

HEALTH INFORMATION BULLETIN



Strategic Pillar 1: Preventive, curative, and rehabilitative health services

1. Non-communicable diseases, including nutrition, mental health and injuries
2. Maternal, infant, child and adolescent health
3. Communicable diseases, environmental health and health emergency preparedness, response and resilience



Strategic Pillar 2: Health systems strengthening

4. Expanded primary health care, with an emphasis on providing a continuum of care and improved quality and safety
5. Productive, motivated health workforce with a focus on patient rights and customer satisfaction
6. Evidence-based policy, planning, implementation and assessment
7. Medicinal products, equipment and infrastructure
8. Sustainable financing of the health system

Diagram note: the canoe represents the MoHMS initiative to promote health and wellness in the Fiji population

Message from the Director Health Information, Research and Analysis (DHIRA)

“Sound and reliable information is the foundation of decision-making across all health system building blocks, and is essential for health system policy development and implementation, governance and regulation, health research, human resources development, health education and training, service delivery and financing.” (WHO)

The availability of health information is critical in allowing us to ask, and to answer, the right questions about health care in Fiji. It is for this reason that Health Information Unit produces the quarterly bulletins which reflect the health care performance from the data received from various health facilities across the country.

This information is inclusive of health information systems such as Public Health and Information Systems (PHIS), Patient Information Systems (PATISPlus), Non communicable diseases data, Hospital Admission and Discharge data, Communicable diseases data and Mortality statistics and other providers of health statistics.

The health information unit collects data on the 15th of the following month of the end of quarter from the health sector and other relevant sectors, analyses the data and ensures their overall quality, relevance and timeliness, and converts data into information for health-related decision-making. This rich dataset needs to be disseminated and communicated to all the health facilities and private doctors and practitioners for measuring and improving health outcomes. It also paves the way for use of reliable information as evidence for monitoring and evaluation that leads to effective and efficient planning, policy formulation, preventative interventions and clinical improvements.

It is vital that the data providers take note of the recommendations and compliance issues in order to contribute and obtain quality information that will have a better statistical analysis for improved decision making at various levels of the health system. The selection of current indicators in this report is based on available information and importance to various sections requirements.

We are susceptible to new ideas and improvements on this revised structure and look forward towards hearing more from the users on the use of health information for measuring and improving health outcomes. As you would note sections 5 (Human Resources) and 8 (Financing) are not part of the bulletin due to its separate feedback mechanisms.

I would like to thank all involved in the process for their diligent and consistent effort in ensuring this bulletin is made available to us.

.....
Mr Shivnay Naidu

Director Health Information, Research and Analysis
Ministry of Health and Medical Services
Suva, Fiji.

Acknowledgement

The Health Information Unit would like to acknowledge the data contributors and providers from all the Divisional hospitals, the Sub divisional hospitals, health centers and nursing stations from in Fiji.

There are various key persons whose technical and analytical contribution are acknowledged in the collating, analyzing and producing relevant data for measuring and improving health outcomes.

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Section 1: Non Communicable Diseases [NCD], including Nutrition, Mental Health and Injuries

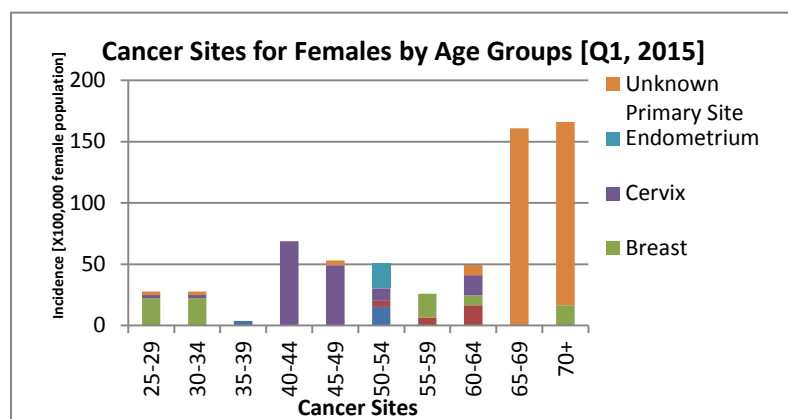
1.1 Cancer

Cancer Sites in Females	Incidence Rate (per 100,000population) (n=)	
	2015	2014
Unknown Primary Sites	8.47 (36)	4.71 (20)
Cervix Uteri	8.23 (35)	18.82 (80)
Breast, NOS	8.00 (34)	10.82 (46)
Lung, NOS	1.41 (6)	
Endometrium, Pleura, NOS and Liver	0.94 (4)	
Digestive organs		2.12 (19)
Neoplasms stated or presumed to be primary, of lymphoid, hematopoietic		1.41 (6)

Source: Pathology report, MCDC and PATISplus

The above table indicates the top 5 female cancers received for the quarter 1, 2015. In Q1 of 2015 a total of 168 cases were received compared to 186 for the same period last year. The 3 leading sites for cancer amongst women are Unknown Primary Sites (n=36), Cervix uteri (n=35) and Breast (n=34). The incidence rates of the 3 leading female cancer sites were higher in the same period last year as shown in the table above. A Cancer site in Females “Unknown Primary Sites” was noted to be high in Q1, 2015. Cervix, Breast and Lung cancer were reported to be less in Q1, 2015 when compared to Q1, 2014. This may be due to untimely reporting from the 3 Divisional hospitals.

1.1.1 Cancer sites for Females by age-groups

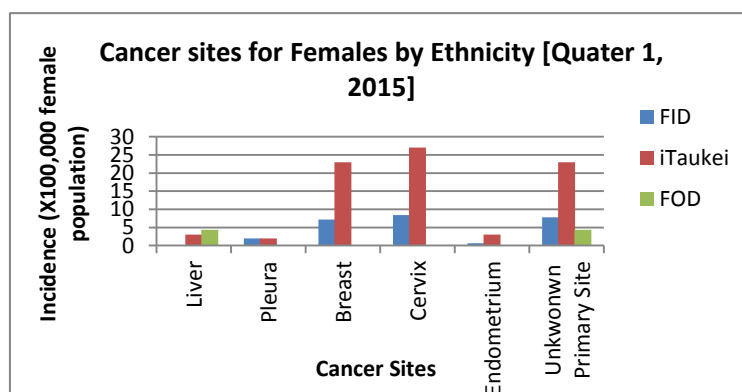


The above graph shows the age groups of women with the top 5 cancer cases. It has been noted that cervical cancer are common in age group 40-49 whereas unknown primary sites are in there 65-70+yrs. The cases of breast cancer were with a higher frequency amongst 25-39 age groups. Compared to the same period last year there were 2 peaks in the 45-49 and 60-64 age groups. Cervix has a peak in the 45-49 age groups. It's also noted that young women at the age group 25-39 developed more cases of breast cancer whereas in Q1, 2014 there were less cases.

1.1.2 Cancer sites for females by ethnicity

The iTaukei was noted to have the highest cancer incidence of cervical cancer (n=27) followed by FIDs (n=13) while none recorded in FODs. Cases of breast cancer were reported with higher frequency amongst iTaukei women within the age groups 25-39years. Unknown primary sites were also noted to be higher in the iTaukei for the age groups 65-70+yrs.

Source: Pathology report, MCDC and PATISplus



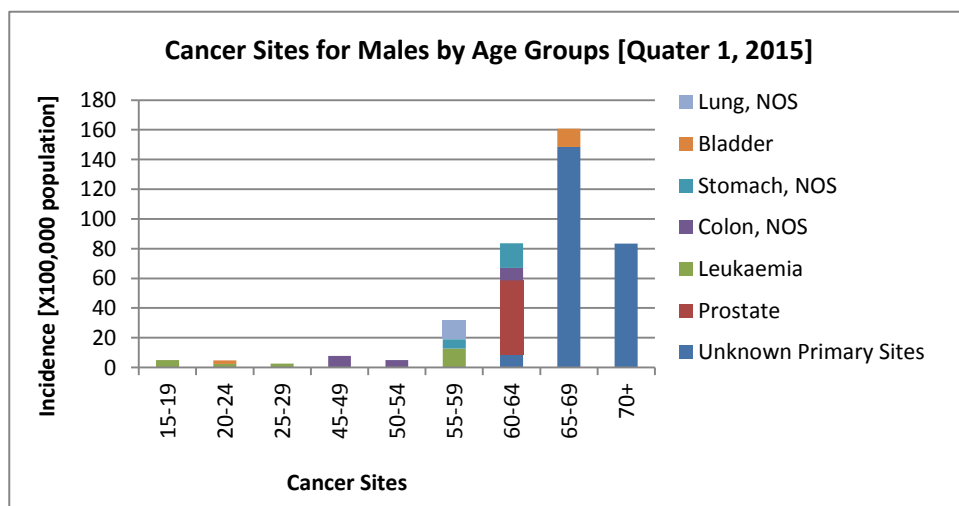
1.1.3 Top 5 Male Cancer 2014 vs 2015

Cancer sites in Males

Cancer Sites in Males	Incidence Rate (per 100,000population) (n=)	
	2015	2014
Unknown Primary Sites	4.8 (21)	3.2 (14)
Prostate & Leukaemia	1.4 (6)	2.0 (9)
Colon, NOS	0.9 (4)	0
Stomach, NOS	0.7 (3)	0
Bladder & Lung, NOS	0 (2)	0
Digestive organs	0	4.3 (19)
Lip oral cavity & Pharynx	0	1.4 (6)
Neoplasms stated or presumed to be primary, of lymphoid,haematopoietic	0	1.6 (7)

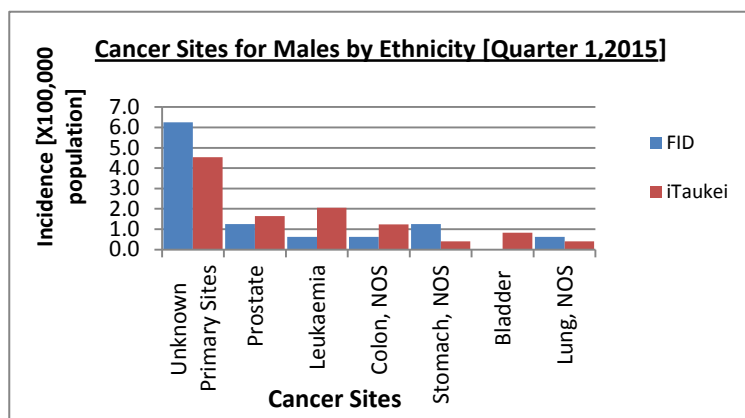
A total of 80 cases were received in Q1, 2015 compared to 79 for 2014. This result shows the inconsistency in submitting the results to HIU during compilation. The 3 leading sites for cancer amongst men are Unknown primary site (n=21), Prostate and Leukaemia (n=6), Colon (n=4). The incidence rate of the 3 leading male cancer sites were higher in Q1, 2015 compared to Q1, 2014 as shown in the table below.

1.1.4 Cancer sites for males by age-groups



The graph shows the age groups of men with the top 5 cancer cases. It has been noted that unknown primary site were reported with higher frequency amongst 65-70+ age groups for Q1, 2015 compared to the same period last year where digestive organs were reported to be high. Prostate cancers were higher in the age groups 60-64; neoplasm stated or presumed to be primary of lymphoid hematopoietic and related issues were high in the same quarter last year.

1.1.5 Cancer sites for males by ethnicity



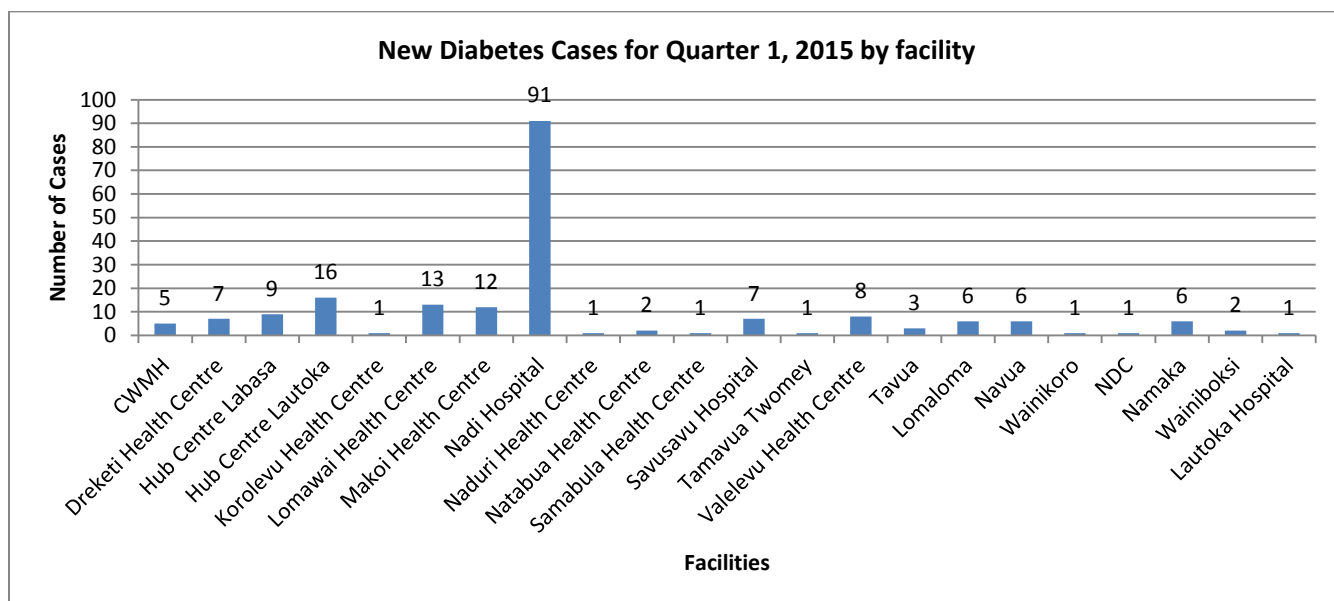
The i-Taukei was noted to have the highest cancer incidence (n=27) followed by the FIDs (n=17) and FODs there were no cases recorded. Unknown primary sites were reported with the higher frequency amongst i-Taukei men. This is due to MCDC codes (ICD-10) where behavior is unclear or not stated resulting in most cases been bulked into unknown primary sites.

Cancer cases in Pediatric Population

There were no cases reported in the 1st quarter of 2015 compared to 10 cases per 100, 000 (n=10) for the

1st quarter in 2014.

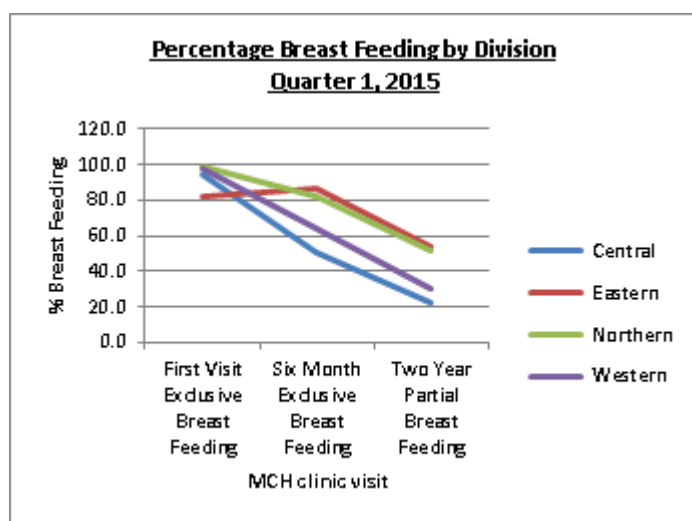
1.2 Diabetes



Source: DM Notification Form HIU

The total number of diabetes notification received in Quarter 1, 2015 were 200 compared to 112 cases in Quarter 1, 2014. There were 22 facilities that reported the incidence of diabetes in this quarter compared to 18 facilities reporting for the same period last year. The Nadi Hospital reported the highest number of cases (n=91) and compared to the same period last year 17 cases were reported from Labasa Diabetic Hub.

1.3 Nutrition



1.3.1 Percentage Breast Feeding

The Northern Division recorded 99% mothers practicing breast feeding during the birth to 6 months, followed by the Western (98%) and Central (95%) Division while the Eastern (82%) recorded the lowest number. [Denominator is the number seen at health and the numerator is the number is the mothers practicing breast feeding]

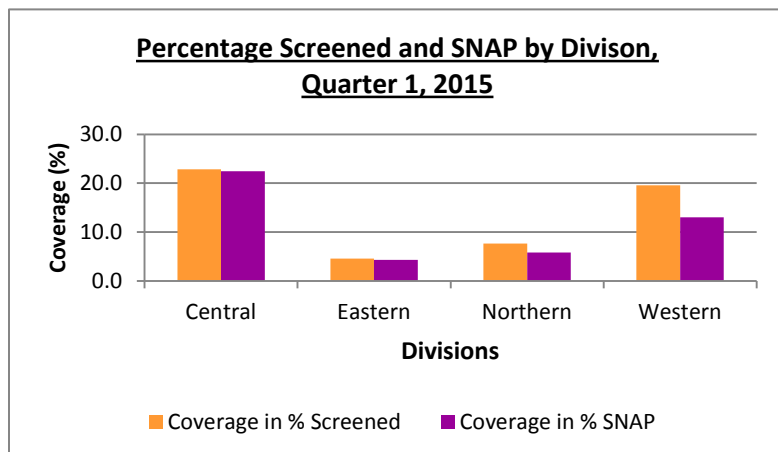
The Eastern and Northern Division recorded 75% of the mothers who continued breast feeding after 6 months and up to 2 years, followed by the Western Division (54%) while the Central Division (42%) recorded the lowest number. [Denominator is number seen for the 6 month and 2 years and the numerator is the number practicing breast feeding

in the two periods]. Similar patterns were observed in the same period last year. Source: CMRIS Online [PHIS]

The increase in mothers practicing breast feeding during the first visit in all Divisions may be due to the impact of MCH awareness and educational programs at medical area and below levels.

1.4 Non Communicable Disease – PHIS Report

1.4.1 Screening and SNAP coverage

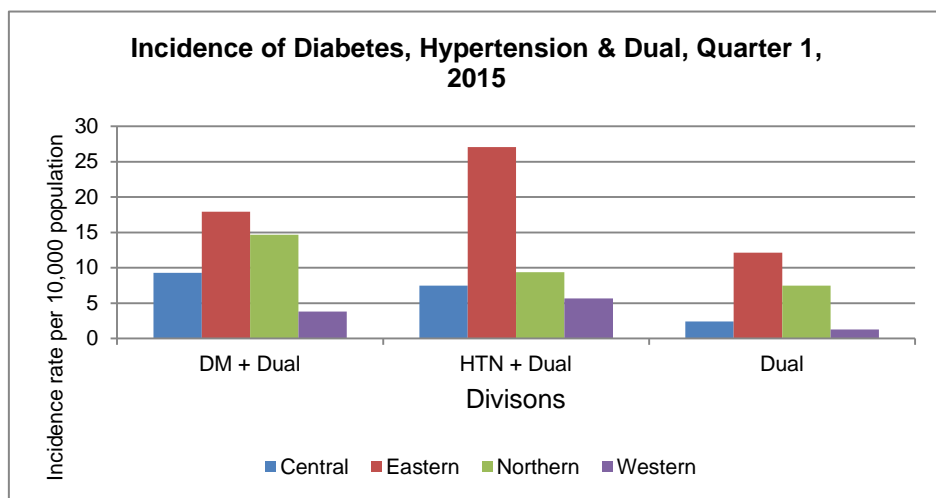


In the 1st quarter, 2015 – 16746 people were screened for diabetes and hypertension. Out of this 83.4% received Counseling regarding lifestyle activities, smoking, nutrition, alcohol and physical activities (SNAP). The largest number screened was from the Central division followed by the Western division while the Eastern division had the lowest number screened. Similar trends were observed in the same period last year. *[Note: the denominator for the coverage is total of SNAP & Screened – 30711 for the quarter period to calculate the %].*

The above results indicate that there was 16.6% 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, 33.4% of the population screened were not counseled on SNAP; followed by Northern (23.9%), Eastern (5.8%) and Central (1.9%) 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.

1.4.2 Incidence of Diabetes, Hypertension & Dual per 10,000 population



The bar graph shows the incidence of Diabetes (DM), Hypertension (HTN) and Dual reported through PHIS. Overall, Diabetes (n=473) comprised 8% and was the commonest condition reported throughout the four Divisions followed by Hypertension (n=445) which was 8% and Dual (n=285) was 3%. [Please note DM and HTN rates include the dual cases – both new cases <30 and 30+]. Central Division (1.1%) recorded the highest incidence of hypertension cases followed by Western (1.0%), Eastern (0.4%) and Northern (0.1%) Divisions

out of the total number that was screened (16746).

Source: CMRIS Online [PHIS]

1.5 National Iron and Micronutrient Supplement (NIMS)

1.5.1 NIMS tabular report by division

Division	NIMS					
	6mnths - 1 yrs	1 - 2 yrs	2 - 3 yrs	3 - 4 yrs	4 - 5 yrs	CBA
Central	0	50	30	29	13	1
Eastern	0	0	0	0	0	63
Northern	0	3	0	0	1	0
Western	0	18	17	15	19	95
Total	0	71	47	44	33	159

Source: CMRIS Online [PHIS]

Over the quarterly series reporting from 2013 onwards, it has been reported that the NIMS data and CDA has been under reported. The completeness of reporting is relied upon the release of statistics captured by Dietitians.

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 Western Division while in the Eastern none where distributed. When compared to the same period last year similar trend where observed. There was under reporting of NIMS distribution as the number captured in PHIS was recorded only by nurses and lacked reporting from dietitians in both quarterly periods.

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

Section 2: Maternal, Infant, Child and Adolescent Health

2.1 Births

This is the first time HIU is reporting on the Outcome of Pregnancy [Hospital birth + Medical Area birth], Mode of deliveries [Hospital delivery only] and other maternity relevant information [Hospital only]. The birth data captures births occurring in the private sector but only those submitted from the Suva Private Hospital and Public Health Facilities. The Nasese Medical Centre birthing unit has not submitted any returns pertaining to births at their facility. The data collection in the tables below is of necessity for comprehensive measuring of health outcomes of delivery; resource allocation; improvement and development of birthing units for better health care; and service planning.

2.1.1 Outcomes of Pregnancy [Hospital birth + Medical Area birth]

Division	Hospital Live Births	Health Centre Live Births	Total Live Births	Total Number Of Stillbirths	Total Births	Fetal Death
Central	1881	6	1887	19	1906	1
Eastern	41	10	51	0	51	1
Northern	823	23	846	2	848	1
Western	2061	7	2068	29	2097	11
Total	4806	46	4852	50	4902	14

Source: CMRIS Online [Hospital MCH & PHIS]

The Outcome of Pregnancy section captures information about live births (of any gestation) and foetal losses from 22 weeks gestation.

The Western Division reported the highest number of live birth deliveries occurring at the Divisional and Sub-Divisional hospitals. There was a 14% increase in the number of deliveries when compared to the same period last year (1770). Western Division also recorded the highest number of stillbirths and fetal deaths when compared to the other three divisions. These stillbirths and fetal deaths occurred mainly at the Divisional Hospital, whereby Lautoka Hospital recorded 26 stillbirths and 9 fetal deaths, CWM Hospital had 16 stillbirths and 1 fetal deaths and Labasa Hospital recorded 2 stillbirths and 1 fetal death.

The Northern Division reported the third highest number of live birth deliveries occurring at the Divisional and Sub-Divisional hospitals which shows a 7% increase in deliveries when compared to the same period last year (765). They also recorded the highest number of delivery occurred at Health Centre level and this was mainly from Seaqaqa and Naduri Health Centre with 4, 3 delivery respectively.

The Central Division reported the second highest number of live birth deliveries occurring at the Divisional and Sub-Divisional hospitals. However, there was a 30% decline in the number of deliveries when compared to the same period last year (2447). This inconsistency in reporting was mainly as result of incomplete reporting of Hospital births reported for CWM Hospital in the month of March. The report was not submitted due to poor data verification.

Lastly, the Eastern Division reported a 1.2% decline in the number of live birth deliveries occurring at the Divisional and Sub-Divisional hospitals when compared to the same period last year (42). This is primarily as a result of most cases having been referred to the major Sub-divisional and Divisional Hospitals. This is to ensure safe motherhood practices as limited resources are available to cater for this need at lower levels.

2.1.2 Mode of Delivery [Hospital delivery only]

Division	Normal Vaginal Delivery	Breech	Emergency Caesarean Section	Elective Caesarean Section	Ventouse	Forceps	Other	Total Number Of Deliveries
Central	1610	11	201	50	9	18	1	1900
Eastern	40	0	1	0	0	0	0	41
Northern	665	7	124	20	3	6	0	825
Western	1849	14	158	47	12	10	0	2090
Total	4164	32	484	117	24	34	1	4856

Source: CMRIS Online [Hospital MCH]

The mode of Delivery section captures service delivery information at hospital level only for newly born baby. The section includes live births of any gestation and stillbirths (≥ 28 weeks gestation) only. Normal vaginal delivery and caesarean section were most common mode of delivery reported at the hospitals followed by Forceps and Breech.

The Western Division reported the highest normal vaginal deliveries followed by the Central Division while the Eastern Division reported the lowest.

Caesarean Section was reported to be the second common procedure used for delivery. A caesarean section is usually carried out when a normal vaginal birth could put the mother or the unborn baby at risk. The Central Division reported the highest emergency caesarean followed by the Western Division while the Eastern recorded the lowest. There is usually low numbers of caesarean sections reported at Sub-divisional Hospitals, unless there are surgical deliveries performed by a Medical Team from the Divisional hospital.

It is assumed that due to the limitation on resources most of the cases from the Eastern Division are referred to major Divisional Hospitals.

2.1.3 Others – Births Section [Hospital only]

Division	Unbooked Mothers Who Delivered	Babies Born Before Arrival	Mothers Under 15 Years Old	Mothers Aged 15-19 Years	Live Born Low Birth Weight	Intrapartum Transfers
Central	25	22	1	102	95	73
Eastern	2	0	0	0	2	1
Northern	2	12	2	58	43	54
Western	20	18	0	93	98	207
Total	49	52	3	253	238	335

Source: CMRIS Online [Hospital MCH]

The above tabular records information on Other maternity related indicators and intrapartum transfers. It collects information on the count of live births of any gestation and stillbirths (≥ 28 weeks gestation). There were more intrapartum transfers reported in the Western Division followed by the Central Division while the Eastern Division recorded the lowest. This is mainly due to most of the cases are referred from Sub-divisional level below to major Divisional hospital, with reasons of complication during pregnancy.

Adolescent mothers aged 15-19years delivering at hospital was reported high in the Central Division followed by the Western Division while the Eastern Division reported the lowest. Low birth weight of a newly born baby was reported high in the Western Division followed by the Central Division while the Eastern Division recorded the lowest. Babies born before arrival were referred from the medical area below facilities to the nearest Hospital.

2.2 Antenatal Clinic

2.2.1 Normal and At Risk Pregnancy Table

Division	Normal Pregnancy + At Risk Pregnancy
Central	17142
Eastern	1036
Northern	6333
Western	12299
Total	36810

This table includes both Hospital and Medical Area Maternal Health Status. Attendances at antenatal clinics in the 1st quarter of 2015 demonstrated a total of 36810 normal pregnancies and at risk pregnancies. In 2014, Hospital data was not captured. The majority of maternal visits for normal pregnancy were for the Western Division followed by the Northern, Central and Eastern Divisions.

Source: CMRIS Online [Hospital MCH & PHIS] and CWM ANC Report

2.2.2 At Risk Pregnancy Conditions

Risk Factor/ Complications	% of at risk pregnancies
Anaemia	9.57
Cardiac	0.30
Elderly Pimp	0.26
Hyper tension	0.63
Obesity	3.38
Obstruct Labour	0.06
Prev Caesar	2.21
Under Weight	0.66
VDRL	0.90

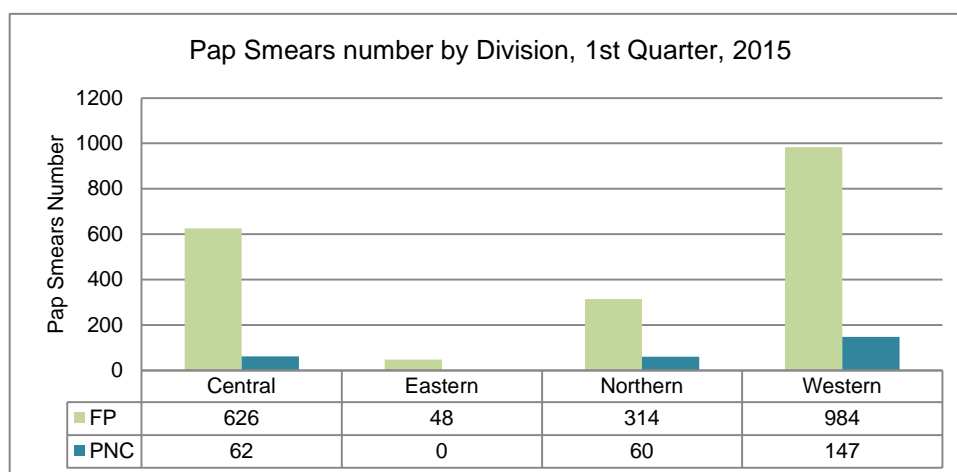
Source: CMRIS Online [Hospital MCH & PHIS] including CWM Report

The table shows the relative prevalence of various risk conditions for women attending ANC clinics. The largest contributor of complications was Anemia followed by Obesity and Previous Caesar.

2.3 Postnatal Care

Postnatal care aims to assist recovery and promote the health of the mother during the puerperium through: assessment of mothers' recovery status from delivery and detection of any abnormalities, provide treatment or refer to appropriate services, assisting the mother to develop competence in self and newborn care, encouraging mothers to breastfeed exclusively until 6 months and educating parents regarding the benefits of child-spacing. The purpose of the data collection is principally to show what proportion of women who have delivered and attended PNC.

2.3.1 PNC and Family Planning Pap Smears



Source: CMRIS Online [Hospital MCH & PHIS]

A total of 2241 pap smears were conducted in combined clinics; 88% of pap smears were recorded through family planning clinics and 12% through postnatal clinics. This is much less than the numbers reported for the same period in 2014 (n=1581). There was a decrease in Pap smear service by 10 per 1000 CBA population. [Note: The denominator is the CBA population from FBOS projection – 218804 for 2014 was used to calculate Pap smear screening rate]. The VIA programmed numbers were 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 for.

It was reported that majority of the Pap smear activities were done in family planning units throughout the quarterly series. The Western and Central Divisions had the highest number of Pap smears conducted at Family Planning Clinics followed by Northern and Eastern Divisions.

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

2.4 Family Planning

2.4.1 Contraceptive Methods in Family Planning, 1st Quarter, 2015

Division	Oral Pills	IUCD	Depo Provera	Noristerat	Implants	Condoms Female	Condoms Male	Vasectomy	Tubal Ligation
Central	1770	441	4659	91	2168	35	835	0	109
Eastern	181	64	555	34	278	3	52	0	0
Northern	487	30	1130	103	289	18	474	0	28
Western	1809	744	3312	111	4489	15	853	0	79

Source: CMRIS Online [Hospital MCH & PHIS]

The above shows the amount of contraceptives dispensed by different methods. Depo Provera, Implants and Oral pills were the most common contraceptive methods used for birth control followed by Condom Male, IUCD and Noristerat as per reported by all divisions. Western division recorded the highest distribution of contraceptive methods followed by Central division while Eastern recorded the lowest.

2.5 Immunization - Immunization by Division & Vaccines

Division	HepB0	BCG0	DPTHeP Bhib1	OPV1	Penumoccal1	Rotavirus1	DPTHeP Bhib2	OPV2	Penumoccal2	DPTHeP Bhib3	OPV3	Penumoccal3	Rotavirus2	MR1	OPV4
Central	1,882	1,880	1,847	1,846	1,846	1,835	1,514	1,514	1,515	1,449	1,449	1,447	1,441	1,759	1,457
Eastern	35	37	102	102	102	100	89	91	91	104	104	104	103	207	141
Northern	819	813	612	612	612	612	552	551	552	505	505	505	505	695	478
Western	2,042	1,975	1,293	1,294	1,292	1,306	1,066	1,064	1,070	1,148	1,150	1,149	1,146	1,451	1,031
Total	4,778	4,705	3,854	3,854	3,852	3,853	3,221	3,220	3,228	3,206	3,208	3,205	3,195	4,112	3,107
% per 100 births	94.4	92.9	76.1	76.1	76.1	76.1	63.6	63.6	63.8	63.3	63.4	63.3	63.1	81.2	61.4

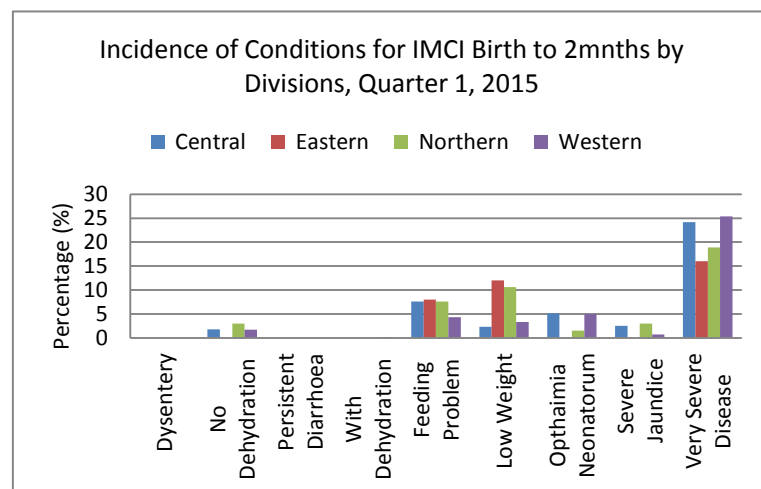
Source: CMRIS Online [Hospital MCH & PHIS]

The above table includes merged data gathered from Hospitals (Divisional and Sub-divisional) and PHIS (Medical area level and below) public health facilities on vaccines given for immunization.

Based on the above figure, estimated coverage of MR1 was about 81.23%. *[This estimation has used ¼ of 2014 live births (20247) as denominator]*. About 2.8% more when compared with the same period, 2014 the estimated coverage of MR1 was about 78.4%. *[This estimation has used ¼ of 2013 live births (20970) as denominator]*.

2.6 MCH/ IMCI

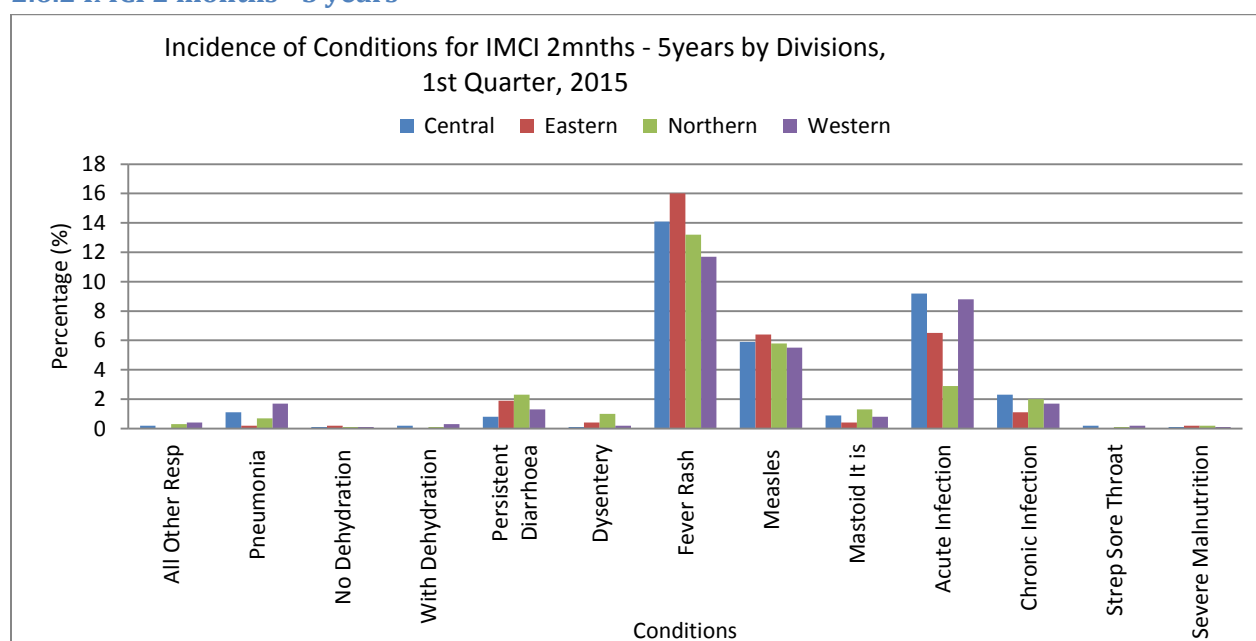
2.6.1 IMCI Birth to 2 months



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

Source: CMRIS Online [Hospital MCH & PHIS]

2.6.2 IMCI 2 months - 5 years



Source: CMRIS Online [Hospital MCH & PHIS]

This graph represents the percentage of children from 2 months to 5 years attending IMCI clinic at various health facilities in our country. The above shows that more children were seen under the category of Fever Rash, Measles, Acute Infection, Chronic Infection, Mastoiditis and Pneumonia. There were reported from the Eastern Division followed by the Central Division while the Western Division reported the lowest.

Section 3 – Communicable Diseases [CD]

The Notifiable Diseases analyses have been compiled from the Notifiable Disease Certificates received from 97 sites out of all public health facilities, 101 private health facilities and 2 private labs nationally. This report has been compiled from 89% data from 1st quarter 2015 (public health facilities only).

3.1 National Notifiable Disease Surveillance System

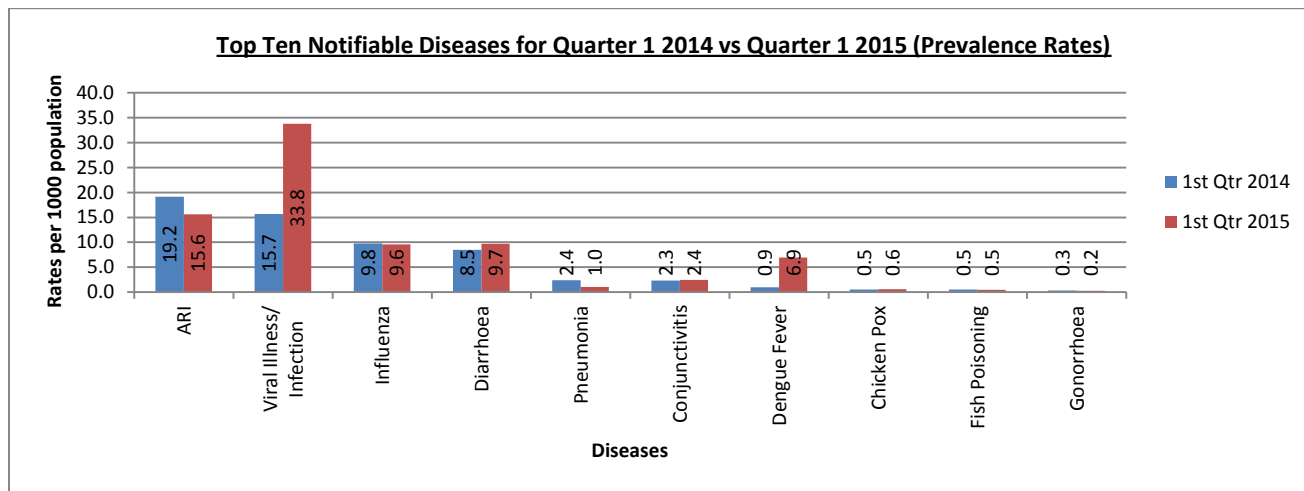
Notifiable Diseases by Months for Quarter 1 2015 [source: NNDSS]

No.	Diseases	January	February	March	Total
1	Acute Poliomyelitis	0	0	0	0
2	Acute Respiratory Infection	5,406	6,460	4,692	16,558
	Anthrax	0	0	0	0
4	Brucellosis	0	0	0	0
5	Chicken Pox	142	132	161	435
6	Cholera	0	0	0	0
7	Conjunctivitis	652	639	727	2,018
8	Dengue Fever	188	276	352	816
9	Diarrhoea	2,826	2,421	2,086	7,333
10	Diphtheria	0	0	0	0
11	Dysentery (a) Amoebic	0	0	1	1
	(a) Bacillary	32	18	14	64
12	Encephalitis	0	0	0	0
13	Enteric Fever (a) Typhoid	61	53	30	144
	(b) Para Typhoid	0	2	0	2
14	Fish Poisoning	178	124	129	431
15	Ciguatera Fish Poisoning	0	0	1	1
16	Food Poisoning	3	5	1	9
17	German Measles (Rubella)	11	5	6	22
18	Infectious Hepatitis	37	37	25	99
19	Influenza	2,874	3,294	2,261	8,429
20	Leprosy	0	0	0	0
21	Leptospirosis	18	6	13	37
22	Malaria	0	0	0	0
23	Measles (Morbilli)	8	4	3	15
24	Meningitis	12	2	1	15
25	Mumps	0	0	1	1
26	Plague	0	0	0	0
27	Pneumonia	714	1,000	345	2,059
28	Puerperal Pyrexia	0	0	0	0
29	Relapsing Fever	0	0	0	0
30	Rheumatic Fever	1	1	0	2
31	Smallpox	0	0	0	0
32	Tetanus	0	0	0	0
33	Trachoma	13	27	188	228
34	Tuberculosis (a) Pulmonary	34	24	39	97
	(b) Others	0	6	0	6
35	Typhus	0	0	0	0
36	Viral Illness/ Infection	5,043	5,038	3,485	13,566
37	Whooping Cough	2	2	0	4
38	Yaws	0	0	0	0
39	Yellow Fever	0	0	0	0
40	Sexually Transmitted Diseases				
	(a) Gonorrhoea	111	75	85	271
	(b) Candidiasis	24	25	6	55
	(c) Chlamydia	0	0	1	1
	(d) Congenital Syphilis	1	2	0	3
	(e) Lymphogranuloma Venerum	0	0	0	0
	(f) Herpes Zoster (Shingles)	5	1	1	7
	(g) Ophthalmia Neonatorum	0	1	1	2
	(h) PID	0	0	0	0
	(i) Syphilis	61	45	21	127
	(j) Trichomoniasis	9	3	11	23
	(k) Genital Warts	0	0	0	0

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 sector data is still largely incomplete.
5. The HIV dataset is being obtained from the Family Health Unit. This is the national dataset and the incidence rate of HIV infection for 1st quarter 2015 is 11 and the total number of confirmed cases for HIV positive is 621.

3.1.1 Top Ten Diseases

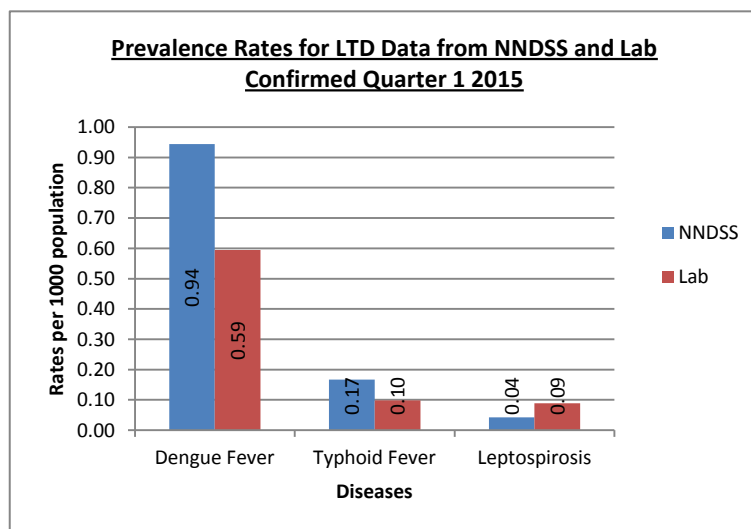


Source: NNDSS

The incidence rates were calculated using 2014 projections from FIBOS (864370) and reported as per 1000 population. The predominance of ARI, Viral Illness, Influenza and Diarrhoea is noted in both 2014 and 2015. The GPs reports are also included. Generally, reporting was higher in 2014 compared to 2015; this is because many of the reports are yet to be received. Dengue fever is the 7th leading cause of diseases for 2015 (n=816) and 2014 (n=6001) signaling for public health interventions for these areas to reduce risks of outbreaks. The increased activity of emerging viral illnesses (Zika and Chikungunya) in the region also signals the need for prevention and control.

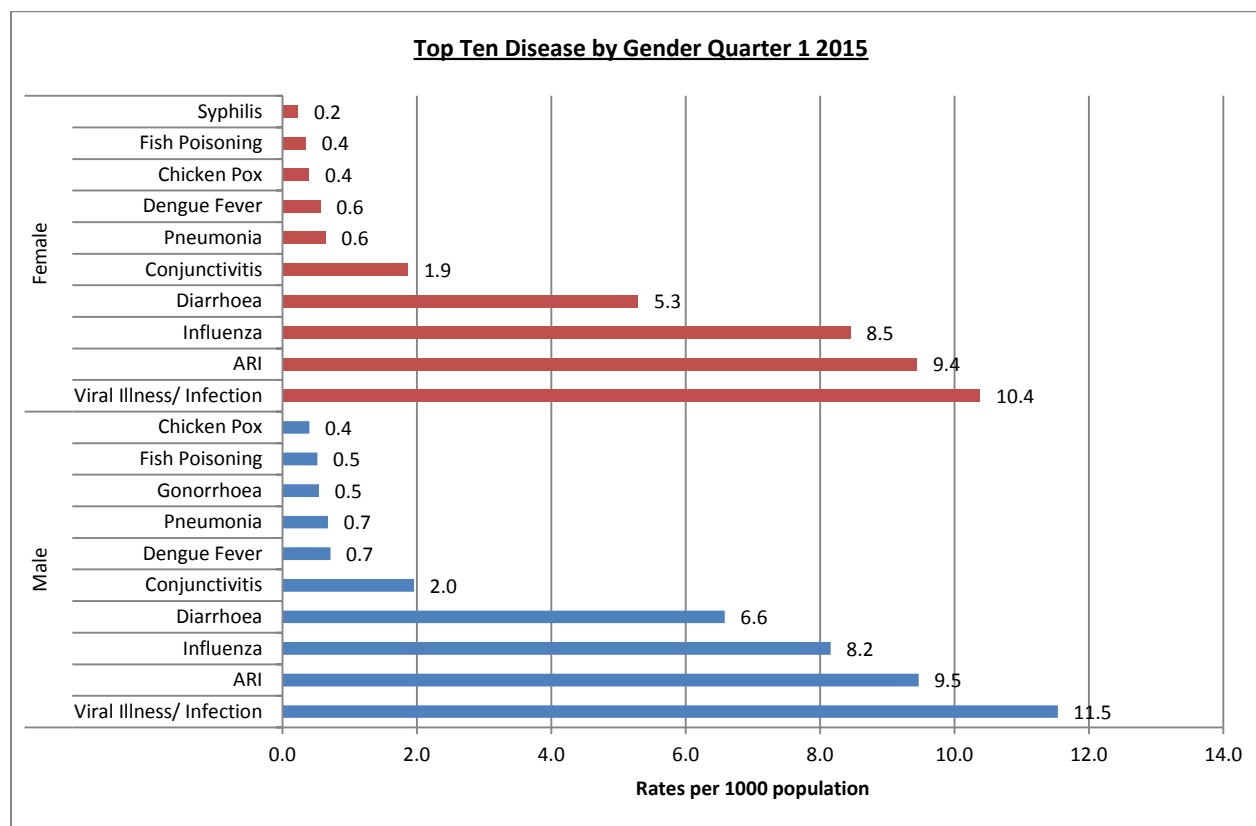
There is an obvious time lag noted for this reporting period as a result of pending submissions. Time lags affect analysis and comprehensiveness of reports markedly. On average there was only 89% reporting for this period from the Divisions which makes surveillance for infectious diseases difficult as sensitivity of the system reduces with reduction of complete and timely reports. Most pending reports were from March 2015.

Source: NNDSS and Lab data



The incidence rates were calculated using 2014 projections from FIBOS (864370) and reported as per 1000 population. The data sources are NNDSS and Laboratory data from Mataika House. There is a higher case load of Dengue Fever from the NNDSS (n=816) compared to laboratory confirmed data (n= 514); this is due to clinically suspected cases being reported in NNDSS. The Laboratory confirmed cases of Typhoid fever are 85 and NNDSS noted 144 cases. There were 37 cases of Leptospirosis reported from NNDSS whereas 77 cases were from Laboratory data (note that some cases were not reported on NNDSS). **All reporting officers are reminded to report all Notifiable cases through the mechanism of the NNDSS.**

3.1.2 Top Ten Diseases by Gender

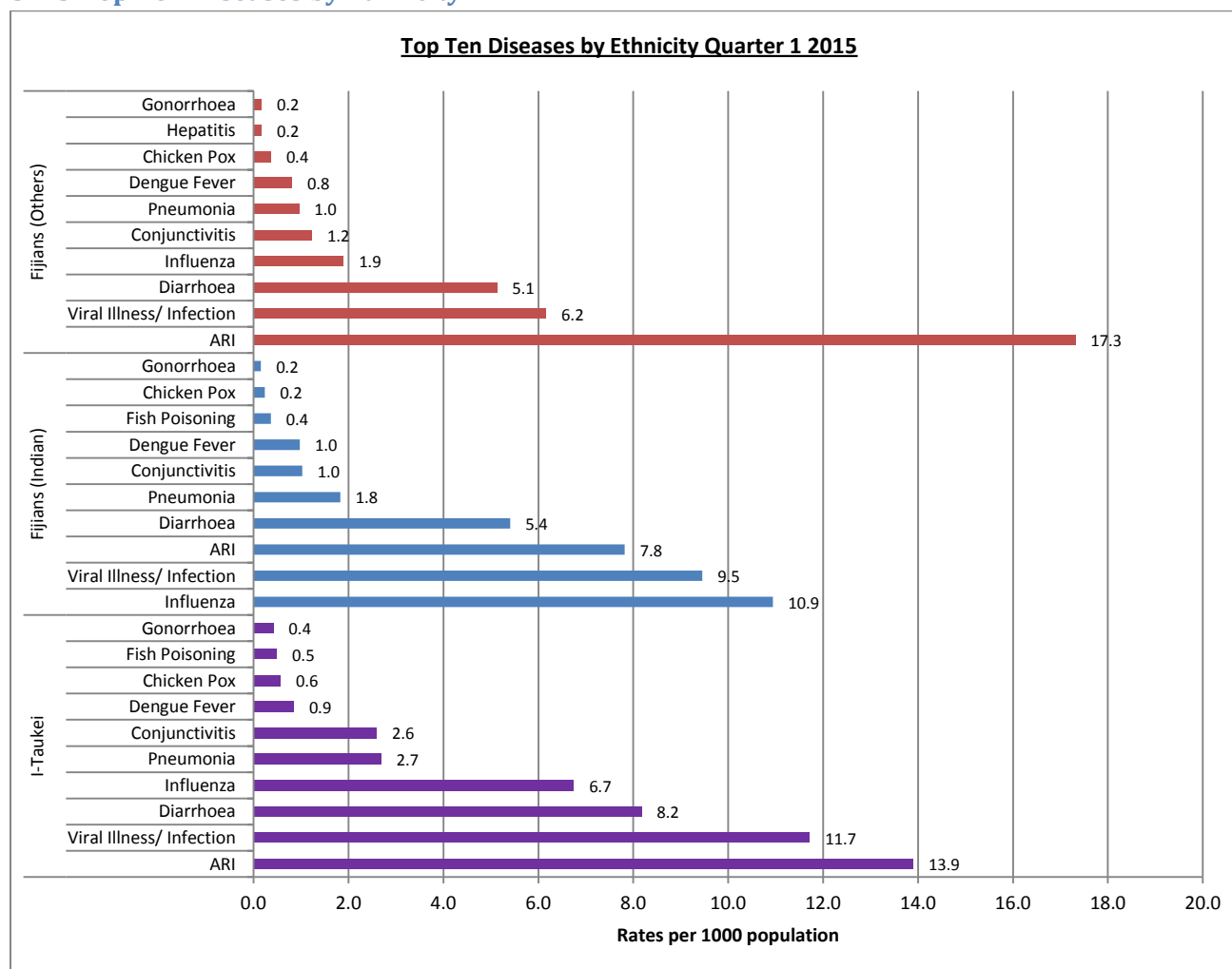


Source: NNDSS

The incidence rates were calculated using 2014 population projections from FIBOS (Male 439287 and Female 425083) and reported as per 1000 population. There is conformity to the national trend for male but in different rank order. However, there is agreement in the top nine cases in female Gender but in different rank order. The 10th leading condition for female is Syphilis instead of Gonorrhoea.

The cases of unknown gender made up 35% (n=18211) in 1st quarter 2015; It is important for those reporting Notifiable diseases to specify gender, ethnicity and age. The current percentage demonstrates that those reporting on NNDSS are still unresponsive to the request to clearly state gender, ethnicity and age.

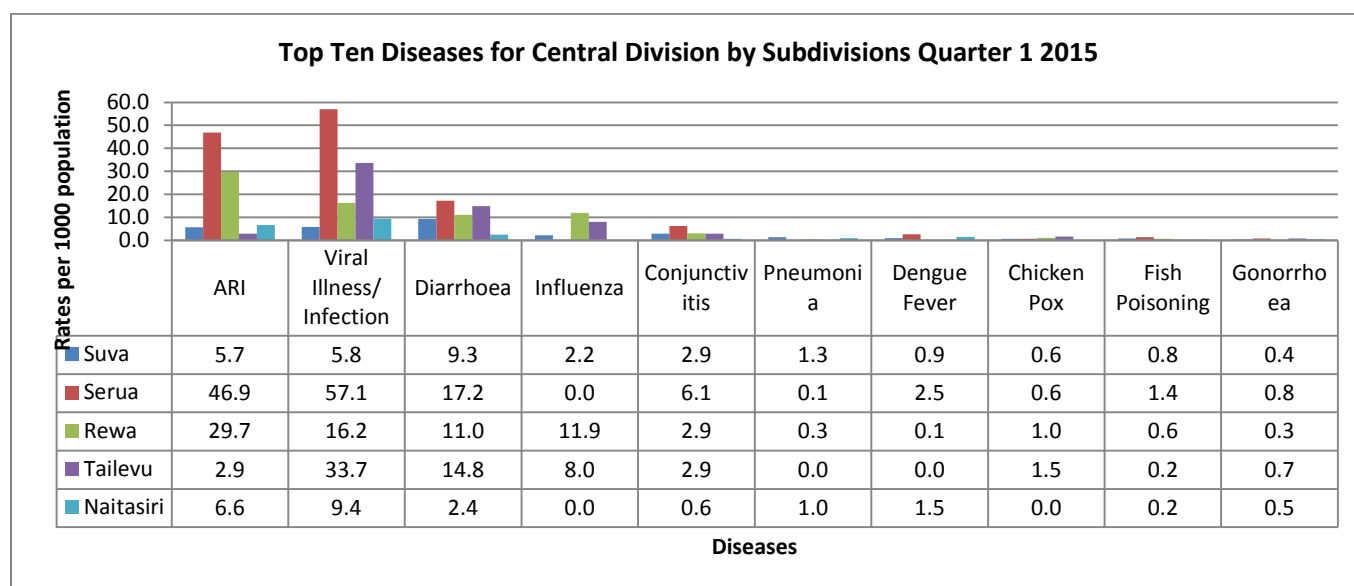
3.1.3 Top Ten Diseases by Ethnicity



Source: NNDSS

The incidence rates were calculated using 2014 projections from FIBOS (I-Taukei 476320, Fijian (Ind) 347512 and Fijian (Others) 40538) and reported as per 1000 population. 28% (n= 14381) of cases were unclassified by ethnicity in 1st quarter 2015. It is important to categorize each reportable disease according to ethnicity, age, gender, and locality. The I-Taukei and Fijian of Indian decent category simulate the national dataset but in different rank order. The Fijians of other category simulates the top nine conditions of the national dataset differing in rank order; the 9th leading condition for this category is; Hepatitis instead of Fish Poisoning.

3.1.4 Top Ten Diseases for Central Division



Source: NNDSS

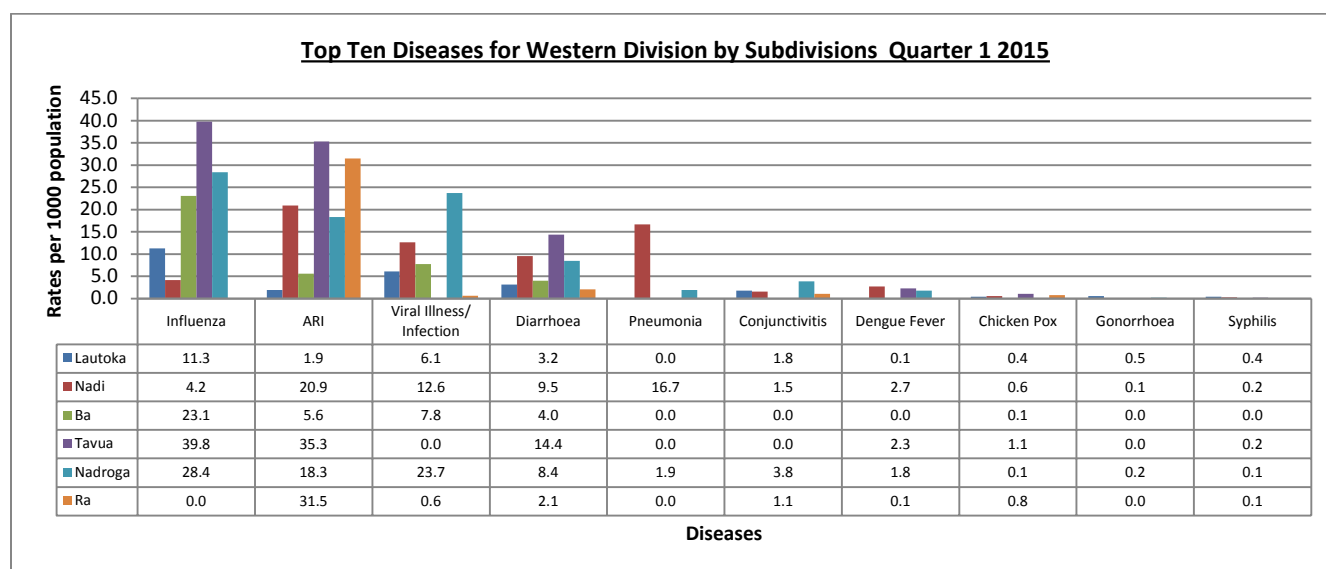
The incidence rates were calculated using 2014 projections from FIBOS, HIU population proportions were applied to this dataset (Suva 204633, Serua 27996, Rewa 79772, Tailevu 18865 and Naitasiri 18902) and reported as per 1000 population. The predominance of ARI, Viral Illness, Diarrhoea, Influenza and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

Dengue fever cases are noted in Suva (n=184), Serua (n=71), Rewa (n=4) and Naitasiri (n=28), signaling for public health interventions for these areas to reduce risks of outbreaks. This must also be combined with environmental risk assessment of transmission by the vectors. Calls for adequate preventions and control are made in the light of emerging viral infections in the region and country.

TB cases were reported in Suva (n=56), 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 cases have been reported from Serua (n=1), Suva (n=55) and Tailevu (n=1) and may be cases of Hepatitis A. Urgent investigations into these cases and possible sources of infection must be identified, with public health interventions put in place rapidly.

3.1.5 Top Ten Diseases for Western Division



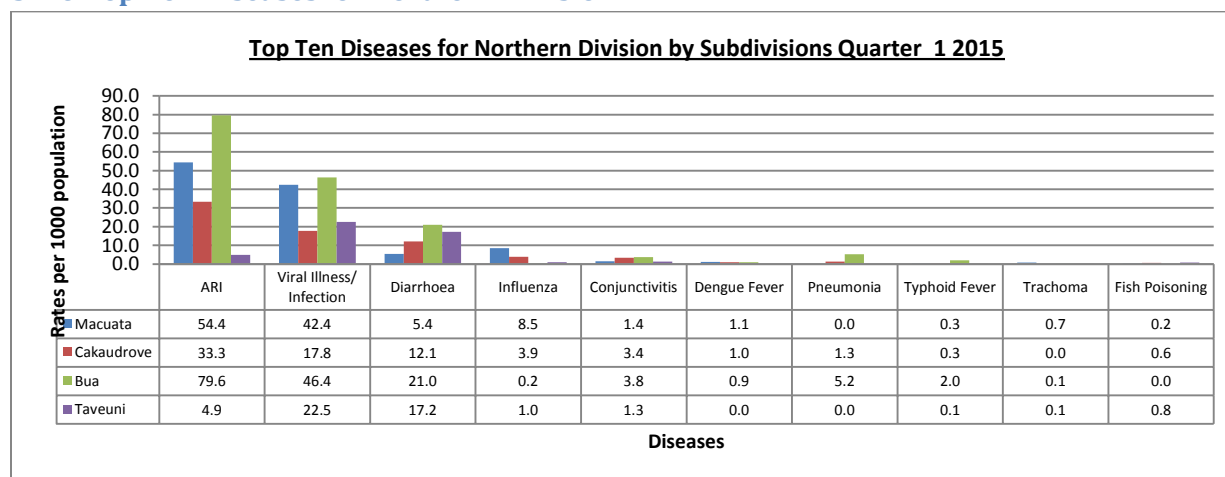
Source: NNDSS

The incidence rates were calculated using 2014 projections from FIBOS, 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 Influenza, ARI, Viral Illness, Diarrhoea and Pneumonia were recorded in Western division and is mostly recorded in Nadi; due to the majority of the reports being received from this sub division. The top 9 conditions in Western division are following the national rank order but in differing array, whereas the 10th leading cause is Syphilis instead of Fish poisoning as in national trend. This may indicate that STI's were progressively higher in the Western division for this quarter than nationally and responsive actions may be warranted.

Dengue fever cases were reported from all the subdivisions signaling for public health interventions for these areas to reduce risks of outbreaks. TB cases were reported in Lautoka (n=17) and Nadroga (n=1) and respective public health and contact tracing are warranted for the areas with confirmed cases. This must also be combined with environmental risk assessment of transmission by the vectors. Calls for adequate preventions and control are made in the light of emerging viral infections in the region and country. Public health and clinical interventions must be cohesive and complimentary.

Infectious hepatitis (predominantly Hepatitis A) cases were also reported in Lautoka (n=12), Nadi (n=11) and Nadroga (n=3) signaling a clear need for early public health response.

3.1.6 Top Ten Diseases for Northern Division



Source: NNDSS

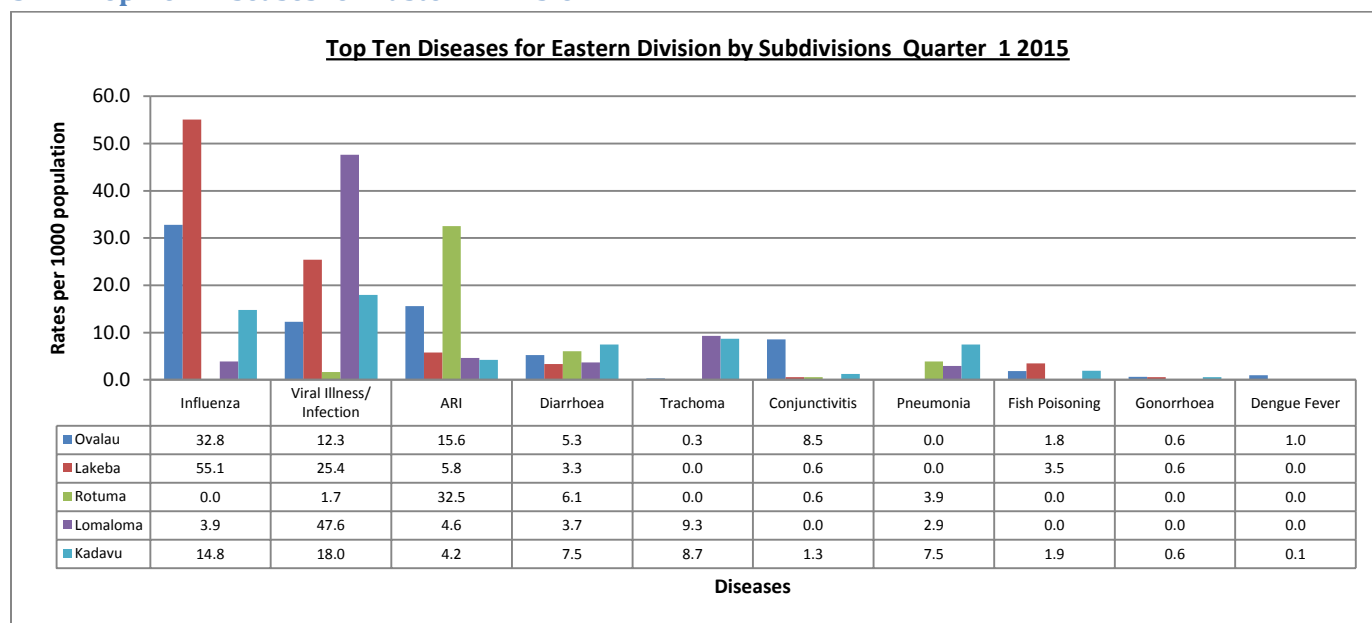
The incidence rates were calculated using 2014 projections from FIBOS, HIU population proportions were applied to this dataset (Macuata 70960, Cakaudrove 30918, Bua 15083 and Taveuni 15646) and reported as per 1000 population. The predominance of ARI, Viral Illness, Diarrhoea, Influenza and Conjunctivitis were recorded in Northern division. Majority of the cases are recorded in Macuata and Bua sub divisions which are the most populated in the Northern Division. The top 9 conditions in the Northern division are following the national rankings but in differing array. One of the conditions in top ten is Trachoma instead of Gonorrhoea. This may signal the need for preventive actions regarding eye care and basic hygiene practice in the Northern Division to reduce cases of Trachoma.

Macuata (n=81), Cakaudrove (n=30) and Bua (n=14) have reported dengue cases requiring ongoing public health awareness on prevention and control. The North has a localized outbreak of dengue fever although reporting is poor on NNDSS. The advice continues to ensure that all Notifiable diseases are duly reported on NNDSS as per the Public Health Act provisions.

TB cases were reported in Macuata (n=18) and Taveuni (n=5) 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=11) and Cakaudrove (n=3) signaling a clear need for early public health response.

3.1.7 Top Ten Diseases for Eastern Division



Source: NNDSS

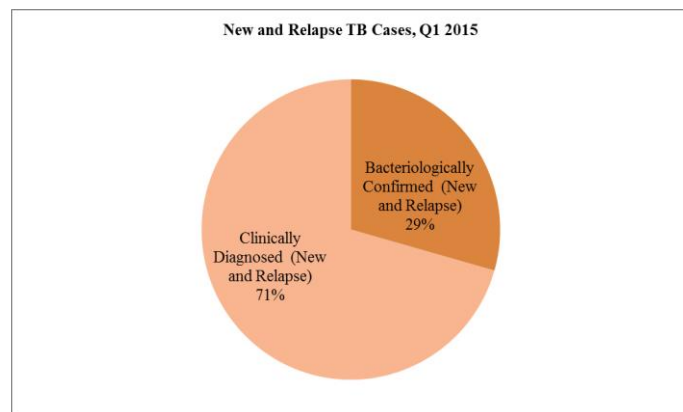
The rates were calculated using 2014 projections from FIBOS, HIU population proportions were applied to this dataset (Lomaiviti 13122, Lakeba 6883, Rotuma 1815, Lomaloma 4094 and Kadavu 10390) and reported as per 1000 population. The predominance of Influenza, Viral Illness, ARI, Diarrhoea and Trachoma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

The top nine conditions in Eastern division are following the national rankings but in differing sort order. One of the conditions in top ten ranking is Trachoma instead of Chicken Pox. This may signal the need for preventive actions regarding eye care and basic hygiene practice in the Eastern Division to reduce cases of Trachoma (similar to the Northern Division).

Dengue cases are noted in Ovalau (n= 13) and Kadavu (n=1), signaling for public health interventions for prevention of outbreaks.

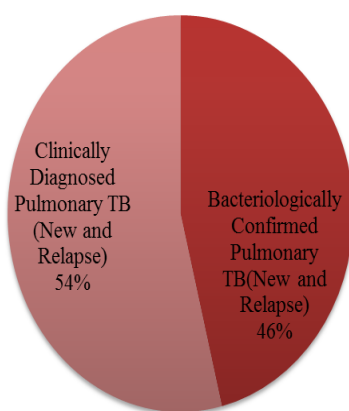
Infectious hepatitis (predominantly Hepatitis A) cases were reported in Kadavu (n=1) and Lakeba (n=1) signaling a clear need for early public health response.

3.2 National Tuberculosis Programme (NTP)



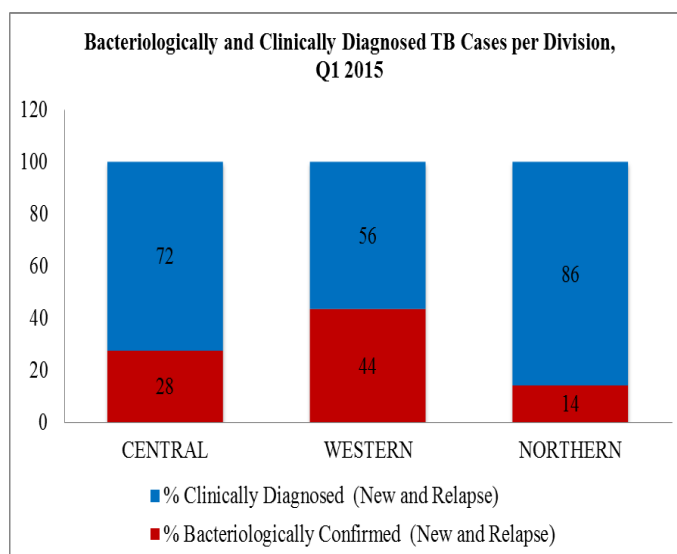
There were a total of 88 TB cases in Q1 2015 with 84 new cases and 4 other previously treated cases. There were 24 (29%) bacteriologically confirmed and 60 (71%) clinically confirmed new and relapse TB cases.

Pulmonary TB Cases, New and Relapse, Q1 2015



Out of the pulmonary TB cases, 46% were confirmed through sputum smear microscopy while 54% were diagnosed through abnormal X-ray and history. One (3%) of the extra-pulmonary TB cases was confirmed histologically; however there were zero cases EPTB cases that were confirmed bacteriologically through GeneXpert. There is a need for more histological testing and utilization of GeneXpert for the confirmation of EPTB cases. The newly developed diagnostic algorithm is designed to encourage clinicians to better utilize GeneXpert to confirm bodily specimen other than sputum to confirm TB. The TB Guidelines will need to be distributed to all Medical Officers and they will need to be sensitized on the new diagnostic algorithm.

A large proportion of TB cases in the Central and Northern division are clinically diagnosed TB cases as compared to the Western Division. There is a need to test biological specimen by smear microscopy, culture or GeneXpert to further increase bacteriologically confirmed TB cases. Currently the cases that are bacteriologically confirmed are through sputum smear microscopy. Better monitoring of this indicator in 2015 will identify gaps in diagnostic processes and this can be strengthened in the revision of the diagnostic algorithm in the new TB guidelines.



Section 4 – Expanded Primary Health care – Hospital Report

4.1 Hospital Utilization

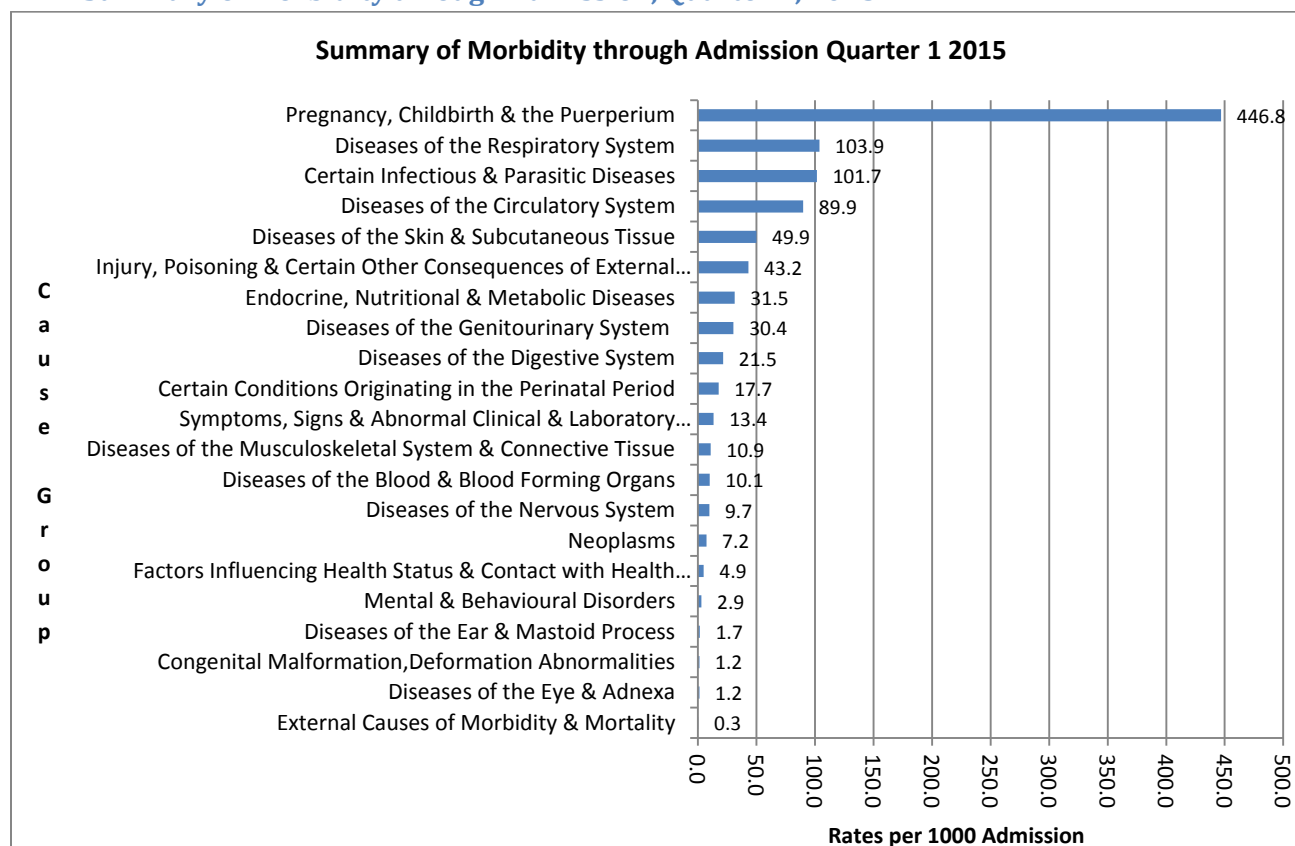
No	Institution	Number of	Number of	Total	Total	Total	Occupancy	Daily Bed	Average Length
		Outpatient	Beds	Admission	Discharge	Patient Days	Rate	State	of Stay
1	CWM Hospital	24,937	481	5,511	4,773	23,655	54.64	262.8	5.0
2	Navua Hospital		22	370	370	1,442	72.83	16.0	3.9
3	Vunidawa Hospital	2,565	24	115	112	279	12.92	3.1	2.5
4	Korovou Hospital	1,216	16	242	242	575	39.93	6.4	2.4
5	Nausori Hospital	252	17	641	634	732	47.84	8.1	1.2
6	Wainibokasi Hospital	1,315	12	223	209	949	87.87	10.5	4.5
	Sub-total	30,285	572	7,102	6,340	27,632	53.68	307.0	4.4
7	Lautoka Hospital	38,721	305	3,635	3,344	13,757	50.12	152.9	4.1
8	Nadi Hospital	27,352	75	1,385	1,257	4,133	61.23	45.9	3.3
9	Sigatoka Hospital	19,582	66	1,160	1,050	3,627	61.06	40.3	3.5
10	Ba Mission Hospital	12,585	50	701	656	1,636	36.36	18.2	2.5
11	Tavua Hospital	12,538	29	374	357	823	31.53	9.1	2.3
12	Rakiraki Hospital	14,025	30	349	319	1,091	40.41	12.1	3.4
	Sub-total	124,803	555	7,604	6,983	25,067	50.18	278.5	3.6
13	Labasa Hospital	23,693	182	2,850	2,333	9,993	61.01	111.0	4.3
14	Savusavu Hospital	17,620	56	590	573	1,538	30.52	17.1	2.7
15	Waiyevo Hospital	5,212	33	309	292	818	27.54	9.1	2.8
16	Nabouwalu Hospital	7,115	26	300	288	1,128	48.21	12.5	3.9
	Sub-total	53,640	297	4,049	3,486	13,477	50.42	149.7	3.3
17	Levuka Hospital	5,904	40	314	297	1,022	28.39	11.4	3.4
18	Vunisea Hospital	2,214	22	84	83	319	16.11	3.5	3.8
19	Lakeba Hospital	1,129	12	61	51	145	13.43	1.6	2.8
20	Lomaloma Hospital	1,551	16	42	38	162	11.25	1.8	4.3
21	Matuku	756	5	12	12	32	7.11	0.4	2.7
22	Rotuma Hospital	1,106	14	16	16	62	4.92	0.7	3.9
	Sub-total	12,660	109	529	497	1,742	17.76	19.4	3.5
SPECIALISED AND PRIVATE HOSPITALS									
No	Institution	Number of	Number of	Total	Total	Total	Occupancy	Daily Bed	Average Length
		Outpatient	Beds	Admission	Discharge	Patient Days	Rate	State	of Stay
1	St Giles Hospital	2,103	136	133	92	4,792	39.15	53.2	52.1
2	Tamavua/Twomey Hospital	4,725	91	94	80	3,725	45.48	41.4	46.6
4	Military Hospital		9				0.00	0.0	0
5	Naiserelagi Maternity	630	7	61	61	88	13.97	1.0	1.4
	Sub-total	7,458	243	288	233	8,605	39.35	95.6	36.9
	TOTAL	221,388	1,533	19,284	17,306	67,918	49.23	754.6	3.9
	GRAND TOTAL	228,846	1,776	19,572	17,539	76,523	47.87	850.3	4.4

Source: Hospital Monthly Returns and ATD PATISPLUS

Based on the above reporting, the overall average length of stay is 4.4 days. The analysis is based on the reports received by Divisional and Sub divisional Hospitals for the 1st Quarter 2015. The table above illustrates that less patients were discharged from the Divisional and Sub Divisional Hospitals. The discrepancy was noted, as a total of 2033 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 1st quarter. There were no outpatients reported from Navua Hospital for January to March. The bed occupancy rates (BOR) have improved and with improved statistics on admissions and discharges, the perception is that BOR will reflect the true facility incidence. The wide gap between discharges and admissions are being slowly addressed except in CWMH 738 discharges still pending, Labasa Hospital (391 undischarged patients), Lautoka Hospital (291 undischarged patients), and Nadi Hospital (128 undischarged patients). 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

4.2 Admission Data

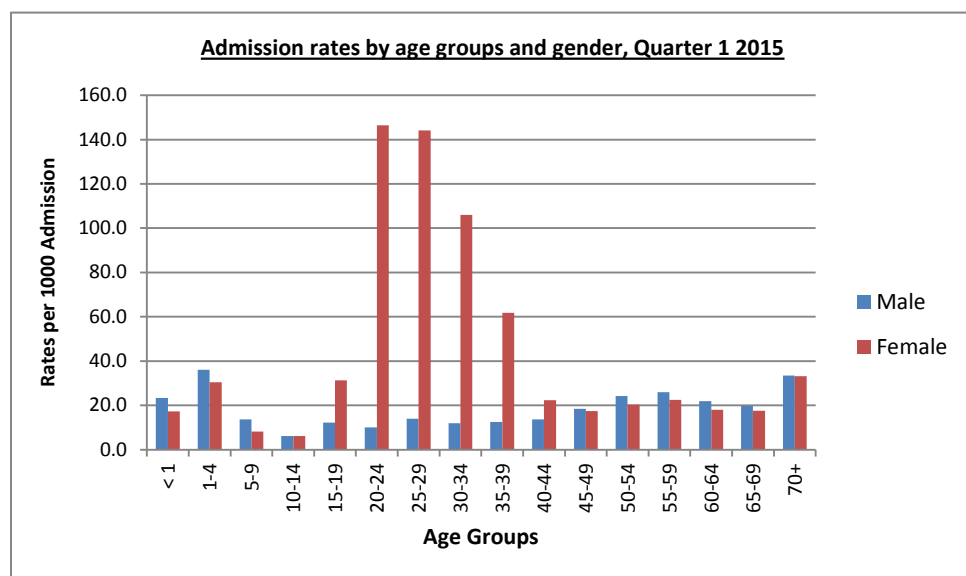
4.2.1 Summary of Morbidity through Admission, Quarter 1, 2015



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

The above graph demonstrates the Admissions by Cause Group in the 1st quarter 2015. Leading overall admissions are Pregnancy, Childbirth & Puerperium [n=2908], Diseases of Respiratory System [n=676], Certain Infectious & Parasitic Diseases [n=662] and Diseases of the Circulatory System [n=585]. Compared with the 1st Quarter of 2014, the leading admissions were still Pregnancy, Childbirth & Puerperium [n=2584], Certain Infectious & Parasitic Diseases [n=2013], Diseases of Circulatory System [n=886], and Injury, Poisoning & Certain Other Consequences of External Causes [n=721]. The rates used were calculated per 1000 admissions.

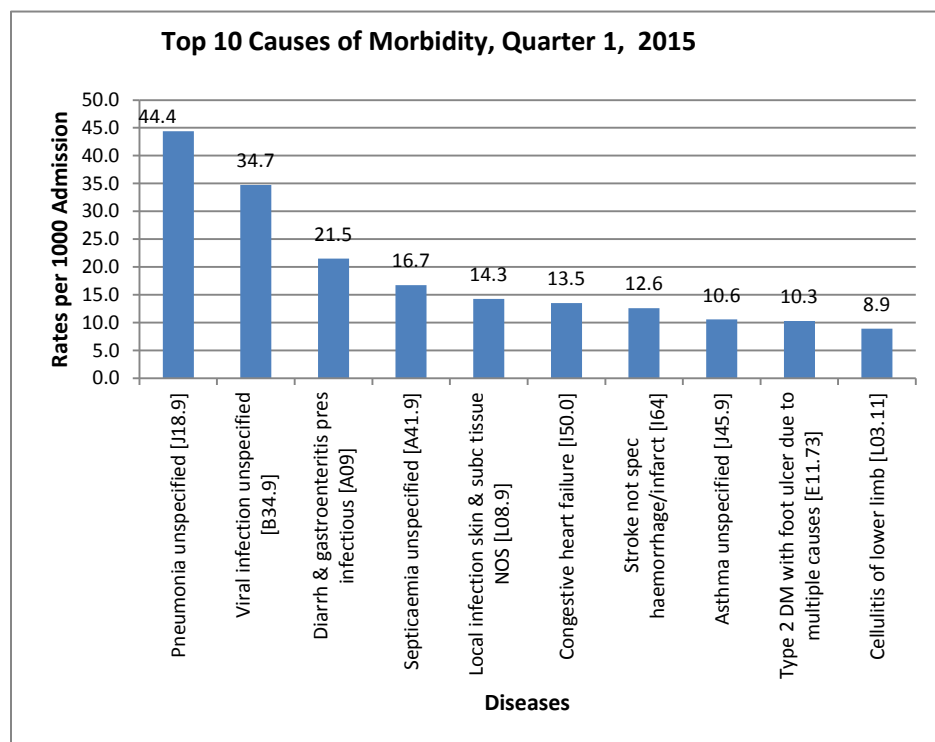
4.2.2 Admission by Age Groups and Gender, Quarter 1, 2015



The graph represents the age groups disaggregated by gender. It shows that female contributed a higher number of cases in the age groups 20-24, making up the majority of case in this group. This is due to pregnancy, childbirth and puerperium.

Source: Manual Tear-Offs & PATISPLUS

4.2.3 Top 10 Causes of Morbidity Quarter 1, 2015

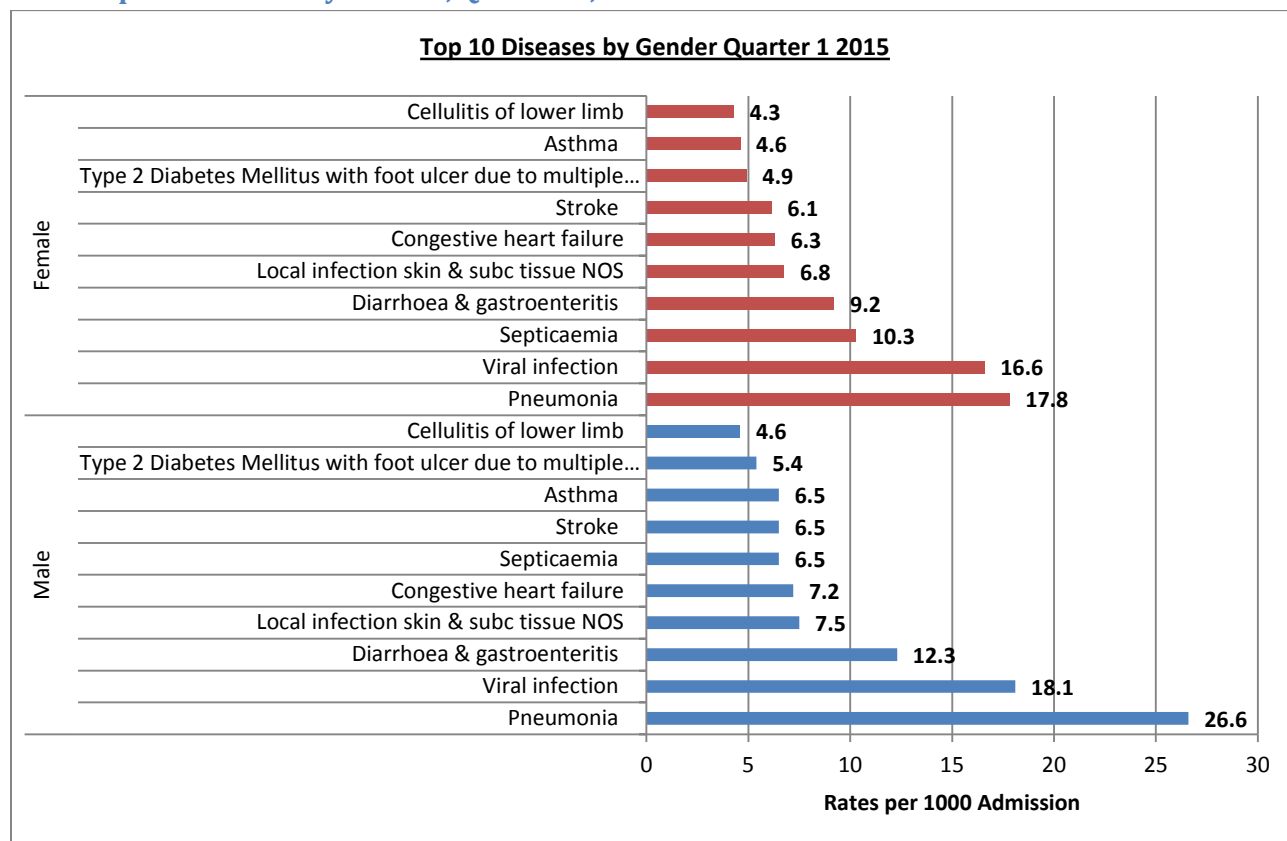


The graph displays the Top 10 causes of admissions by diseases with Pneumonia unspecified [n=289] leading which accounted for 44.4 per 1000 admissions, while Cellulitis of lower limb [n=58] accounting for 8.9 per 1000 admissions is the tenth cause of admission. Pneumonia and viral infection were highest among the I-Taukei compared to Fijian of Indian descent and Fijian of Other descent; while in gender distribution, Male again leads for both pneumonia and viral infection, within the age groups from less than 1yr to 4yrs.

Source: Hospital Discharge Data from

Sub-Divisional Hospitals & PATISPLUS

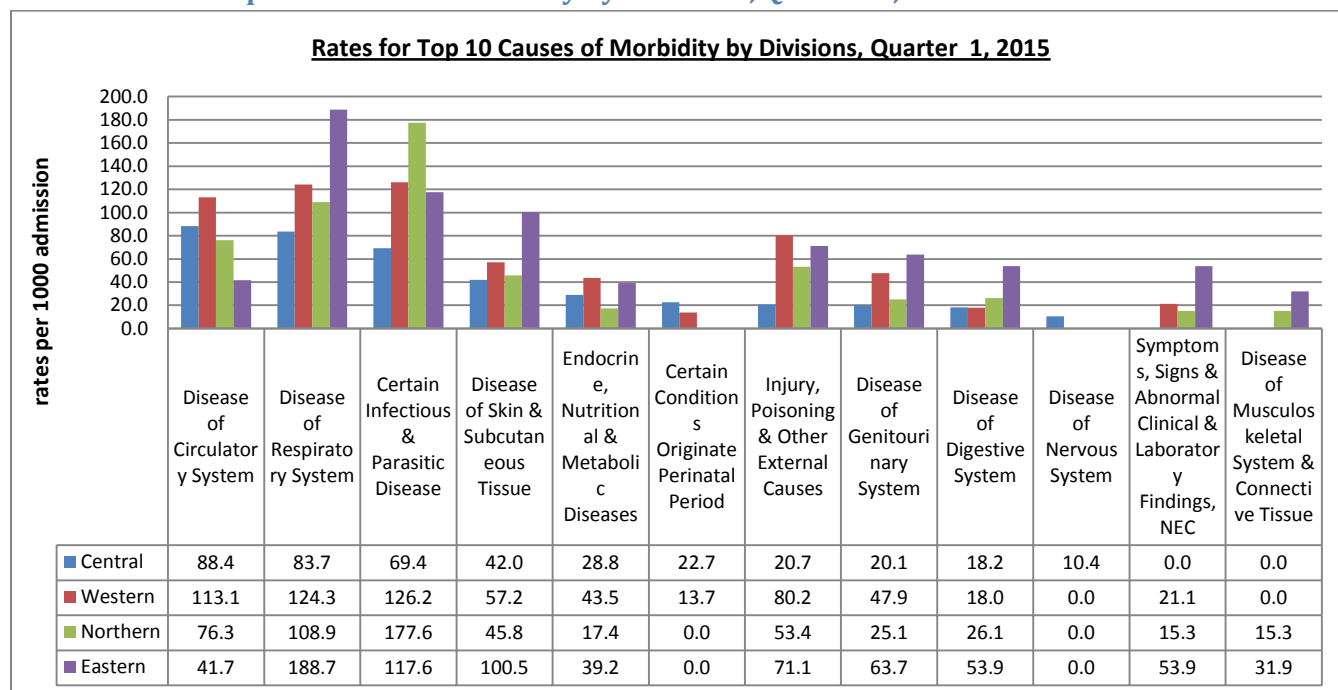
4.2.4 Top 10 Diseases by Gender, Quarter 1, 2015



Source: Manual Tear-Offs & PATISPLUS

The above graph shows the top 10 causes of Morbidity distributed by Gender. Top diseases for both genders are Pneumonia and Viral Infection, and least for both are Type 2 Diabetes Mellitus, Asthma and Cellulitis of Lower Limb. The rates used were calculated per 1000 admissions.

4.2.5 Rates for Top 10 Causes of Morbidity by Divisions, Quarter 1, 2015

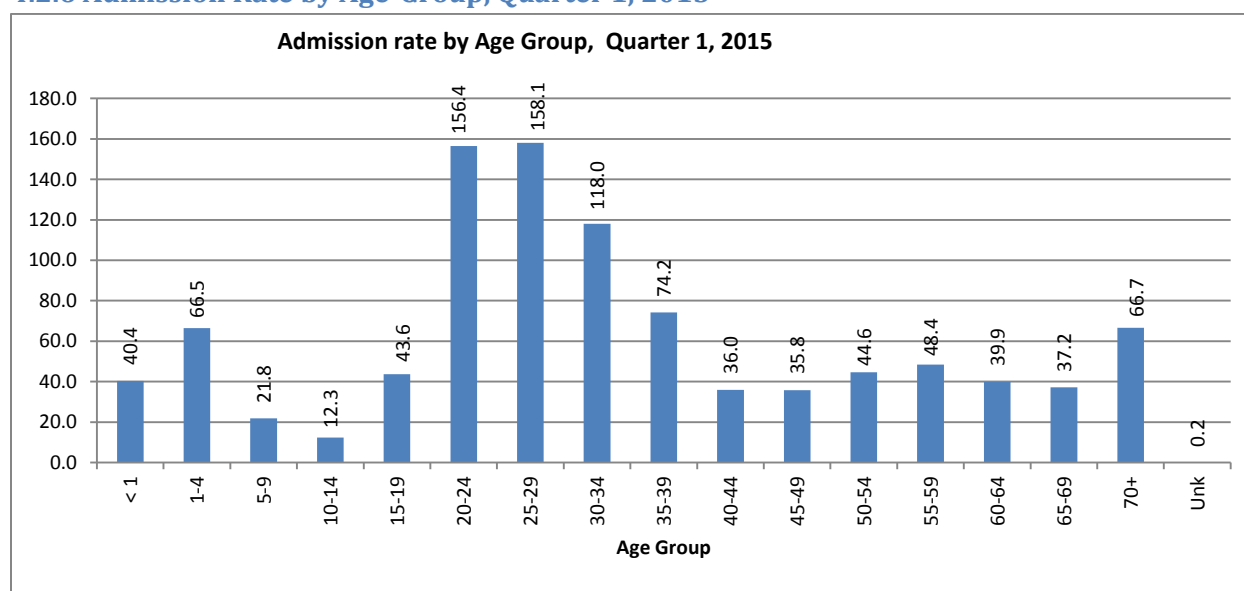


Source: Manual Tear-Offs & PATISPLUS

The graph on the previous page shows the top 10 causes of Morbidity by Divisions. Most admission were reported from Central Divisions [n=3574] followed by Western Divisions [n=1609], Northern Divisions [n=918] & Eastern Divisions [n=408] for 1st Quarter 2015. Different Divisions have different top 10 causes of morbidity compared to 1st quarter 2014 which have Certain Infectious & Parasitic Diseases as the leading causes of morbidity for all the Divisions. In the Central division, diseases of the circulatory system, diseases of the respiratory system and certain parasitic and infectious diseases were the top three causes of morbidity. The Western and Northern divisions had similar causes of morbidity in the top three categories: Certain Infectious & Parasitic Diseases, Diseases of the Respiratory System and Diseases of the Circulatory System. The Eastern division differed minutely and reflected diseases that were communicable in origin and may have been related to hygiene factors: Diseases of the Respiratory System, Certain Infectious & Parasitic Diseases, and Diseases of the Skin and Subcutaneous Tissues.

It is also important to note that while Symptoms and Signs of Abnormal Clinical and Laboratory Findings, not elsewhere classified were still prevalent in the Western, Northern and Eastern Divisions, the Central division had no such NEC (not elsewhere classified) coding listed.

4.2.6 Admission Rate by Age-Group, Quarter 1, 2015

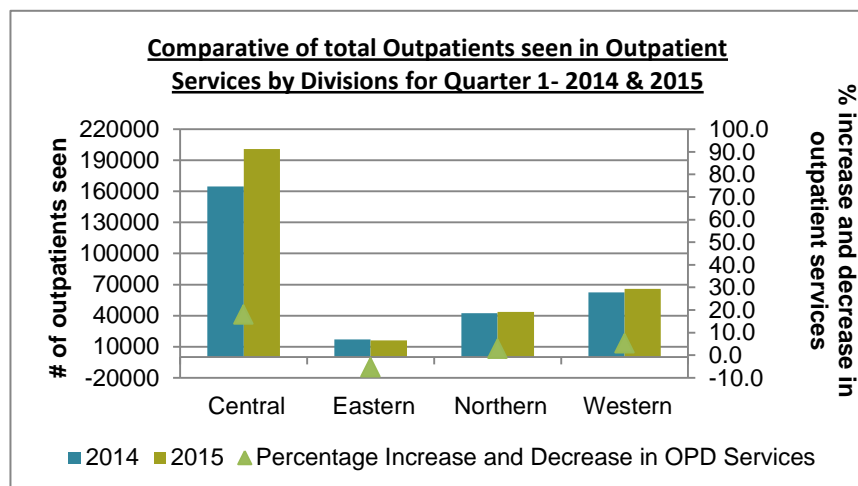


Source: Manual Tear-Offs & PATISPLUS

The highest occurrence of admissions were among the 20 – 34yrs age groups (n=2815); this was approximately 43% of all admissions, where the cause of morbidity were due to pregnancy, its complications and outcomes (Single spontaneous delivery (n=1146), First degree perineal laceration during delivery (n=503), Perineal laceration during delivery, unspecified (n=413), Preterm delivery (n=85) and Labour & delivery complicated by fetal distress, unspecified (n=84). The under-five population comprised of approximately 10.7% of the total admissions for 1st Quarter 2015; the top 3 causes of morbidity for this age group are Pneumonia (n=192), Bronchopneumonia (n=44) Diarrhoea (n=43) and Acute bronchiolitis unspecified (n=43). The lowest frequency of admissions were among 10-14 age groups (n=80) at approximately 12.3%; the top 3 causes of morbidity for this age group are Viral infection (n=7), Diarrhoea (n=4), Acute rheumatic pericarditis (n=3) and Cellulitis of lower limb (n=3).

4.3 Outpatients

4.3.1 Outpatient comparative quarter 1, 2014 and 2015



A total of 326514 outpatients were seen through the outpatient service in all the divisions compared to a total of 286525 outpatients seen through the same period in 2013. This was an increase of 12% in the 1st Quarter [2015] when compared to the same period last year. The Central Division recorded 18% increase in outpatient services, followed by the Western Division (5%) and Northern Division (3%) while the Eastern Division recorded 5% decrease in outpatient services. When compared with the same period last year, similar trends were observed. *Source: CMRIS Online [PHIS]*

4.3.2 Outpatient services by Sub-division *Source: CMRIS Online [PHIS]*

Below are the Medical Area's that were responsible for the percentage increase in outpatient services nationally

Division	Sub Division	Medical Area	Percentage increase comparative 1 st Qtr, 2014 and 2015.
Central	Rewa	Nausori	38
		Wainibokasi	26
		Mokani	16
	Serua/Namosi	Korovisilou	40
		Navua	19
	Suva	Nuffield	60
		Lami	27
		Raiwaqa (Central)	24
		Makoi	21
		Korovou	4
	Tailevu	Lodoni	3
Eastern	Kadavu	Vunisea	46
		Kavala	23
		Davilele	9
	Lakeba	Kabara	39
	Lomaloma	Lomaloma	17
		Cicia	10
	Rotuma	Rotuma	64
Northern	Bua	Wainunu	13
	Cakaudrove	Natewa	28
		Nakorovatu	13
		Tukavesi	2
	Macuata	Labasa	33
		Dreketi	16
		Lagi	15
		Naduri	6
	Taveuni	Qamea	57
		Vuna	34
Western	Ba	Nailaga	10
	Lautoka/Yasawa	Lautoka	87
		Natabua	78
		Nacula	45
		Kamikamica	22
		Kese	21
	Nadi	Namaka	12
		Bukuya	6
		Nadi	3
	Nadroga/Navosa	Keiyasi	20
		Raiwaqa (Western)	4

4.4 Holding Beds

4.4.1 Holding beds tabular by Division

Division	No. Bed	Total Patients	No. Referred	No. Discharged	No. Held Over 12 hours	No. Deliveries	Occupancy Rate (%)	Held Over 12 Hours (%)
Central	105	5033	1187	3771	1788	6	53.3	35.5
Eastern	64	180	79	123	89	10	3.1	49.4
Northern	81	834	381	490	109	23	11.4	13.1
Western	95	699	431	320	45	7	8.2	6.4
Total	345	6746	2078	4704	2031	46	21.7	30.1

Source: CMRIS Online [PHIS]

The table above provides the information on the utilization of and need for beds at health centres. 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 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 reported 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. Similar patterns were observed when compared with the same period last year.

It was reported, the Central Division also had the highest number of discharges in the Rewa Sub-division (n=2838); the respective medical areas were responsible for the increase; Nausori medical area (n=1714) and Wainibokasi medical area (n=1105) medical area. While in Suva Sub-Division (n=680); Makoi medical area (n=222) recorded the highest discharge trailed by Valelevu medical area (n=194).

Section 6 – Evidence-based Policy, Planning, Implementation and Assessment.

6.1 Mortality

A total of 1199 Medical Cause of Death Certificates (MCDC) were received at the Health Information Unit at the end of the 1st quarter, 2015 giving an estimated crude death rate of 1.3 per 1000 population (using the 2014 FBOS population projections as a denominator). In comparison to the 1st quarter of 2014, 893 MCDC were received at HIU and the crude death rate (CDR) stood at 1 per 1000 population. These were the certificates received from each division from 1st January 2015 to 15th April 2015.

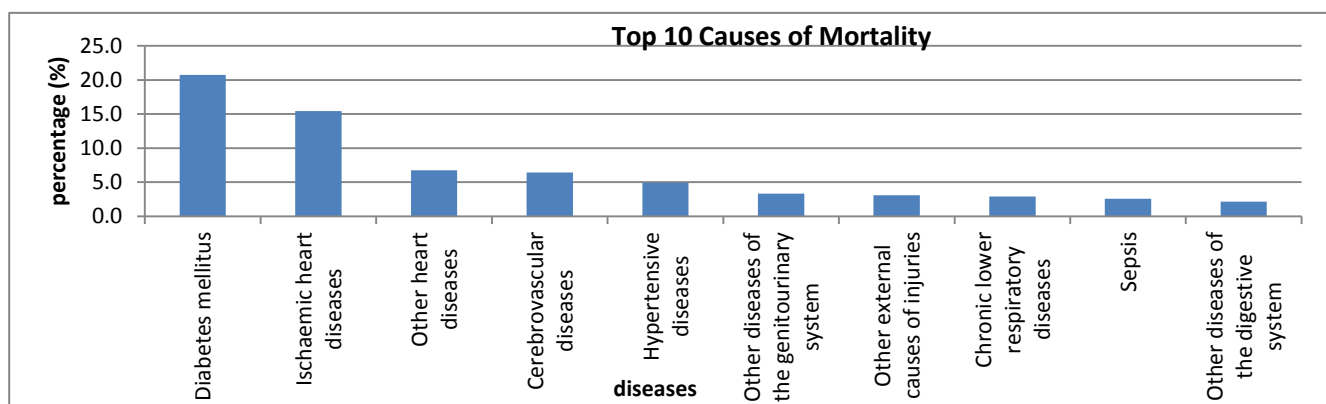
6.2 Mortality by Chapter & Tabular

Non Communicable Diseases are the major causes of mortality (Top 10 causes) for 1st quarter, 2015 covering 71.3% of the total mortality and 28.7% covers the rest of the diseases. Diseases of the circulatory system, Endocrine, nutritional and metabolic diseases and Neoplasms continue to be the three leading causes of mortality, similar to the 1st quarter, 2014. External causes of mortality have fallen in ranking from the 1st quarter, 2014 from the 5th to the 6th place in the 1st quarter, 2015. There has been no significant change in the top 10 chapters of the mortality over the last 2 years as shown below.

6.2.1 Top Ten causes of mortality (by chapter)

Diseases	Cases	%
Diseases of the circulatory system	411	34.3
Endocrine, nutritional and metabolic diseases	273	22.8
Neoplasms	113	9.4
Diseases of the respiratory system	63	5.3
Certain infectious and parasitic diseases	59	4.9
External causes of mortality	58	4.8
Diseases of the genitourinary system	45	3.8
Diseases of the digestive system	41	3.4
Certain conditions originating in the perinatal period	20	1.7
Diseases of the skin and subcutaneous system	19	1.6
Total	1200	

6.2.2 Top 10 causes of mortality (tabular-103 list)



The above graph shows that NCDs remains the major cause of mortality. Diabetes (20.8%) and IHD (15.4%) remain the two leading causes of mortality for this quarter and comparative reporting period. Cerebrovascular disease has fallen in ranking from 3rd place in the 1st quarter, 2014 to the 4th place in this reporting period. Hypertensive diseases remain the 5th in ranking similar to the 1st quarter, 2014. Other External causes of mortality have jump in ranking from 10th in the 1st quarter, 2014 to

the 7th place in this reporting period. Diseases of the “Other” classifications have bulk cases which may be unspecified and is the reason that this classifications have appeared in the top 10 causes of mortality by disease. The two leading causes of mortality (diabetes & IHD) remain to be dominant throughout the four divisions in which the Western Division recorded the most number of mortality followed by the Central Division, the Northern Division and the least were recorded from the Eastern Division.

6.3 Males vs Females Mortality

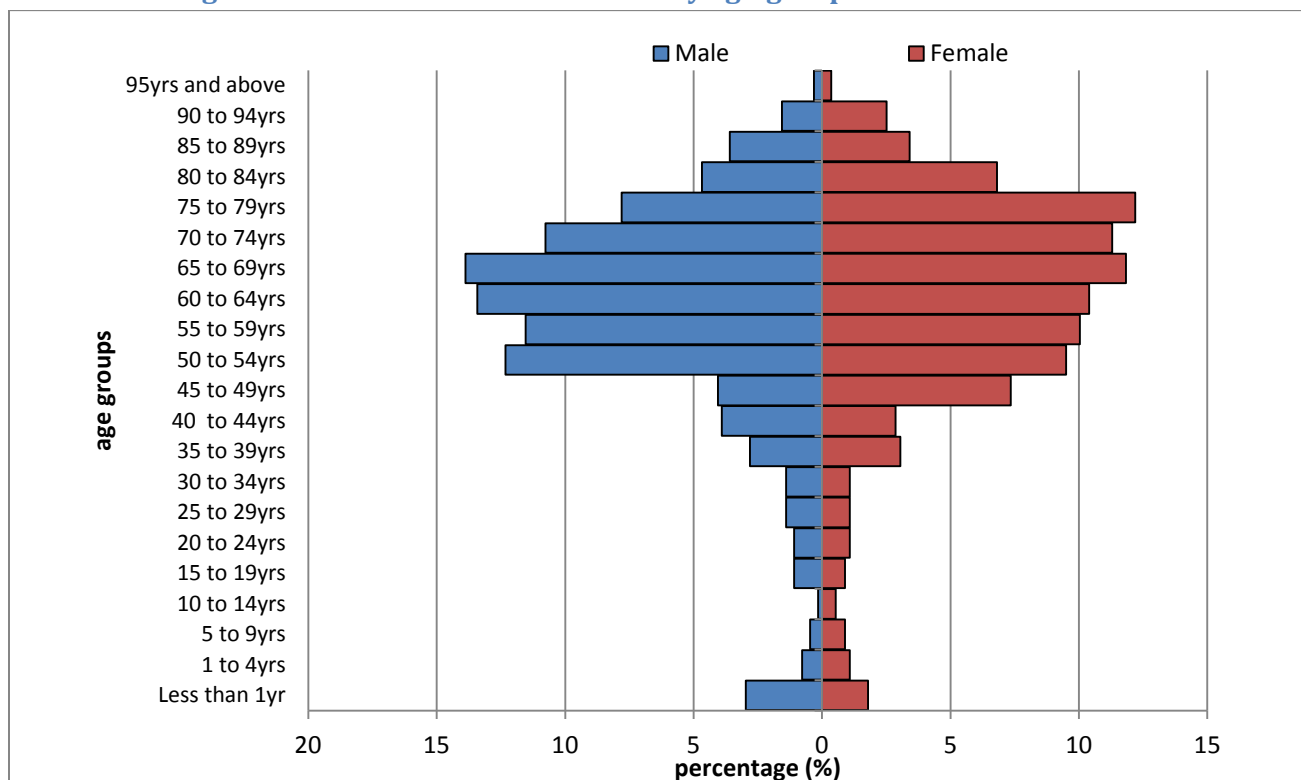
6.3.1 Males vs Females Mortality

Male			Female		
Diseases	Cases	%	Diseases	Cases	%
Diseases of the circulatory system	240	37.4	Diseases of the circulatory system	171	30.6
Endocrine, nutritional and metabolic diseases	121	18.8	Endocrine, nutritional and metabolic diseases	152	27.2
Diseases of the respiratory system	44	6.9	Neoplasms	72	12.9
Neoplasms	41	6.4	Certain infectious and parasitic diseases	27	4.8
External causes of mortality	37	5.8	Diseases of the genitourinary system	21	3.8
Certain infectious and parasitic diseases	32	5.0	Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified	21	3.8
Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified	28	4.4	External causes of mortality	21	3.8
Diseases of the digestive system	28	4.4	Diseases of the respiratory system	19	3.4
Diseases of the genitourinary system	24	3.7	Diseases of the digestive system	13	2.3
Certain conditions originating in the perinatal period	11	1.7	Diseases of the skin and subcutaneous tissue	12	2.2
Diseases of the nervous system	9	1.4	Diseases of the musculoskeletal system and connective tissue	9	1.6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	7	1.1	Certain conditions originating in the perinatal period	5	0.9
Diseases of the skin and subcutaneous tissue	7	1.1	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	5	0.9
Congenital malformations, deformations and chromosomal abnormalities	6	0.9	Congenital malformations, deformations and chromosomal abnormalities	4	0.7
Diseases of the musculoskeletal system and connective tissue	6	0.9	Diseases of the nervous system	4	0.7
Mental and behavioural disorders	1	0.2	Mental and behavioral disorders	2	0.4
Grand Total	642		Grand Total	558	

The top 2 chapters remain the leading causes of mortality in both genders. The top 4 chapters for Female remain the same as per the 1st quarter, 2014. It is important to know that the female gender follows the top three rankings by chapters in the National dataset; females may be driving the Neoplasms dataset and may be contributing to the third ranking to the dataset. In males in the same reporting last year, the External cause of mortality was rank 5th and remains the same in this quarter. Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified (Nonsense codes) are found in 6th (F) and 7th (M) for this reporting period; these nonsense codes were also found in the similar rankings for the 1st quarter, 2014.

The inability to classify causes of death correctly greatly inhibits the strategic analysis and targeting of information for policy, planning and decision making. The top 2 chapters remains the leading cause of mortality in all the four divisions, followed by Neoplasms with FIDs dominating in the Western and the Northern Division whereas the I-Taukei ethnicity take lead in the Central Division. Furthermore, external causes of mortality noted to be the 3rd highest in ranking in the Western Division amongst the FIDs.

6.3.2 Percentage of deaths for males and females by age-groups



The pyramid above shows the percentage of mortality by age groups and gender for this quarter. Most deaths occur between the age groups from 45-79 years where males recorded 53.9% and female recorded 46.1%. Between these age groups, males of I-Taukei descent recorded 55.6%, Fijian of Indian descent recorded 41.4% and Fijian of other ethnic descent recorded 3%. On the other hand females of I-Taukei recorded 59.0 %, Fijian of Indian descent recorded 37.5% and Fijian of other ethnic descent recorded 3.5%. Adult females die earlier from the age of 45years and scattered up to 79 years whereas for males, majority of their deaths occur from 50years to 69years.

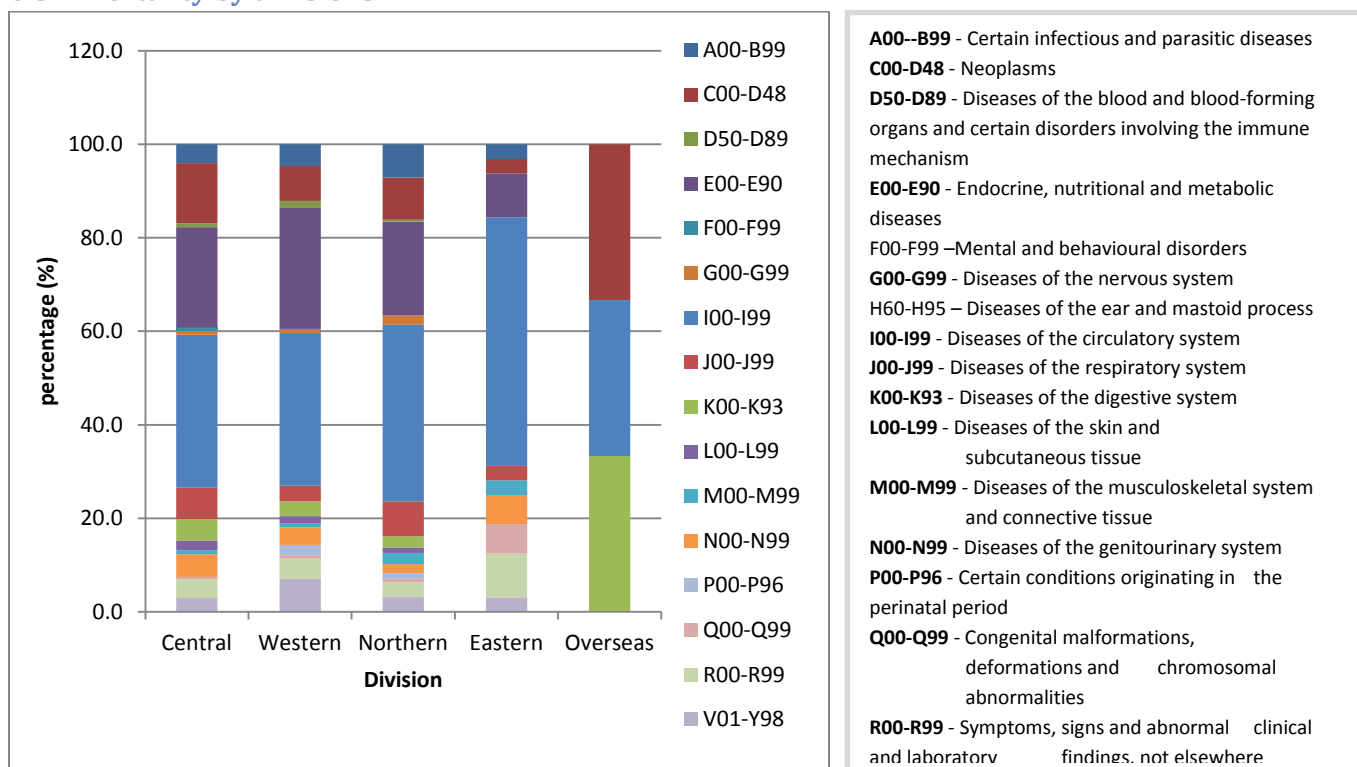
6.4 Premature mortality

6.4.1 Premature mortality rate per 1000 population (<65yrs)

Age groups	Deaths			Population (FBoS)			Rate per 10,000 population		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	5	1	6	44927	42538	87465	1.1	0.2	0.7
5-9	1	1	2	44305	41646	85951	0.2	0.2	0.2
10-14	0	2	2	39860	36988	76848	0.0	0.5	0.3
15-19	2	2	4	40009	37482	77491	0.5	0.5	0.5
20-24	6	2	8	37307	35225	72532	1.6	0.6	1.1
25-29	7	3	10	35547	33414	68961	2.0	0.9	1.5
30-34	6	4	10	33912	32632	66543	1.8	1.2	1.5
35-39	10	12	22	30354	28942	59296	3.3	4.1	3.7
40-44	19	15	34	26637	25637	52275	7.1	5.9	6.5
45-49	21	32	53	25706	25472	51178	8.2	12.6	10.4
50-54	64	45	109	24497	23951	48448	26.1	18.8	22.5
55-59	63	49	112	19610	19609	39219	32.1	25.0	28.6
60-64	73	51	124	14374	14884	29257	50.8	34.3	42.4
Total	277	219	496	417045	398420	815465	6.6	5.5	6.1

6.5 Mortality by Divisions

6.5.1 Mortality by divisions



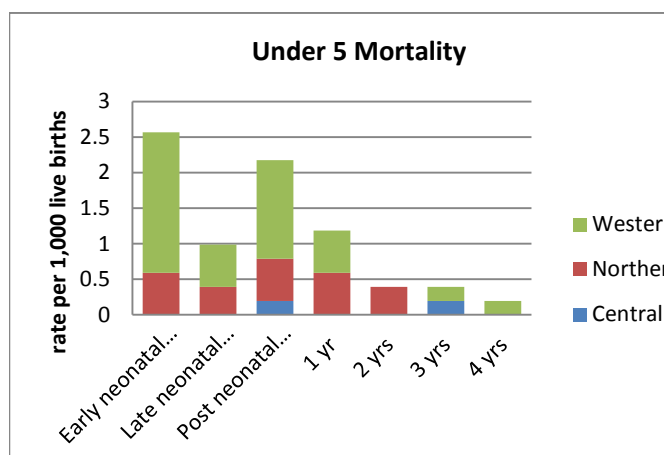
The graph shows the percentages of deaths by Division of residence of the deceased. Western division recorded 537 (44.8%) deaths followed by Northern division with 254 (21.2%) deaths then Central division with 373 (31.1%) deaths followed by Eastern division with 32 (2.7%) deaths and 3 (0.3%) were Overseas deaths.

The majority of the divisional and the non-local deaths are attributable to diseases of the circulatory system followed by the Endocrine and Neoplasm for the 1st quarter 2015. The trend remains the same in comparison to 1st quarter 2014 as circulatory leading followed by endocrine and neoplasms.

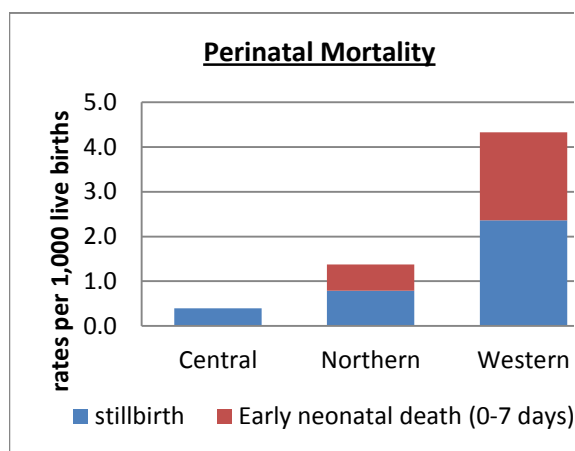
The Central Divisions leading classification of death are Circulatory system followed by Endocrine; Neoplasms, respiratory system and genitourinary system. In contrast, the Western Division leading classifications of death are Circulatory system followed by Endocrine, Neoplasms, External causes of mortality and certain infectious and parasitic diseases.

The leading classification of death in the Northern Division was Circulatory system followed by Endocrine, Neoplasms, respiratory system and certain infectious and parasitic diseases

The Eastern Division reported the highest Circulatory system followed by Endocrine; Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (Non-sense codes); Congenital malformations, deformations and chromosomal abnormalities; and genitourinary system.



The Under 5 mortality rate stands at 7.9 per 1000 live births for this quarter. The Western Division reported the highest Post Neonatal Death (28 Days – 1 Yr.), followed by the Northern and Central Division in the 1st quarter 2015. The low number of Under 5 deaths recorded for the Central Division was mainly due to late reporting while no Under 5 death was reported from the Eastern Division



The Perinatal mortality rate stands at 6.1 per 1000 births for this quarter compared to 8 per 1000 births in 1st quarter 2014. As mentioned earlier, no early neonatal death shown in the graph for the Central division was mainly due to late reporting.

6.6 Compliance to Reporting Requirements

6.6.1 Non-Communicable Disease

Cancer

ICD-O is a dual classification with coding systems for both topography and morphology. The topography code describes the site of origin of the neoplasms and uses the same 3-character and 4-character categories as ICD-10 for malignant neoplasms (C00– C80); this allows greater specificity for coding sites of non-malignant neoplasms than is possible in ICD-10. The morphology code describes the cell type of the tumor and its biologic activity, in other words, the characteristics of the tumor itself.

A pathologist may receive several specimens from the same patient for example; (a). A biopsy (b) resected primary site and (c) a metastatic site. The cancer registrar is only interested in the primary site and will report only (b) the primary site and morphology with a behavior code /3. Coding is based on what the pathologist states. However, if the behavior is unclear or not stated, the cancer registrar codes the behavior as assigned in ICD-O, [C80.9] resulting in most cases being bulked into unknown primary sites.

Diabetes

The total number of diabetes notification received in Quarter 1, 2015 were 200 compared to 112 cases in Quarter 1, 2014. There were 22 facilities reporting the incidence of diabetes in this quarter compared to 18 facilities reporting for the same period last year. Nadi Hospital reported the highest number of cases (n=91) and compared to the same period last year, 17 cases were reported from Labasa Diabetic Hub.

6.6.2 PHIS

Family Planning

It was reported that Health Centers were consistent in the distribution of contraceptives methods. 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; Savusavu medical area, Labasa medical area and Qamea medical area were consistent in the distribution of contraceptive methods.

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

Percentage Paper base report received for PHIS

Divisions	% Received
Central	100
Eastern	100
Northern	100
Western	100

Source: CMRIS Online [PHIS]

The preceding analysis is based on the 100% of reports received through the paper base reports from the four divisions for 1st quarter, 2015. There was 0% decline in the receipt of reports compared to 99.6% reports received for the same period last year whereby Eastern division cause 2.2% decline in reporting while 97.8% reports were received at HIU. This was a huge achievement for PHIS, 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.

Percentage Online reports received for PHIS

Divisions	% Received
Central	100
Eastern	100
Northern	100
Western	100

Source: CMRIS Online [PHIS]

The preceding analysis is based on 100% of reports received through PHIS online 1st quarter, 2015. There was a great improvement in online reporting as the difference in percentage coverage was by 0.4% in this quarter compared to the same period last year (99.6%).

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.

On-Time Report for 1st Quarter, 2015

This is the 1st quarter update of the monitoring of on-time submission:-

% of reports received On-Time by Division & by Month [received by 15th of the following month]				Total %
Division	Jan	Feb	Mar	
Central	100	100	100	100
Eastern	100	100	100	100
Northern	100	100	100	100
Western	96.6	100	100	98.9
Total	98.8	100	100	98.8

Source: CMRIS Online [PHIS]

The figure above shows the percentage of monthly reports received On-Time from each division in 1st Quarter, 2015. There has been a huge improvement in submission within the 3 month period and it illustrates the performance of each Divisions consistency in delivering reports from their respective reporting unit to Health Information Unit. The Central, Eastern and Northern Divisions 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 Western Division.

PHIS late reporting 1st Quarter, 2015.

Reports received late by Month from the following Medical Areas [received after 15th of the following month]			
Division	Jan	Feb	Mar
Central	Nil	Nil	Nil
Eastern	Nil	Nil	Nil
Northern	Nil	Nil	Nil
Western	Korolevu Medical Area	Nil	Nil

Source: CMRIS Online [PHIS]

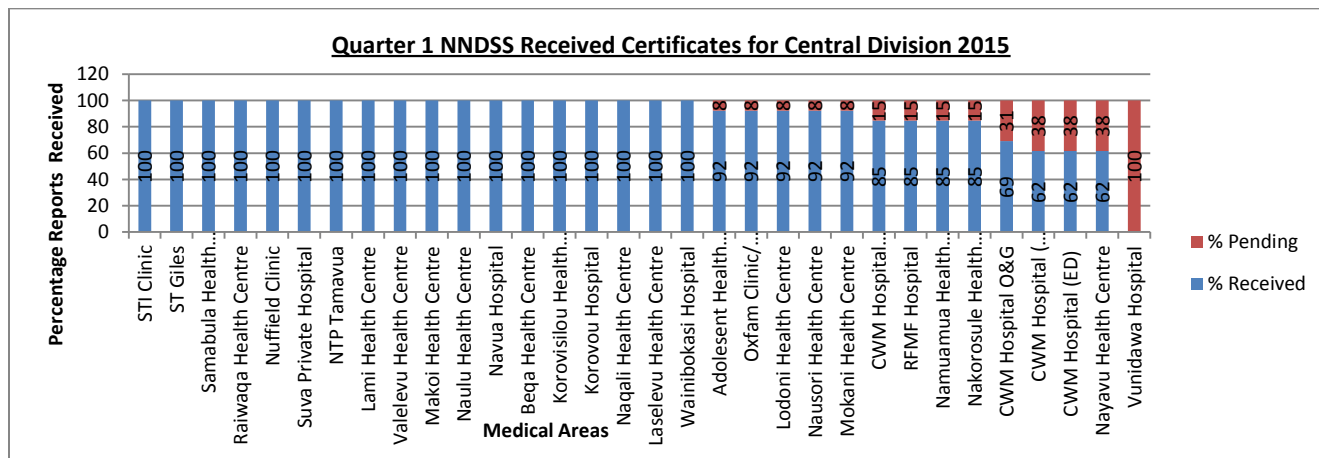
The figure above shows the medical areas that were late in monthly reporting by each division in 1st Quarter, 2015.

Connectivity Update:

The figure below shows the accessibility and connectivity of the SDHS to PHIS Online System. Total Facility: 20 (14 connect)

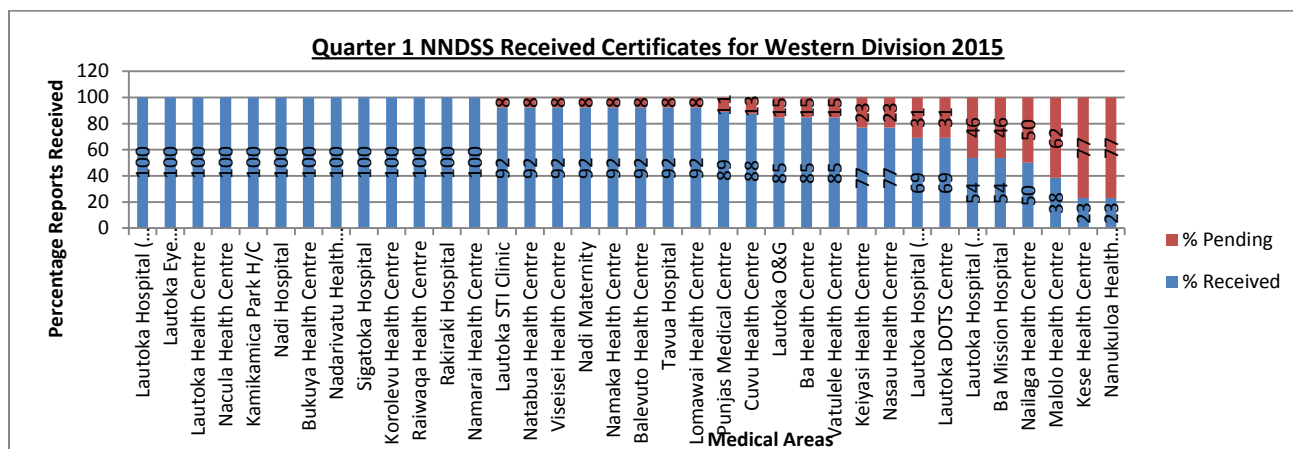
Division	Sub Division	Accessibility	Division	Sub Division	Accessibility
Central	Suva Subdivision	Accessible	Northern	Cakaudrove Sub-Division	Accessible
	Serua/Namosi Subdivision	No Connection at all		Macuata Subdivision	Accessible
	Rewa Subdivision	Accessible		Taveuni Subdivision	Accessible
	Tailevu Subdivision	Having issues with connectivity		Bua Subdivision	Accessible
	Naitasiri Subdivision	Having issues with connectivity	Western	Nadroga/ Navosa Subdivision	Accessible
Eastern	Lomaiviti Subdivision	Accessible		Nadi Subdivision	Accessible
	Kadavu Subdivision	Accessible		Ba Subdivision	No Govnet Access
	Lakeba Subdivision	Inaccessible		Tavua Subdivision	Accessible
	Lomaloma Subdivision	Inaccessible		Ra Subdivision	Accessible
	Rotuma Subdivision	Accessible		Lautoka/Yasawa Subdivision	Accessible

6.6.3 Communicable Disease

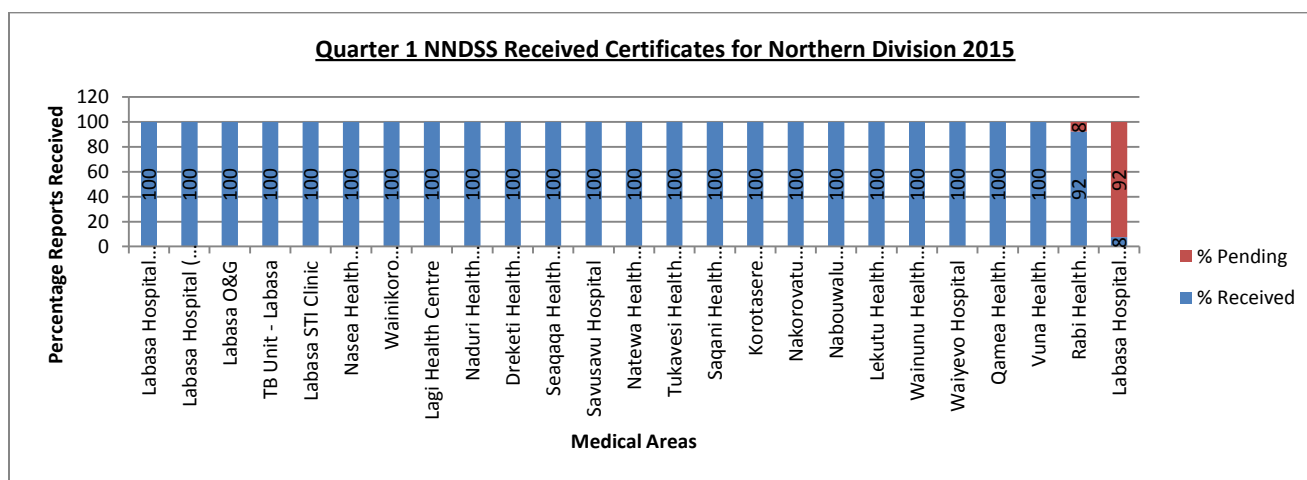


Source:

NNDSS 89% of reports were received for 1st quarter 2015 from the Central division.



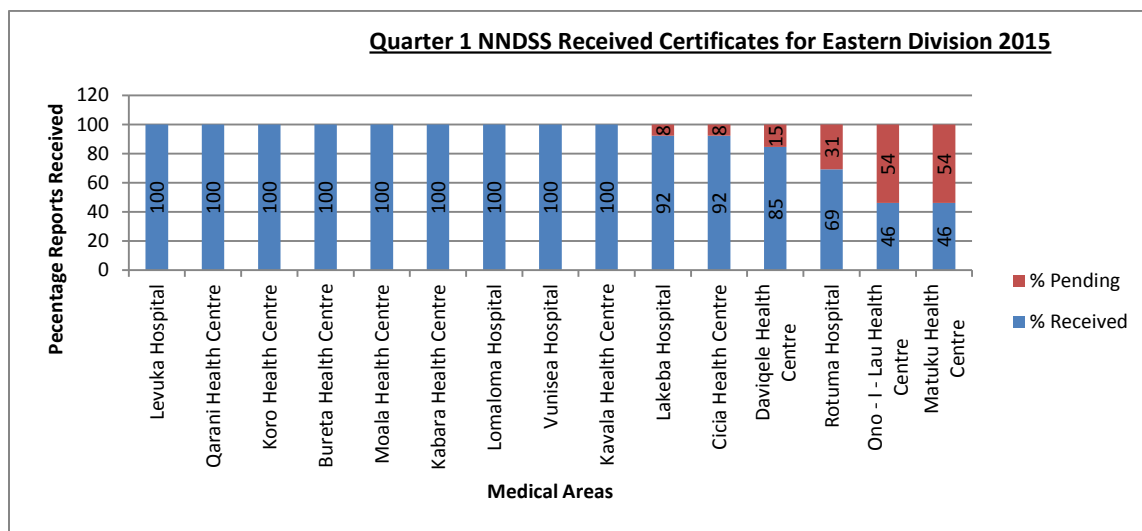
Source: NNDSS 83% of reports were received for 1st quarter 2015 from the Western Division.



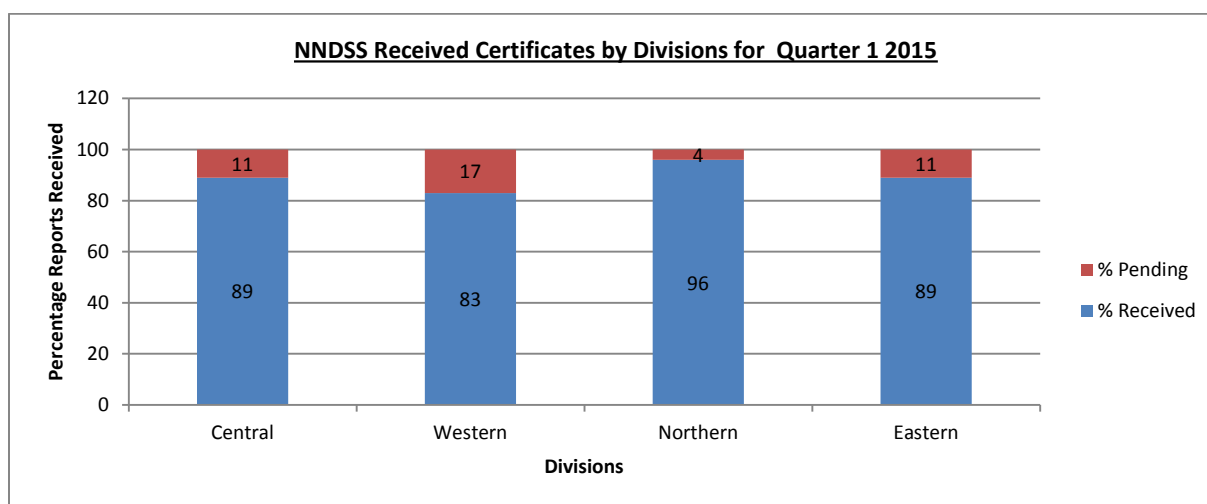
Source: NNDSS

96% of reports were received for 1st quarter 2015 from the Northern division. This division had the most comprehensive coverage of report submission when compared to all other Divisions.

Acknowledgements to the Northern division facilities for their reports as this are the best division in reporting of the Notifiable diseases for this quarter.



Source: NNDSS 89% of reports were received for 1st quarter 2015 from the Eastern division.



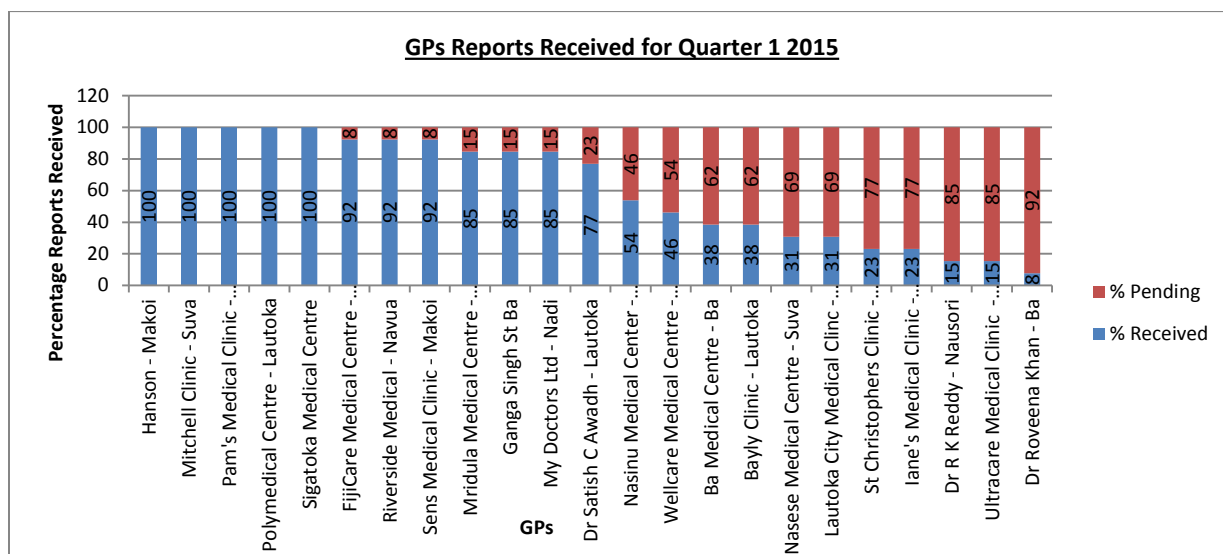
Source: NNDSS

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

✓ **Northern – 96% for 1st quarter 2015**

✗ The Western division had the lowest rates of reporting at 83%, followed by Central and Eastern division with 89% reporting for 1st quarter 2015.

HIU urges 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 HIU draws attention to the timeliness of submissions which needs marked improvement from all facilities in all divisions.**



Source: NNDSS

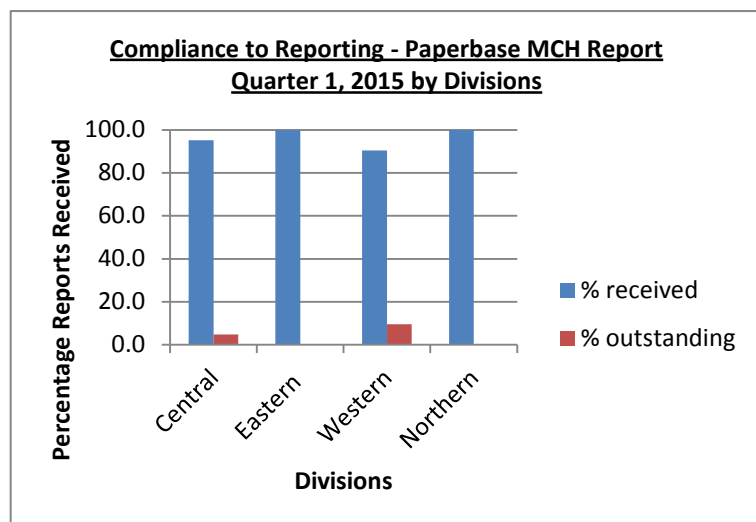
The General Practitioners have been reporting the Notifiable diseases since April of 2014 and HIU acknowledges all the private practitioners who have been submitting their reports. A total of 23 GPs have submitted their reports for the 1st quarter 2015 (January to March) which equates to 23% of coverage from GPs. Acknowledgement is made to the 5 GPs who have complied with 100% reporting for the 1st quarter. The rest of the GP's and private laboratories are encouraged to follow suit.

Requesting all the GPs to report the Notifiable disease reports as required according to the Public Health Act to report every week ending 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).

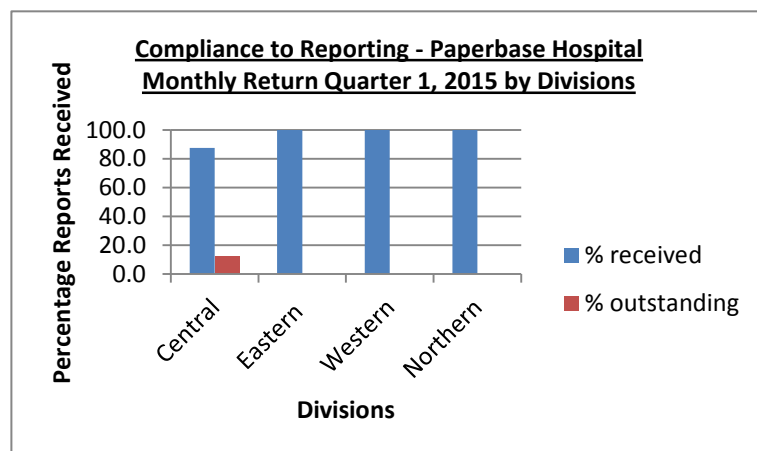
6.6.4 Hospital Monthly Returns

Percentage received for MCH paper base report, Quarter 1, 2015



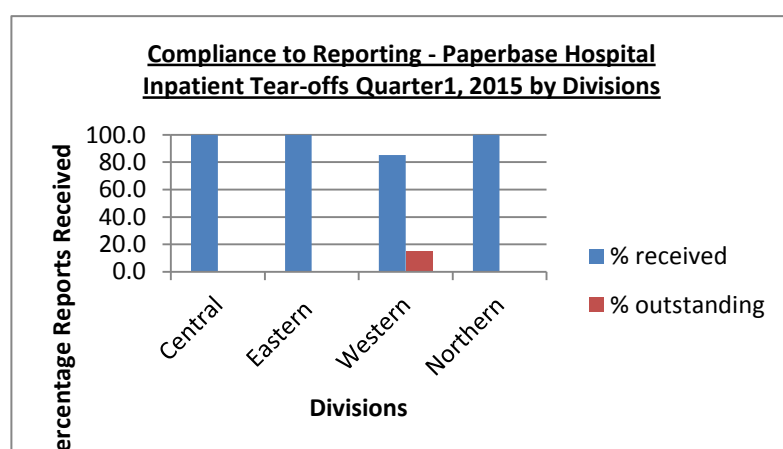
The analysis for the MCH Report is based on the reports received through paper base from the four Divisions for 1st Quarter 2015. A few Sub-Divisional Hospitals have yet to submit their reports as illustrated in the graph. Central Divisions submitted 95.2%, and Western Divisions is at 90.5%. Congratulations to the Eastern and Northern Divisions for 100% submission. The facilities yet to report on the MCH forms are CWM Hospital [Maternity Unit] and Lautoka Hospital in January 2015.

Percentage received for Hospital Monthly Return reports, Quarter 1, 2015



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 1st quarter which stands at 12.5%; as there were no reports from Military Hospital. Congratulations to the Eastern, Western and the Northern Divisions for 100% submission.

Percentage received for Hospital Inpatient Tear-offs, Quarter 1, 2015



The analysis for Hospital Inpatient Tear-Offs is based on reports received through Manual systems from the Divisions. Congratulations to the Central, Eastern and Northern Divisions for 100% submission. The Western Divisions still have outstanding returns which stand at 14.8% of the returns for 1st quarter 2015. The facility yet to submit their reports is Rakiraki Hospital.

6.6.5 Mortality

Number of MCDC yet to be received at HIU by months

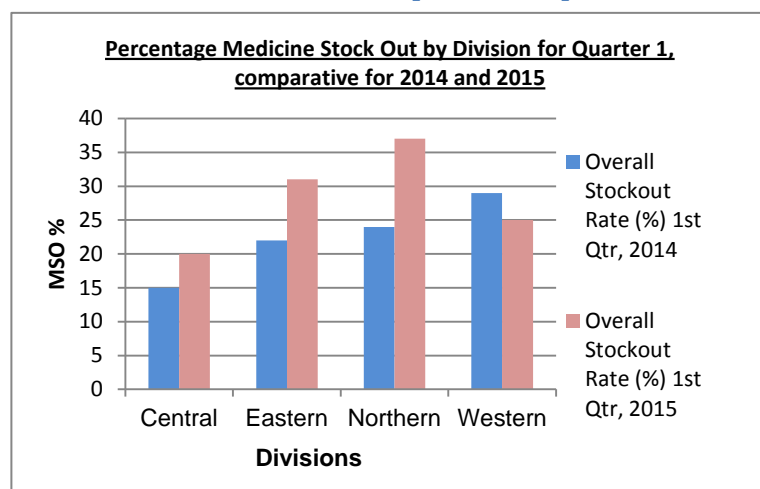
Facility	Month			Grand Total
	January	February	March	
CWM Divisional Hospital	16	22	54	92
Labasa Divisional Hospital	3	2		5
Lautoka Divisional Hospital	1		3	4
Grand Total	20	24	57	101

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 Medical Cause of Death Certificates (MCDCs) received after 15th April 2015 from January to March are not included in this analysis but will be counted in the Annual Report. **Recommendations for all health facilities to submit the HIU copy of the MCDCs within 48 hours after death has occurred except for forensic investigation.**

Section 7 – Medicinal products, equipment and infrastructure.

7.1 Pharmacy Indicator

7.1.1 Medicine Stock-Out Comparative report



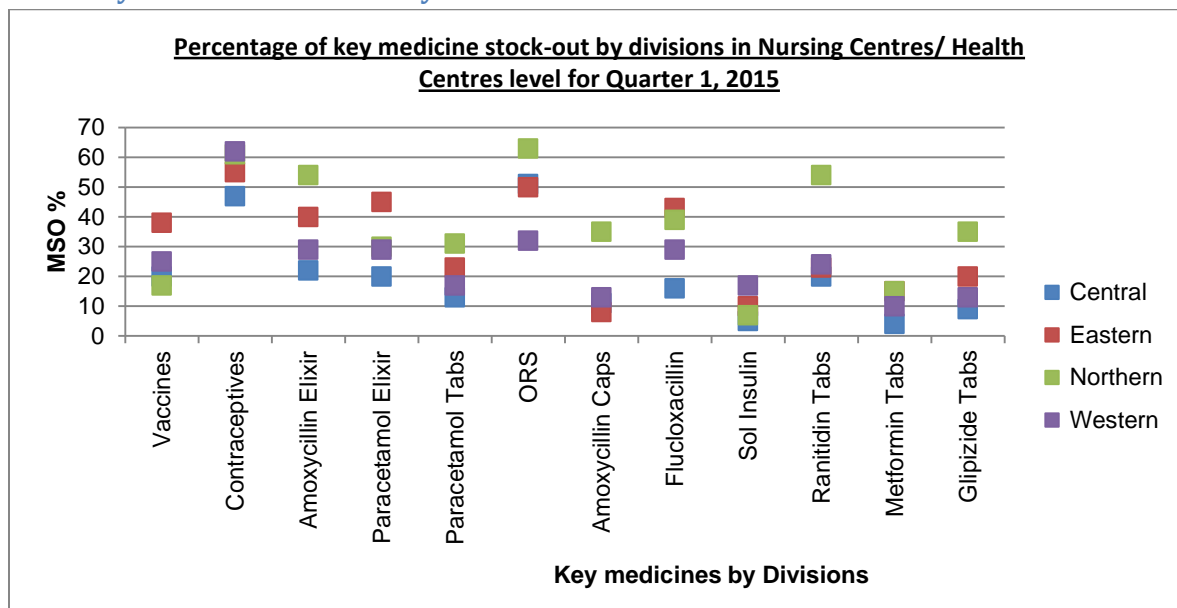
The above table shows the percentage of Medicine Stock Out by divisions whereby during 1st Quarter, 2015, the Northern Division had the most medicine stock outs with 37% across all Medical Area with Central Divisions having the lowest percentage (20) however when compared with the results of the same period last year it was recorded that the Western Division had the most medicine stock outs with 29% across all Medical Area with Central Divisions having the lowest percentage (15). The tracer items include vaccines, contraceptives, amoxicillin elixir, paracetamol elixir, paracetamol tabs and ORS and the nursing station level; and amoxicillin capsules, flucloxacillin, soluble insulin, ranitidine, metformin and glipizide at the health center level. *Source: CMRIS Online [PHIS]*

7.1.2 Medicine Stock out Rate by Sub-Division, Quarter 1, 2015

Division	Sub Division	Overall Stock out Rate(%)
Central	Naitasiri	29
	Rewa	23
	Serua/Namosi	17
	Suva	16
	Tailevu	16
Eastern	Kadavu	45
	Lomaiviti	43
	Lomaloma	33
	Lakeba	10
	Rotuma	0
Northern	Bua	44
	Cakaudrove	37
	Macuata	34
	Taveuni	33
Western	Nadroga/Navosa	33
	Nadi	29
	Lautoka/Yasawa	25
	Ra	16
	Ba	14
	Tavua	11

Source: CMRIS Online [PHIS]

7.1.3 Key medicine stock-out by Division



Source: CMRIS Online [PHIS]

The commonest stock out were Contraceptives (57%), ORS (48%), Amoxycillin Elixir (35%), Flucloxacillin (31%), Paracetamol Elixir (30%) and Ranitidine (30%) in this quarter. According to the graph above, the Northern Division recorded the highest stock-out followed by the Eastern division while Central Division recorded the lowest.

Overall, there was an increase in medicine stock of 5% in the 1st quarter, 2015 when compared to the same period last year (23%).

It was reported Beqa, Navua, Kabara, Matuku, Rotuma, Kamikamica, Natabua, Tavua, Vatukoula and Namarai Medical Areas head zero stock out.

There is need for sustainability of all key Medicine in the Medical area level. There is a major need in immediate notification practice by health professional at Medical Area level and below to the Fiji Biochemical Pharmaceutical Service when there is a stock out.

Thank You.

**MINISTRY OF HEALTH & MEDICAL SERVICES
HEALTH INFORMATION UNIT
ORGANIZATION CHART**

