

HEALTH CARE SERVICES IN PARAMI GENERAL HOSPITAL, YANGON, MYANMAR

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INTRODUCTION

- Myanmar health system facing many challenges¹
- Healthcare service delivery in Myanmar relying on
 - Public sector
 - **Private-for-profit**
 - Private-not-for-profit
 - Ethnic Health Organizations¹
- Growing in number of private hospitals and clinics recently ²
- 44 registered private hospitals in Yangon (26.5% of total 166 private hospitals in Myanmar)²

1. Myanmar National Health Plan 2017 – 2021. Ministry of Health and Sports, The Republic of the Union of Myanmar; 2016.

2. The Republic of the Union of Myanmar health system review. WHO; 2014.

AIM

- To study how Parami General Hospital (One of a private-for-profit hospitals situated in Yangon) contributes health services to the community

OBJECTIVES

To determine the trends of inpatient and outpatient care services and the utilization patterns of various health services over three-year-period in Parami General Hospital

To find the distributions of inpatients and outpatients by their residing divisions or states over three-year-period

To study the proportions of children and adults among those inpatients and outpatients over three-year-period

To observe the leading causes of hospitalization among children and adults

MATERIAL AND METHODS

- Extracting Inpatients and outpatients' information from Hospital Management Software (HMS) for three financial years (FY);
 - **April 2014 - March 2015**
 - **April 2015 – March 2016**
 - **April 2016 – March 2017**
- Average annual growth rates to know the trends of inpatients and outpatients' care services utilization
- Limitation – not available for inpatients' diagnosis
 - 2014-15 - 24.95%**
 - 2015-16 - 26.73%**
 - 2016-17 - 26.97%**

DISTRIBUTION OF CHILDREN AND ADULTS AMONG INPATIENTS IN THREE FINANCIAL YEARS

NUMBER OF INPATIENTS

2014-15
N = 6898

2015-16
N = 7127

2016-17
N = 7954

Children
n = 6100
(88%)

Adults
n = 798
(12%)

Children
n = 6183
(87%)

Adults
n = 944
(13%)

Children
n = 7241
(91%)

Adults
n = 713
(9%)

Children = < 13 years old
Adults = ≥ 13 years old

**TABLE 1 UTILIZATION OF HEALTCARES SERVICES IN INPATIENTS
DURING THREE FINANCIAL YEARS**

Specialists	2014-15	2015-16	2016-17
	n (%)	n (%)	n (%)
Paediatricians*	5363 (77.75%)	5275 (74.01%)	6098 (76.67%)
Paediatric surgeons^	867 (12.57%)	1061 (14.89%)	1212 (15.24%)
Physicians#	138 (2.0%)	279 (3.91%)	223 (2.80%)
Obstetrician-gynecologists	314 (4.55%)	314 (4.41%)	250 (3.14%)
Surgeons (General, Orthopaedic, Cardiac, ENT, Maxillofacial & Plastic)	204 (2.96%)	180 (2.53%)	158(1.99%)
Others	12 (0.17%)	18 (0.25%)	13 (0.16%)
Total	6898	7127	7954

*including general paediatricians, neonatologists, cardiologists, haematology and oncologist, nephrologist, neurologist, #including general physicians, chest physician, emergency physician, diabetologist, haematologist, liver and gastrointestinal tract specialists, nephrologist, neuro physicians, ^ including paediatric general & cardiac surgeons

**TABLE 2 DRAINAGE AREAS OF INPATIENTS DURING 2014-2017;
THREE FINANCIAL YEARS**

Regions (or) States	Inpatients					
	2014 –15		2015 – 16		2016 –17	
	n	%	n	%	n	%
Yangon	5974	86.60%	6151	86.31%	7001	88.02%
Bago	341	4.94%	371	5.21%	305	3.83%
Ayeyarwady	306	4.44%	284	3.98%	328	4.12%
Mon	87	1.26%	114	1.60%	101	1.27%
Tanintharyi	49	0.71%	49	0.69%	34	0.43%
Rakhine	29	0.42%	39	0.55%	59	0.74%
Magway	35	0.51%	30	0.42%	31	0.39%
Mandalay	24	0.35%	34	0.48%	32	0.40%
Kayin	19	0.28%	15	0.21%	22	0.28%
Shan	20	0.29%	21	0.29%	18	0.23%
Kachin	10	0.14%	8	0.11%	9	0.11%
Sagaing	2	0.03%	7	0.10%	7	0.09%
Chin	-	-	3	0.04%	3	0.04%
Kayah	2	0.03%	1	0.01%	4	0.05%
Nay pyi taw	-	-	-	-	-	-
Total	6898	100.00%	7127	100.00%	7954	100.00%

TABLE 3 LEADING CAUSES OF HOSPITALIZATION AMONG CHILDREN

Diagnosis	2014-15	2015-16	2016-17
	n (%)	n (%)	n (%)
Respiratory tract infection	1481 (32.18%)	1251 (26.68%)	1956 (34.82%)
Acute gastroenteritis	1167 (25.36%)	1268 (27.04%)	1439 (25.61%)
Dengue	538 (11.69%)	687 (14.65%)	381 (6.78%)
Asthma	287 (6.24%)	290 (6.18%)	303 (5.39%)
Enteric fever	113 (2.46%)	126 (2.69%)	257 (4.57%)
Respiratory tract infection + Acute gastroenteritis	75 (1.63%)	82 (1.75%)	147 (2.62%)
Urinary tract infection	80 (1.74%)	123 (2.62%)	126 (2.24%)
Respiratory tract infection + Asthma	14 (0.30%)	34 (0.73%)	86 (1.53%)
All other causes	847 (18.41%)	828 (17.66%)	923 (16.43%)
Total	4602	4689	5618

TABLE 4 LEADING CAUSES OF HOSPITALIZATION AMONG ADULTS

Diagnosis	2014-15	2015-16	2016-17
	n (%)	n (%)	n (%)
Delivery	130 (22.61%)	95 (17.82%)	9 (4.71%)
Gynaecological diseases	42 (7.30%)	17 (3.19%)	6 (3.14%)
Miscarriage	26 (4.52%)	16 (3.00%)	5 (2.62%)
Dengue	52 (9.04%)	105 (19.70%)	35 (18.32%)
Acute gastroenteritis	31 (5.39%)	21 (3.94%)	16 (8.38%)
Respiratory tract infection	30 (5.22%)	32 (6.00%)	13 (6.81%)
Trauma	12 (2.09%)	32 (6.00%)	4 (2.09%)
Acute Appendicitis	20 (3.48%)	10 (1.88%)	3 (1.57%)
Diseases of biliary tract and pancreas	19 (3.30%)	14 (2.63%)	3 (1.57%)
Diseases of circulatory system	15 (2.61%)	18 (3.38%)	6 (3.14%)
Enteric fever	11 (1.91%)	15 (2.81%)	11 (5.76%)
Diabetes Mellitus ± associated diseases	9 (1.57%)	4 (0.75%)	4 (2.09%)
All other causes	178 (30.96%)	154 (28.89%)	76 (39.79%)
Total	575	533	191

DISTRIBUTION OF CHILDREN AND ADULTS AMONG OUTPATIENTS IN THREE FINANCIAL YEARS

NUMBER OF OUTPATIENTS

2014-15

N = 114475

2015-16

N = 123907

2016-17

N = 151168

Children

n=101767

(89%)

Adults

n=12708

(11%)

Children

n=108582

(88%)

Adults

n=123907

(12%)

Children

n=134718

(89%)

Adults

n=16450

(11%)

Children = < 13 years old

Adults = ≥ 13 years old

TABLE 5 UTILIZATION OF HEALTH SERVICES IN OUTPATIENTS DURING 3 FYS

Specialists	2014-15	2015-16	2016-17
	n (%)	n (%)	n (%)
Paediatricians*	96597 (84.38%)	100930 (81.46%)	125761 (83.19%)
Paediatric surgeons^	4689 (4.10%)	6241 (5.04%)	7910 (5.23%)
Physicians#	1591(1.38%)	3167 (2.56%)	3596 (2.38%)
Obstetrician-gynecologists	3300 (2.88%)	4975 (4.02%)	4013 (2.65%)
Surgeons (General, Orthopaedic, Cardiac, ENT, Maxillofacial & Plastic)	4003 (3.50%)	3400 (2.74%)	3067 (2.03%)
Skin specialists	285 (0.25%)	356 (0.29%)	431 (0.29%)
Physiotherapists, Occupational therapist, Psychologists, Nutritionist, Play and speech therapists	2362 (2.06%)	3965 (3.20%)	5517 (3.65%)
Audiologist	544 (0.48%)	583 (0.47%)	648 (0.43%)
Other doctors	1104 (0.96%)	290 (0.23%)	225 (0.15%)
Total	114475	123907	151168

*including general paediatricians, neonatologists, cardiologists, haematology and oncologist, nephrologist, neurologist, # including general physicians, chest physician, emergency physician, diabetologist, haematologist, liver and gastrointestinal tract specialists, nephrologist, neuro physicians, ^ including paediatric general and cardiac surgeons

TABLE 6 DRAINAGE AREAS OF OUTPATIENTS DURING THREE FINANCIAL YEARS

Regions (or) States	Outpatients					
	2014 –15		2015 – 16		2016 –17	
	n	%	n	%	n	%
Yangon	99784	87.17%	108398	87.48%	134548	89.01%
Bago	5014	4.38%	5071	4.09%	5039	3.33%
Ayeyarwady	4192	3.66%	4057	3.27%	5035	3.33%
Mon	2106	1.84%	2433	1.96%	2482	1.64%
Tanintharyi	451	0.39%	548	0.44%	562	0.37%
Rakhine	621	0.54%	745	0.60%	923	0.61%
Magway	519	0.45%	576	0.46%	596	0.39%
Mandalay	681	0.59%	813	0.66%	693	0.46%
Kayin	429	0.37%	506	0.41%	477	0.32%
Shan	307	0.27%	347	0.28%	344	0.23%
Kachin	131	0.11%	147	0.12%	90	0.06%
Sagaing	129	0.11%	160	0.13%	169	0.11%
Chin	61	0.05%	62	0.05%	142	0.09%
Kayah	50	0.04%	44	0.04%	68	0.04%
Nay pyi taw	-		-		-	
Total	114475	100.00%	123907	100.00%	151168	100.00%

DISCUSSION

MOST COMMON CAUSES HOSPITALIZATION

Public hospitals¹ (2013)

- Certain infectious and parasitic diseases (17.8%)
- Conditions relating to pregnancy, child births and puerperium (17.6%)

Private hospitals¹ (2013)

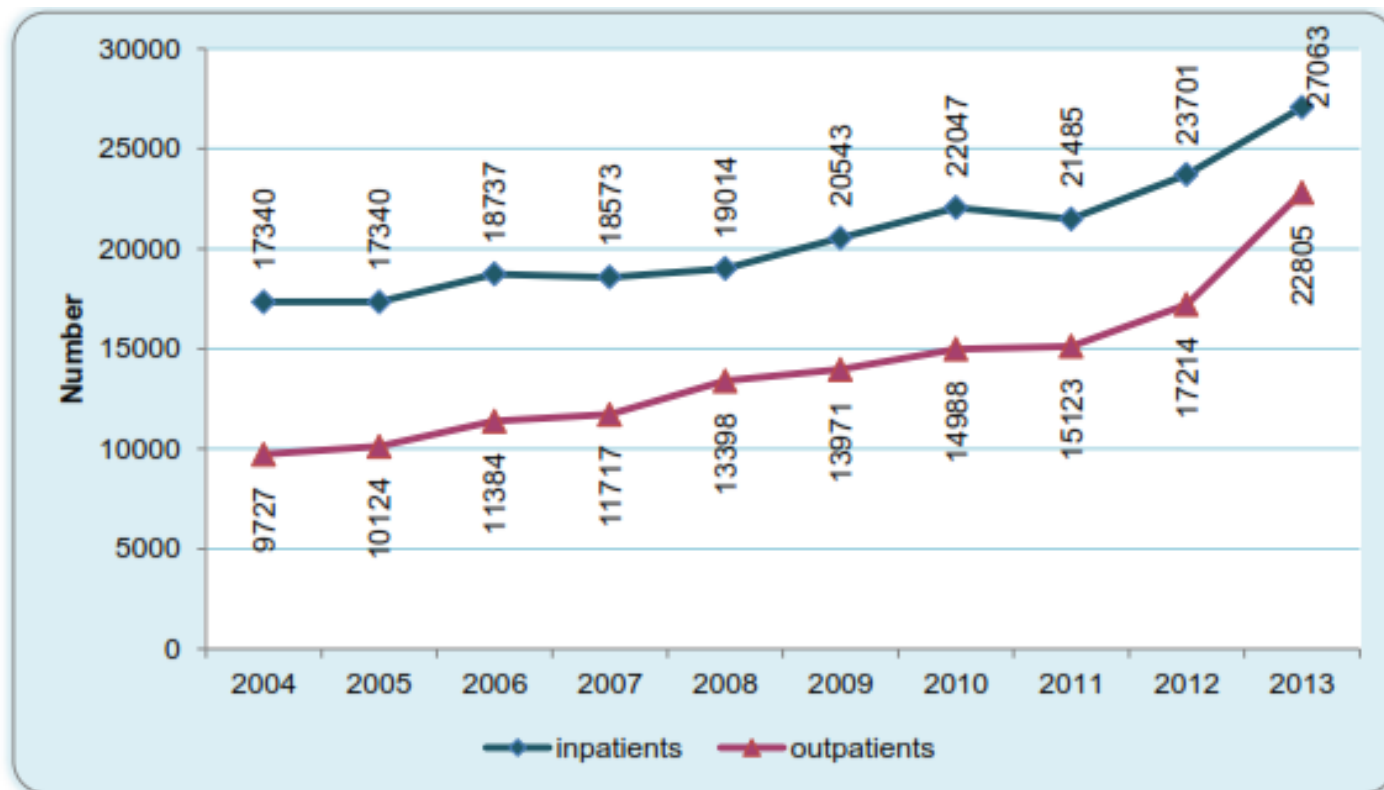
- Single delivery by caesarean section (8.1%)
- Diarrhoea and gastroenteritis presumed infectious origin (3.6%)

Parami General Hospital (3 Financial Years)

- Children (table 3)
 - Respiratory tract infection
 - Acute gastroenteritis
 - Dengue
- Adults (table 4)
 - Delivery, Miscarriage and Gynaecological diseases
 - Dengue
 - Acute gastroenteritis
 - Respiratory tract infection

1. Department of Public Health. Annual Hospital Statistics Report 2013. Ministry of Health and Sport, The Republic of the Union of Myanmar; 2015.

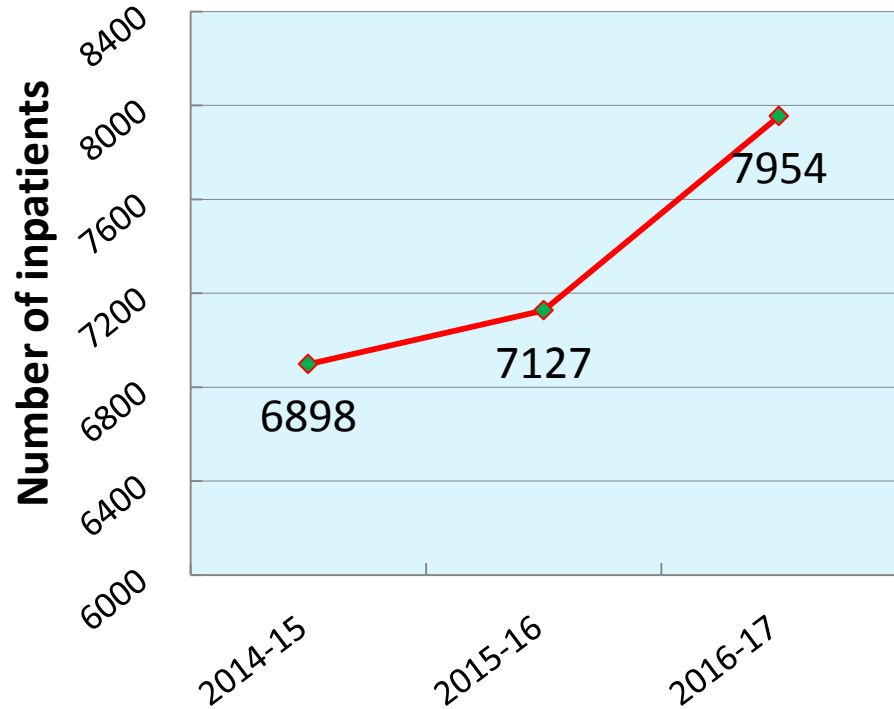
REVIEWING ANNUAL HOSPITAL STATISTICS REPORT 2013, MYANMAR



- Increasing trend of utilization of public hospitals (average number of inpatients and outpatients per day, 2004-2013)

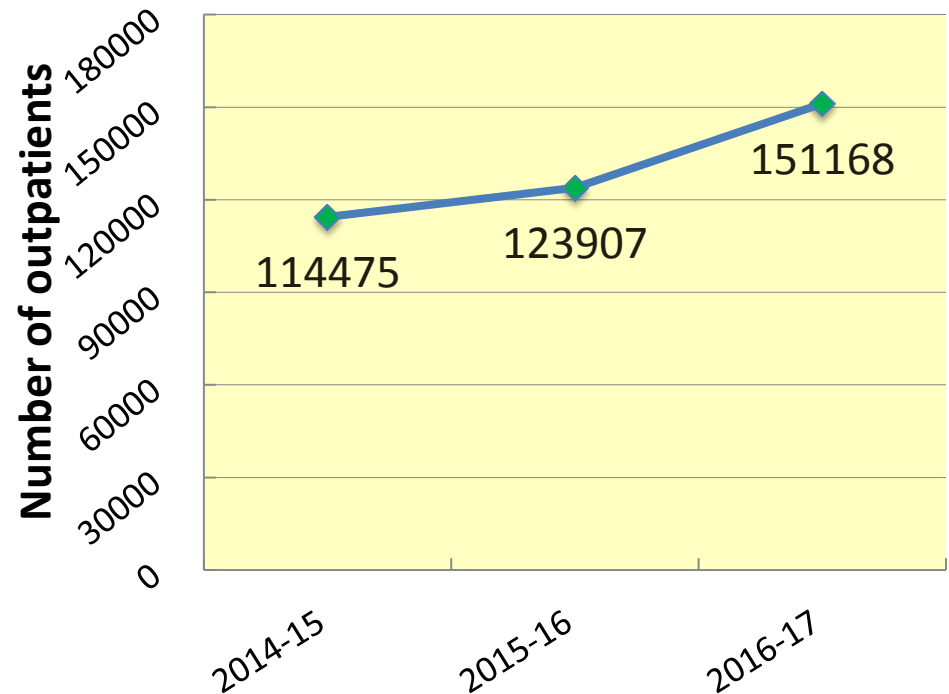
UTILIZATION OF INPATIENT AND OUPATIENT CARE SERVICES IN PARAMI GENERAL HOSPITAL DURING THREE FINANCIAL YEARS

Trend of inpatient care service



- Average annual growth rate = 7.4%

Trend of outpatient care service



- Average annual growth rate = 15.12%

CONCLUSION

- **Findings of our study**
 - ❖ increasing demands of inpatient and outpatient care services like public hospitals
 - ❖ certain infectious diseases; the most common medical problems in both children and adults who admitted to PGH like public hospitals and other private hospitals
- **Parami General Hospital**
 - ❖ Serves variety of healthcare services for all ages from all regions of Myanmar to fill the gap of health care requirement in Myanmar
 - ❖ Reputed as private paediatric hospital as utilization of paediatric healthcare services the most

REFERENCES

- World Health Organization. The Republic of the Union of Myanmar health system review. Geneva: World Health Organization; 2014. 206 p. Report number: Health systems in transition vol.4, no.3.
- Department of Public Health in collaboration with Department of Medical Services. Annual Hospital Statistics Report 2013. Nay Pyi Taw, Myanmar: Ministry of Health and Sport, The Republic of the Union of Myanmar; 2015.
- Ministry of Health and Sports. Myanmar National Health Plan 2017 – 2021. Nay Pyi Taw, Myanmar: Ministry of Health and Sport, The Republic of the Union of Myanmar; 2016.

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