	2
16	Food Poisoning	5	17	9	31
17	German Measles (Rubella)	7	3	0	10
18	Infectious Hepatitis	55	21	34	110
19	Influenza	2,263	2,737	1,006	6,006
20	Leprosy	0	1	0	1
21	Leptospirosis	4	1	3	8
22	Malaria	0	0	0	0
23	Measles (Morbilli)	0	6	5	11
24	Meningitis	1	3	5	9
25	Mumps	2	2	0	4
26	Plague	0	0	0	0
27	Pneumonia	470	650	320	1,440
28	Puerperal Pyrexia	0	0	0	0
29	Relapsing Fever	0	0	0	0
30	Rheumatic Fever	1	0	0	1
31	Smallpox	0	0	0	0
32	Tetanus	0	0	0	0
33	Trachoma	29	12	4	45
34	Tuberculosis (a) Pulmonary	24	26	21	71
	(b) Others	0	0	0	0
35	Typhus	0	0	0	0
36	Viral Illness/ Infection	5,225	5,754	2,990	13,969
37	Whooping Cough	0	0	0	0
38	Yaws	0	0	0	0
39	Yellow Fever	0	0	0	0
40	<b>Sexually Transmitted Diseases</b>				
	(a) Gonorrhoea	104	113	73	290
	(b) Candidiasis	21	19	19	59
	(c) Chlamydia	0	0	0	0
	(d) Congenital Syphilis	2	4	1	7
	(e) Granuloma Inguinale	0	0	0	0
	(f) Herpes Zoster	3	4	6	13
	(g) Ophthalmia Neonatorum	0	0	0	0
	(h) PID	0	0	0	0
	(i) Syphilis	32	57	29	118
	(j) Trichomoniasis	5	14	7	26
	(k) Veneral Warts	0	0	0	0

Source: NNDSS

#### Notes:

1. The vaccine preventable diseases have been validated with the VPD Surveillance mechanism.
2. The leprosy case has been confirmed with the respective unit.
3. Chlamydia testing does not currently happen in the country.
4. There may be some discrepancies as all lab based data are not reported and private



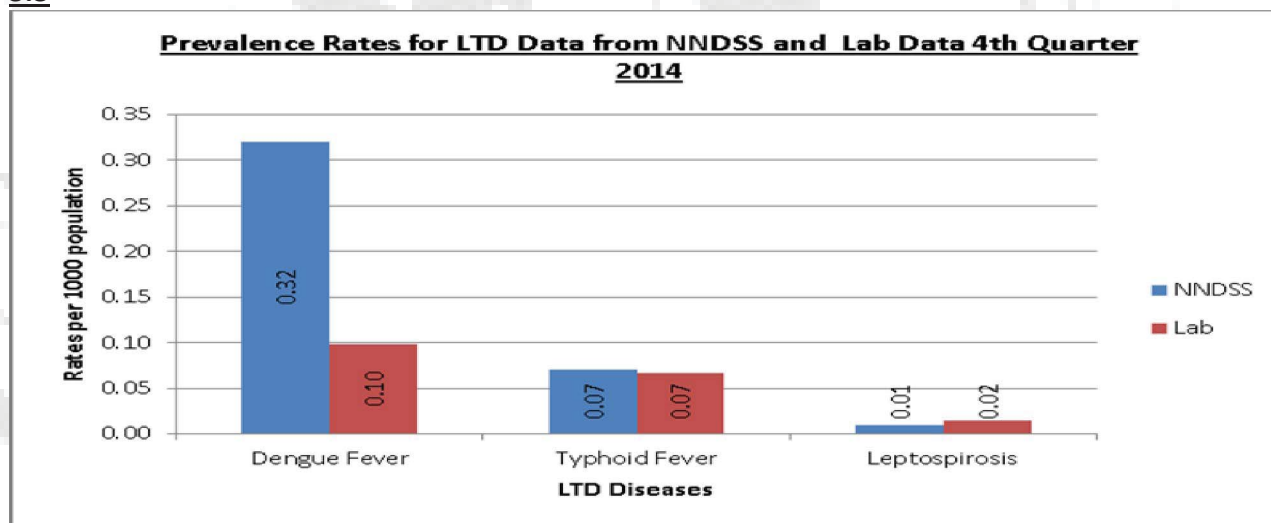
Source: NNDSS

**3.2** The rates were calculated using 2014 projections from FBOS (864370) and reported as per 1000 population. The predominance of Viral Illness, ARI, Influenza and Diarrhoea is noted in both 2013 and 2014. The GPs reports are also included; therefore the figures are higher in 2014 compared to 2013.

Dengue fever is the 10<sup>th</sup> leading cause of disease for 2013 (n=384) and 2014 (n=277) signaling for public health interventions for these areas to reduce risks of outbreaks similar to the 2013-2014 outbreak.

There is an obvious time lag noted for this reporting period as a result of pending submissions. Time lags affect analysis and comprehensivity of reports markedly. **On average there was only 86% reporting for this period from the divisions which makes surveillance for infectious diseases difficult as sensitivity of the system reduces with reduction of complete and timely reports.**

### 3.3

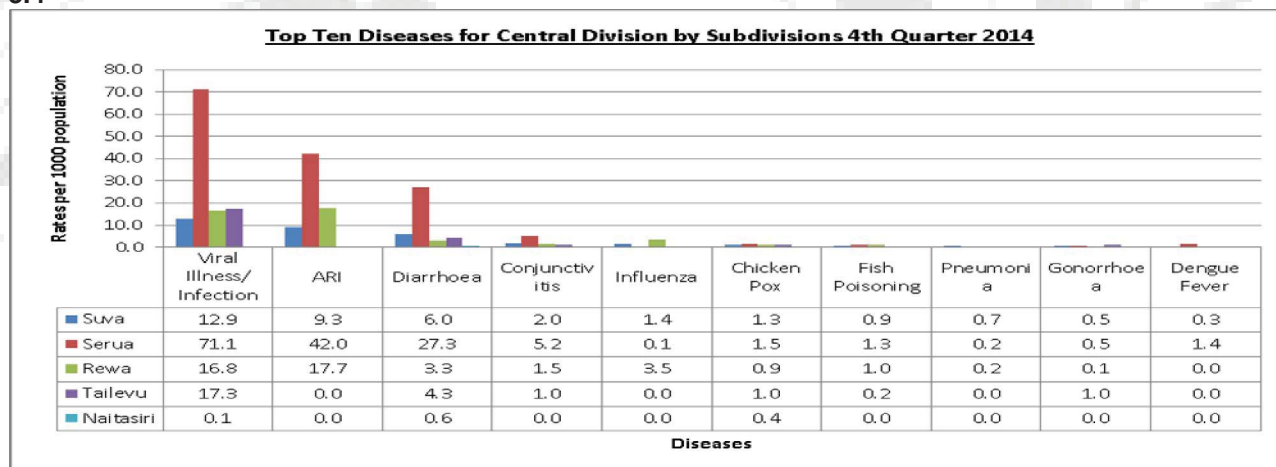


Source: NNDSS and Lab data

The rates were calculated using 2014 projections from FBOS (864370) and reported as per 1000 population. The data sources are NNDSS and Laboratory data from Mataika House. There is a larger case load of Dengue Fever from the NNDSS (n=277) compared to laboratory confirmed data (n= 85); this is due to clinically suspected cases being reported in NNDSS. The Laboratory confirmed cases of Typhoid fever are 58 and NNDSS notes 61 cases. There were 8 cases of Leptospirosis reported from NNDSS whereas 13 cases were from Laboratory data (note that some cases were not reported on NNDSS).



### 3.4

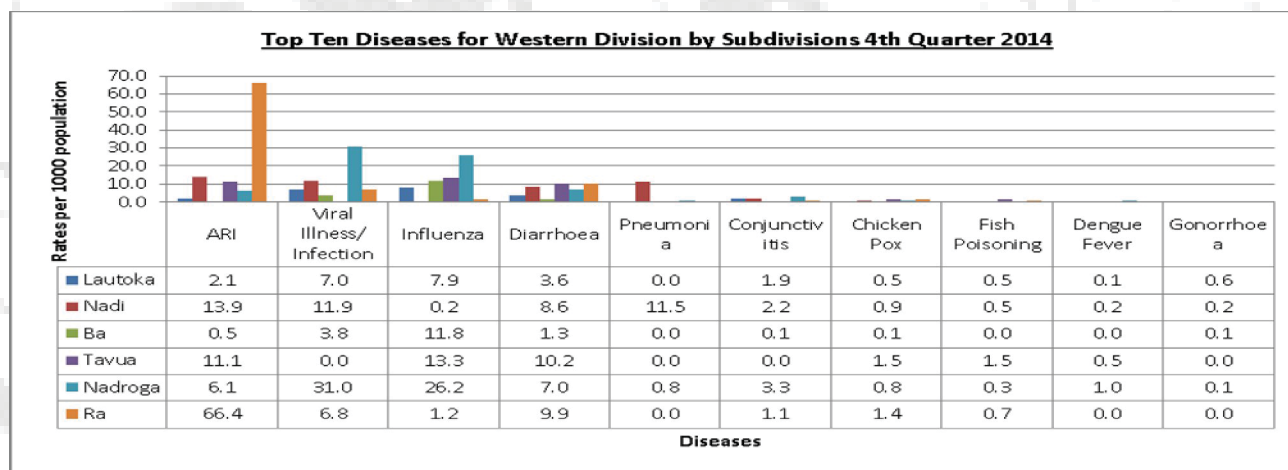


Source: NNDSS

The rates were calculated using 2014 projections from FBOS and HIU population proportions were applied to this dataset (Suva 204633, Serua 27996, Rewa 79772, Tailevu 18865 and Naitasiri 18902) and reported as per 1000 population. The predominance of Viral Illness, ARI, Diarrhoea, Conjunctivitis and Influenza were recorded in central division and is mostly recorded in Serua/ Namosi; due to the complete report received from this sub division. All the conditions in Central division are following the national ranking order but in differing rank order.

Dengue cases are noted in Suva (n=67) and Serua (n=38), signaling for public health interventions for prevention of outbreaks such as the 2013-2014 outbreaks. TB cases were reported in Suva (n=63) and Naitasiri (n=1) and respective public health and contact tracing are warranted for the areas with confirmed cases. Public health and clinical interventions must be cohesive and complimentary.

Suva also reported 73 cases of infectious hepatitis (predominantly Hepatitis A) signaling a clear need for early public health response.



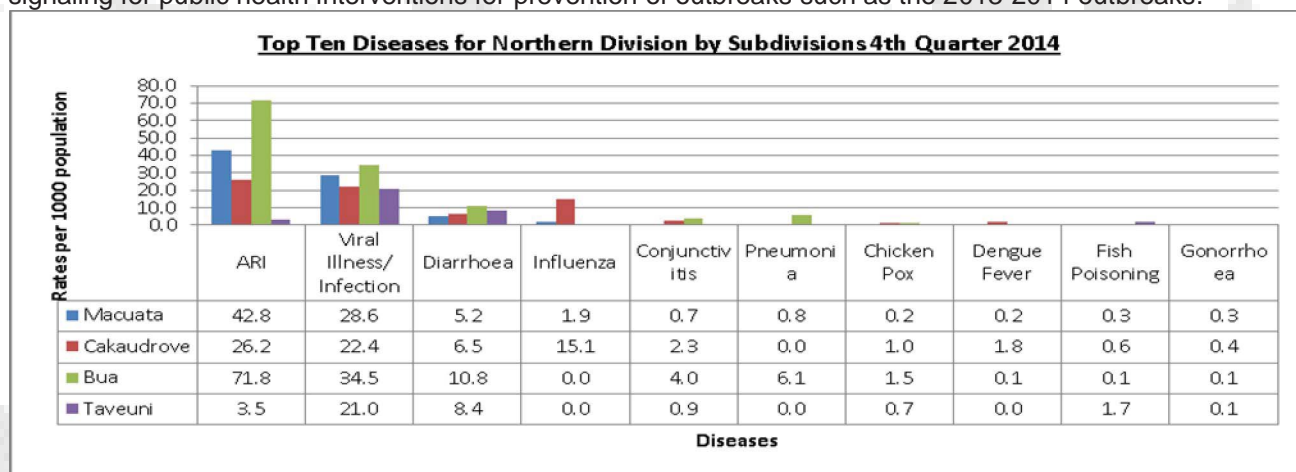
Source: NNDSS

The rates were calculated using 2014 projections from FBOS and HIU population proportions were applied to this dataset (Lautoka 102195, Nadi 85990, Ba 52755, Tavua 25070, Nadroga 51003 and Ra 28275) and reported as per 1000 population. The predominance of ARI, Viral Illness, Influenza, Diarrhoea and Pneumonia were recorded in Western division and is mostly recorded in Ra; due to the complete report received from this sub division. All the conditions in Western division are following the national ranking order but in differing rank order.

TB cases were reported in Lautoka (n=1) and Ra (n=1) and respective public health and contact tracing are warranted for the areas with confirmed cases. Public health and clinical interventions must be cohesive and complimentary.

Infectious hepatitis (predominantly Hepatitis A) cases were also reported in Lautoka (n=15), Nadi (n=2), Ba (n=3), Tavua (n=1) and Nadroga (n=7) signaling a clear need for early public health response.

Dengue cases are noted in Lautoka (n=14), Nadi (n=18), Tavua (n=12), Nadroga (n=53) and Ra (n=1), signaling for public health interventions for prevention of outbreaks such as the 2013-2014 outbreaks.



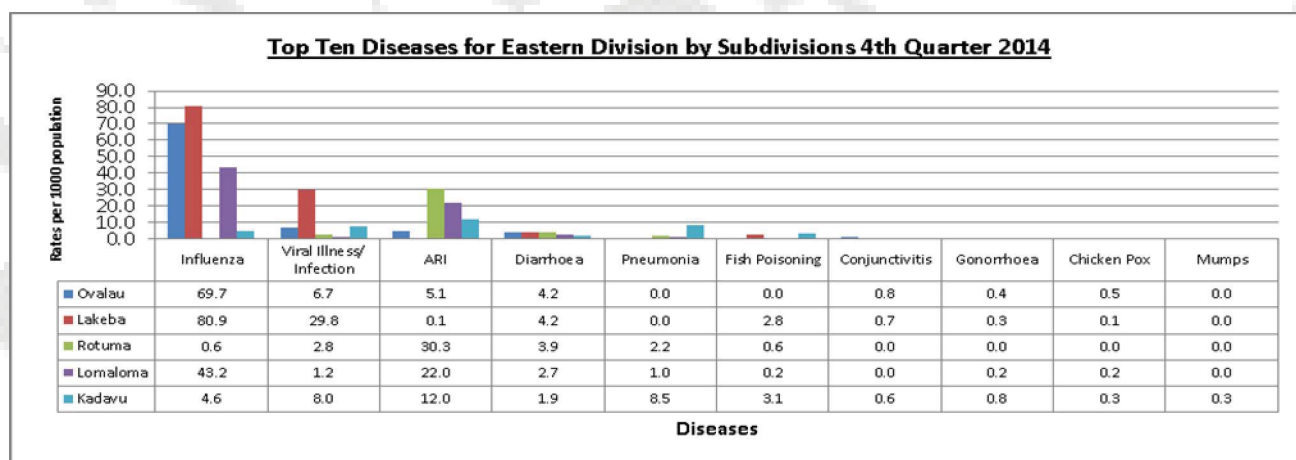
Source: NNDSS

The rates were calculated using 2014 projections from FBOS and HIU population proportions were applied to this dataset (Macuata 70960, Cakaudrove 30918, Bua 15083 and Taveuni 15646) and reported as per 1000 population. The predominance of ARI, Viral Illness, Diarrhoea, Influenza and Conjunctivitis were recorded in Northern division. Majority of the cases are recorded in Bua and Macuata sub divisions. All the conditions in Western division are following the national ranking order but in differing rank order.

Dengue cases are noted in Macuata (n=13), Cakaudrove (n=56) and Bua (n=2), signaling for public health interventions for prevention of outbreaks such as the 2013-2014 outbreaks.

TB cases were reported in Macuata (n=4) and Tavua (n=1) and respective public health and contact tracing are warranted for the areas with confirmed cases. Public health and clinical interventions must be cohesive and complimentary.

Infectious hepatitis (predominantly Hepatitis A) cases were also reported in Macuata (n=4) and Cakaudrove (n=2) signaling a clear need for early public health response.



Source: NNDSS

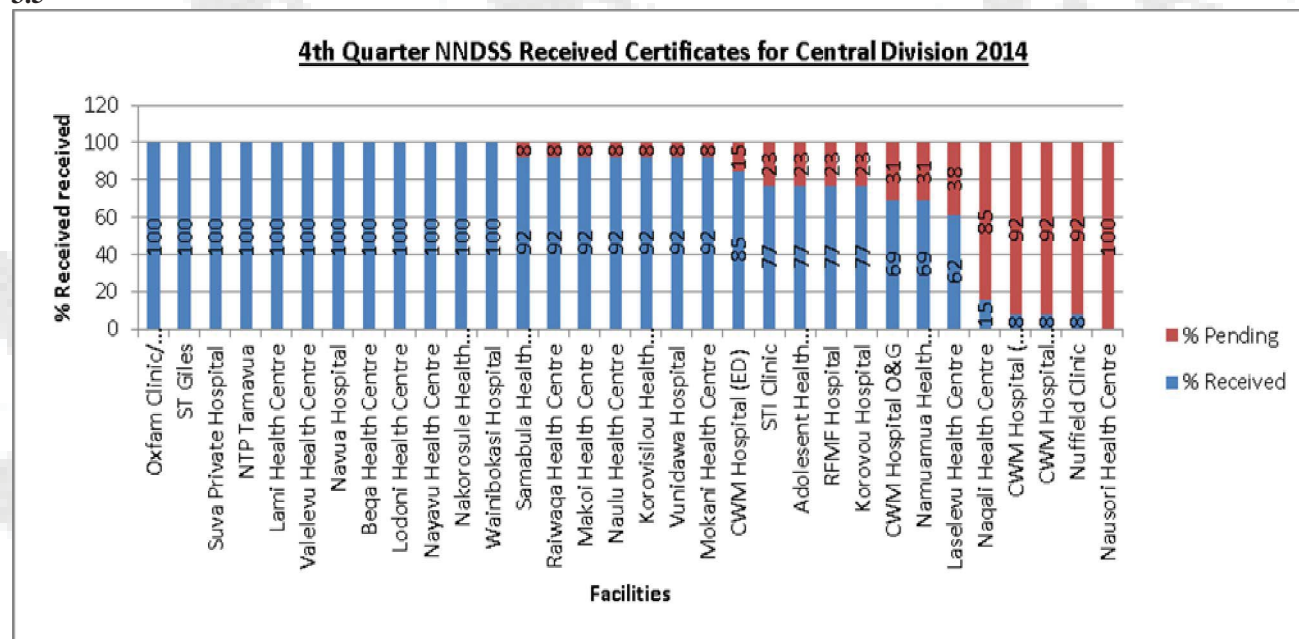
The rates were calculated using 2014 projections from FBOS and HIU population proportions were applied to this dataset (Lomaiviti 13122, Lakeba 6883, Rotuma 1815, Lomaloma 4094 and Kadavu 10390) and reported as per 1000 population. The predominance of Influenza, Viral Illness, ARI, Diarrhoea and Pneumonia were recorded in Eastern division. Majority of the cases are recorded in Ovalau and Lakeba sub divisions.

The top nine conditions in Eastern division are following the national ranking but in different rank order.

Dengue cases are noted in Ovalau (n= 3), signaling for public health interventions for prevention of outbreaks such as the 2013-2014 outbreaks.

Infectious hepatitis (predominantly Hepatitis A) cases were reported in Kadavu (n=1) and Lakeba (n=2) signaling a clear need for early public health response.

### 3.5

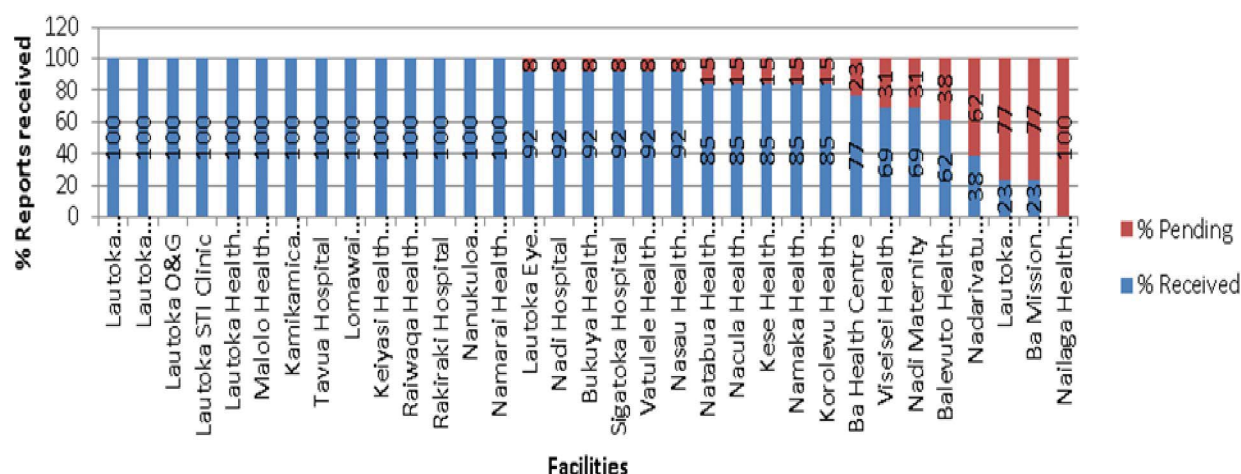


Source: NNDSS

For Central division 88% reports being received for 4th quarter 2014.

When this issue had been compiled reports from CWM Hosp O&G, CWM Paediatric, CWM Medical, CWM ED, STI Clinic, Adolescent Health Development, Samabula HC, Raiwaqa HC, Nuffield Clinic, RFMF, Makoi HC, Naulu HC, Korovisilou HC, Namua HC, Korovou HC, Vunidawa HC, Naqali HC, Laselevu HC, Nausori HC and Mokani HC were still pending resulting in lower cases of reportable communicable diseases in Central division.

#### 4th Quarter NNDSS Received Certificates for Western Division 2014

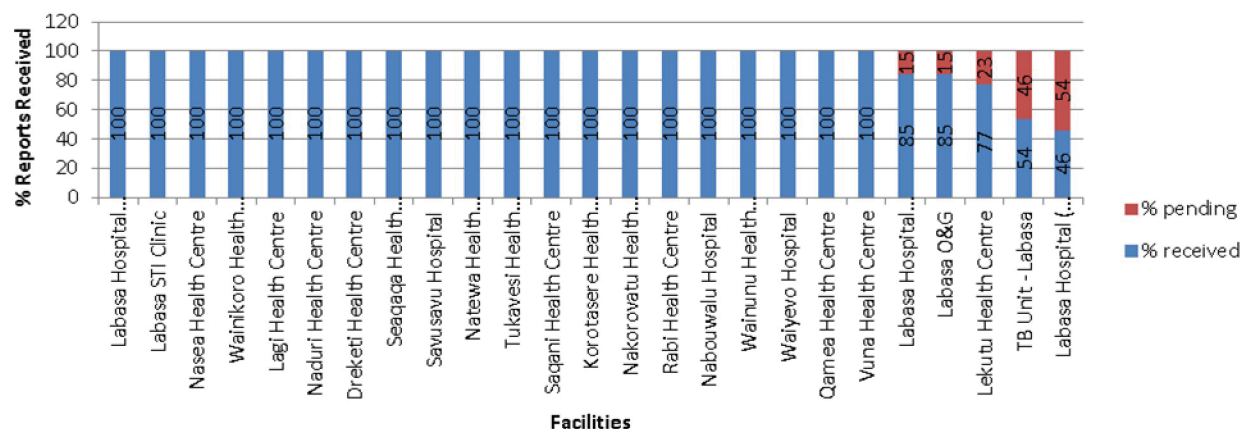


Source: NNDSS

For Western division 83% reports being received for 4th quarter 2014.

When this issue had been compiled reports from Lautoka Hosp (medical), Lautoka eye department, Natabua HC, Nacula HC, Kese HC, Viseisei HC, Nadi Hosp, Nadi Maternity, Namaka HC, Bukuya HC, Ba HC, Ba Mission Hosp, Balevuto HC, Nailaga HC, Nadarivatu HC, Sigatoka Hosp, Korolevu HC, Vatulele HC and Nasau HC were still pending resulting in lower cases of reportable communicable diseases in Western division.

#### 4th Quarter NNDSS Received Certificates for Northern Division 2014

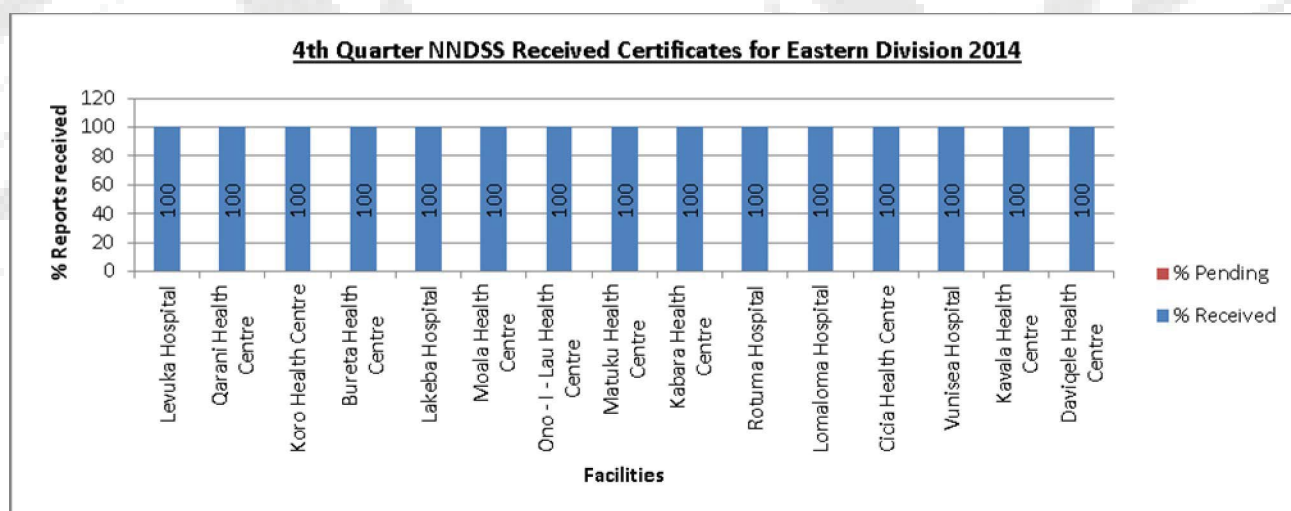


Source: NNDSS

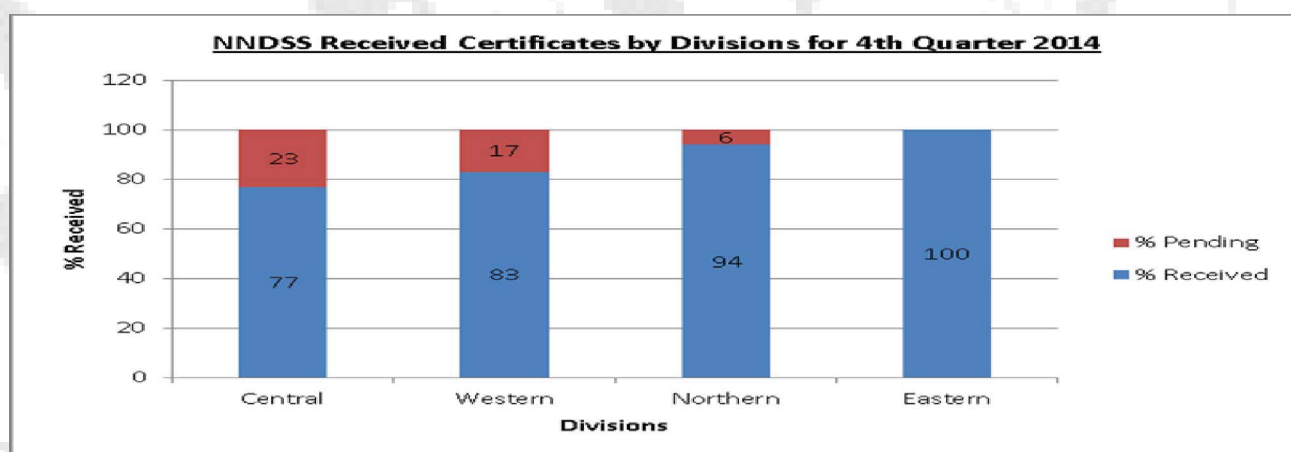
For Northern division 94% reports being received for 4th quarter 2014.

When this issue had been compiled reports from Labasa Hosp (GOPD and Paediatric), Labasa O&G, TB unit Labasa and Lekutu HC were still pending resulting in lower cases of reportable communicable diseases in Northern division.





Source: NNDSS



Source: NNDSS

*The following divisions are congratulated for being the best divisions in NNDSS reporting:*

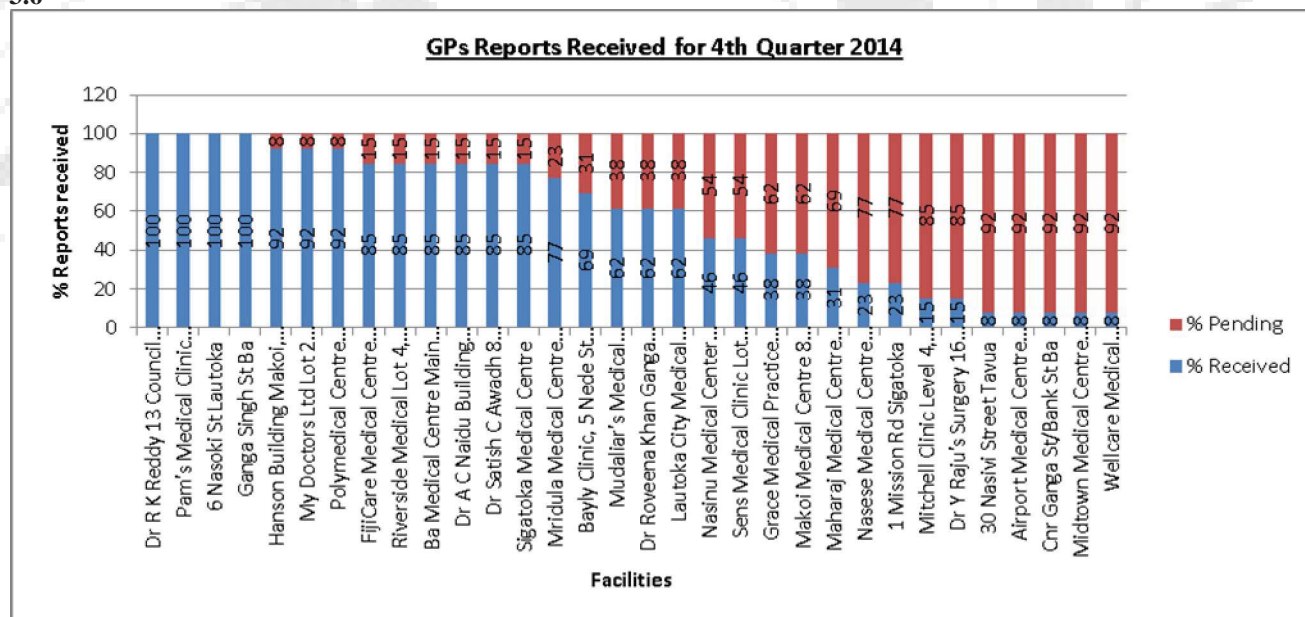
**Eastern – 100% for 4<sup>th</sup> quarter 2014**

The Central division had the lowest rates of reporting at 77%, followed by Western division with 83% reporting and alternately Northern division stands at 94% reporting for 4<sup>th</sup> quarter 2014.

#### **Recommendations**

HIU requests all the divisions to improve their submissions and capture of notifiable diseases as the deadline for receiving of all the notifiable diseases certificates is on a weekly basis. All outbreak situations still require routine reporting on the Notifiable Disease Certificate. The timeliness of submissions needs marked improvement from all facilities in all divisions.

### 3.6



Source: NNDSS

The General Practitioners have been reporting the Notifiable disease reports since April of this year (2014) and acknowledging all the private practitioners who have been submitting their reports. Out of 100 GPs, the total of 32 GPs have submitted their reports for the 4th quarter 2014 (October to December). Acknowledgement is made to the 4 GPs who have complied with 100% reporting for the 4<sup>th</sup> quarter. The rest of the GP's and private laboratories are encouraged to follow suit.

#### **Recommendations:**

Requesting all the GPs to report the Notifiable disease reports as required according to the Public Health Act to report every weekending and if there is no case also report and indicate as NIL case.

Private laboratories are yet to report cases (Vanmed, Austec, and Suva Private Lab).



## MORTALITY

(Data source: Medical cause of death certificate)

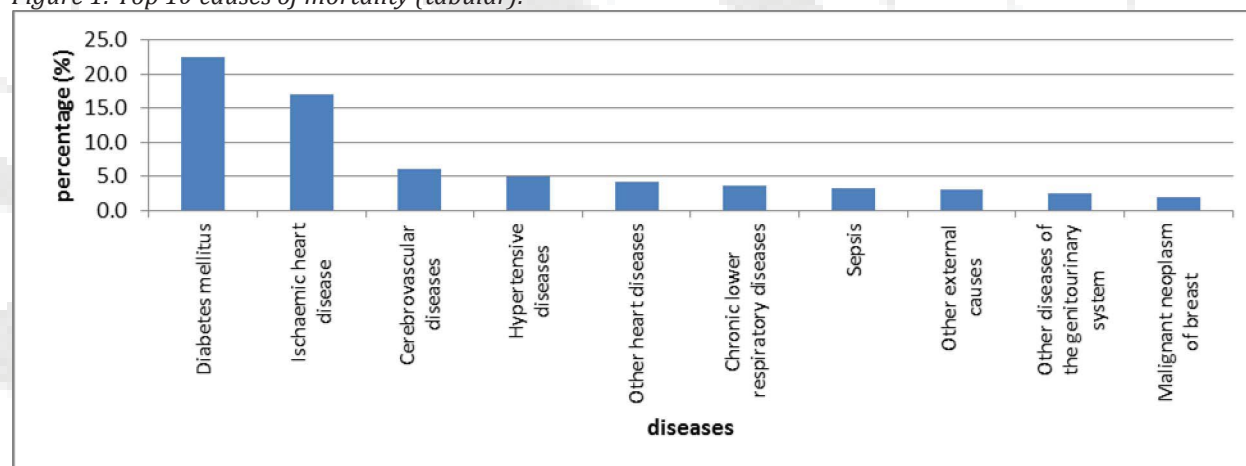
A total of 1050 Medical Cause of Death Certificates was received at the Health Information Unit at the end of 4<sup>th</sup> quarter, 2014 giving an estimated Crude death Rate of 1 per 1000 population (using the 2013 population as denominator). This does not include eight (8) stillbirths. There is not much of a difference when compared to the 4<sup>th</sup> quarter of 2013 (there were 1068 certificates received) which had an estimated crude death rate of 1 per 1000 population (using the 2013 population as denominator).

4.1 Table 1: Top 10 causes of mortality (by chapter).

#	Diseases	Deaths	%
1	Diseases of the circulatory system	345	32.9
2	Endocrine, nutritional and metabolic diseases	259	24.7
3	Neoplasms	109	10.4
4	External causes of mortality	63	6
5	Certain infectious and parasitic diseases	60	5.7
6	Diseases of the respiratory system	59	5.6
7	Diseases of the genitourinary system	27	2.6
8	Diseases of the digestive system	25	2.4
9	Diseases of the nervous system	18	1.7
10	Certain conditions originating in the perinatal period	17	1.6
	<b>Grand Total</b>	<b>1050</b>	

Non Communicable Diseases accounted for the major cause of mortality for the 4<sup>th</sup> quarter of 2014 covering 79% of the total mortality whilst 21% covered the rest of the diseases. Diseases of the circulatory system topped the charts with 32.9% followed by endocrine, nutritional and metabolic diseases at 24.7%, Neoplasm recorded 10.4%, External causes of injuries 6% and diseases of the respiratory system 5.6%. The causes of mortality excluded the ill-defined causes of mortality (3.1%). In comparison to the same period last year, NCDs were also the major cause of mortality covering 85% whilst 15% was due to the rest of the diseases [Circulatory diseases were 35%, endocrine and nutritional and metabolic diseases covers 26%, neoplasm 13%, respiratory diseases 5% and injuries 5%].

Figure 1: Top 10 causes of mortality (tabular).



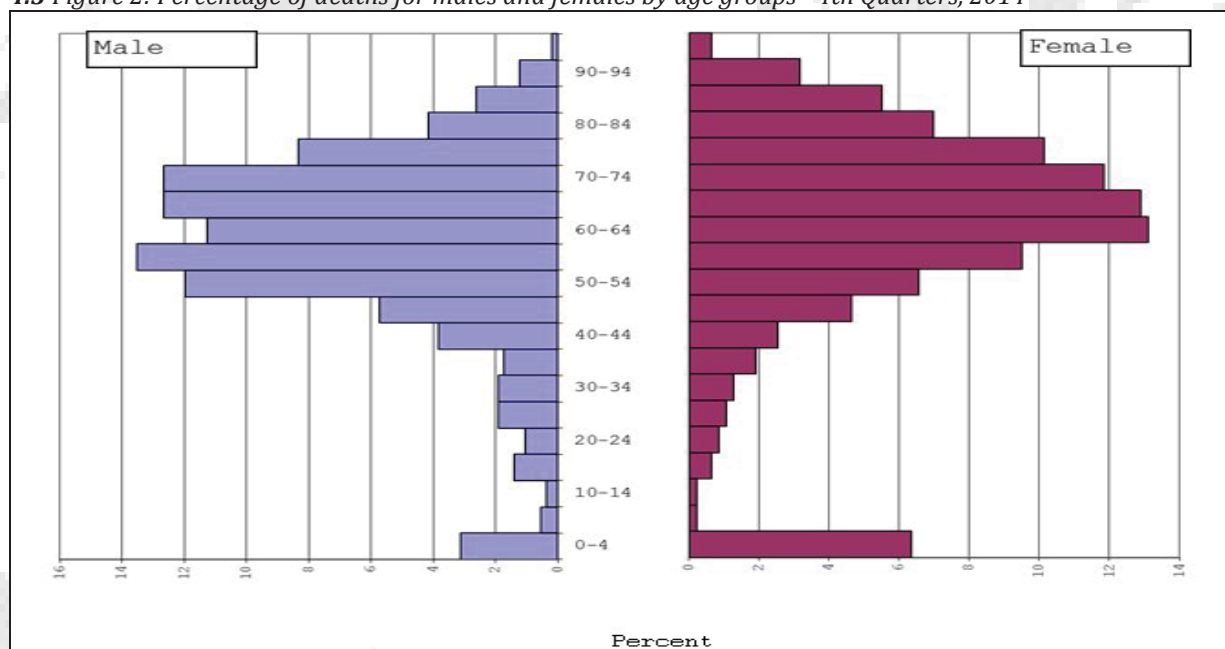
The graph above shows that NCD and infectious diseases are the major causes of mortality with diabetes leading at 22.3%. However, IHD and other CVD combined is almost equivalent to the percentage of Diabetes Mellitus. Malignant neoplasms of breast appeared in the top 10 causes at 1.9%. Other external causes of mortality include 11 deaths due to accidental exposure to unspecified factor, 10 deaths due to hanging with undetermined intent and 3 due to inhalation and ingestion of food causing obstruction of respiratory tract (where 2 were infants).

**4.2 Table 2: Males vs Females mortality**

<b>Male</b>			<b>Female</b>		
<b>Diseases</b>	<b>Total</b>	<b>%</b>	<b>Diseases</b>	<b>Total</b>	<b>%</b>
Diseases of the circulatory system	211	36.6	Diseases of the circulatory system	134	28.3
Endocrine, nutritional and metabolic diseases	130	22.5	Endocrine, nutritional and metabolic diseases	129	27.3
Neoplasms	45	7.8	Neoplasms	64	13.5
External causes of mortality	41	7.1	Certain infectious and parasitic diseases	35	7.4
Diseases of the respiratory system	41	7.1	External causes of mortality	22	4.7
Certain infectious and parasitic diseases	25	4.3	Diseases of the respiratory system	18	3.8
Diseases of the genitourinary system	19	3.3	Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified	17	3.6
Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified	16	2.8	Certain conditions originating in the perinatal period	10	2.1
Diseases of the digestive system	15	2.6	Diseases of the digestive system	10	2.1
Diseases of the nervous system	11	1.9	Diseases of the genitourinary system	8	1.7
Certain conditions originating in the perinatal period	7	1.2	Diseases of the nervous system	7	1.5
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	6	1.0	Congenital malformations, deformations and chromosomal abnormalities	6	1.3
Diseases of the skin and subcutaneous tissue	5	0.9	Diseases of the musculoskeletal system and connective tissue	6	1.3
Congenital malformations, deformations and chromosomal abnormalities	3	0.5	Mental and behavioral disorders	2	0.4
Diseases of the musculoskeletal system and connective tissue	2	0.3	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	2	0.4
<b>Grand Total</b>	<b>577</b>		Diseases of the skin and subcutaneous tissue	2	0.4
			Pregnancy, childbirth and the puerperium	1	0.2
			<b>Grand Total</b>	<b>473</b>	

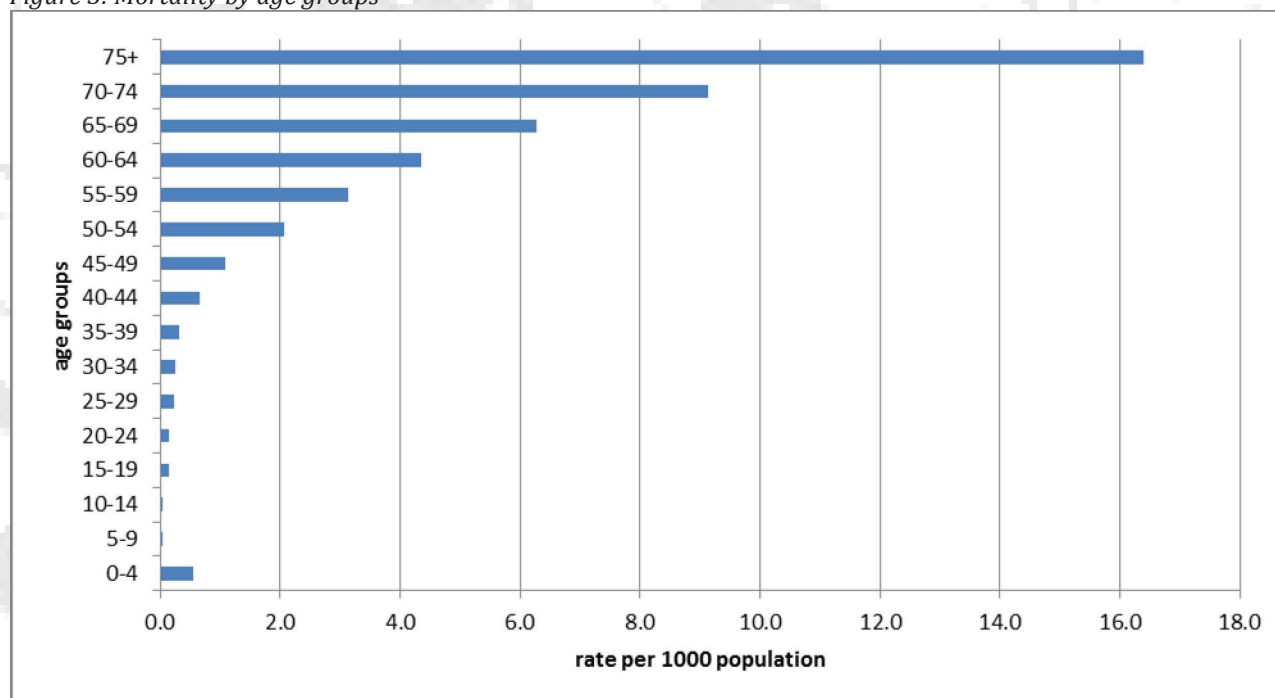
There were 577 male deaths and 473 female deaths for this quarter. The top three causes of death amongst both genders were similar. However, external causes of death were higher ranked in males compared to females for this reporting period. This trend was the same compared to the same period last year.

**4.3 Figure 2: Percentage of deaths for males and females by age groups - 4th Quarters, 2014**



The pyramid above illustrates a comparative of both gender by age groups. There was a significant increase in male deaths from 50 – 54 age groups; whereas females show a greater increase from 60+ age group. Males generally have a higher mortality rate (age specific) than females except in the 0-4 and 75+ age groups.

**Figure 3: Mortality by age groups**



As expected the majority of deaths are occurring in the older age groups (40- 75+). However attention is also drawn to the deaths in the 0-4 year age groups. The major cause of death for Under 5 years were conditions originating in the perinatal period. The most common causes of deaths for 30-34 and 35-39 years were from external causes of mortality. Diabetes mellitus was the most common cause of mortality for age groups 45-49years (21.8%), 50-54years (34%), 60-64years (29.9%), 65-69years (31.3%), 70-74years (31%), and 75years and above (20%) while Ischaemic heart disease was the most common cause of death in 40-44year olds at 41.2% and 55-59years at 25.2%.

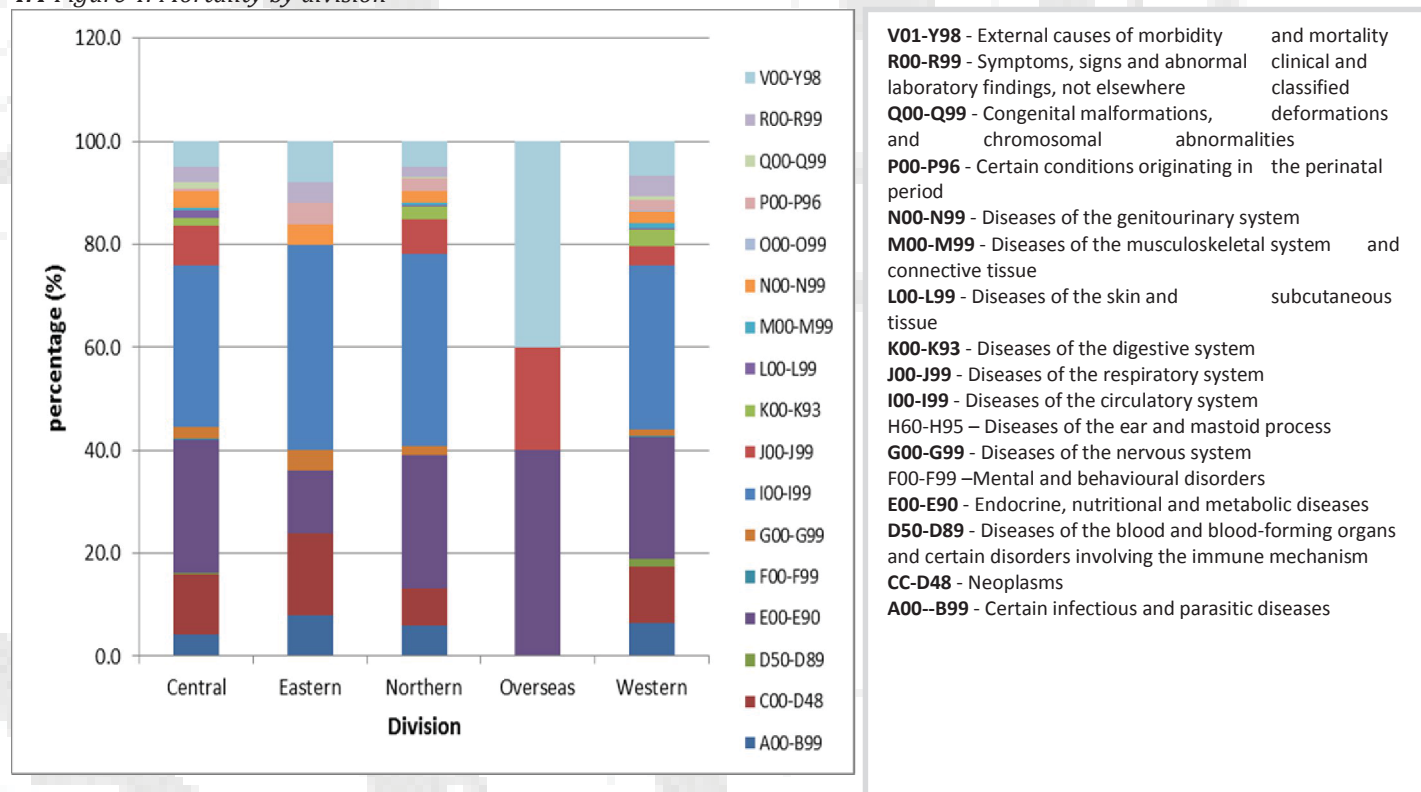
**Table 3: Premature mortality rate per 10,000 population (0-<65 yrs)**

Age groups	Deaths			Population			Rate per 10,000 population		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>0-4</b>	18	30	48	44927	42538	87465	4	7	5
<b>5-9</b>	3	1	4	44305	41646	85951	1	0	0
<b>10-14</b>	2	1	3	39860	36988	76848	1	0	0
<b>15-19</b>	8	3	11	40009	37482	77491	2	1	1
<b>20-24</b>	6	4	10	37307	35225	72532	2	1	1
<b>25-29</b>	11	5	16	35547	33414	68961	3	1	2
<b>30-34</b>	11	6	17	33912	32632	66543	3	2	3
<b>35-39</b>	10	9	19	30354	28942	59296	3	3	3
<b>40-44</b>	22	12	34	26637	25637	52275	8	5	7
<b>45-49</b>	33	22	55	25706	25472	51178	13	9	11
<b>50-54</b>	69	31	100	24497	23951	48448	28	13	21
<b>55-59</b>	78	45	123	19610	19609	39219	40	23	31
<b>60-64</b>	65	62	127	14374	14884	29257	45	42	43
<b>Grand Total</b>	<b>336</b>	<b>231</b>	<b>567</b>	<b>417045</b>	<b>398420</b>	<b>815465</b>	<b>8</b>	<b>6</b>	<b>7</b>

Deaths due to NCD's are a critical outcome indicator for NCD surveillance. Table 3 shows premature deaths due to NCD with age less than 65 years (0-64 years) with 54%. The denominator used in the calculation of the premature mortality rate was 2014 population projection from FIBoS. *(no. of deaths in each age groups by sex divided by the population in each age groups by sex multiplied by 10,000 population)* In this table presentation, it also illustrates that Male tend to die more than female due to NCD in all age group distribution. For every 10,000 population, 23 females between the age groups of 55-59 years die prematurely due to NCD compared to 40 males and 42 females between the age group of 60-64years die prematurely compared to 45 for males. Premature mortality by ethnicity was not calculated as the population number by ethnicity was not available when this report was prepared.

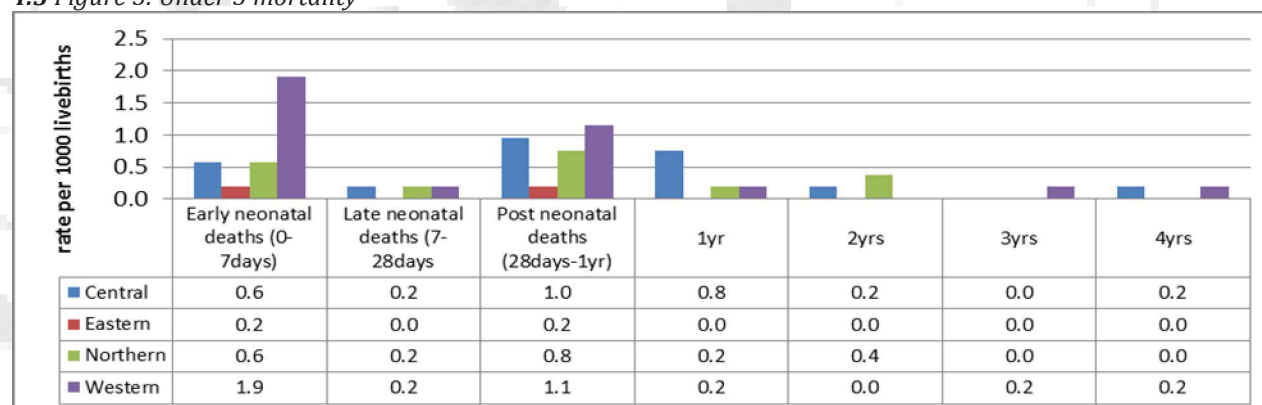


4.4 Figure 4: Mortality by division



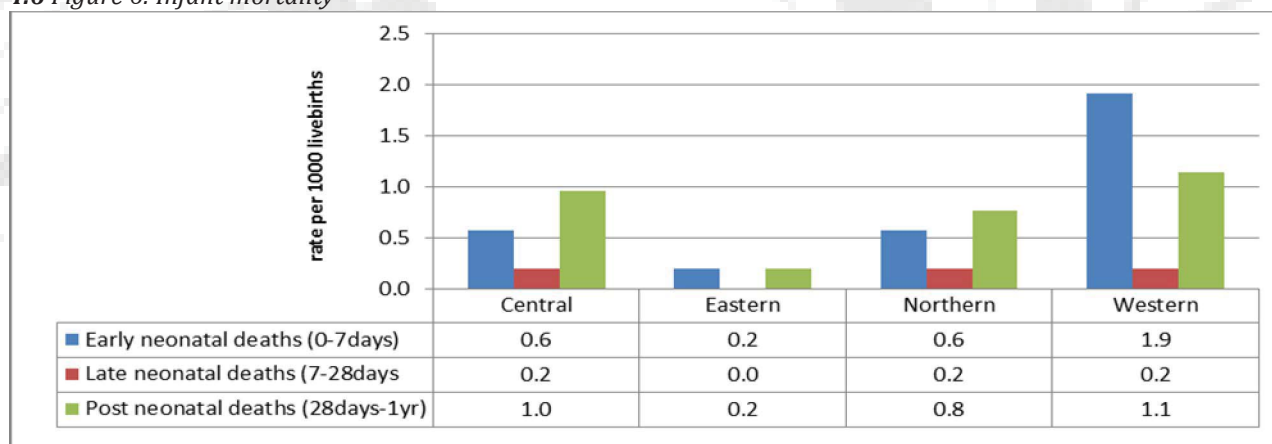
The above graph shows the deaths by division of residence of the deceased. Western division recorded the most with 45% deaths followed by Central division with 31.2%, Northern with 21%, Eastern by 2.4% and 0.5% were overseas residents.

4.5 Figure 5: Under 5 mortality



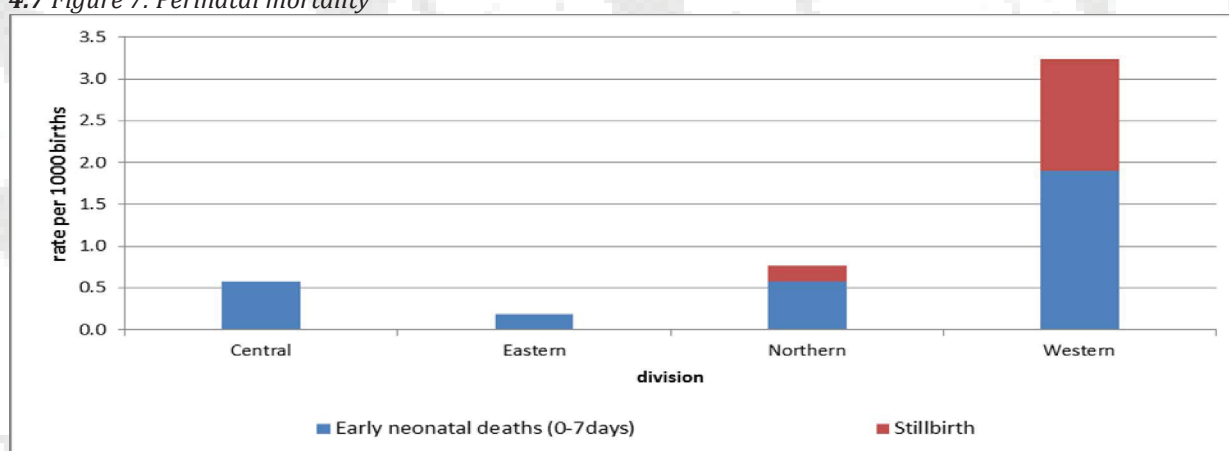
A total of 48 Under 5 deaths were reported giving an estimated Under 5 mortality rate of 9.2 per 1000 live births (using 2013 4<sup>th</sup> qtr. live births as denominator) for this quarter which means 9 out of 1000 live babies born did not reach their 5<sup>th</sup> birthday. In comparison to the same period last year the Under 5 mortality rate stood at 4 per 1000 live births. Western division recorded the highest Under 5 mortality, followed by Central division, then Northern and Eastern division.

**4.6 Figure 6: Infant mortality**



A total of 36 Infant deaths giving an estimated Infant Mortality Rate of 6.9 per 1000 live births (using 2013 4<sup>th</sup> qtr. live births as denominator) was reported in this quarter which means 7 of every 1000 live babies born did not reach their 1<sup>st</sup> birthday (compared to an IMR of 3 per 1000 live births at the same period last year). The most infant deaths were recorded from Western division followed by Central division then Northern division and eastern division recorded the least.

**4.7 Figure 7: Perinatal mortality**



A total of 25 perinatal deaths were recorded in the 4<sup>th</sup> quarter giving an estimated Perinatal Mortality Rate of 4.8 per 1000 births (using 2013 4<sup>th</sup> qtr. births as denominator). The Western recorded the most with 17 perinatal deaths, Northern recorded 4, Central recorded 3 perinatal deaths and the Eastern division recorded 1 perinatal death (In comparison to 2013 4<sup>th</sup> quarter, there was an estimated perinatal mortality rate of 8 per 1000 births). There was no stillbirth recorded for the Central division in this period and this may be due to late submission of the certificates to HIU. This will be captured in the Annual report.



Table 4: Number of MCDC yet to be received at HIU by months(hospital deaths during admission).

Facility	Month			Total
	October	November	December	
CWM Hospital	30	69	66	165
Labasa Hospital	2	0	3	5
Lautoka Hospital	3	2	1	6
<b>Total</b>	<b>35</b>	<b>71</b>	<b>70</b>	<b>176</b>

The table above shows the number of Medical cause of death certificates that are yet to be received at HIU. These are the admissions in PATISPLUS where the patient has been discharged as deceased. Please note that there were 185 MCDCs received from the CWMH after closure of submission dates for the bulletin (includes deaths that occurred at home). These were not included in the mortality analysis at all.

**Recommendations:**

The facilities are urged to provide Medical cause of Death Certificates to the unit within 48 hours after issuing MCDC or 48 hours after any mortality has occurred, except in the case of forensic investigations.

**HOSPITAL INFORMATION SYSTEM**

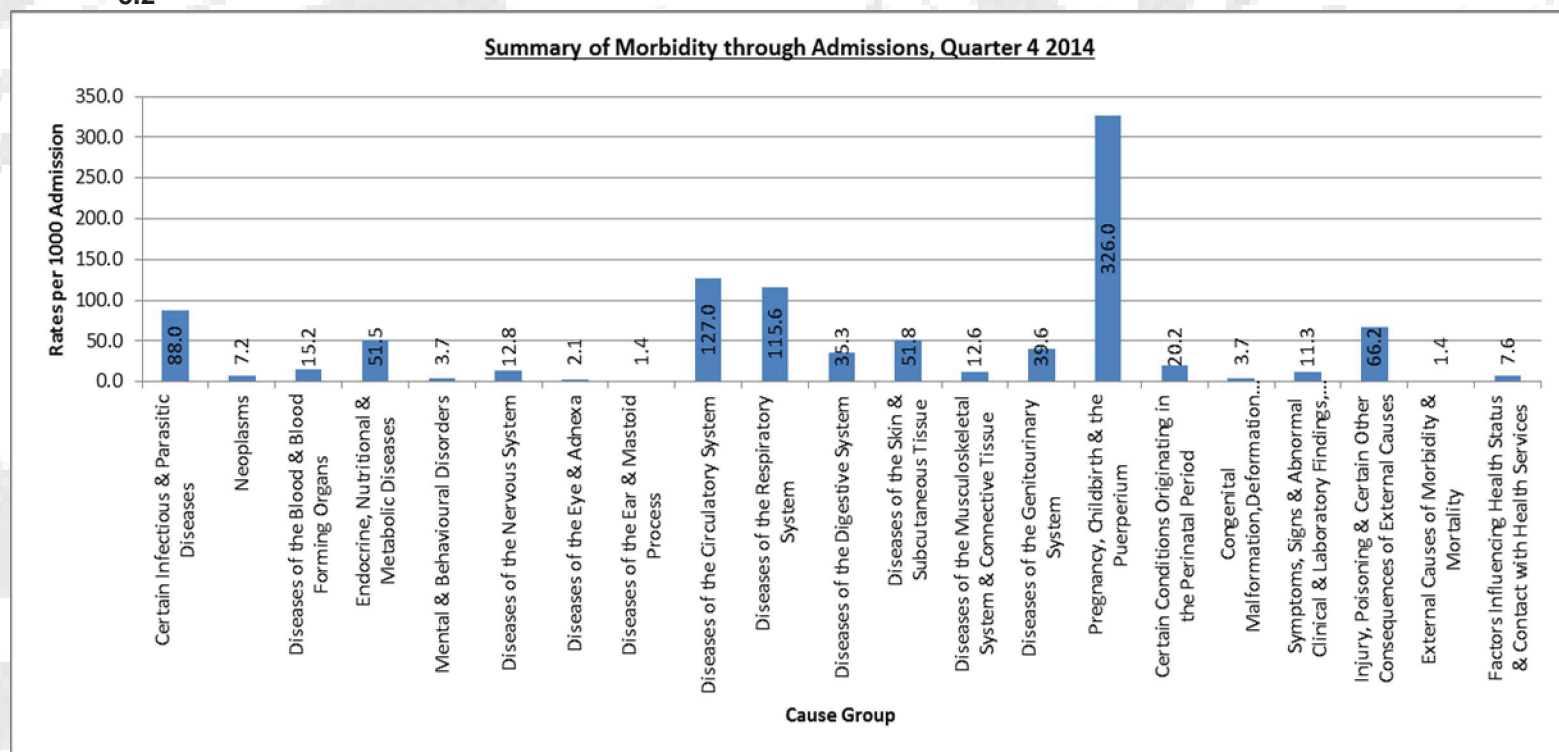
**5.1 REPORTING FACILITIES:**

**Total: 25;** Divisional Hospitals – 3; Subdivisional Hospitals – 18; Specialised Hospitals – 2 (St Giles, Tamavua/ Twomey Hospital ; Private Hospitals – 2 (Naiserelagi Maternity and Military Hospital)

Central	Western	Northern	Eastern
CWM Hospital	Lautoka Hospital	Labasa Hospital	Cicia Hospital
Korovou Maternity Hospital	Ba Mission Hospital	Nabouwalu Hospital	Lakeba Hospital
Nausori Maternity Hospital	Nadi Hospital	Savusavu Hospital	Lewuka Hospital
Navua Maternity Hospital	Naiserelagi Maternity Hospital	Waiyewo Hospital	Lomaloma Hospital
Tamavua/Twomey Hospital	Rakiraki Hospital		Matuku Hospital
Vunidawa Hospital	Sigatoka Hospital		Rotuma Hospital
Wainibokasi Hospital	Tavua Hospital		Vunisea Hospital
St Giles Hospital			

Data on Hospital services has been obtained from the Hospital Discharge Data, PATISPLUS for those facilities on-line and Manual Tear-Offs for those facilities where PATISPLUS is still not available. PATISPLUS is only available at CWM, Labasa, Lautoka and Nadi. Manual tear-offs are from the Sub-Divisional Hospitals. Hospital Discharge Data are obtained from all Sub-Divisional Hospitals and Divisional Hospitals (PATISPLUS).

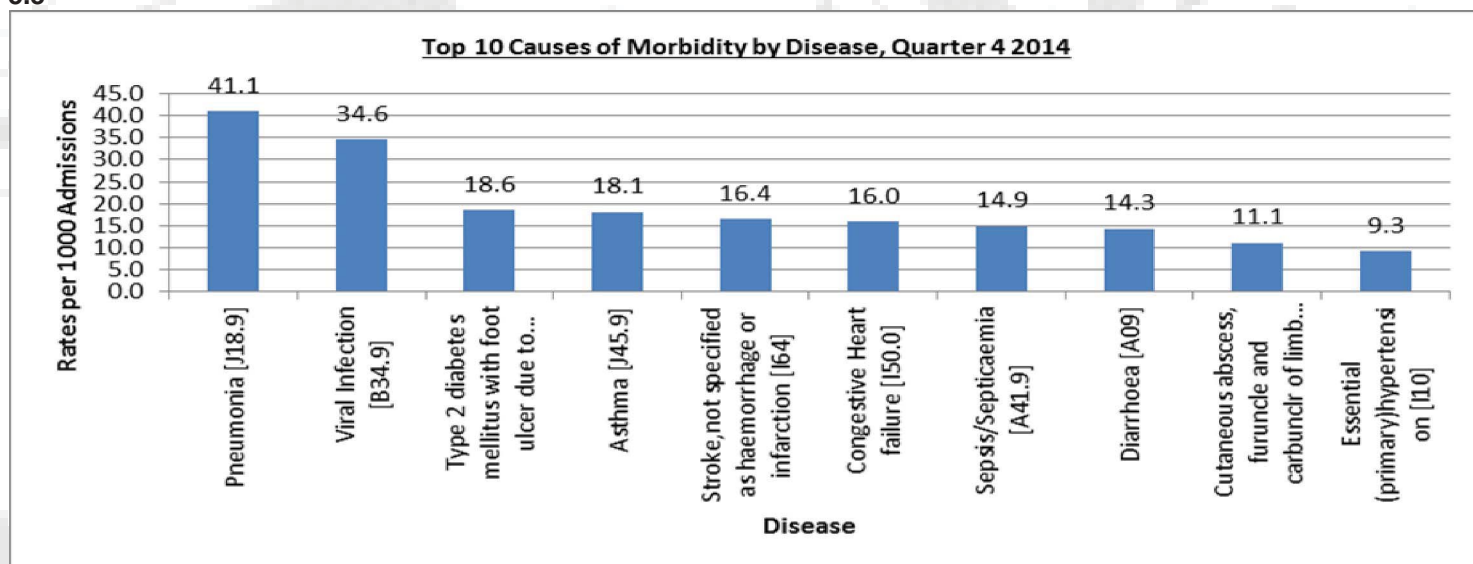
## 5.2



Source: Hospital Discharge Data from Sub-Divisional Hospitals and PATISPLUS

The above shows the Admissions by Cause Group in the 4th Quarter 2014. The leading overall admissions for the 4th Quarter are Pregnancy, Childbirth & the Puerperium (n=2141), Diseases of the Circulatory System (n= 834), Diseases of the Respiratory System (n= 759), Certain Infectious & Parasitic Diseases (n=578) and Injury, Poisoning & Certain Other Consequences of External Causes (n=435). The rates used were calculated per 1000 admissions. The admissions from the 4th Quarter 2013 were the same cause group admissions as in 4th Quarter 2014. The leading admissions for 2013 were once again attributed to Pregnancy, Childbirth & the Puerperium (n=999), Certain Infectious & Parasitic Diseases (n=464), Injury, Poisoning & Certain Other Consequences of External Causes (n=399), Diseases of the Respiratory System (n=369) and Diseases of the Circulatory System (n=357).

## 5.3



Source: HDD from Sub-Divisional and PATISPLUS

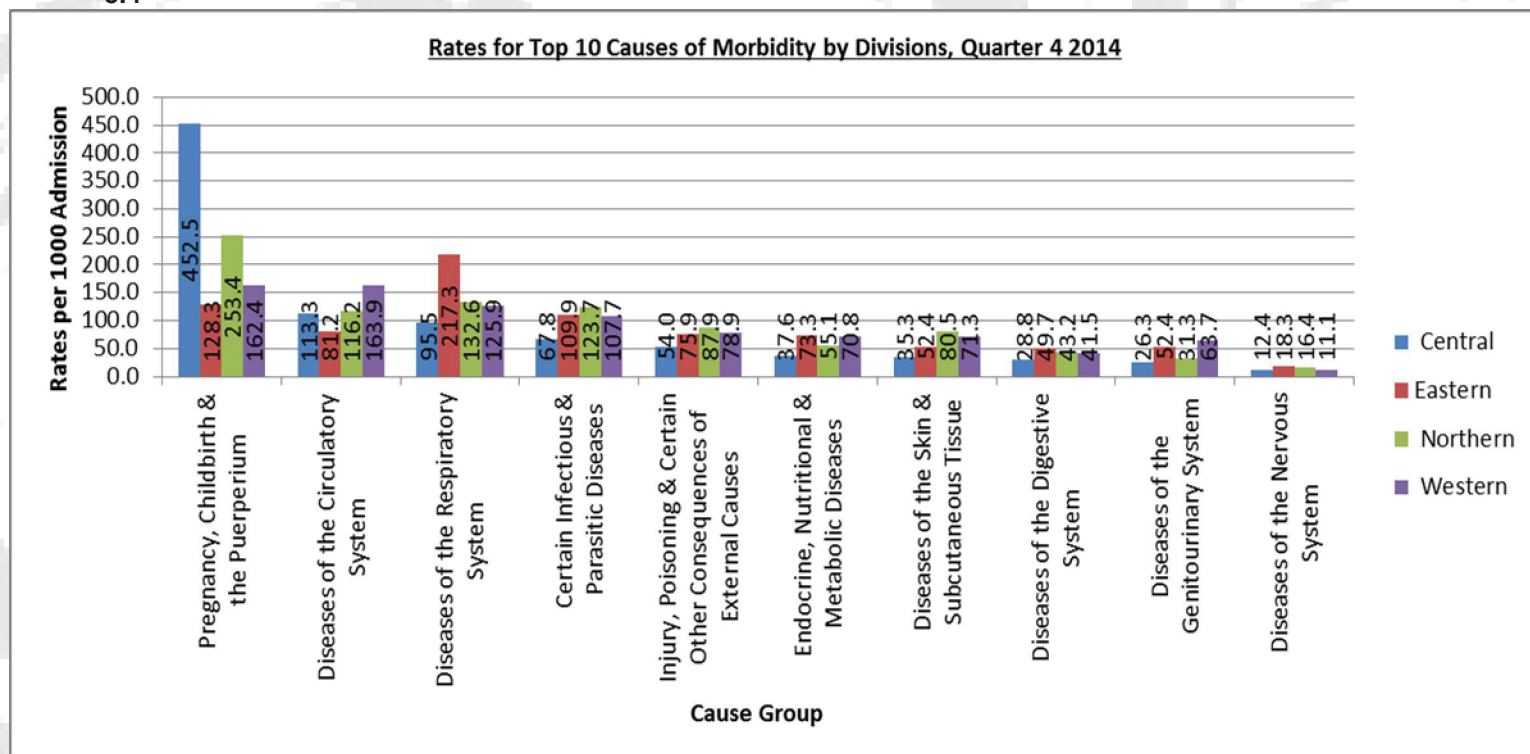
The graph above demonstrates the top 10 major causes of admission for the 4th quarter of 2014. **Single Spontaneous Delivery** accounted for the largest rate of admissions (n=751), while the 10th leading cause of admission was Essential Primary Hypertension (n= 61). There is a similarity in the leading cause of admissions for 4th Quarter 2013 which was attributed to Single spontaneous deliveries (n=478). The age groups with the highest rates of Single spontaneous deliveries are the 20-39 years for the 4th Quarter in both 2013 and 2014. The second leading cause of morbidity is **Perineal laceration during delivery**, where the admissions were highest among the 20-24 years; and highest among the Itaukei compared to Fijians of Indian descent or Fijians of other descent. Most admissions for Single spontaneous delivery were from CWMH Hospital for 4th Quarter 2014. **There was no reporting from Labasa Hospital both on PATISPLUS (obstetric module) and Manual Tearoffs.**

**Top 10 Causes of Morbidity by Disease, Division, Gender, Race & Age Groups, Quarter 4, 2014**

ICD 10 Code	Disease Description	DIVISION				GENDER			RACE		AGE GROUPS																
		Central	Eastern	Northern	Western	Fijian	Indian	Other	Female	Male	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	
J18.9	Pneumonia	270	122	42	33	73	216	42	12	117	153	45	78	11	3	4	8	10	5	7	10	20	11	9	10	31	
B34.9	Viral Infection	227	81	27	22	97	139	83	5	103	124	5	19	10	13	16	17	18	17	13	8	17	18	16	15	11	14
E11.73	Type 2 diabetes mellitus with foot ulcer due to multiple causes	122	47	0	11	64	81	38	3	60	62	0	0	0	0	0	0	1	4	3	5	7	25	20	20	20	17
J45.9	Asthma	119	29	19	14	57	49	64	6	48	71	0	8	2	2	6	5	7	5	3	16	8	15	15	8	6	13
I64	Stroke, not specified as haemorrhage or infarction	108	44	7	15	42	57	46	5	45	63	0	0	0	0	0	1	1	1	3	1	10	15	8	16	42	
I50.0	Congestive Heart failure	105	54	9	8	34	56	45	4	49	56	0	0	0	1	0	1	1	2	2	5	6	11	11	15	16	34
A41.9	Sepsis/Septicaemia	98	37	4	6	51	59	34	5	51	47	1	6	0	0	2	0	1	2	3	1	6	11	16	10	15	24
A09	Diarrhoea	94	23	7	35	29	60	26	8	38	56	4	19	11	0	4	3	5	4	7	2	7	4	6	4	5	9
L02.4	Cutaneous abscess, furuncle and carbuncle of limb	73	9	4	20	40	56	16	1	27	46	2	3	1	1	2	3	6	4	2	3	2	9	9	7	9	10
I10	Essential (primary) hypertension	61	16	4	10	31	42	14	5	36	25	0	1	0	0	0	0	1	2	3	4	11	5	9	6	7	12
	Grand Total	1277	462	123	174	518	815	408	54	574	703	57	134	35	20	34	38	49	51	44	52	84	128	102	115	115	206

Source: HDD from Sub-Divisional and PATISPLUS

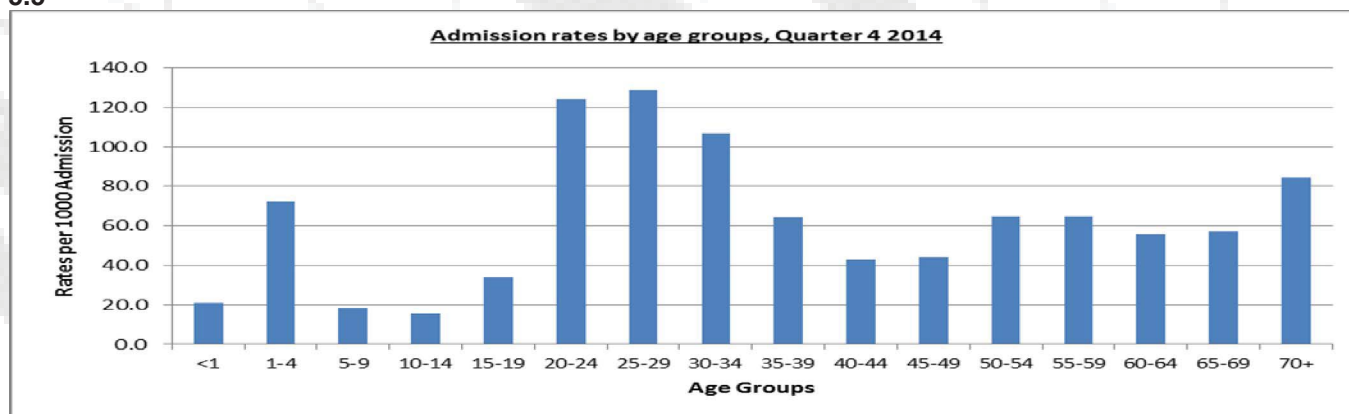
## 5.4



Source: Manual Tear-Offs & PATISPLUS

The above graphs demonstrate the top 10 classifications of morbidity by divisions. Most admissions were reported in the Central Divisions (n= 3538) followed by Western (n= 1977), Northern (n=671) & Eastern (n= 382) in 4th Quarter 2014. The Central division demonstrated leading causes of admissions as Pregnancy, Childbirth & the Puerperium, Diseases of the Circulatory System, Diseases of the Respiratory System; the Western division illustrated the leading causes of admissions as Diseases of the Circulatory System and Pregnancy, Childbirth & the Puerperium and Diseases of the Respiratory System; the Northern division demonstrated the leading causes of admissions as Pregnancy, Childbirth & the Puerperium, Diseases of the Respiratory System and Certain Infectious & Parasitic Diseases; and the Eastern Division noted the leading causes of admissions as Diseases of the Respiratory System, Certain Infectious & Parasitic Diseases and Pregnancy, Childbirth & the Puerperium. The Central division closely simulated the national trend and may have been the driver in the dataset.

## 5.5



Source: Manual Tear-Offs & PATISPLUS

The greatest frequency of admissions were among the 20 - 34 age groups (n=2360); this was approximately 36% of all admissions, where the cause of morbidity were due to pregnancy, its complications and outcomes (single spontaneous delivery



(n=611), First degree perineal laceration during delivery (n=349), Perineal laceration during delivery, unspecified (n=220), Labour and delivery complicated by fetal stress, unspecified (n=54) and Incomplete Abortion, unspecified (n=41). The under-five population comprised of approximately 9% of the total admissions for 4th Quarter 2014; which has reduced by 1.5% compared to the last quarter; the top 3 causes of morbidity for this age group are Pneumonia (n=123), Acute bronchiolitis unspecified (n=42) and Bacterial sepsis (n=31) of the newborn. The adolescents (only 15-19 years) had the lowest frequency of admissions at approximately 3.4% (n=224); the top 3 causes of morbidity for this age group are singleton spontaneous delivery (n=35), Viral infection, unspecified (n=16) and Perineal laceration during delivery, unspecified (n=14).

#### **5.6 Divisional Hospital Obstetric Reporting by Outcome of Pregnancy, Quarter 4 2014**

Outcomes of pregnancy	Central	Eastern	Western	Northern
Live births	239	19	1521	406
Intrapartum stillbirths	1	0	6	2
Antepartum stillbirths	0	1	1	0
Fetal deaths	4	1	11	1
Stillbirths	1	1	5	2
<b>Total births</b>	<b>240</b>	<b>20</b>	<b>1526</b>	<b>408</b>

Source: Divisional Hospital Obstetric Monthly Reporting Form

The table above illustrates the Outcome of Pregnancy for the respective Divisional Hospitals for 4th Quarter, 2014. The leading Divisional Hospital with the leading total births were from the Western Division (n=1526), Northern Division (408), Central Division (240) and Eastern Division (20) for the 4th Quarter 2014. The highest number of fetal deaths were recorded in the Western Division (n=11), Central Division (n=4), Northern Division and the Eastern Division with 1 case each. **There was no reporting from CWM Hospital for the Obstetric Returns for 4th Quarter 2014.**

#### **5.7**

#### **Divisional Hospital Obstetric Reporting by Mode of Delivery, Quarter 4 2014**

Mode of Delivery	Central	Eastern	Western	Northern
Normal vaginal deliveries	246	20	1362	347
Emergency caesarean section deliveries	0	0	116	51
Elective caesarean section deliveries	0	0	37	9
Ventouse deliveries	0	0	9	0
Forceps deliveries	0	0	7	0
Breech vaginal deliveries	0	1	11	0
Other deliveries	0	0	0	3
<b>Total deliveries</b>	<b>246</b>	<b>21</b>	<b>1137</b>	<b>410</b>

Source: Divisional Hospital Obstetric Monthly Reporting Form

The table shown is the Mode of Deliveries for the Divisional Hospital 4th Quarter 2014. The leading number of emergency caesarean section deliveries were in the Western Division (n=116), Northern Division (n=51), Eastern Division and Central Division had nil cases reported **as there were no reports received from CWMH for 4th Quarter 2014.** The Western Division had the leading number of cases (n=132) of normal vaginal deliveries, followed by the Northern Division (n=347), Central Division (n=246) and Eastern Division (n=20). **There was no reporting from CWM Hospital for the Obstetric Returns for 4th Quarter 2014**



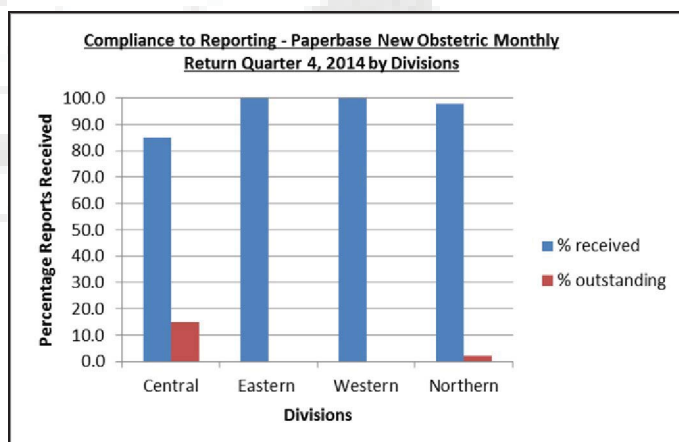
### 5.8 Divisional and Sub-Divisional Hospital Obstetric Reporting by Mode of Delivery and Outcome of Pregnancy, Quarter 4 2014

Outcome of Pregnancy & Mode of Delivery	Korovou	Nausori	Navua	Vunidawa	CWMH	Lakeba	Levuka	Lomaloma	Rotuma	Vunisea	Ba Mission	Nadi	Sigatoka	Tavua	Rakiraki	Ra Maternity	Lautoka	Taveuni	Nabouwalu	Savusavu	Labasa
Live births	27	168	33	11	0	1	8	0	0	10	109	190	98	49	21	23	1031	66	22	73	245
Intrapartum stillbirths	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	1	1	0	0
Antepartum stillbirths	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Fetal deaths	1	3	0	0	0	0	1	0	0	0	0	1	0	0	0	0	10	0	1	0	0
Stillbirths	0	1	0	0	0	0	1	0	0	0	1	0	1	0	0	0	3	1	1	0	0
Normal vaginal deliveries	27	172	36	11	0	1	9	0	0	10	109	190	98	49	21	23	872	66	22	73	186
Emergency caesarean section deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	0	0	0	51
Elective caesarean section deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	9
Ventouse deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0
Forceps deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0
Breech vaginal deliveries	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	11	0	0	0	0
Babies born before arrival	1	4	0	1	0	0	0	0	0	0	1	2	1	1	2	1	6	1	1	0	3
Mothers under 15 years old	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mothers aged 15-19 years old	2	11	4	1	0	0	0	0	0	0	4	9	4	1	2	4	59	0	1	3	29
Live born low birth weight babies	1	7	0	0	0	0	0	0	0	0	4	4	0	1	1	0	62	1	0	1	24
Intrapartum transfers	8	76	0	1	0	0	0	0	0	1	17		0	0	15	0	0	0	9	10	0

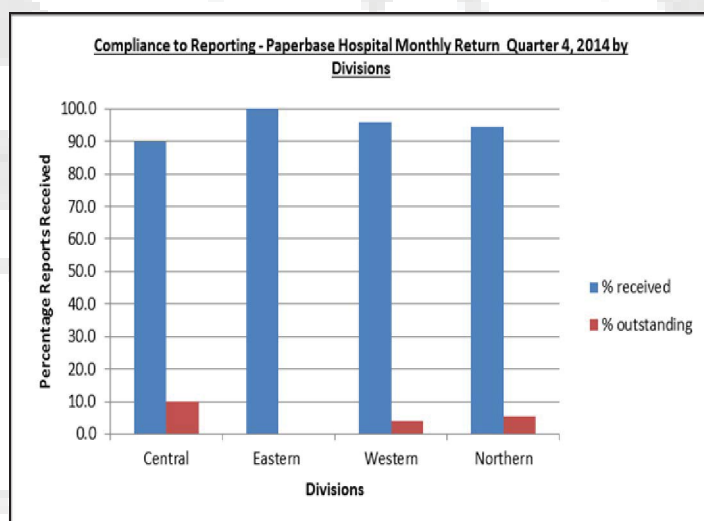
Source: Sub-Divisional Hospital Obstetric Monthly Reporting Form

The table above illustrates the Outcome of Pregnancy and the mode of deliveries for the respective Sub-divisional Hospitals for 4th Quarter, 2014. The leading number of live births were recorded in Lautoka Hospital (n=1031), while the lowest number of live births were in Lakeba Hospital (n=1) for the 4th Quarter 2014. **There was no Obstetric Return reporting from CWMH 4th Quarter 2014.**

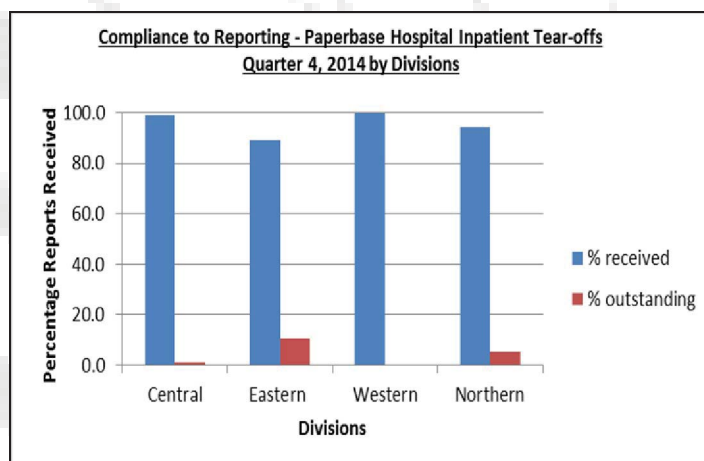
## 5.9 COMPLIANCE REPORTING:



The analysis for the new Obstetric Monthly Return is based on the reports received through manual returns from the four Divisions for 4th quarter 2014. A few Sub Divisional Hospitals have yet to submit their reports as illustrated in the graph. The Central Division submitted 85.0% and the Northern Division is at 97.9%. Congratulations to the Eastern and Western Division for 100% submission. The facilities yet to report on the new obstetric return forms are CWM Hospital, Navua Hospital, and Labasa (Maternity) Hospital. The change to the new obstetrics form occurred in April 2014



The analysis for Hospital Monthly Return is based on the reports received through paper-based systems from the Divisions. The Central Division still has outstanding returns for the 4th quarter which stands at 10.0%; as there was no reporting from Military Hospital. The Western Division has 4.2% outstanding reports due to outstanding reports from Sigatoka and Ra Maternity Hospital, the Northern Division has 5.6% outstanding reports as there were outstanding reports from Nabouwalu Hospital, Congratulations to the Eastern Division for 100% submission.



The analysis for Hospital Inpatient Tear-Offs is based on reports received through manual systems from the Divisions. Congratulations to the Western Division for 100% submission. The other divisions still have outstanding returns; the Central Division has yet to submit 0.9% of the returns; the Eastern Division outstanding returns stand at 10.7%; and the Northern Division has 5.6% outstanding reports for 4th Quarter 2014. The facilities yet to submit their reports are Navua, Matuku and Taveuni Hospital.

## 5.10 HOSPITAL UTILISATION

No	Institution	Number of Outpatient	Number of Beds	Total Admission	Total Discharge	Total Patient Days	Occupancy Rate	Daily Bed State	Average Length of Stay
1	CWM Hospital	23,037	481	5,368	4,874	26,033	58.83	283.0	5.3
2	Navua Hospital		12	230	224	596	53.99	6.5	2.7
3	Vunidawa Hospital	2,275	24	107	139	253	11.46	2.8	1.8
4	Korovou Hospital	1,115	16	190	166	503	34.17	5.5	3.0
5	Nausori Hospital	876	17	406	402	483	30.88	5.3	1.2
6	Wainibokasi Hospital	1,479	12	255	232	839	76.00	9.1	3.6
	<b>Sub-total</b>	<b>28,782</b>	<b>562</b>	<b>6,556</b>	<b>6,037</b>	<b>28,707</b>	<b>55.52</b>	<b>312.0</b>	<b>4.8</b>
7	Lautoka Hospital	41,844	305	3,203	2,419	11,552	41.17	125.6	4.8
8	Nadi Hospital	33,695	75	1,257	1,161	3,771	54.65	41.0	3.2
9	Sigatoka Hospital	18,328	66	939	910	2,545	41.91	27.7	2.8
10	Ba Mission Hospital	23,899	50	816	755	2,020	43.91	22.0	2.7
11	Tavua Hospital	15,217	29	348	333	738	27.66	8.0	2.2
12	Rakiraki Hospital	4,915	30	311	299	953	34.53	10.4	3.2
	<b>Sub-total</b>	<b>137,898</b>	<b>555</b>	<b>6,874</b>	<b>5,877</b>	<b>21,579</b>	<b>42.26</b>	<b>234.6</b>	<b>3.7</b>
13	Labasa Hospital	19,355	182	2,302	1,911	7,904	47.20	85.9	4.1
14	Savusavu Hospital	17,424	56	418	395	1,192	23.14	13.0	3.0
15	Waiyevo Hospital	2,188	33	145	135	430	14.16	4.7	3.2
16	Nabouwalu Hospital	2,624	26	121	122	486	20.32	5.3	4.0
	<b>Sub-total</b>	<b>41,591</b>	<b>297</b>	<b>2,986</b>	<b>2,563</b>	<b>10,012</b>	<b>36.64</b>	<b>108.8</b>	<b>3.4</b>
17	Levuka Hospital	5,875	40	210	176	668	18.15	7.3	3.8
18	Vunisea Hospital	1,689	22	95	89	307	15.17	3.3	3.4
19	Lakeba Hospital	765	12	48	46	120	10.87	1.3	2.6
20	Lomaloma Hospital	1,233	16	51	49	210	14.27	2.3	4.3
21	Matuku	333	5	16	16	28	6.09	0.3	1.8
22	Rotuma Hospital	857	14	10	10	46	3.57	0.5	4.6
	<b>Sub-total</b>	<b>10,752</b>	<b>109</b>	<b>430</b>	<b>386</b>	<b>1,379</b>	<b>13.75</b>	<b>15.0</b>	<b>3.6</b>
<b>SPECIALISED AND PRIVATE HOSPITALS</b>									
No	Institution	Number of Outpatient	Number of Beds	Total Admission	Total Discharge	Total Patient Days	Occupancy Rate	Daily Bed State	Average Length of Stay
1	St Giles Hospital	1,779	136	103	114	4,811	38.45	52.3	42.2
2	Tamavua/Twomey Hospital	3,274	91	100	105	3,121	37.28	33.9	29.7
4	Military Hospital		9				0.00	0.0	0
5	Naiserelagi Maternity	333	7	24	21	32	4.97	0.3	1.5
	<b>Sub-total</b>	<b>5,386</b>	<b>243</b>	<b>227</b>	<b>240</b>	<b>7,964</b>	<b>35.62</b>	<b>86.6</b>	<b>33.2</b>
	<b>TOTAL</b>	<b>219,023</b>	<b>1,523</b>	<b>16,846</b>	<b>14,863</b>	<b>61,677</b>	<b>44.02</b>	<b>670.4</b>	<b>4.1</b>
	<b>GRAND TOTAL</b>	<b>224,409</b>	<b>1,766</b>	<b>17,073</b>	<b>15,103</b>	<b>69,641</b>	<b>42.86</b>	<b>757.0</b>	<b>4.6</b>

[source: Hospital Monthly Returns and ATD [PATISPLUS]]

Based on the above reporting, the overall average length of stay is 4.6 days. The analysis is based on the reports received by Divisional and Sub divisional Hospitals for the 4th Quarter 2014. The table above illustrates that less patients were discharged from the Divisional and Sub Divisional Hospitals. The discrepancy was noted, as a total of 1970 patients were not discharged from the hospitals. This also indicates the quality of entry from the providers and their level of supervision of data. The reports

have narrowed gaps with more discharges being reported in the 4th quarter. There were no outpatients reported from Navua Hospital for October and December, as it is reported in PHIS through the Navua Health Centre. The bed occupancy rates have improved and with improved statistics on admissions and discharges, the perception is that BOR will reflect the true facility incidence.

There is a discrepancy between total admissions and total discharges. In many cases there are more admissions than discharges. This is a quality check for the team at HIU and simply means that cases admitted are not discharged due to administrative omissions or in some cases due to chronic disease such as TB or psychiatric co-morbidities. This is a reminder to all health personnel (nurses and recorders) recording admissions and discharges to ensure that admissions, transfers and discharges are correctly reported. However, it is important to note that the wide gap between discharges and admissions are being slowly addressed except in CWMH (494 discharges still pending), Lautoka Hospital (784 undischarged patients), Labasa Hospital (391 undischarged patients) and Ba Mission (61 undischarged). Vunidawa Hospital, Nabouwalu Hospital, St Giles Hospital and Tamavua Twomey had more discharges than admissions for the quarter signaling a gross error in quality and supervision of quality from providers. For CWMH, Lautoka and Labasa Hospital the patients discharged from the hospitals are sometimes not discharged in PATISPLUS on time due to network problems, role delineation issues, willful omissions and poor compliance to timely, complete and accurate reporting.

The pending reports for Hospital data will be captured in the Annual Report.

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