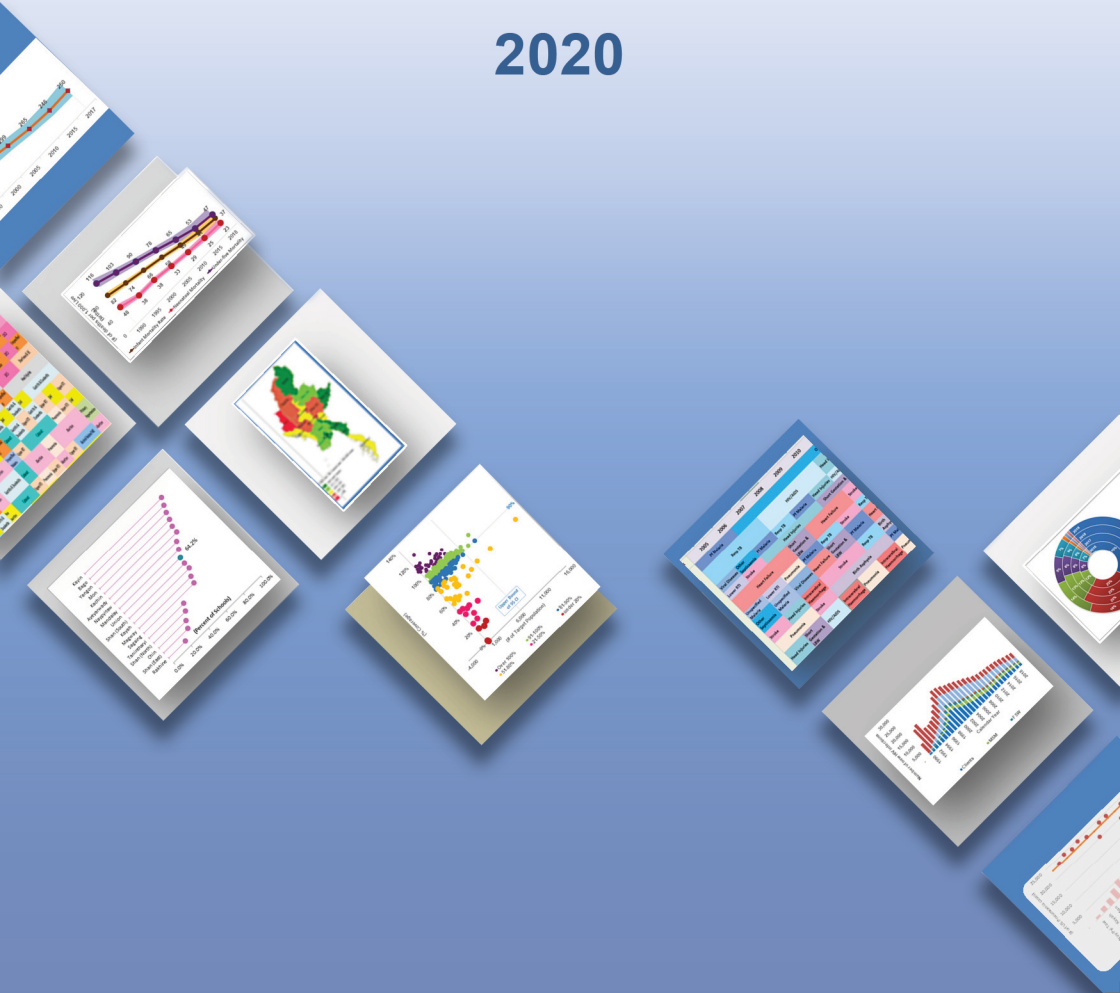**Ministry of Health and Sports**

Myanmar Health Statistics

2020

MINISTRY OF HEALTH AND SPORTS

MYANMAR HEALTH STATISTICS

2020

(October 2020)

Foreword

It is well recognized that public health responses must be informed by robust and reliable information on health risks, situation of access to health services and health outcomes, and the strategic use of health information is crucial for making tailored public health decisions in our pursuit of solutions for achieving Universal Health Coverage Goal.

The Ministry of Health and Sports has been exerting great effort to make health information system more dynamic, robust, and responsive; and to transform data into information with effective utilization for decision making in technical, administrative, logistics and management aspects of health programmes at different levels of healthcare delivery system.

It is expected that this publication could offer useful information and serve as a benchmark for planning, monitoring and evaluation of health programmes and services; adapting their course of actions to achieve the set goals and objectives; intensifying or modifying the interventions to be more effective. The statistics in this book also cast light on the time-trend and geographic variation in important domains of healthcare delivery system and public health burden that require policy level attention.

I fervently hope that the statistical information mentioned in this book will give a technical insight into progress and challenges of healthcare services in Myanmar. A special appreciation goes to all dedicated staff from various departments in the Ministry for their sustained effort and collaboration that made this publication a unique one.

M H
22. 10. 20

Dr. Myint Htwe
Union Minister
Ministry of Health and Sports

Technical Notes

This publication contains basic health related statistics that cover the key aspects of health and its determinants of the country. The statistics have been categorized into five domains, namely Demography, Health Expenditure, Health Resources, Health Service Utilization and Morbidity and Mortality. Most of the data are pertaining to the years 2019 and 2020 unless stated otherwise.

Multiple data sources have been used in deriving the information and described along with each graphic presentation. The demography section was prepared based on data from Myanmar Population and Housing Census and the Thematic Report on Population Projections; the health expenditure section was based on findings from National Health Accounts (NHA); health resources section based on information compiled from sections concerned in the Department of Public Health and Medical Services; health services utilization based on routine reports from public hospitals and primary health facilities; morbidity and mortality section based on reports from hospital and public health services, and nation-wide surveys such as Myanmar Demographic and Health Survey, Micronutrient Survey, and Verbal Autopsy based Mortality Survey.

Although data from multiple data sources have been included in the report, the readers are advised to keep in mind the data limitations when interpretations are attempted. Key data restrictions included but not limited to unavailability of data from the private health sector, aggregate nature of information from health facilities where the individual based data interpretations are not possible, and possible under-reporting from the public health sector.

Moreover, morbidity and mortality information from public health facilities are mainly based on those who seek health services at such facilities and thus could not be generalized for the whole population. Information on leading causes of death is mainly based on hospital deaths which account for less than 20 percent of all deaths in the country. Correspondingly, it is rather challenging to estimate the prevalence of non-communicable diseases based on the number of patients received hypertension or diabetes treatment from public health facilities.

In addition to challenges faced with aggregate information from public sector, challenges are also with the surveys. We have included findings from a population-based causes of death survey that deployed verbal autopsy method. It should be noted that these causes were derived mainly from clinical features before death using robust algorithm so that these causes may be different from medically certified causes or some comprehensive case definitions through combination of clinical and laboratory or rapid test. In addition, the causes of death information collected by verbal autopsy should only be used for mortality surveillance at population level.

Every attempt has been made to ensure the accuracy of the information contained in the publication, with an indication of the actual sources. It is still possible that there are a few errors of commission and omission in the data presented. It is our constant endeavor to improve quality of data and the readers are encouraged and welcome to provide feedback on the ways in which the content and the presentation of the information could be further improved.

Contents

1. Demography

Population

The population of the Republic of the Union of Myanmar is estimated at 54.82 million in 2020 with the annual population growth rate of 0.87 percent. There has been a steady growth in population size from 28.9 million in 1973, 35.3 million in 1983 and 51.99 million in 2014.

The 2014 Census revealed that the population density for the whole country was 76 persons per square kilometer and ranges from 13 persons per square kilometer in Chin State to 716 persons per square kilometer in Yangon Region. For every 100 persons in Myanmar, 70.8 live in rural areas and 29.2 in urban areas.

Population Estimates by Age Groups (in million)
Myanmar, 2014-2020

Population Structure	2014		2016		2018		2020	
	No.	%	No.	%	No.	%	No.	%
0-14 years	15.02	28.9%	14.98	28.3%	14.89	27.6%	14.76	26.9%
15-59 years	32.35	62.2%	33.04	62.4%	33.74	62.6%	34.41	62.8%
60 + years	4.62	8.9%	4.90	9.3%	5.24	9.7%	5.65	10.3%
Total	51.99	100%	52.92	100%	53.86	100%	54.82	100%
Female	26.92	51.8%	27.47	51.9%	28.02	52.0%	28.57	52.1%
Male	25.07	48.2%	25.45	48.1%	25.85	48.0%	26.25	47.9%
Sex Ratio (M /100 F)	93.1		92.7		92.3		91.9	

Source: The 2014 Myanmar Population and Housing Census; Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population

Population Pyramid

Comparison on the age-sex structure of the population is made using population data from 1973, 1983 and 2014 Census. The "pot shape" (2014 Census) population pyramid indicates that birth rates are declining while the young working age population has been steadily increasing. The changing population dynamics is highlighted by having more than half of the population younger than 30 years while having fewer young children (0 to 9-year-old) than adolescents (10 to 19-year-old).

Population Distribution

Population size, density and age structure varies across states and regions. In 2020, about 8.48 million people,15.5 percent of total population, live in Yangon Region which made Yangon the densest region where 825 persons reside per one square kilometer. Kayah State has the smallest population size at 330,356 people living on the land, whereas Chin State is the least crowded state where only 15 persons live per one square kilometer.

Age structure variations are primarily caused by selective migration and geographic differences in fertility and mortality rates over time. The distinct structure may be attributable to inequitable access to health, education and other social services, and employment opportunities. Yangon Region has the highest proportion of working age group followed by Magway and Mandalay Regions.

Percentage of Population under 5 years, 60 years and above

Based on 2014 Census results, 9.3 percent of the total population aged less than five years while 8.9 percent aged 60 years and older. The proportion of under five-year-old population ranged from 7.7 percent in Yangon Region to 15 percent in Chin State. The proportion of 60 years and above by states

and regions was 6 percent in Kayah State and 10.8 percent in Magway Region.

Annual Population Growth Rate

The national population growth is steady at around 0.88 percent annual growth from 2014 to 2020 with the higher rate in urban area (1.3 percent) than rural area (0.7 percent). At the sub-national level, Mon State and Magway Region are experiencing negative growth while most states and regions have a slight decline in growth rate from 2014 to 2020. The exceptions are with Yangon Region where the growth rate remains constant, and Ayeyarwady Region where the population size moves from a slightly positive growth in 2014 to a slight negative growth in 2020.

Life Expectancy at Birth

As the country is striving to attain its health objectives, positive trends in various health indicators are observed including life expectancy at birth. The life expectancy at birth shows an increasing trend from 64.7 years in 2014 to 67 years in 2020 for both sexes. In general, females live longer than males with the life expectancy of 71.6 years and 62.6 years respectively in 2020. A closer look by urban and rural revealed that males live in urban area have lower life expectancy at 62.2 years than males in rural area at 63.1 years, and the reverse is true for female population with the values at 73 years for urban and 71.2 years for rural residents in 2020.

At sub-national level, the increase life expectancy is observed at every state and region from 2014 to 2020. Among states and regions, the lowest life expectancy was seen in Chin State at 60.4 years in 2014 which increases to 63.3 years in 2020. The highest life expectancy was observed in Nay Pyi Taw Territory at 67.5 years in 2014 and 69.5 years in 2020.

Crude Death Rate and Crude Birth Rate

One of the health sector achievements is reduction in Crude Death Rate (CDR). There is a slow decreasing trend for both Crude Birth Rate (CBR) and CDR from 2014 to 2020. The CBR reduces from 20.4 to 19.1 per 1,000 mid-year population and the CDR reduces from 9.3 to 8.4 per 1,000 mid-year population. Looking the rates by states and regions, a steady decrease in CBR and CDR across the years from 2014 to 2020 was observed for all states and regions except Yangon Region where the CBR remained the same all over the years. In term of absolute values, Chin State has the highest CBR at 30.6 per 1,000 population in 2020; and Magway Region has the highest CDR at 10.1 per 1,000 population in 2020.

Population Pyramid, Myanmar (1973, 1983, 2014)
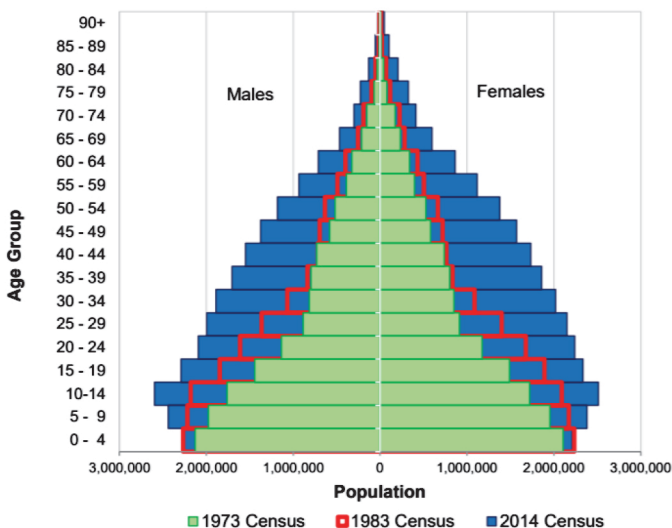
Source: Census Atlas Myanmar, The 2014 Myanmar Population and Housing Census, Department of Population, Ministry of Labour, Immigration and Population

Population by State and Region, 2020

State/Region	Population
Yangon	8,478
Mandalay	6,567
Shan	6,477
Ayeyarwady	6,271
Sagaing	5,609
Bago	4,949
Magway	3,932
Rakhine	3,350
Mon	1,979
Kachin	1,934
Kayin	1,618
Tanintharyi	1,498
Nay Pyi Taw	1,300
Chin	525
Kayah	330

Population (in Thousand)

Source: *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population*

Population by State and Region, 2020

Population (in Thousand)
- 330 - 2000
- 2001 - 4000
- 4001 - 6000
- 6001 - 8478

Population Density by State and Region, 2020

State/Region	Persons/km²
Yangon	825
Mandalay	203
Ayeyarwady	185
Nay Pyi Taw	184
Mon	161
Bago	126
Rakhine	91
Magway	88
Union	81
Sagaing	60
Kayin	53
Shan	42
Tanintharyi	35
Kayah	28
Kachin	22
Chin	15

Persons/km²

Source: *Calculated using the data from the following sources:*

Population: *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population*

Land area of States & Regions: Department of Settlement and Land Records, Myanmar, 2015 with reference from Myanmar Statistical Year Book, 2019, Central Statistical Organization, Ministry of Planning and Finance

Population Density by State and Region, 2020

Population per Sq Km

- 15 - 50
- 51 - 100
- 101 - 300
- 301 - 830

Source: Calculated using the data from the following sources:

Population : Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population

Land area of States & Regions: Department of Settlement and Land Records, Myanmar, 2015 with reference from Myanmar Statistical Year Book, 2019, Central Statistical Organization, Ministry of Planning and Finance

Population Distribution by Age Groups
by State and Region, 2014
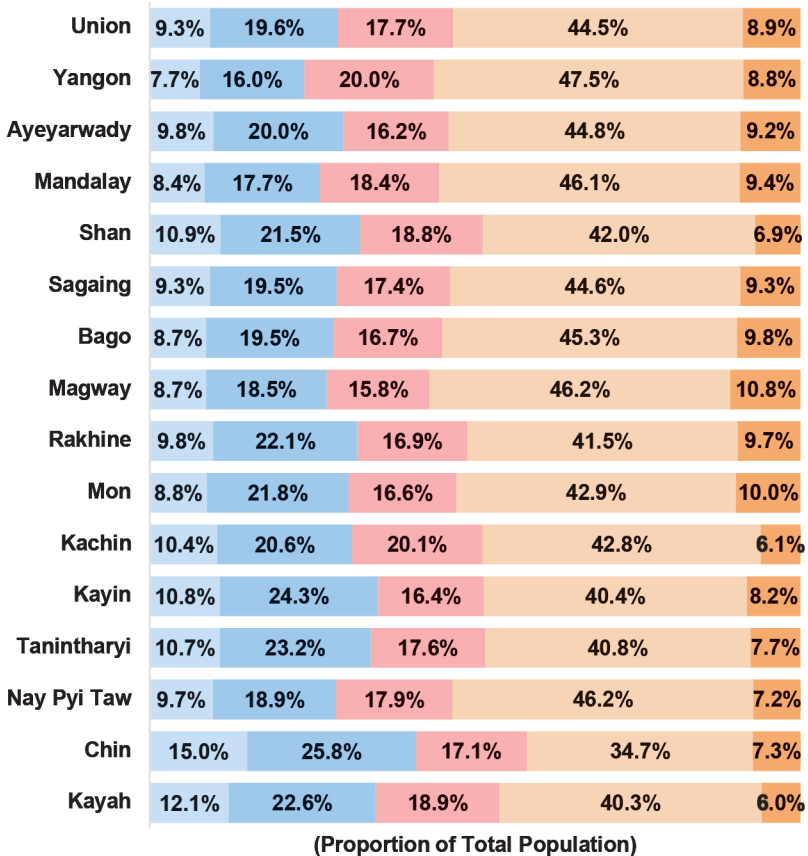
Region	0-4	5-14	15-24	25 - 60	60+
Union	9.3%	19.6%	17.7%	44.5%	8.9%
Yangon	7.7%	16.0%	20.0%	47.5%	8.8%
Ayeyarwady	9.8%	20.0%	16.2%	44.8%	9.2%
Mandalay	8.4%	17.7%	18.4%	46.1%	9.4%
Shan	10.9%	21.5%	18.8%	42.0%	6.9%
Sagaing	9.3%	19.5%	17.4%	44.6%	9.3%
Bago	8.7%	19.5%	16.7%	45.3%	9.8%
Magway	8.7%	18.5%	15.8%	46.2%	10.8%
Rakhine	9.8%	22.1%	16.9%	41.5%	9.7%
Mon	8.8%	21.8%	16.6%	42.9%	10.0%
Kachin	10.4%	20.6%	20.1%	42.8%	6.1%
Kayin	10.8%	24.3%	16.4%	40.4%	8.2%
Tanintharyi	10.7%	23.2%	17.6%	40.8%	7.7%
Nay Pyi Taw	9.7%	18.9%	17.9%	46.2%	7.2%
Chin	15.0%	25.8%	17.1%	34.7%	7.3%
Kayah	12.1%	22.6%	18.9%	40.3%	6.0%

(Proportion of Total Population)

Legend: ■ 0-4 ■ 5-14 ■ 15-24 ■ 25 - 60 ■ 60+

Annual Population Growth Rate, Myanmar, 2014-2020
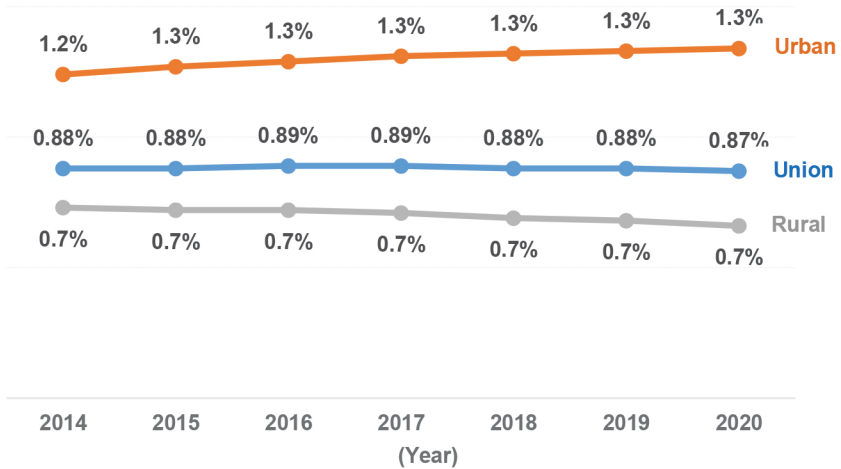
Source: *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population*

Annual Population Growth Rate by State and Region
2014 & 2020
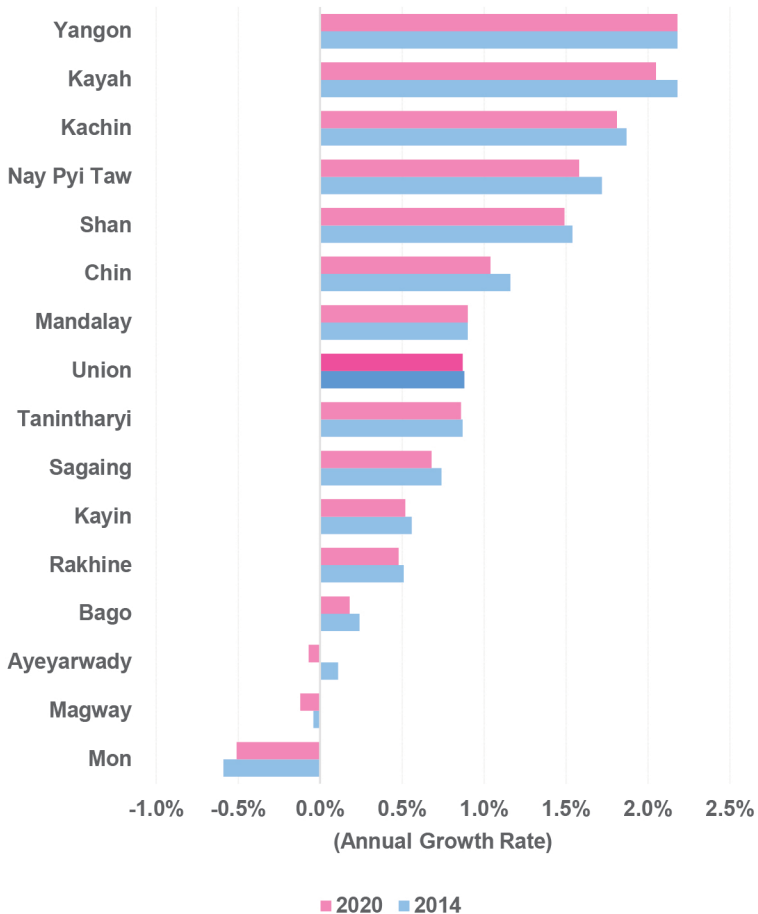
Source: *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population*

Life Expectancy at Birth, Myanmar, 2014-2020
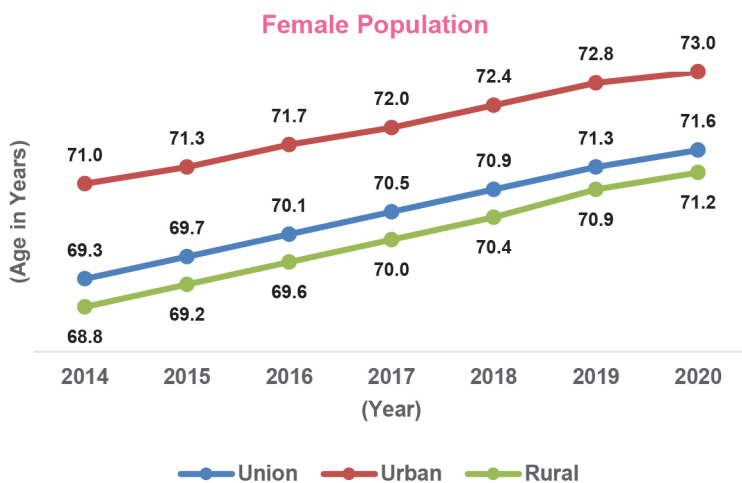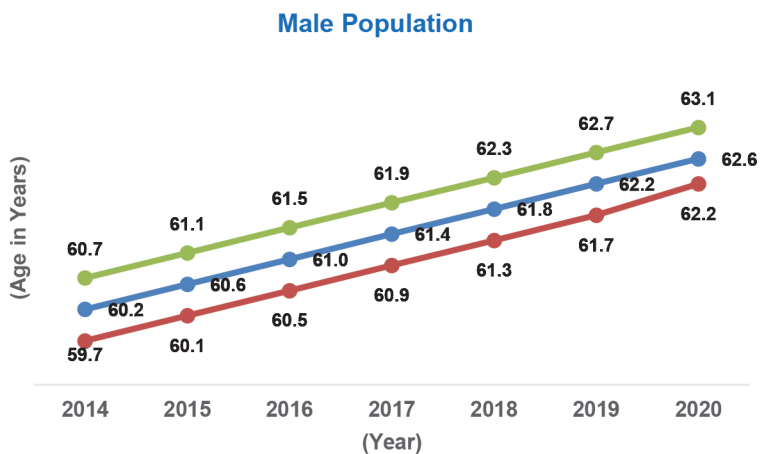
Male Population

(Age in Years)

	2014	2015	2016	2017	2018	2019	2020
Rural	60.7	61.1	61.5	61.9	62.3	62.7	63.1
Union	60.2	60.6	61.0	61.4	61.8	62.2	62.6
Urban	59.7	60.1	60.5	60.9	61.3	61.7	62.2

(Year)

Female Population

(Age in Years)

	2014	2015	2016	2017	2018	2019	2020
Urban	71.0	71.3	71.7	72.0	72.4	72.8	73.0
Union	69.3	69.7	70.1	70.5	70.9	71.3	71.6
Rural	68.8	69.2	69.6	70.0	70.4	70.9	71.2

(Year)

— Union — Urban — Rural

Source: Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population

Life Expectancy at Birth by State and Region, 2014 & 2020

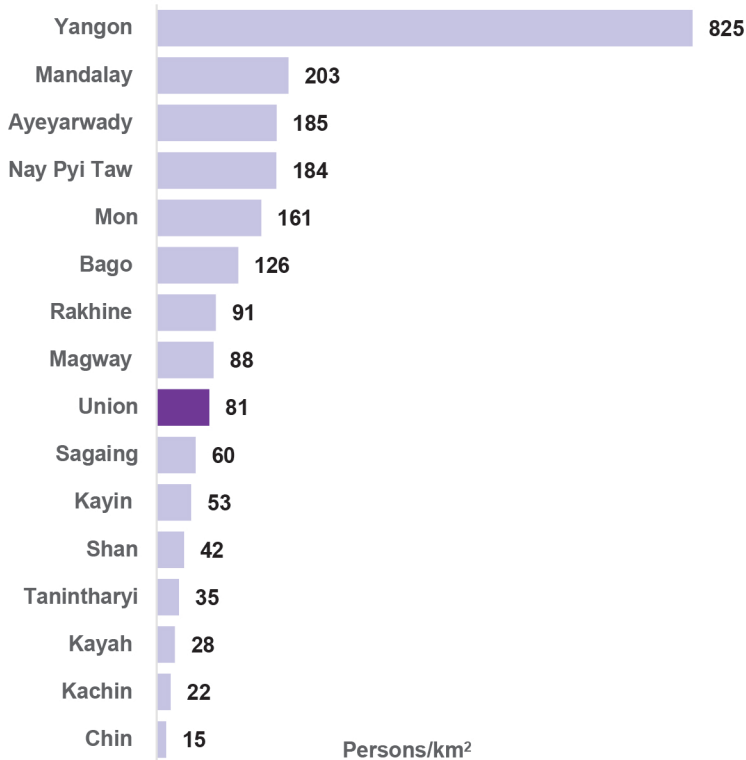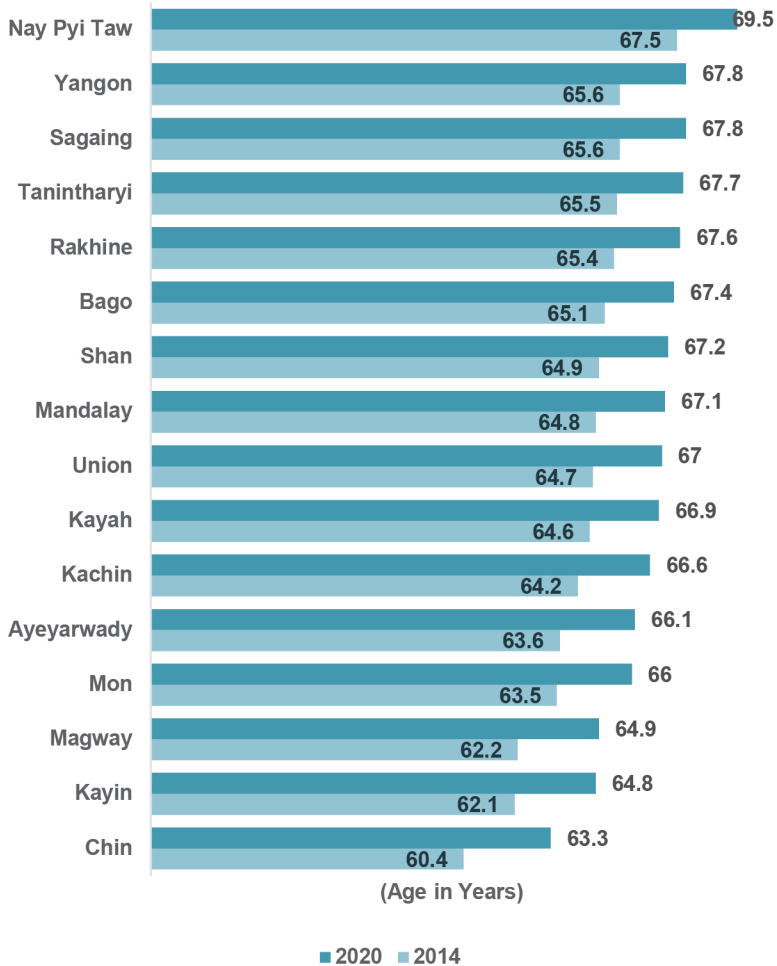| State/Region	2020	2014
Nay Pyi Taw	69.5	67.5
Yangon	67.8	65.6
Sagaing	67.8	65.6
Tanintharyi	67.7	65.5
Rakhine	67.6	65.4
Bago	67.4	65.1
Shan	67.2	64.9
Mandalay	67.1	64.8
Union	67	64.7
Kayah	66.9	64.6
Kachin	66.6	64.2
Ayeyarwady	66.1	63.6
Mon	66	63.5
Magway	64.9	62.2
Kayin	64.8	62.1
Chin	63.3	60.4

(Age in Years)

■ 2020 ■ 2014

Source: Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population

Crude Birth Rate, Myanmar, 2014-2020

Total Union   **Total Urban**   **Total Rural**
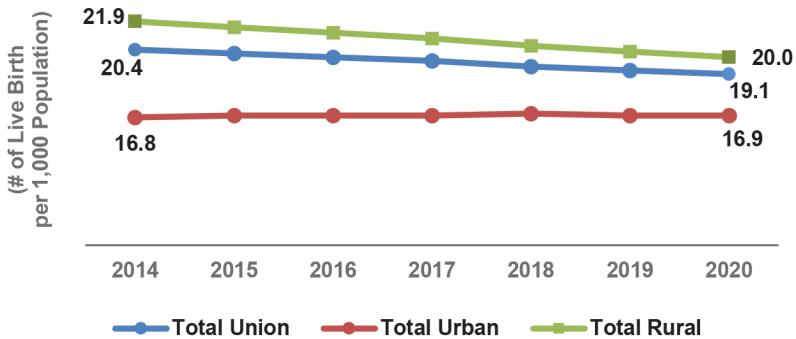
Crude Birth Rate by State and Region, 2014-2020
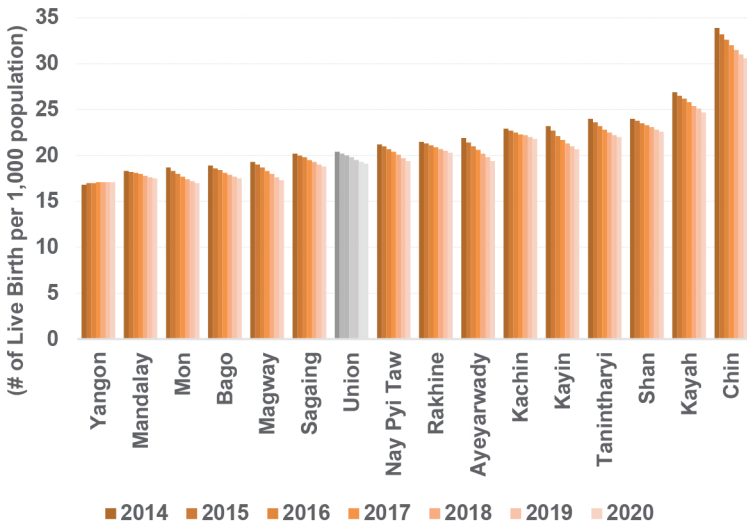
■ 2014 ■ 2015 ■ 2016 ■ 2017 ■ 2018 ■ 2019 ■ 2020

Source: Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population, Ministry of Labour, Immigration and Population

Crude Death Rate, Myanmar, 2014-2020
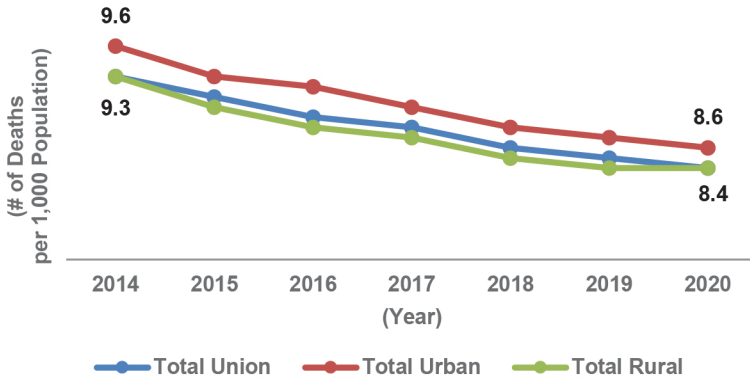
Crude Death Rate by State and Region, 2014-2020
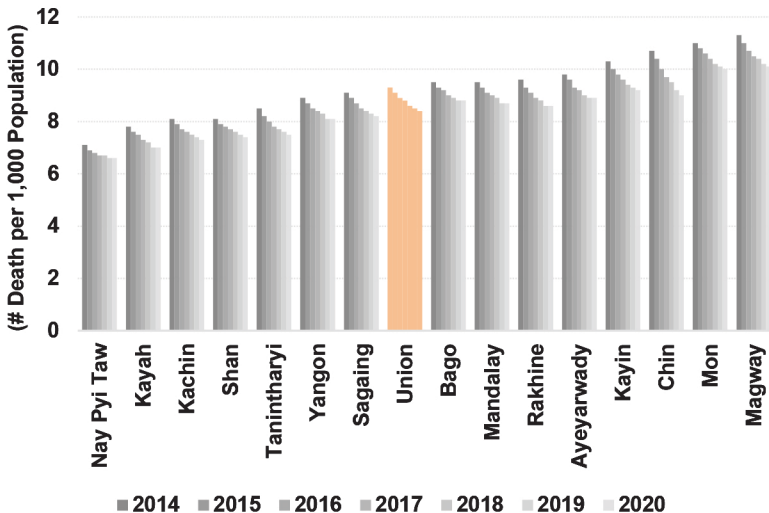
2. Health Expenditure

A more efficient use of resources has been becoming more important and essential in the wake of technology advances, demographic transitions and rapidly changing patterns of morbidity and mortality. The emergence of public health problems brought about by newly emerging infectious diseases and changing climatic pattern even make stronger call for more resources and their efficient uses. Health care is provided by a complex and shifting combination of government and private sector. In such an environment, policy makers need reliable national information on the sources and uses of funds for health, preferably comparable across countries to enhance health system performance. Through a systematic compilation and display of health expenditure National Health Accounts (NHA) are designed to answer precise questions about a country's health system. With the approval and under the guidance of the Ministry of Health and Sports, NHA Myanmar has been constructed since 1998, and series of reports were prepared for years covering 1998 to 2018.

Trend of Total Health Expenditures

Time series analysis of total health expenditure reveals that the total health expenditure increased from 3,040 to 4,814 billion kyats from the year 2014 to 2018. The proportion of current health expenditure increased from 89.1 percent to 94.4 percent of total health expenditure during the same period.

Per Capita Health Expenditure and Per Capita Gross Domestic Product

The current health expenditure per capita was estimated at 52,153 kyats for 2014 and at 85,231 kyats for 2018 in Myanmar. The per capita government current health expenditure was estimated at 155 kyats in 2000 which grew to 12,147 kyats in 2018. The Gross Domestic Product per capita in current prices increased from 1.26 to 1.8 million kyats through the year 2014 to 2018.

Health Expenditure as percentage of Gross Domestic Product

Total Current Health Expenditure (Total CHE) as percentage of Gross Domestic Product (GDP) was ranging around 4.1 to 4.8 percent during the period of 2014 to 2018 along with the increasing amount of both GDP and Total CHE.

External Sources on Health as percentage of Total Current Health Expenditures

External Sources on Health as percentage of Total CHE showed an increasing trend in general from the year 2000 to 2018. The initial phase of sharp increase was observed with the rise from 1.2 percent in 2000 to 10.2 percent in 2004. The percent contribution remained somewhat stable at around 10 percent from the year 2005 to 2011 which started to decline slightly to around 8 to 9 percent thereafter. In 2018, the external financial sources comprised 8.7 percent of Total CHE.

Total Health Expenditures, Myanmar, 2014-2018

(Kyats in Billion)

332	346	313	328	270
2,708	3,779	3,795	4,202	4,545
2014	**2015**	**2016**	**2017**	**2018**

(Year)

■ Total Current Health Expenditure ■ Total Capital Health Expenditure
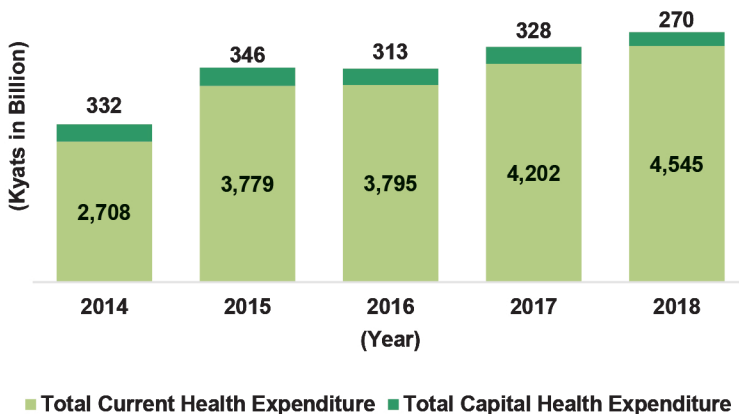
Total Current Health Expenditures as Percentage of GDP Myanmar, 2014-2018

GDP (Kyats in Billion)

100,000 — 10%
80,000 — 8%
60,000 — 6%
40,000 — 4%
20,000 — 2%
- — 0%

2014 2015 2016 2017 2018

(Year)

(% of GDP)

Gross Domestic Product

Total Current Health Expenditure as percentage of GDP
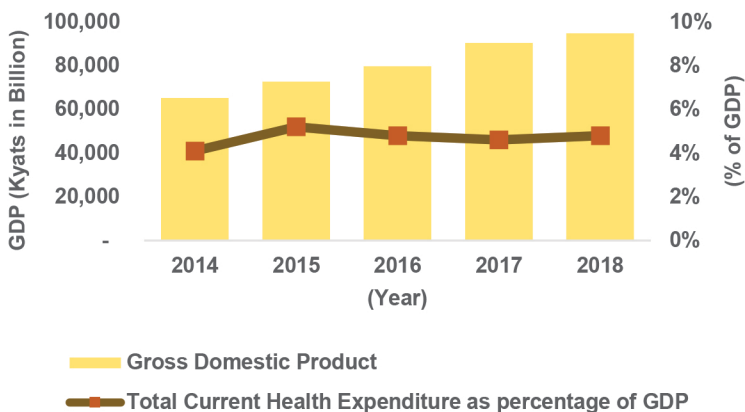
Source: Myanmar National Health Account Report (2014-2018), and Health Expenditure Report (2016-2018), Ministry of Health and Sports

Per Capita Current Health Expenditures, Myanmar, 2014-2018

Per Capita Current Health Expenditure
Per Capita Government Current Health Expenditure
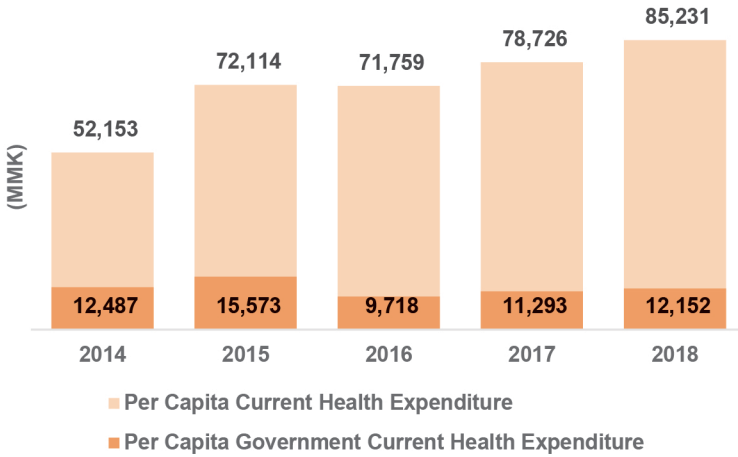
External Sources on Health as Percentage of Total Current Health Expenditures, 2000-2018
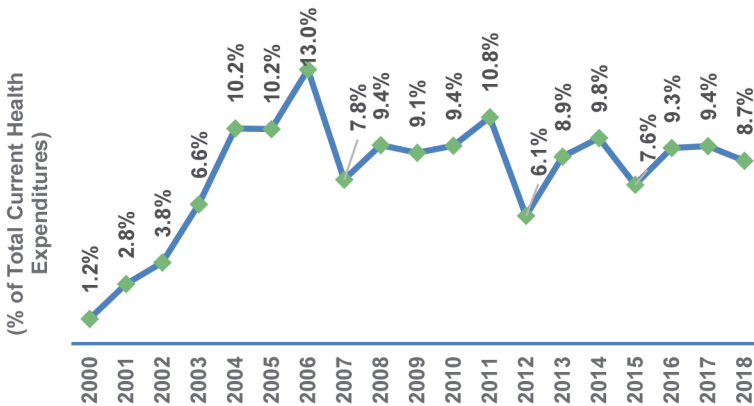
Source: WHO GHED based on Myanmar NHA reports, Myanmar National Health Account Reports, (2014-2018), and Health Expenditure Report (2016-2018), Ministry of Health and Sports

3. Health Resources

The Ministry of Health and Sports is taking the sole responsibility for providing comprehensive range of promotive, preventive, curative and rehabilitative health care services to the people. The Ministry has been giving priority on strengthening and scaling up health resources along its path of movement towards the Universal Health Coverage. There are 15 medical and allied universities and 50 nursing and midwifery training schools across the country. In addition to undergraduate trainings, 54 Master and 18 Diploma courses, 14 Ph.D and 43 Doctorate programs have been launched in medical and allied universities under Department of Human Resources for Health.

Specialists have been appointed in district hospitals since 1997 and specialist health services are available at the district hospitals since then. The advanced secondary and tertiary care services are provided at the state and regional hospitals, central and teaching hospitals. Modern diagnostic and therapeutic facilities have been installed in the central and teaching hospitals, state/regional and district hospitals.

Distribution of Medical Doctors (Public Sector)

Distribution of Medical Doctors across states and regions varies from 53 per 100,000 population in Yangon Region to 7 in Rakhine State. Most teaching hospitals and super-tertiary hospitals are in the main regions like Yangon Region, Mandalay Region, and Nay Pyi Taw Territory, and thus attributing to high concentration of medical doctors. Given the nature of terrain and comparatively less dense population, higher values for medical doctors and population ratio are seen in Kayah and Chin States than the other remaining states and regions.

Distribution of Dental Surgeons (Public Sector)

The distribution of Dental Surgeons ranges from one to eight per 100,000 population. Union wise, the coverage is two per 100,000 population.

Distribution of Nurses (Public Sector)

The distribution of Nurses among states and regions were also related to the distribution of population density and major hospitals. The number of nurses per 100,000 population ranges from 26 in Rakhine State to 135 in Kayah State.

Distribution of Basic Health Service Professionals

Ladies Health Visitor and Midwives are front line primary health care providers in Myanmar. The number of these two health care providers per 100,000 rural population is the highest at 128 in Chin State followed by 98 in Kayah State and is the lowest in Rakhine State at 33.

Other Basic Health Service Professionals, Health Assistants and Public Health Supervisors also play a crucial role in providing primary health care services especially for rural population. The highest number of these public health professionals per 100,000 rural population is seen in Kayah State at 120 followed by Chin State at 94 and is the lowest in Bago Region at 27.

Hospital Bed Capacity in Public Sector

To ensure adequate coverage of hospital services in every state and region, the Ministry has been continuously establishing new hospitals and upgrading existing hospitals. By the end of December 2019, a total of 55,394 hospital beds are available in public hospitals. On an average there are 102 hospital beds per 100,000 population in government medical institutions in Myanmar.

Distribution of Medical Doctors (Public Sector)
by State and Region, 2019-2020

State/Region	Value
Yangon	53
Nay Pyi Taw	43
Mandalay	35
Kayah	30
Union	22
Chin	20
Magway	17
Mon	17
Tanintharyi	15
Sagaing	13
Kachin	13
Kayin	11
Bago	11
Ayeyarwady	9
Shan	9
Rakhine	7

(Per 100,000 Population)

Source: Calculated using the data from the following sources:
Health Manpower :   Department of Medical Services and Department
of Public Health, Ministry of Health and Sports
Population :   Thematic Report on Population Projections for the
Union of Myanmar, States/Regions, Rural and
Urban Areas, 2014-2050, Census Report Volume
4-F, Department of Population

Distribution of Medical Doctors (Public Sector)
by State and Region, 2019-2020

Doctors per 100.000 Population
- 7 - 15
- 16 - 30
- 31 - 45
- 46 - 53

Source: *Calculated using the data from the following sources:*
Health Manpower : *Department of Medical Services and Department of Public Health, Ministry of Health and Sports*
Population : *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population*

Distribution of Dental Surgeons (Public Sector)
by State and Region, 2019-2020

State/Region	Value
Nay Pyi Taw	8
Kayah	6
Chin	3
Kachin	2
Magway	2
Shan	2
Sagaing	2
Union	2
Yangon	2
Mandalay	2
Kayin	1
Tanintharyi	1
Bago	1
Mon	1
Rakhine	1
Ayeyarwady	1

(Per 100,000 Population)

Source: Calculated using the data from the following sources:

Health Manpower :   Department of Medical Services and Department of Public Health, Ministry of Health and Sports

Population :   Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population

Distribution of Dental Surgeons (Public Sector)
by State and Region, 2019-2020

Source: Calculated using the data from the following sources:
Health Manpower : Department of Medical Services and Department of Public Health, Ministry of Health and Sports
Population : Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population

Distribution of Nurses (Public Sector)
by State and Region, 2019-2020

State/Region	Per 100,000 Population
Kayah	135
Chin	112
Nay Pyi Taw	84
Shan (East)	57
Kachin	56
Yangon	53
Mandalay	49
Tanintharyi	42
Union	42
Magway	41
Mon	40
Kayin	39
Shan (South)	34
Shan (North)	34
Sagaing	31
Bago	31
Ayeyarwady	27
Rakhine	26

(Per 100,000 Population)

Source: *Calculated using the data from the following sources:*

Health Manpower : *Department of Medical Services and Department of Public Health, Ministry of Health and Sports*

Population : *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population*

Distribution of Nurses (Public Sector)
by State and Region, 2019-2020

Nurses per 100,000 Population
- 26 - 50
- 51 - 75
- 76 - 100
- 101 - 135

Source: Calculated using the data from the following sources:
Health Manpower : Department of Medical Services and Department of
Public Health, Ministry of Health and Sports
Population : Thematic Report on Population Projections for the
Union of Myanmar, States/Regions, Rural and
Urban Areas, 2014-2050, Census Report Volume
4-F, Department of Population

Distribution of Ladies Health Visitor and Midwives
by State and Region, 2019-2020

State/Region	Value
Chin	128
Kayah	98
Kachin	48
Magway	47
Yangon	45
Shan (East)	45
Mon	42
Sagaing	42
Bago	41
Union	41
Tanintharyi	40
Ayeyarwady	39
Shan (North)	37
Kayin	37
Nay Pyi Taw	37
Mandalay	34
Shan (South)	34
Rakhine	33

(Per 100,000 Rural Population)

Source: *Calculated using the data from the following sources:*

Health Manpower : *Department of Medical Services and Department of Public Health, Ministry of Health and Sports*

Population : *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population*

Distribution of Ladies Health Visitor and Midwives
by State and Region, 2019-2020

Distribution of Basic Health Service Professionals
by State and Region, 2019

State/Region	THA&HA1	HA	PHSI	PHSII
Chin		11		100
Kayah		13		67
Magway		9		33
Kachin		6		31
Mon		7		26
Yangon		5		26
Sagaing		5		27
Bago		6		26
Rakhine		5		26
Kayin		5		25
Tanintharyi		5		25
Mandalay		6		24
Ayayarwady		5		24
Nay Pyi Taw		4		24
Shan (South)		4		22
Shan (North)		5		21
Shan (East)		6		19

Legend: ■ THA&HA1 ■ HA ■ PHSI ■ PHSII

(Per 100,000 Rural Population)

Source: Calculated using the data from the following sources:
Health Manpower : Department of Medical Services and Department of Public Health, Ministry of Health and Sports
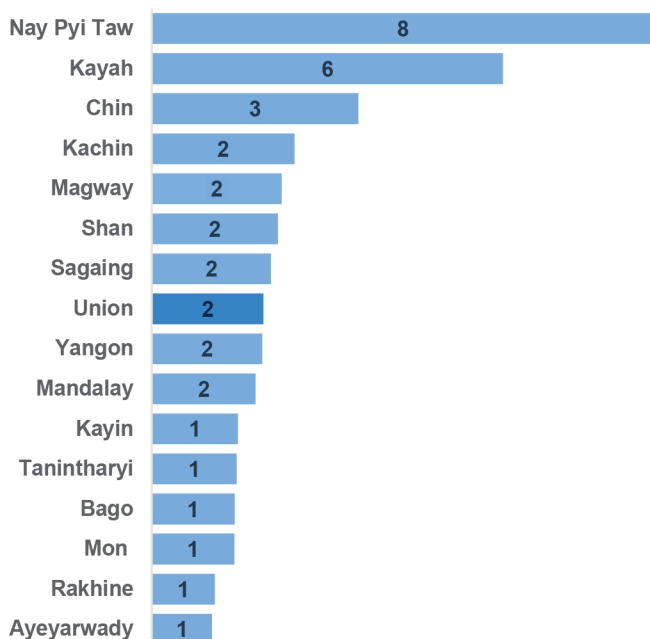Population : Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population

Public Hospital Bed Capacity
by State and Region, 2019

State/Region	# of Beds per 100,000 Population
Nay Pyi Taw	323
Kayah	258
Chin	220
Yangon	138
Mandalay	127
Kachin	113
Union	102
Shan	90
Mon	83
Tanintharyi	82
Sagaing	80
Magway	75
Bago	74
Rakhine	73
Kayin	72
Ayeyarwady	65

(# of Beds per 100,000 Population)
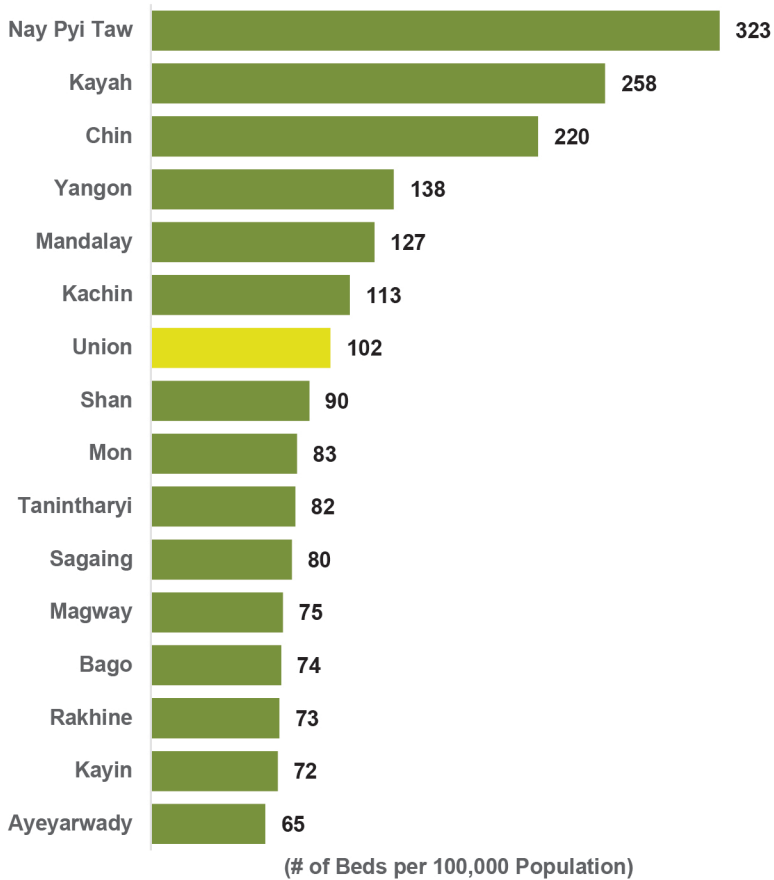
Source: Calculated using the data from the following sources:

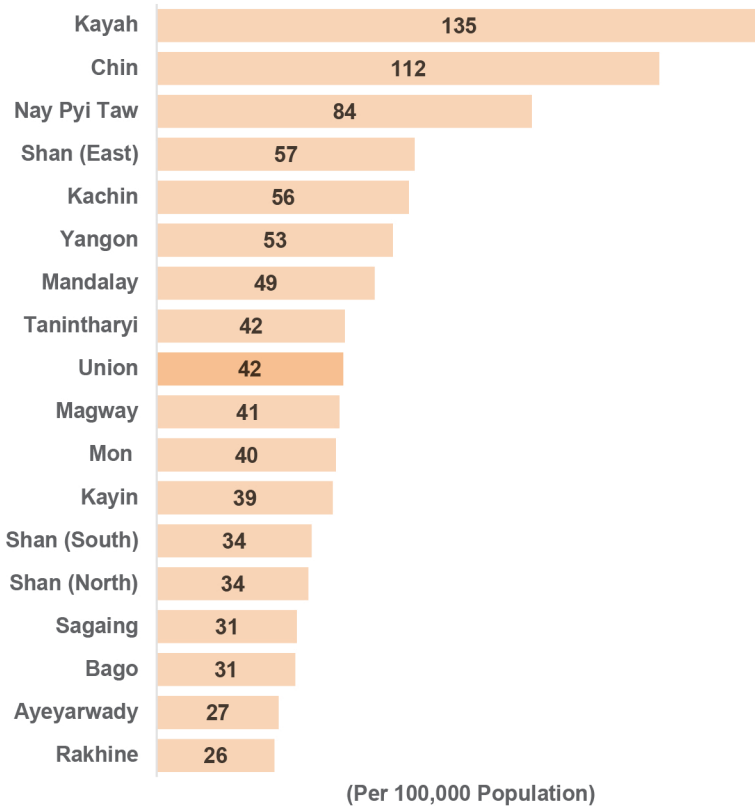No. of hospital beds : Ministry of Health and Sports

Population : Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population

Public Hospital Bed Capacity
by State and Region, 2019

Hospitals beds per 100,000 Population

- 65 - 100
- 101 - 150
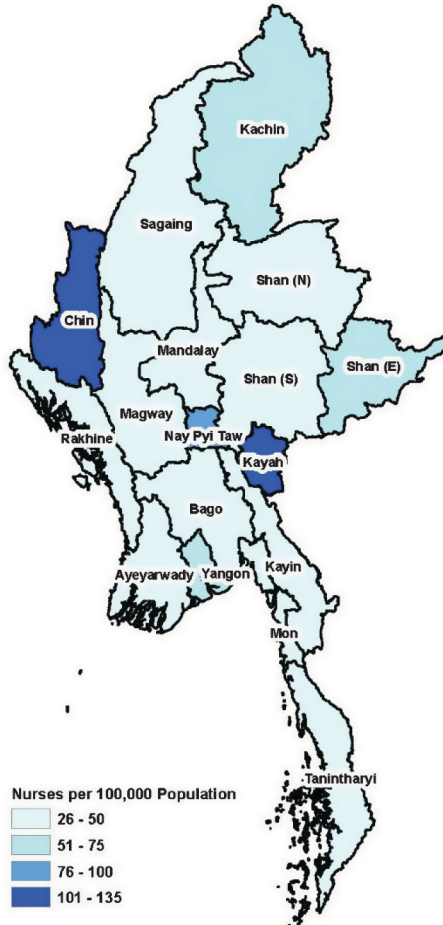- 151 - 250
- 251 - 323

Source: *Calculated using the data from the following sources:*

Health Manpower : *Department of Medical Services and Department of Public Health, Ministry of Health and Sports*
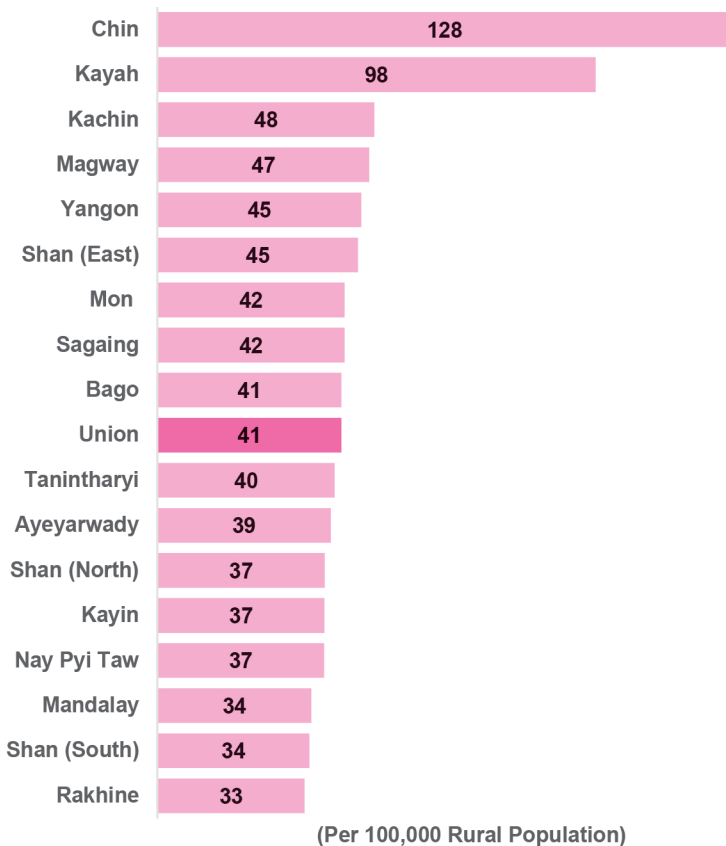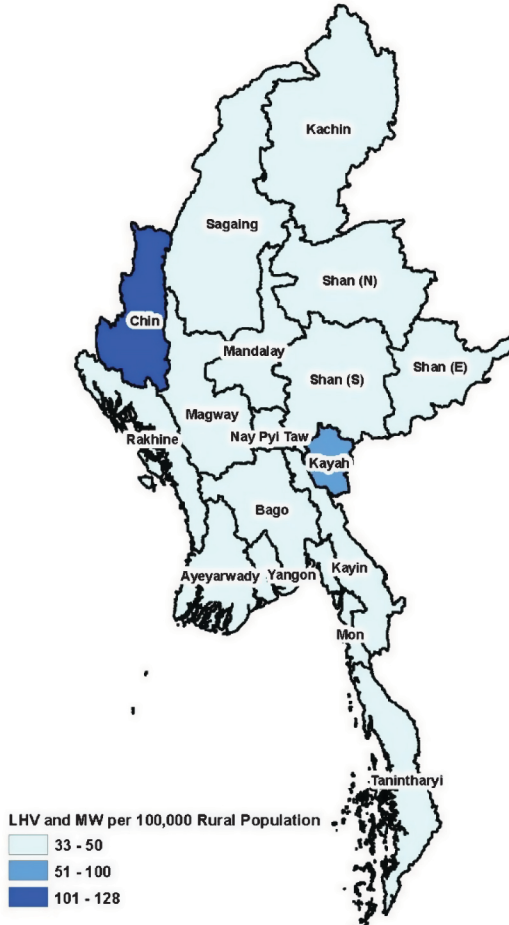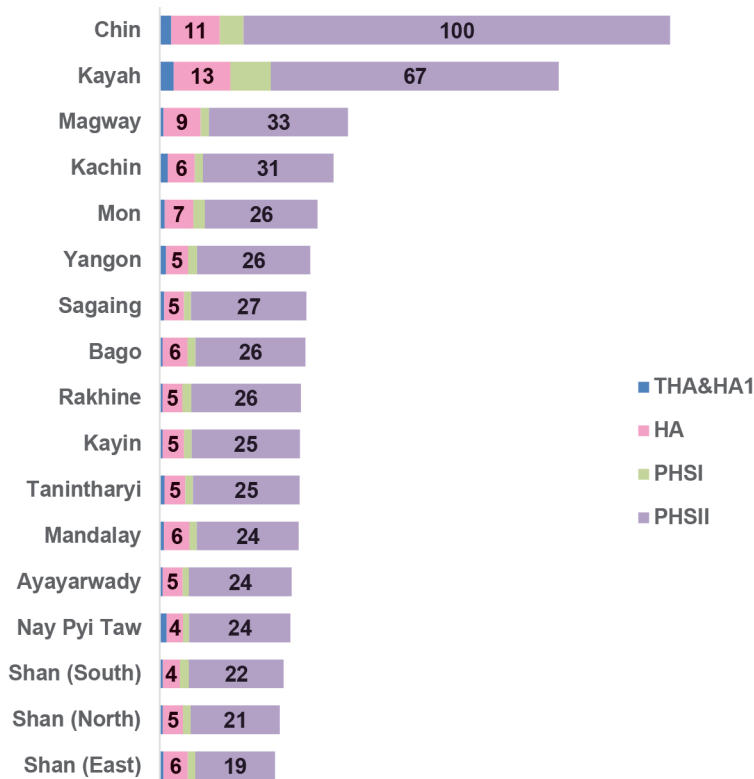
Population : *Thematic Report on Population Projections for the Union of Myanmar, States/Regions, Rural and Urban Areas, 2014-2050, Census Report Volume 4-F, Department of Population*

4. Health Service Utilization

General Clinic Attendance in Public Health Centers

Generally, about one of every five people seeks primary health care services from public primary health facilities in 2019. The lowest primary health care attendance was seen in Nay Pyi Taw Territory and Yangon Region with 14 and 15 percent of population took primary health care services respectively. The attendance rate was the highest in Kayah State with 24 percent of people seek the primary health care.

Outpatients Attendance and Admission in Public Hospitals

There is a wide variation in average number of outpatient attendances and admission by states and regions. The existence of hospitals for specialized cares, super-tertiary hospitals for referred cases, hospitals with advanced diagnostic services, and geographically accessibility for referral linkage make Yangon and Mandalay Regions taking care of the highest number of both outpatients and inpatients in the country. On average, public hospitals in Yangon Region provided outpatient care for over 10,000 clients and inpatient services for more than 12,000 patients per day in 2018. Public hospitals in Mandalay Region provided services to around 6,400 outpatients and 6,000 inpatients per day. On the other side, geographical terrain with difficult travel and comparatively lower population size may have brough the daily number of hospital attendances to about 600 to 850 outpatients and 350 to 400 inpatients in Kayah, Shan (East) and Chin States.

Antenatal Care Coverage

There is an increasing trend on pregnant women seeking Antenatal Care (ANC) from public health facilities, the ANC coverage increased from 75 percent in 2012 to 88 percent in 2019. At least nine out of ten pregnant

women received at least one ANC visit from public sector in 9 of the 17 states and regions. Yangon Region and Shan (East) State had less than 80 percent ANC coverage in 2019. The relatively low public sector ANC coverage in Yangon Region might be attributable to the increasing popularity of seeking ANC from private sector among pregnant women in big cities.

Institutional Delivery and Skilled Birth Attendance

In 2019, around 70 percent of deliveries took place at delivery institutions where 62 percent happened at public and private hospitals. Institutional delivery was the highest in Yangon Region at 93 percent followed by Nay Pyi Taw Territory at 83 percent and Mandalay Region at 79 percent. It is the lowest in Chin State at 36 percent and Rakhine State at 40 percent. The geographic terrain and transportation difficulties might play a role in accessibility to delivery institutions across states and regions.

On average 87 percent of deliveries were attended by skilled birth professionals in 2019, the skilled birth attendance rate was more than 90 percent in Yangon, Mandalay and Magway Regions, Nay Pyi Taw Territory, and Mon, Kayah and Shan (East) States.

Immunization Coverage of Children

Myanmar has achieved more than 90 percent immunization coverage for BCG, Penta-3, OPV-3, and PCV-3 vaccines in the last three consecutive years i.e. 2017 to 2019. Measles-2 (MCV-2) coverage varies from 81 to 88 percent in the past four years. In 2019, the immunization coverage was the lowest in Shan (East) State with 65 percent for MCV-2, and 73 percent for Penta-3, OPV-3 and PCV-3, and 74 percent for BCG. The coverage was the highest in Nay Pyi Taw Territory with more than 90 percent achievement for all types of vaccines except BCG which was 87 percent.

Household Drinking Water and Toilet Facilities

Findings from Myanmar Demographic and Health Survey (2015-2016) indicated that 80 percent of households had an improved source of drinking water, including 89 percent of households in urban areas and 77 percent in rural areas. The most common improved source of drinking water in urban areas was bottled water (48 percent), and in rural areas was a tube well or borehole (33 percent).

The survey also revealed that 48 percent of households in Myanmar had improved toilet facilities, including 65 percent in urban areas and 42 percent in rural areas. Eleven percent of households had no toilet facility, and rural households were more likely to lack a toilet facility than urban households (14 percent versus 1 percent).

Nutrition Promotion Activities in Schools

Aiming for improving the nutritional status and nurturing a habit of practicing healthy diet among school children and their families, nutrition promotion activities have been provided as one of the health promoting school activities in Myanmar. In 2019, around six in ten of the primary schools conducted nutrition promotion activities with the highest rate of coverage in Kayin State followed by Bago and Yangon Regions and Mon State. The lowest rate was seen in Rakhine and Shan (East) States.

Primary Health Care Attendance
by State and Region, 2019

State/Region	Percentage
Kayah	24%
Tanintharyi	22%
Kachin	22%
Rakhine	22%
Ayeyarwady	21%
Sagaing	21%
Bago	20%
Kayin	19%
Magway	19%
Chin	19%
Union	19%
Shan (South)	18%
Mon	18%
Mandalay	17%
Shan (East)	17%
Shan (North)	16%
Yangon	15%
Nay Pyi Taw	14%
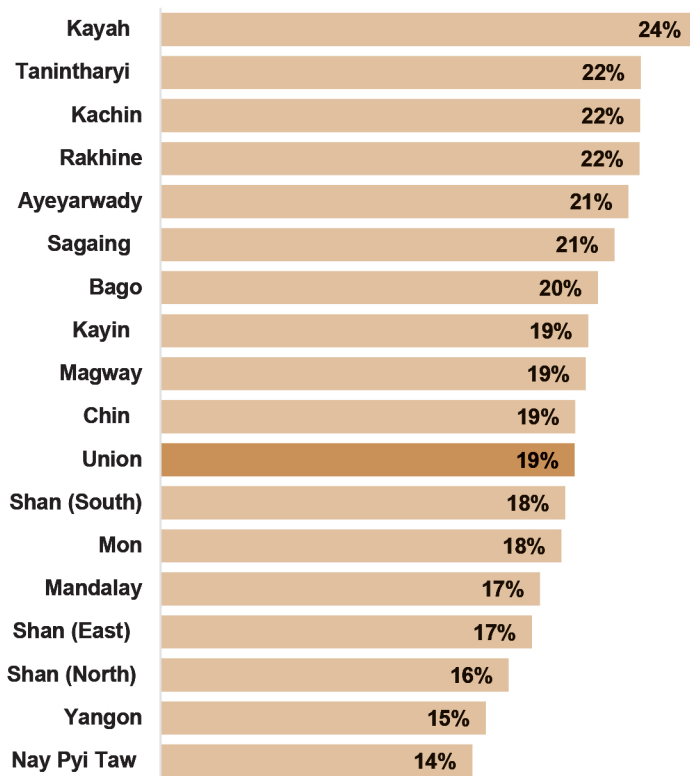
(Percentage of Population)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports
(Note: Primary Health Care Attendance at UHCs, MCHs, RHCs and sub-RHCs)

Primary Health Care Attendance
by State and Region, 2019

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Myanmar Health Statistics 2020

Outpatient Attendance and Admission at Public Hospitals by State and Region, 2018

State/Region	Average number of in-patients per day	Average number of outpatients per day
Kayah	364	637
Shan (East)	374	853
Chin	409	689
Kayin	927	1,287
Tanintharyi	990	1,000
Shan (North)	1,186	2,128
Rakhine	1,237	951
Kachin	1,247	1,929
Nay Pyi Taw	1,275	2,451
Mon	1,356	1,545
Shan (South)	1,493	2,458
Magway	2,702	2,308
Bago	3,284	3,234
Sagaing	3,357	4,514
Ayeyarwady	3,971	2,807
Mandalay	5,942	6,443
Yangon	10,252	12,243

Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Outpatient Attendance at Public Hospitals
by State and Region, 2018
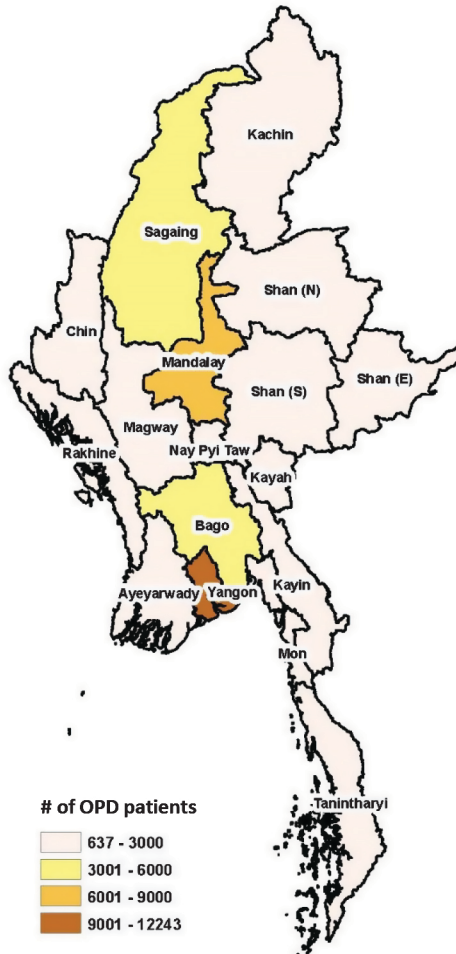
# of OPD patients

- 637 - 3000
- 3001 - 6000
- 6001 - 9000
- 9001 - 12243

Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Patient Admissions in Public Hospitals
by State and Region, 2018
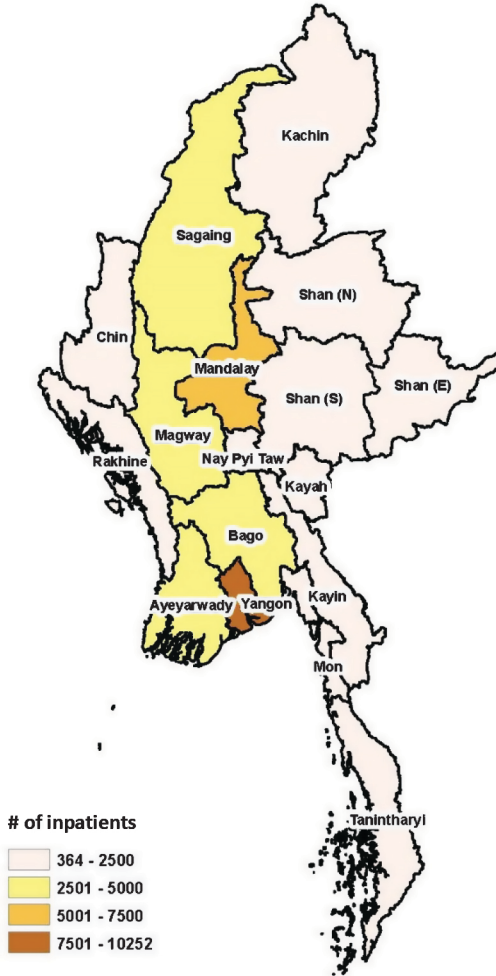
Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Antenatal Care Coverage, Myanmar, 2012-2019
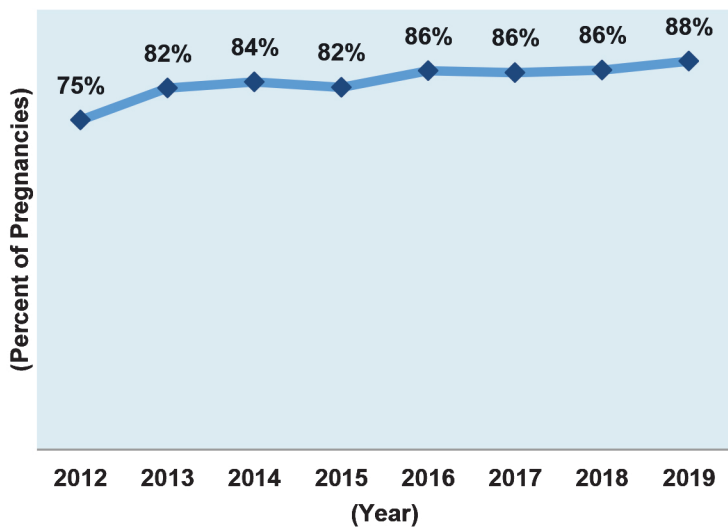
Antenatal Care Coverage by State and Region, 2019

State/Region	Percentage
Kayah	95%
Mon	95%
Kachin	94%
Ayeyarwady	93%
Mandalay	93%
Nay Pyi Taw	91%
Sagaing	91%
Kayin	90%
Tanintharyi	90%
Magway	89%
Bago	89%
Union	88%
Shan (South)	87%
Chin	86%
Rakhine	86%
Shan (North)	82%
Yangon	78%
Shan (East)	74%
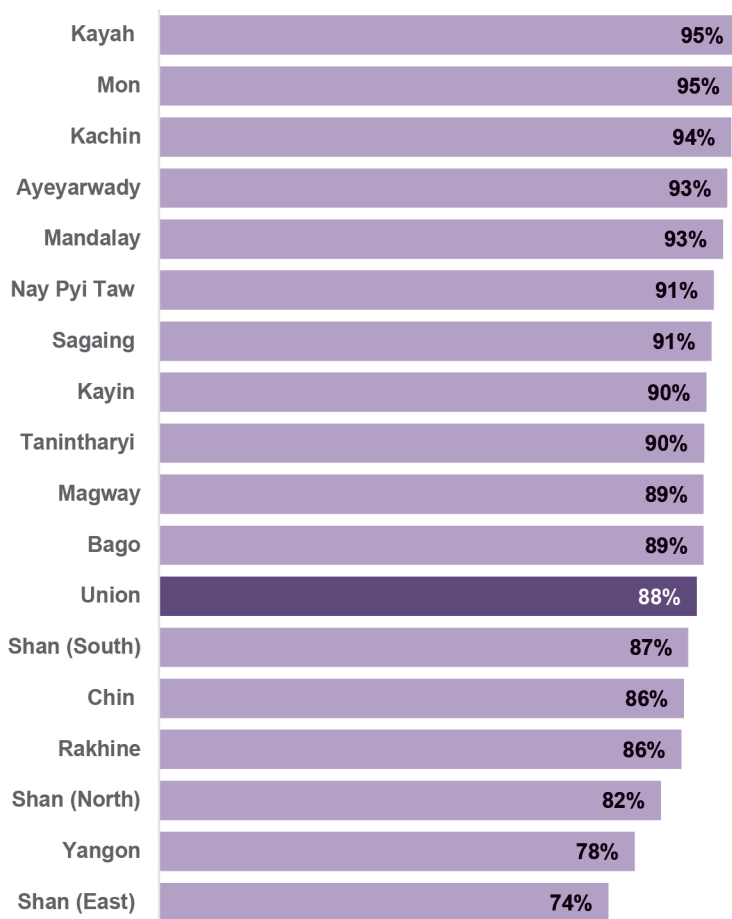
(Percentage of Pregnancies)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Antenatal Care Coverage by State and Region, 2019

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

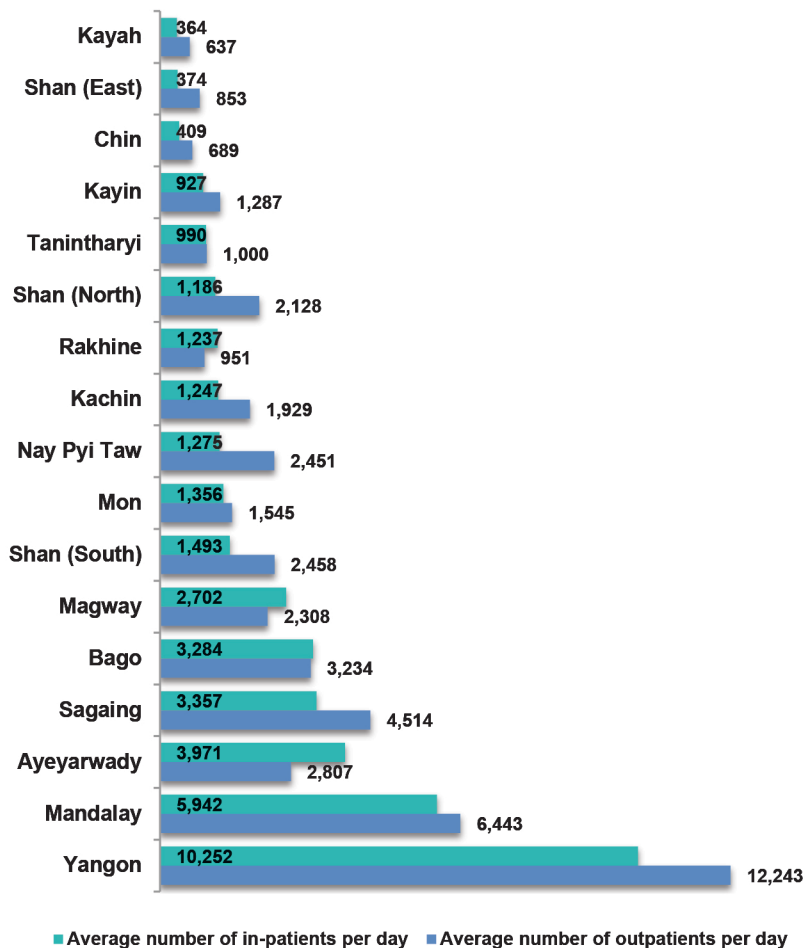## Places of Delivery by State and Region, 2019

State/Region	Public Hospital	Private Hospital- Reported	Facility Delivery by BHSP	Home Delivery by BHSP	Home Delivery by AMW	Others
Nay Pyi Taw	68.5%	10.6%	4%	16%	0.9%	
Yangon	68.0%	17.9%		6.6%	7.5%	
Mandalay	55.0%	18.7%	5%	18%	3%	
Magway	59.9%	4.5%	6%	21%	6%	2%
Mon	47.8%	14.3%	13%	18%	4%	4%
Sagaing	53.8%	7.6%	8%	18%	7%	6%
Kayah	63.3%	0.1%	11%	17%	2%	6%
Union	51.9%	9.8%	8%	18%	5.8%	7%
Kachin	46.7%	6%	14%	21%	5%	8%
Ayeyarwady	53.7%	2.7%	11%	20%	5%	8%
Shan (East)	55.3%	2.8%	12%	20%	2%	8%
Bago	52.2%	7.4%	2%	25%	5%	9%
Tanintharyi	36.6%	15.5%	16%	13%	9%	10%
Kayin	37.5%	15.6%	9%	17%	9%	12%
Shan (South)	37.3%	11.1%	7%	21%	9%	15%
Chin	29.3%	4.7%	2%	31%	17%	16%
Shan (North)	43.5%	6.3%	10%	12%	6%	22%
Rakhine	36.1%	1%	3%	23%	14%	23%

(% of Total Deliveries)

- ■ Public Hospital
- ■ Private Hospital- Reported
- ■ Facility Delivery by BHSP
- ■ Home Delivery by BHSP
- ■ Home Delivery by AMW
- ■ Others

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Primary Health Care Attendance among Under-five Children by State and Region, 2019

Immunization Coverage among Under-five Children
Myanmar, 2016-2019
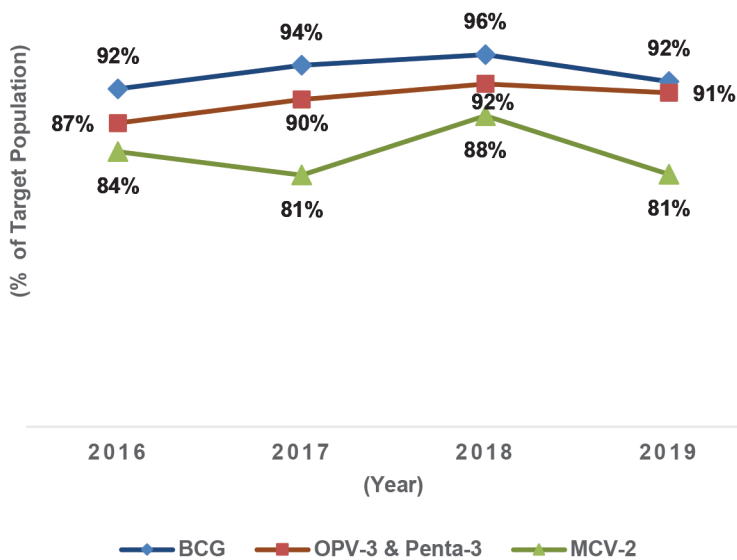
(% of Target Population)

96%

94%

92%

92%

92%

91%

90%

88%

87%

84%

81%

81%

2016   **2017**   **2018**   **2019**

(Year)

BCG   OPV-3 & Penta-3   MCV-2

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Immunization Coverage among Under-five Children
by State and Region, 2019

(Percent of Target Population)

■ **Penta-3, OPV-3, PCV-3**   ■ **MCV- 2**

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Penta Vaccine (3rd Dose) Coverage by State and Region, 2019

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Penta Vaccine (3rd Dose) Coverage by Townships, 2019

Over 100%   **91-100%**   **81-90%**
51-80%   **21-50%**   **under 20%**

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

OPV (3rd Dose) Coverage by State and Region, 2019

OPV (3rd Dose) Coverage by State and Region, 2019

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

MCV (2nd Dose) Coverage by State and Region, 2019
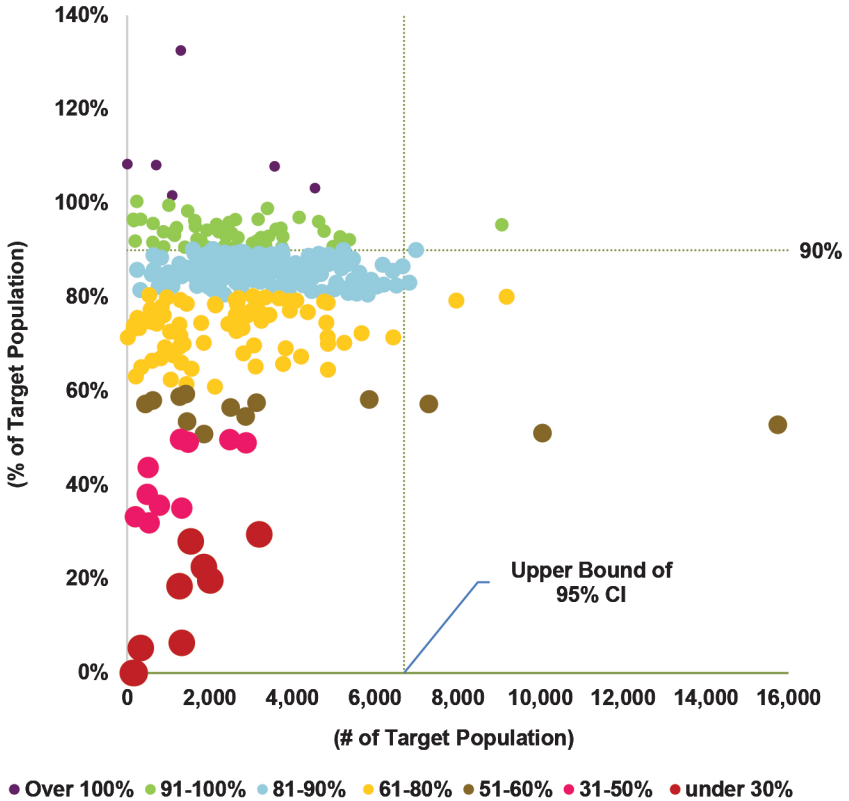
MCV (2nd Dose) Coverage by Townships, 2019

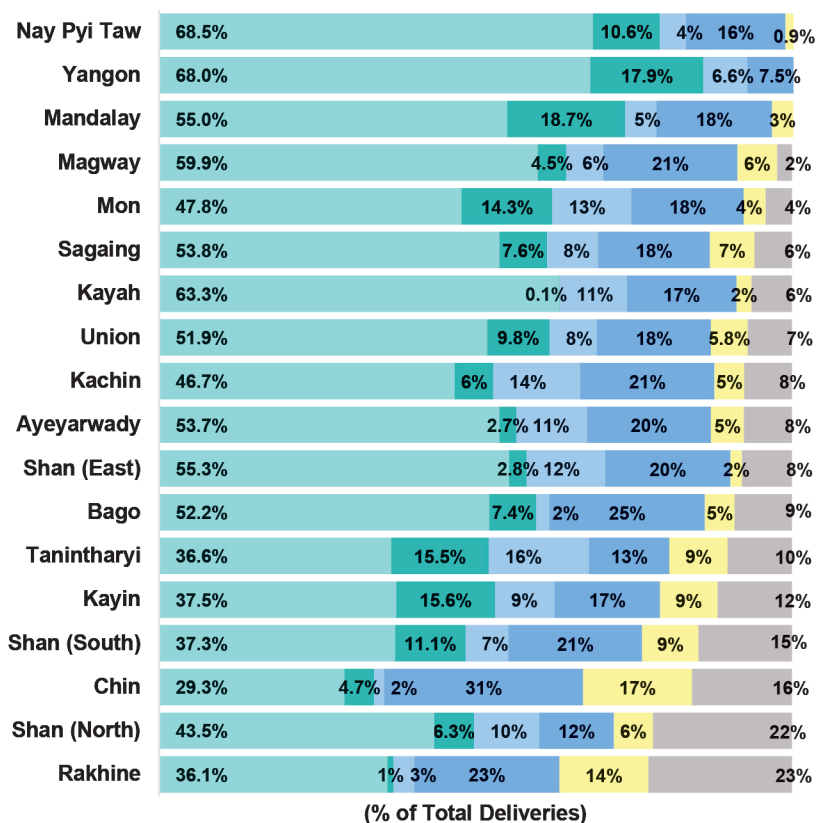**Over 100%**   **91-100%**   **81-90%**   **61-80%**   **51-60%**   **31-50%**   **under 30%**

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

BCG Coverage by State and Region, 2019

State/Region	Coverage
Mandalay	100%
Bago	97%
Sagaing	96%
Ayeyarwady	96%
Mon	95%
Shan (South)	95%
Kayin	94%
Chin	94%
Magway	93%
Union	92%
Kachin	92%
Tanintharyi	92%
Shan (North)	90%
Rakhine	89%
Nay Pyi Taw	87%
Yangon	81%
Kayah	76%
Shan (East)	74%

(Percent of Target Population)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

BCG Coverage by State and Region, 2019

BCG Coverage by Townships, 2019

Source: Public Health Statistics, HMIS, Department of Public Health,
Ministry of Health and Sports

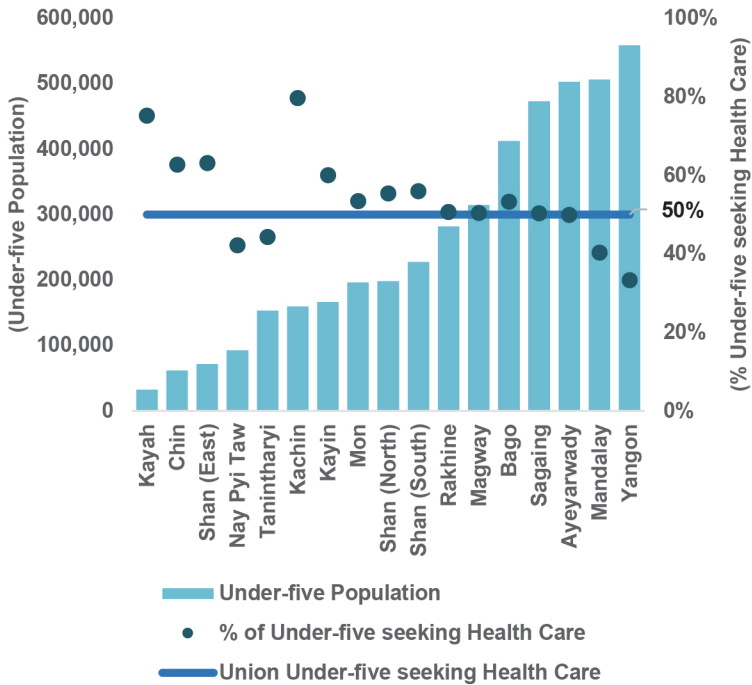## Distribution of Household by Source of Drinking Water, 2015

	Total	Urban	Rural	
Rain Water	3%	1%	2%	■ Rain Water
Unimproved Source	19.6%	10.7%	22.9%	■ Unimproved Source
Bottle Water	15.5%	48.1%	3.8%	■ Bottle Water
Protected Well or Spring	25%		29%	■ Protected Well or Spring
Tubewell or Borehole	28%	13%	33%	■ Tubewell or Borehole
Public Tap / Stand Pipe	3%	16%	3%	■ Public Tap / Stand Pipe
Pipe Water into Dwelling/Yard/Plot	6%	3% 8%	6%	■ Pipe Water into Dwelling/Yard/Plot
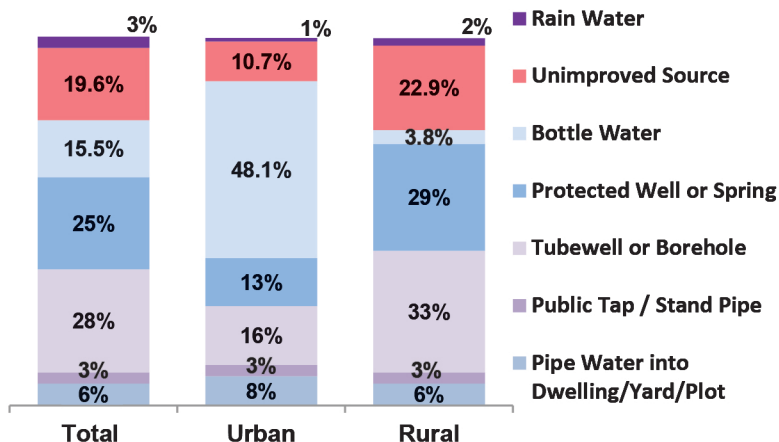
Distribution of Household by Type of Toilet Facilities, 2015

	Total	Urban	Rural	
No Facility/Bush/Field	11%	1%	14%	■ No Facility/Bush/Field
Unimproved Facility	31%	22%	35%	■ Unimproved Facility
Shared Facility	10%	12%	9%	■ Shared Facility
Improved Facility	48%	65%	42%	■ Improved Facility
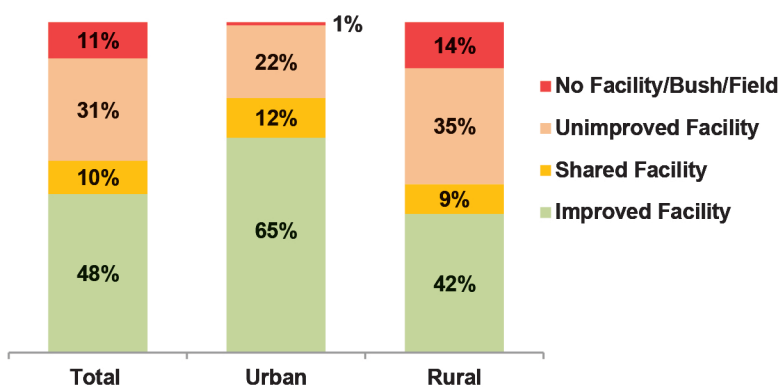
Source: Myanmar Demographic and Health Survey (2015-2016)

Schools with Nutrition Promotion Activities
by State and Region, 2019
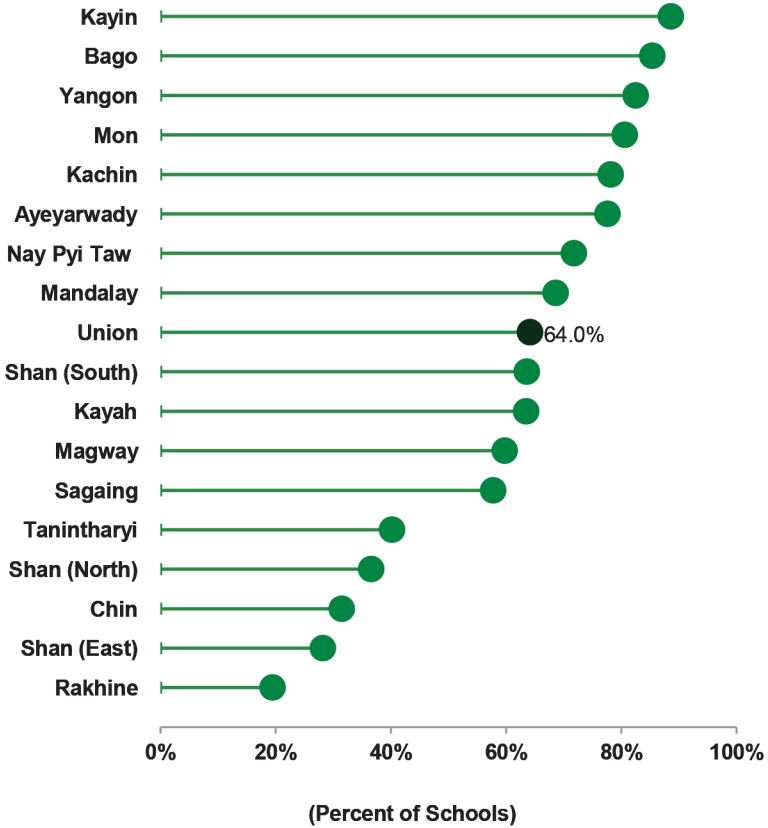
(Percent of Schools)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

5. Morbidity and Mortality

Leading Causes of Mortality

Applying ICD 10 coding system on principle diagnosis of inpatients, causes of hospitalization and mortality were classified into diseases and related health problems.

In 2018, leading grouped causes of mortality were found to be diseases of circulatory system (19.5 percent), certain infectious and parasitic diseases (13.3 percent), certain conditions originating in the perinatal period (13.3 percent), injury, poisoning and certain other consequences of external causes (13 percent), diseases of the respiratory system (9.2 percent) and diseases of digestive system (9.2 percent).

Regarding the single causes of mortality, the key changes during the past decade included the gradual down ranking of malaria, HIV/AIDS and TB from the top three positions. In 2018, the top ten causes of mortality were attributable to pregnancy and delivery related causes; septicemia; head and intracranial injuries; heart failure, stroke, and primary hypertension; pneumonia and respiratory TB.

Findings from the National Causes of Death Survey, a population based national survey conducted in 2016-2017, revealed that nearly three-fourths of all deaths in the study were attributable to Non-Communicable Diseases (NCDs) whereas only one-fifths were attributable to communicable diseases, maternal, nutritional and neonatal causes.

Among deaths due to communicable diseases, maternal, nutritional and neonatal causes (Group I causes), pneumonia was the first leading cause, followed by TB, HIV/AIDS and malaria. Among deaths due to NCDs (Group II causes), stroke was the first leading cause, followed by chronic respiratory diseases, ischemic heart diseases, cirrhosis and diabetes. Among the deaths due to injuries (Group III causes), road traffic accident was the first leading cause, followed by fall.

Infant Mortality Rate and Maternal Mortality Ratio

According to the reports from Maternal Mortality Estimation Interagency Group and United Nations Interagency Group for Child Mortality Estimation, the Maternal Mortality Ratio (MMR), Under-five Mortality Rate (U5MR), Infant Mortality Rate (IMR), and Neonatal Mortality Rate (NMR) showed declining trends since 1990.

There was a 45 percent reduction in MMR from 453 per 100,000 live births in 1990 to 250 per 100,000 live births in 2017. The U5MR declined from 116 to 47 per 1,000 live births which is a 59 percent reduction from 1990 to 2018.

The IMR and NMR showed more than 50 percent drop from 82 to 37 per 1,000 live births, and 48 to 23 per 1,000 live births respectively during the same period of 1990 to 2018.

Causes of Morbidity

In 2018, leading grouped causes of hospitalization were observed as pregnancy, childbirth and puerperium (20.2 percent), certain infectious and parasitic diseases (13.9 percent), injury, poisoning and certain other consequences of external causes (13.1 percent), diseases of the digestive system (9.9 percent) and diseases of the respiratory system (7.8 percent).

In addition, the single leading causes of hospitalization and death was identified with ICD 10 coding. The top ten single causes of hospitalization changed slightly from the past decade and delivery remains the top cause of hospitalization throughout the years; communicable diseases like unspecified viral infections, diarrhoea & gastroenteritis, upper respiratory tract infection, dengue hemorrhagic fever continued occupying the top ten positions; and head injuries also kept its position in the top ten list. The fading of malaria and respiratory TB infection and the prevailing of primary hypertension in the top ten list during the recent years might be a signal on

changing trend of morbidity from major communicable diseases to the NCDs in Myanmar.

Malaria

Although malaria is still one of the priority diseases in Myanmar, a significant progress has been made in reducing malaria morbidity and mortality. Malaria is endemic in 291 out of 330 townships in Myanmar almost affecting 22.4 million population of 54 million population in 2019. The number of reported malaria deaths has dropped steadily year by year from 37 in 2015 to just 14 in 2019 (a 62 percent reduction) reflecting improvements in access to early diagnosis and appropriate treatment. The incidence of reported malaria has dropped by 72 percent since 2015 (from 3.60 per 1,000 population in 2015 to 1.01 per 1,000 population in 2019).

Tuberculosis

Tuberculosis (TB) remains one of the major public health problems in Myanmar. Directly Observed Treatment Short Course (DOTS) strategy was introduced in 1997 and it covered all the townships since November 2003. It was followed by STOP TB Strategy from the year 2007 to 2015 and changed to End TB Strategy from 2016 onward. During 2015 to 2019, National TB Programme (NTP) achieved case notification rate for all forms of TB at around 267 per 100,000 population and treatment success rate of 87 percent. This indicates the emphasis on case holding activities all over the country in collaboration with 32 implementing partners including ethnic health organizations.

HIV/AIDS

The over three decade of HIV epidemic is concentrated among population sub-groups who are at risk of HIV infection. The results from the Estimation and Projection of HIV/AIDS revealed that approximately 240,000 adults and children are living with HIV in Myanmar at the end of 2019. An estimated adult HIV prevalence among 15 years and older age group is 0.58 percent. The annual new HIV infection reached its peak at around 29,000 in the year 2000 which was declined to 13,000 in 2015 and further declined to around 10,000 in 2019.

The country's care and treatment program for People Living with HIV (PLHIV) started in 2005 and expended overtime. The "test and treat" strategy has been fully adopted in Myanmar since 2017 and about 77 percent of PLHIV were on treatment by the end of 2019.

Myanmar is one of the countries that fully followed the Global Goal of Ending Pediatric HIV infections and prolonging mother life. The Prevention of Mother to Child Transmission of HIV infection (PMCT) was initiated in 2002 and expended gradually covering all townships in the year 2020. The prevalence of HIV infection among pregnant women shows great variation across states and regions with Kachin State and Yangon Region having more than one percent prevalence in 2019.

Leprosy

Myanmar has achieved Leprosy Elimination Goal several years back since 2003. The national prevalence has been maintained below one per 10,000 population since then. A total of 2,488 new leprosy cases were identified in the year 2019 among which 298 (12 percent), including 7 new child cases, had grade-2 disability (G2D). More than 90 percent of new cases were identified from seven states and regions: Mandalay Region, Shan State, Sagaing, Yangon, Magway, Bago, and Ayeyarwady Regions.

Diarrhoea among Under-five Children

In 2019, the number of diarrhoea cases among under-five children sought care from primary health facilities ranged from 3,000 to over 28,000 cases across states and regions. The highest case load was seen in Sagaing Region and Rakhine State whereas the lowest case load was reported from Nay Pyi Taw Territory and Shan(East) State. Among the diarrhoea cases 93 percent received Oral Rehydration Therapy with Zinc sulphate, and the treatment coverage ranged from 82 percent to 99 percent across states and regions.

In term of morbidity rate, Chin, Kayah and Kachin States had more than 100 cases per 1,000 under-five population. The mortality rate was the highest in Chin, Shan(North) and Shan(South) States with over 100 deaths per 100,000 cases whereas Yangon Region and Shan(East) State did not report any deaths from diarrhoea among under-five children in 2019.

Pneumonia among Under-five Children

The number of pneumonia cases pursued health services from primary health facilities ranged from just below 1,000 to nearly 20,000 across states and regions in 2019. The case load was the lowest in Nay Pyi Taw Territory and Kayah State whereas it is the highest in Sagaing Region and Rakhine State. In term of morbidity rate, Chin, Shan(East) and Rakhine States had more than 60 cases per 1,000 under-five population whereas Nay Pyi Taw territory, and Mon State has less than 15 cases per 1,000 population.

On average, 93 percent of pneumonia cases received antibiotic treatment and the treatment coverage ranged from 79 percent to 100 percent in states and regions.

Nutritional Status

The findings from large scale sequential studies showed slight declining trends of stunting, underweight and wasting among under-five children from 2010 to 2018, however the under nutrition remains one of the public health problems for under-five children in Myanmar. In 2018, one in four of the under-five children was stunted and one in five was underweight. Children living in Chin State and Ayeyarwady Region have the higher probability of being stunted compared with those living in other states and regions. In addition, findings from the "Micronutrient and Food Consumption Survey" highlighted that at least three in ten of children or teenagers or women were being anaemic which is a common consequence of micronutrient deficiencies such as iron, folic acid, vitamin B12, etc.

Non-communicable Diseases

With the epidemic transition from communicable to non-communicable diseases in Myanmar, services for treatment, regular follow up and clinical monitoring for hypertension and diabetes cases are made available at primary health care level in the recent years. The total number of hypertension patients seeking health services from primary health care providers increased from over 500,000 in 2016 to over 700,000 in 2019. The higher case load was seen in Sagaing, Ayeyarwady, Bago and Mandalay Regions with more than 84,000 patients sought care in each of these regions in 2019. The lowest case load was seen in Kayah State with less than 5,000 patients in 2019.

A total of 290,000 diabetic patients received care from primary health care providers in 2019 across all states and regions. The number of patients ranged from over 50,000 in Mandalay Region to less than 1,000 in Kayah and Chin States.

Prevention of Blindness

According to the National Blindness Survey conducted in 2017, blindness rate among 50 years and above was 2.9 percent and 72.9 percent of blindness were attributable to cataract in Myanmar. Primary Eye Care services as well as cataract and glaucoma operations have been made widely available at decentralized levels. Consequently, the cataract surgical rate has increased from 644 per million population in the year 2001 to 1,457 in 2010 and to 2,574 in 2019. The elevated cataract surgical rate has contributed to the reduction of cataract backlog cases in the recent years.

Injuries

Injury has been one of the top ten causes of morbidity and mortality for more than one decade in Myanmar. There is an increasing trend in the total number of reported injury cases and deaths. The total number of reported cases increased from about 370,000 in 2016 to 460,000 in 2019. More than 80 percent of total incidents were attributable to vehicle accidents (45 to 51 percent), accident on farm (16 to 25 percent) and fighting (12 to 14 percent) across these four years period.

In 2019, the highest number of total injuries 62,300 was reported from Sagaing Region followed by Mandalay Region with about 50,200 reported cases and Bago and Ayeyarwady Regions with more than 40,000 reported injuries.

During the same period of 2016 to 2019, the number of deaths increased from about 11,300 to 15,300 which corresponded to the death rate of 3.1 percent to 3.4 percent among cases. More than 75 percent of injury deaths were attributable to vehicle accident (41 to 43 percent), drowning (23 to 24 percent) and suicides (13 to 15 percent) across the years.

For each cause of injuries, the case specific fatality rate was the highest for drowning at about 80 percent followed by suicides at about 50 percent and poisoning at about 7 percent.

Ten Leading Grouped Causes of Mortality, 2018

Cause	%
Diseases of the circulatory system	19.5%
Certain conditions originating in the perinatal period	13.3%
Certain infectious and parasitic diseases	13.3%
Injury, poisoning and certain other consequences of external causes	13.0%
Diseases of the digestive system	9.2%
Diseases of the respiratory system	9.2%
Neoplasms	5.8%
Endocrine, nutritional and metabolic diseases	3.7%
Diseases of the genitourinary system	3.2%
Symptoms, signs, and abnormal clinical and laboratory findings	2.8%

(%Hospital Deaths)

Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports
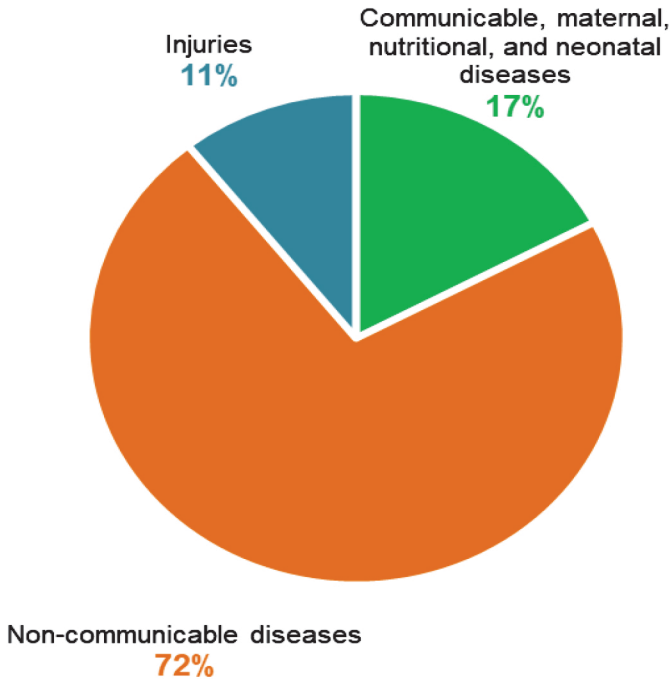
Ten Leading Single Causes of Mortality, 2005-2018

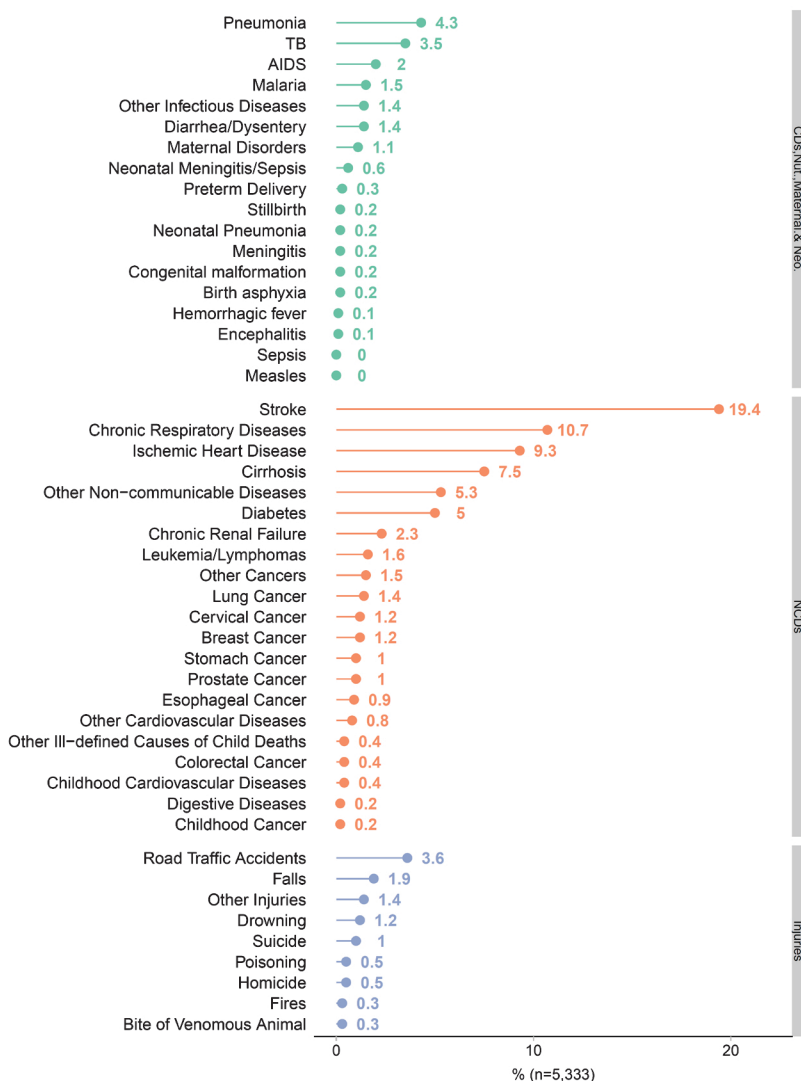| Rank	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	Pf Malaria	Pf Malaria	Pf Malaria	Pf Malaria	Pf Malaria	Pf Malaria	Other Septicaemia	Other Septicaemia	Other Septicaemia	Other Septicaemia	Other Septicaemia	Other Septicaemia	Short Gestation & LBW	Short Gestation & LBW
2	Resp TB	Resp TB	Resp TB	HIV/AIDS	HIV/AIDS	HIV/AIDS	Head Injuries	Short Gestation & LBW	Head Injuries	Head Injuries	Short Gestation & LBW	Short Gestation & LBW	Other Septicaemia	Other Septicaemia
3	Viral Diseases	Other Septicaemia	Pf Malaria	Resp TB	Pf Malaria	Head Injuries	HIV/AIDS	HIV/AIDS	Resp TB	Short Gestation & LBW	Birth Asphyxia	Intracranial Injury	Head Injuries	Head Injuries
4	Lower RTI	Stroke	Head Injuries	Head Injuries	Short Gestation & LBW	Short Gestation & LBW	Head Injuries	Head Injuries	Heart Failure	Resp TB	Heart Failure	Heart Failure	Intracranial Injury	Intracranial Injury
5	Heart Failure	Heart Failure	Head Injuries	Short Gestation & LBW	Heart Failure	Heart Failure	Birth Asphyxia	Birth Asphyxia	HIV/AIDS	HIV/AIDS	Birth Asphyxia	Intracranial Injury	Birth Asphyxia	Birth Asphyxia
6	Unspecified Malaria	Lower RTI	Pneumonia	Resp TB	Stroke	Stroke	Resp TB	Heart Failure	Stroke	Heart Failure	Heart Failure	Stroke	Heart Failure	Heart Failure
7	Other Septicaemia	Unspecified Malaria	Viral Diseases	Heart Failure	Short Gestation & LBW	Pf Malaria	Heart Failure	Resp TB	Birth Asphyxia	Birth Asphyxia	Intracranial Injury	HIV/AIDS	Heart Failure	Primary Hypertension
8	Stroke	Head Injuries	Intracerebral Haemorrhage	Stroke	Resp TB	Resp TB	Birth Asphyxia	Intracranial Injury	Resp TB	Stroke	Resp TB	Birth Asphyxia	Cirrhosis of Liver	Stroke
9	Pneumonia	Pneumonia	Stroke	Birth Asphyxia	Birth Asphyxia	Birth Asphyxia	Pf Malaria	Pneumonia	Intracranial Injury	HIV/AIDS	HIV/AIDS	Intracerebral Haemorrhage	Primary Hypertension	Pneumonia
10	Head Injuries	Short Gestation & LBW	HIV/AIDS	Intracerebral Haemorrhage	Intracerebral Haemorrhage	Pneumonia	Pneumonia	Stroke	Cirrhosis of Liver	Cirrhosis of Liver			Resp TB	Resp TB

Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Grouped causes of death in all ages of both sexes

2016-2017 (n=5,333)

Causes of death in all ages of both sexes
by 3 groups of diseases, 2016-2017

Cause	Value
Pneumonia	4.3
TB	3.5
AIDS	2
Malaria	1.5
Other Infectious Diseases	1.4
Diarrhea/Dysentery	1.4
Maternal Disorders	1.1
Neonatal Meningitis/Sepsis	0.6
Preterm Delivery	0.3
Stillbirth	0.2
Neonatal Pneumonia	0.2
Meningitis	0.2
Congenital malformation	0.2
Birth asphyxia	0.2
Hemorrhagic fever	0.1
Encephalitis	0.1
Sepsis	0
Measles	0

CDs,Nut. Maternal & Neo.

Cause	Value
Stroke	19.4
Chronic Respiratory Diseases	10.7
Ischemic Heart Disease	9.3
Cirrhosis	7.5
Other Non-communicable Diseases	5.3
Diabetes	5
Chronic Renal Failure	2.3
Leukemia/Lymphomas	1.6
Other Cancers	1.5
Lung Cancer	1.4
Cervical Cancer	1.2
Breast Cancer	1.2
Stomach Cancer	1
Prostate Cancer	1
Esophageal Cancer	0.9
Other Cardiovascular Diseases	0.8
Other Ill-defined Causes of Child Deaths	0.4
Colorectal Cancer	0.4
Childhood Cardiovascular Diseases	0.4
Digestive Diseases	0.2
Childhood Cancer	0.2

NCDs

| Cause	Value
Road Traffic Accidents	3.6
Falls	1.9
Other Injuries	1.4
Drowning	1.2
Suicide	1
Poisoning	0.5
Homicide	0.5
Fires	0.3
Bite of Venomous Animal	0.3

Injuries

% (n=5,333)

Source: Ministry of Health and sport (2019). Report on National Survey on Causes of Death in Myanmar using Verbal Autopsy in 2016-2017.
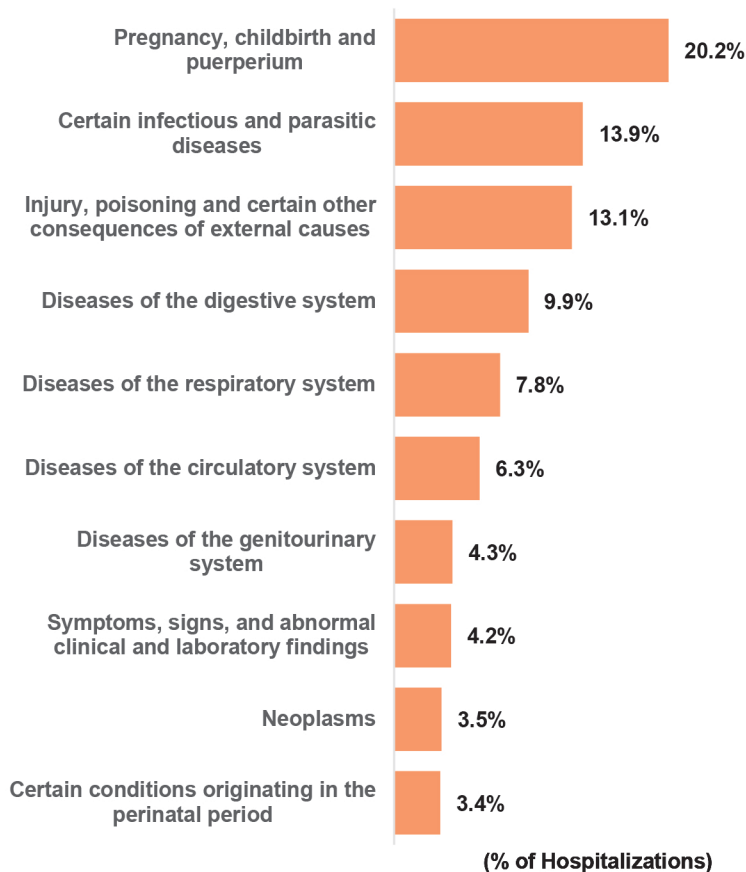
Maternal Mortality Ratio, Myanmar, 1990-2017
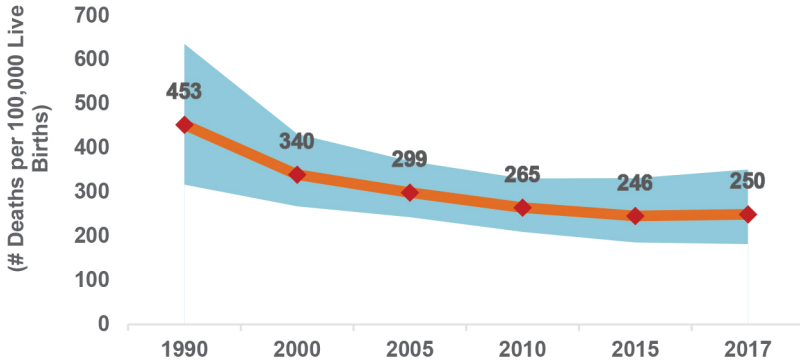
Source: Internationally comparable MMR estimates by the Maternal Mortality
Estimation Inter-Agency Group (MMEIG) WHO, UNICEF, UNFPA, World
Bank Group and the United Nations Population Division

Under-five, Infant and Neonatal Mortality Rates, Myanmar
1990-2018
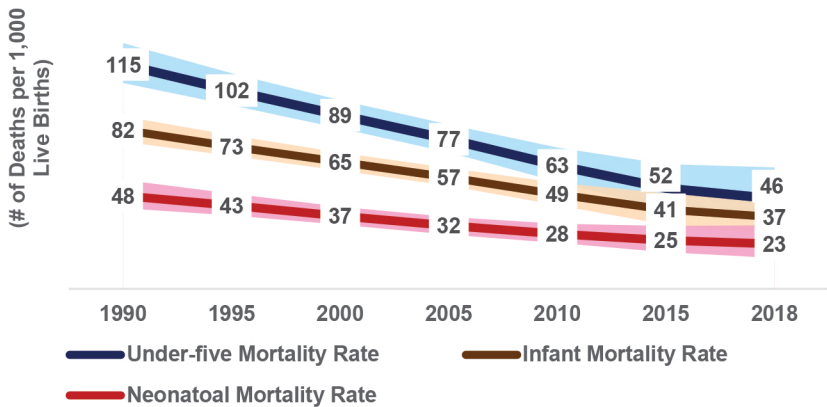
Source: UNIGME UN Interagency Group for Child Mortality Estimation Report 2019

Ten Leading Grouped Causes of Hospitalization, 2018

| Cause	%
Pregnancy, childbirth and puerperium	20.2%
Certain infectious and parasitic diseases	13.9%
Injury, poisoning and certain other consequences of external causes	13.1%
Diseases of the digestive system	9.9%
Diseases of the respiratory system	7.8%
Diseases of the circulatory system	6.3%
Diseases of the genitourinary system	4.3%
Symptoms, signs, and abnormal clinical and laboratory findings	4.2%
Neoplasms	3.5%
Certain conditions originating in the perinatal period	3.4%

(% of Hospitalizations)

Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Ten Leading Single Causes of Hospitalization, 2005-2018

Rank	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
1	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Diarrhoea & GE	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery	Spontaneous Delivery
2	Diarrhoea & GE	Unspecified Malaria	Diarrhoea & GE	Spontaneous Delivery	Diarrhoea & GE	Diarrhoea & GE	Diarrhoea & GE	LSCS	LSCS	Diarrhoea & GE	Diarrhoea & GE	Unspecified VI	Unspecified VI	LSCS
3	Unspecified Malaria	Diarrhoea & GE	Unspecified Malaria	Unspecified VI	Unspecified VI	Head Injuries	Head Injuries	Unspecified VI	Unspecified VI	Unspecified Viral Infection	LSCS	LSCS	LSCS	Unspecified VI
4	Head Injuries	Abortion	Head Injuries	DHF	DHF	LSCS	LSCS	Head Injuries	Head Injuries	LSCS	Unspecified Viral Infection	Diarrhoea & GE	Diarrhoea & GE	Diarrhoea & GE
5	LSCS	Head Injuries	LSCS	Head Injuries	Head Injuries	Unspecified VI	Unspecified VI	Diarrhoea & GE	Diarrhoea & GE	Head Injuries	Head Injuries	Head Injuries	Head Injuries	Head Injuries
6	Abortion	LSCS	DHF	LSCS	LSCS	Abortion	Gastritis & Duodenitis	Gastritis & Duodenitis	Gastritis & Duodenitis	DHF	DHF	DHF	Gastritis & Duodenitis	Gastritis & Duodenitis
7	Lower RTI	Injury of body	Abortion	Unspecified Malaria	Unspecified Malaria	DHF	Abortion	DHF	DHF	Gastritis & Duodenitis	Gastritis & Duodenitis	Upper RTI	DHF	Upper RTI
8	DHF	Lower RTI	Lower RTI	Gastritis & Duodenitis	Gastritis & Duodenitis	Unspecified Malaria	Unspecified Malaria	Cataract	Cataract	Cataract	Pneumonia	Pneumonia	Upper RTI	DHF
9	Injury of body	Gastritis & Duodenitis	Unspecified VI	Abortion	Abortion	Cataract	Cataract	Abortion	Pneumonia	Pneumonia	Abortion	Abortion	Primary Hypertension	Primary Hypertension
10	Resp TB	DHF	Gastritis & Duodenitis	Neo Jaunctice	Cataract	Upper RTI	Upper RTI	Upper RTI	Upper RTI	Upper RTI	Upper RTI	Alcohol Related MD	Abortion	Abortion

Source: Hospital Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

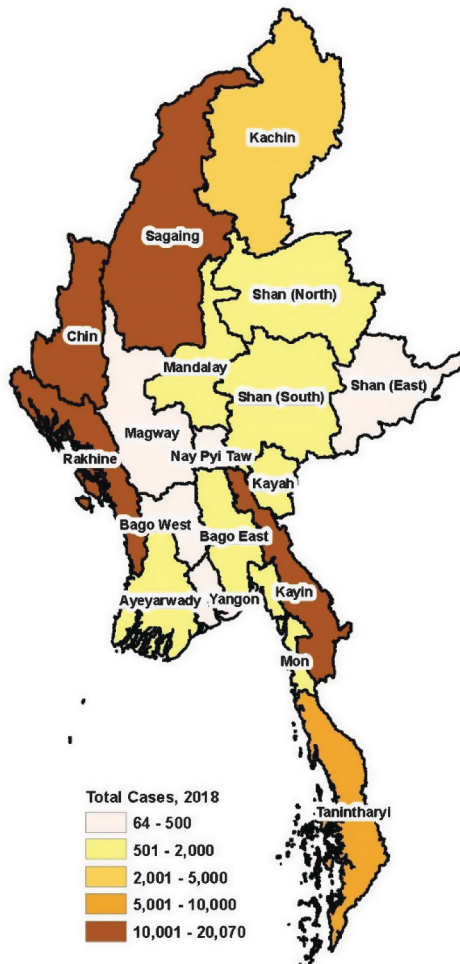## Malaria Cases and Deaths in Myanmar, 2005-2019
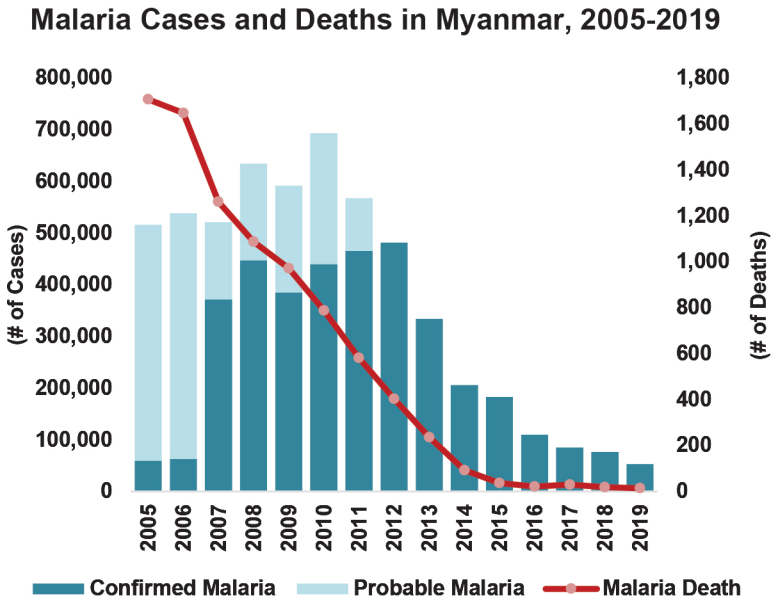
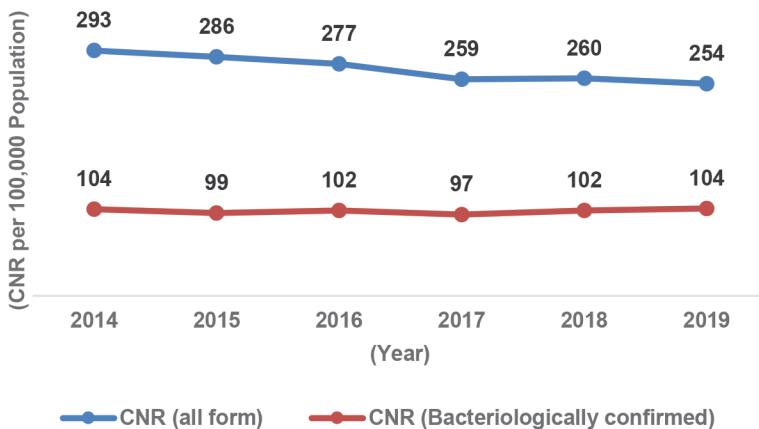## Annual Parasite Incidence by State and Region, 2015-2018
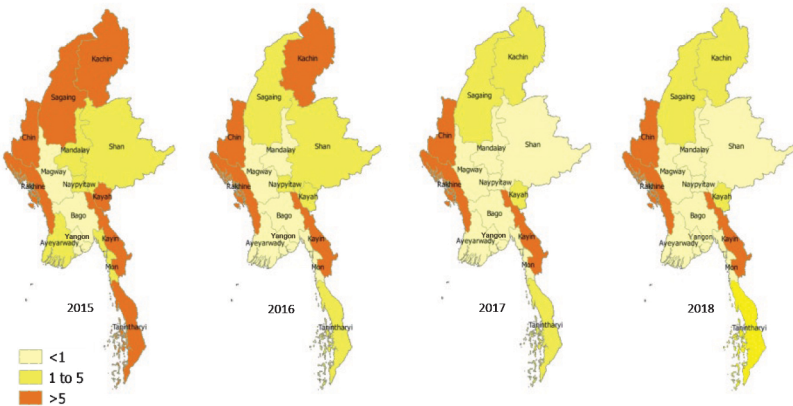
Source: National Malaria Control Programme, Department of Public Health,
Ministry of Health and Sports

Malaria Cases by State and Region, 2018

Kachin

Sagaing

Shan (North)

Chin

Mandalay

Shan (East)

Shan (South)

Magway

Rakhine

Nay Pyi Taw

Kayah

Bago West

Bago East

Ayeyarwady Yangon

Kayin

Mon

Total Cases, 2018
64 - 500
501 - 2,000
2,001 - 5,000
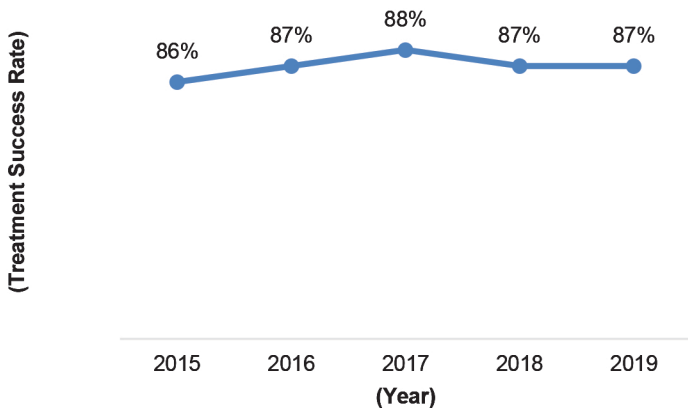5,001 - 10,000
10,001 - 20,070

Tanintharyl

Source: National Malaria Control Programme, Department of Public Health,
Ministry of Health and Sports

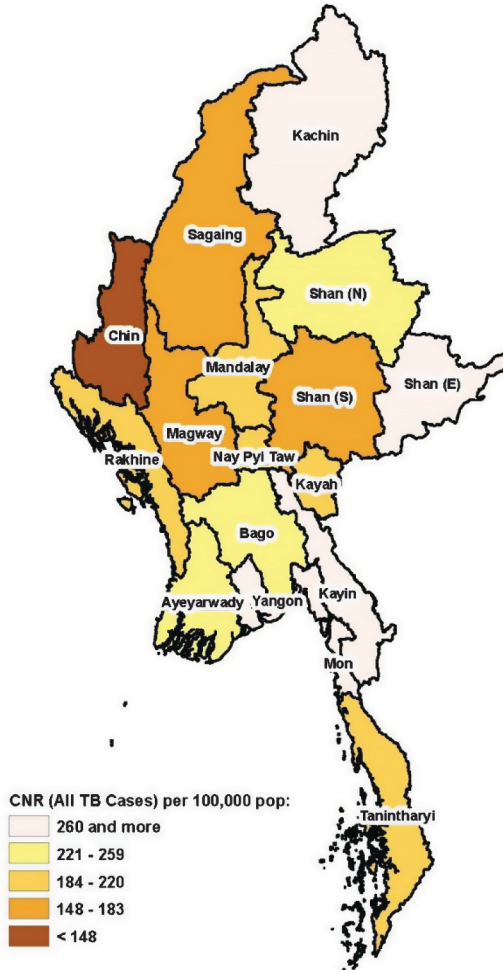## Case Notification Rate of Tuberculosis, 2014-2019

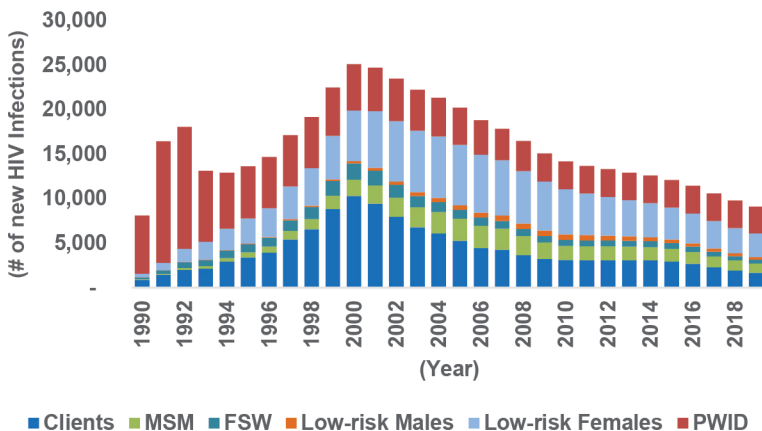
Treatment Success Rate of Tuberculosis, 2015-2019

Source: National Tuberculosis Programme, Department of Public Health, Ministry of Health and Sport

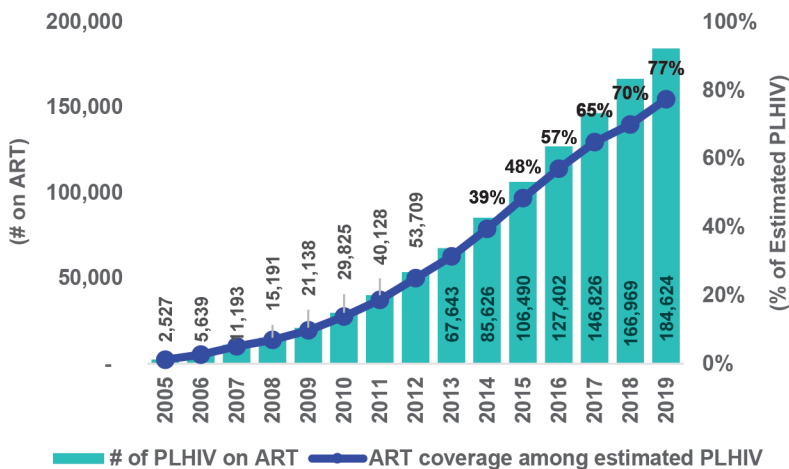# Tuberculosis Case Detection Rate by State and Region 2019

CNR (All TB Cases) per 100,000 pop:

- 260 and more
- 221 - 259
- 184 - 220
- 148 - 183
- < 148

Source: National Tuberculosis Programme, Department of Public Health, Ministry of Health and Sport

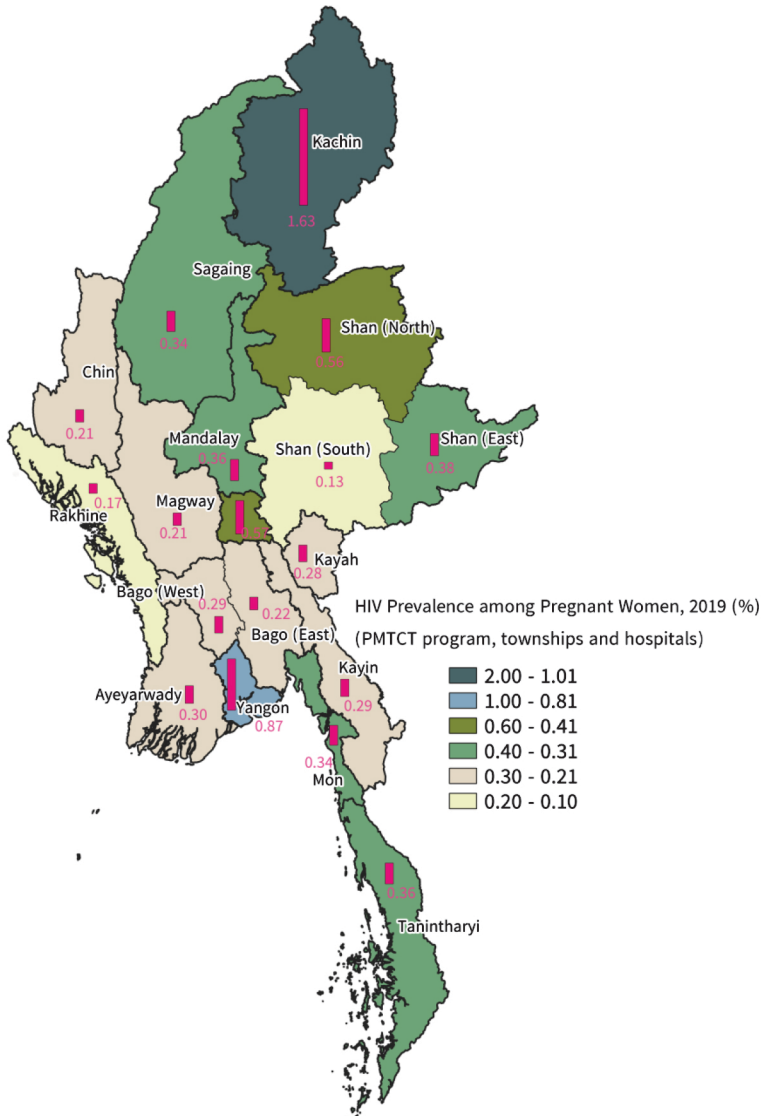## Trend of New HIV Infection among Adult (15+ years) 1990-2019

Legend: ■ Clients ■ MSM ■ FSW ■ Low-risk Males ■ Low-risk Females ■ PWID

X-axis: (Year)
Y-axis: (# of new HIV Infections)

Number of People Living with HIV received ART, 2005-2019

Bar values (# of PLHIV on ART): 2,527; 5,639; 11,193; 15,191; 21,138; 29,825; 40,128; 53,709; 67,643; 85,626; 106,490; 127,402; 146,826; 166,969; 184,624

ART coverage among estimated PLHIV: 39%, 48%, 57%, 65%, 70%, 77%

Y-axis left: (# on ART)
Y-axis right: (% of Estimated PLHIV)

Legend: # of PLHIV on ART — ART coverage among estimated PLHIV

Source: National AIDS Programme, Department of Public Health, Ministry of Health and Sports

HIV Prevalence among Pregnant Women, 2019

HIV Prevalence among Pregnant Women, 2019 (%)
(PMTCT program, townships and hospitals)

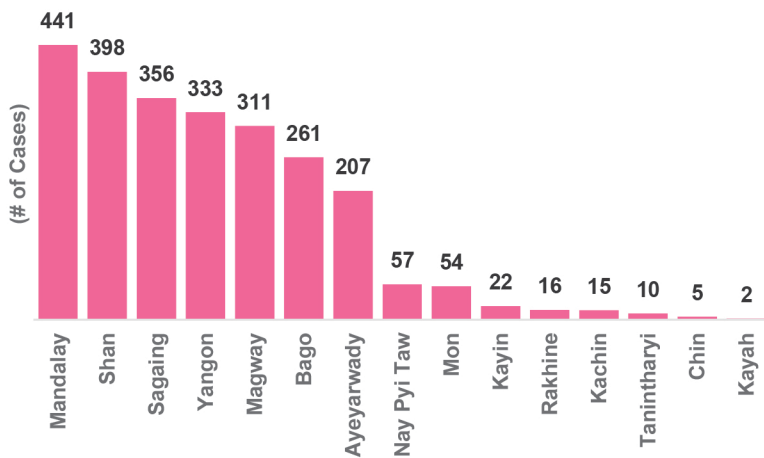|	
	2.00 - 1.01
	1.00 - 0.81
	0.60 - 0.41
	0.40 - 0.31
	0.30 - 0.21
	0.20 - 0.10

Source: National AIDS Programme, Department of Public Health, Ministry of Health and Sports

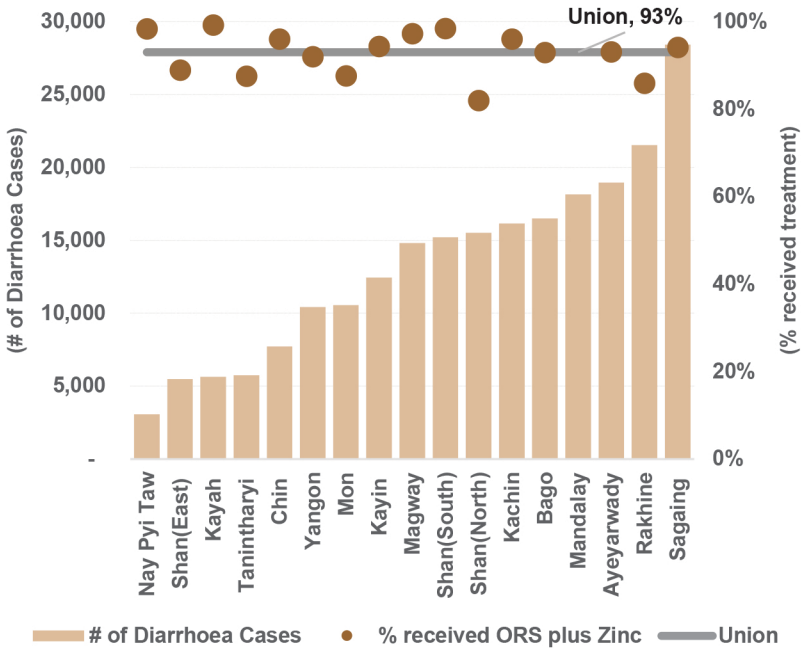## Prevalence of Leprosy by State and Region, 2019
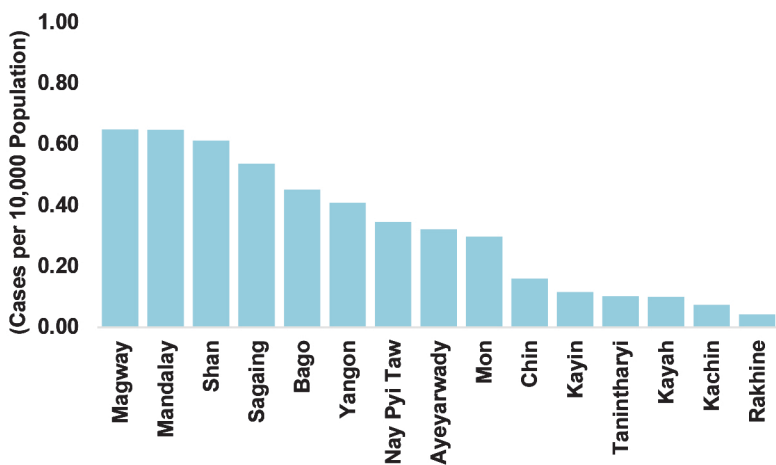
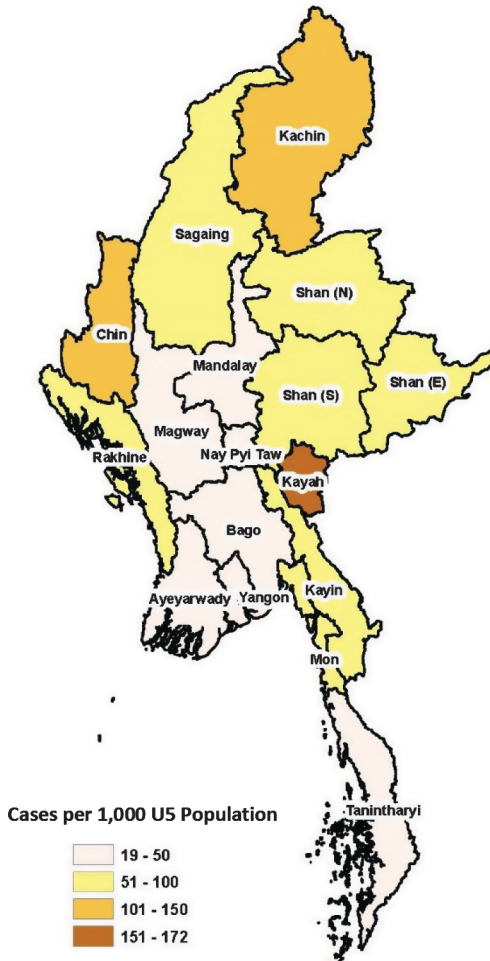## Leprosy New Case Detection by State and Region, 2019

Source: *National Leprosy Control Programme, Department of Public Health, Ministry of Health and Sports*

Under-five Diarrhoea Cases and Treatment
by State and Region, 2019

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Morbidity of Diarrhoea among Under-five Children

by State and Region, 2019

Cases per 1,000 U5 Population

- 19 - 50
- 51 - 100
- 101 - 150
- 151 - 172

Mortality of Diarrhoea by State and Region, 2019

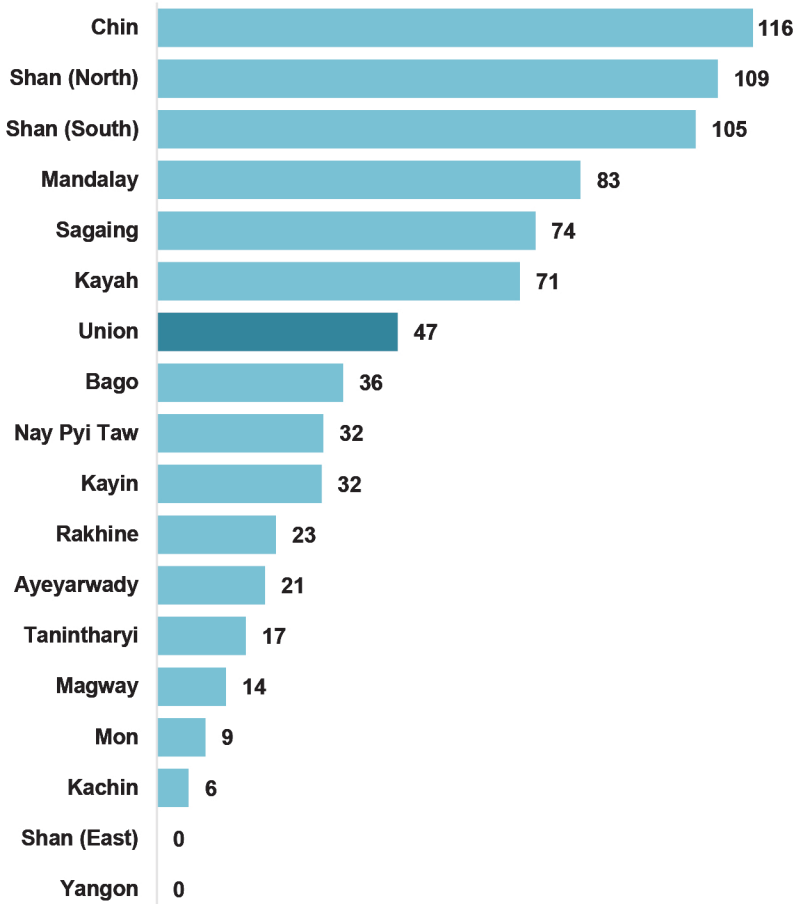| State/Region	Mortality per 100,000 Cases
Chin	116
Shan (North)	109
Shan (South)	105
Mandalay	83
Sagaing	74
Kayah	71
Union	47
Bago	36
Nay Pyi Taw	32
Kayin	32
Rakhine	23
Ayeyarwady	21
Tanintharyi	17
Magway	14
Mon	9
Kachin	6
Shan (East)	0
Yangon	0

(Mortality per 100,000 Cases)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

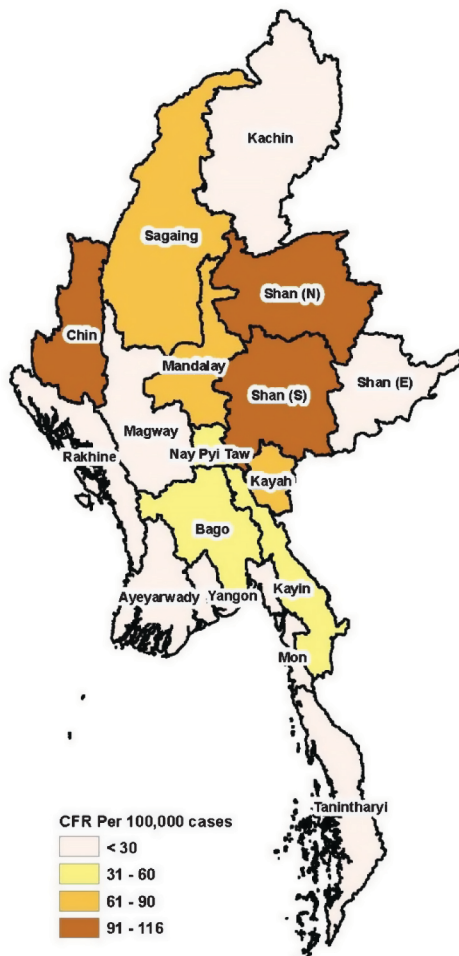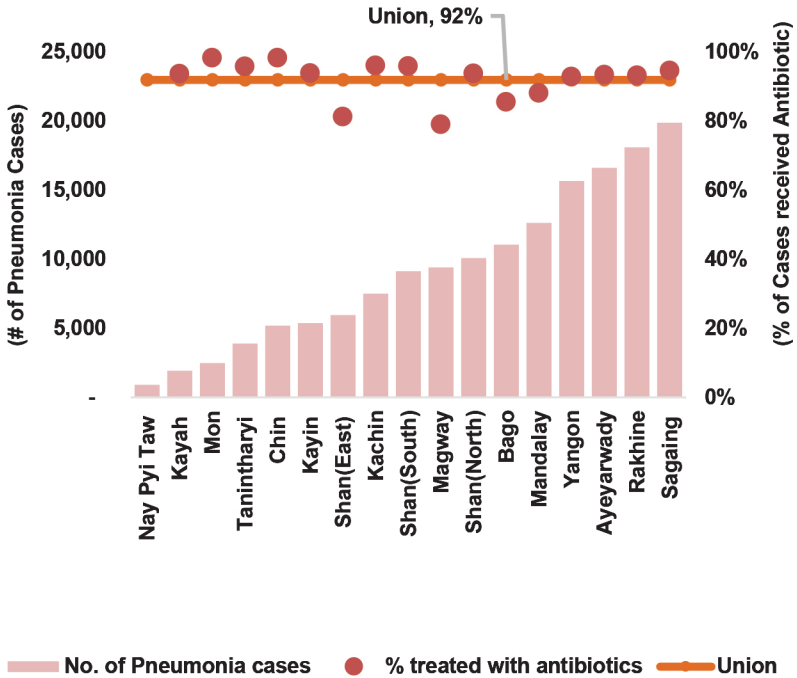# Mortality of Diarrhoea among Under-five Children

by State and Region, 2019

CFR Per 100,000 cases

- □ < 30
- □ 31 - 60
- □ 61 - 90
- □ 91 - 116

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Under-five Pneumonia and Antibiotic Treatment
by State and Region, 2019

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Morbidity of Pneumonia among Under-five Children
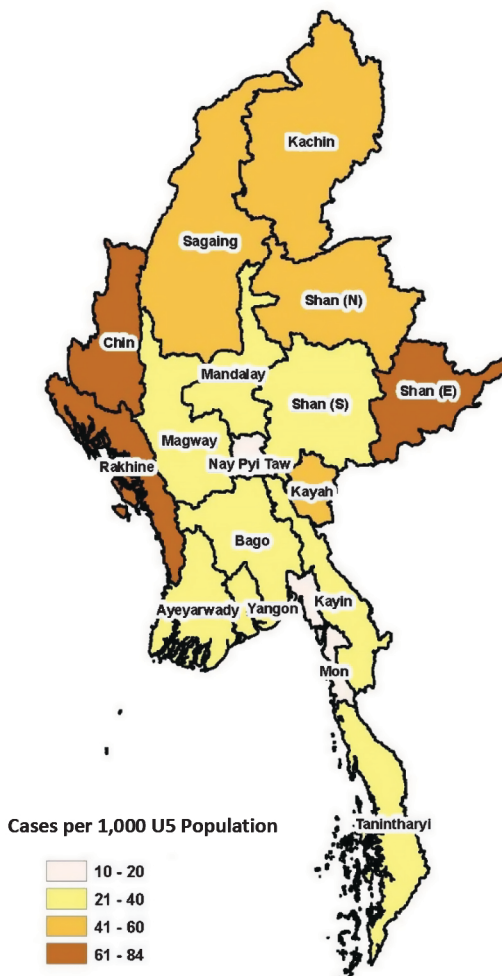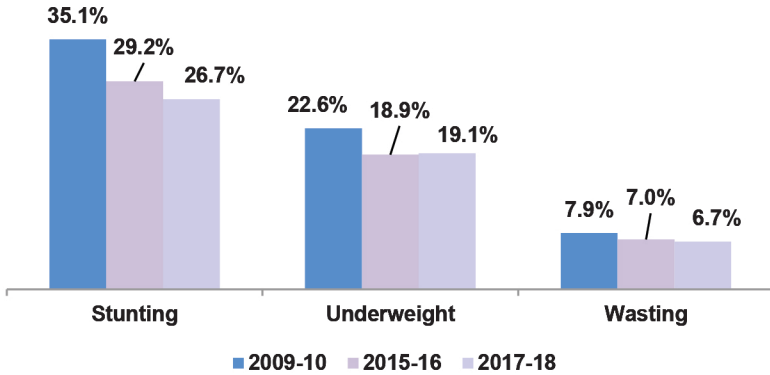
by State and Region, 2019

Cases per 1,000 U5 Population

- 10 - 20
- 21 - 40
- 41 - 60
- 61 - 84

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Nutritional Status of Under-five Children, Myanmar

2009-2018

35.1%
29.2%
26.7%
22.6% **18.9%**
19.1%
7.9% **7.0%**
6.7%

| Stunting | Underweight | Wasting |

■ **2009-10** ■ **2015-16** ■ **2017-18**

Source:
Multiple Indicator Cluster Survey (2009-2010),N = 15,224 (children 0-59 months)
Myanmar Demographic and Health Survey (2015-2016),N = 4,100 (children 6-59 months)
Myanmar Micronutrient and Food Consumption Survey (Nov 2017-May 2018),N =8,959 (children 6-59 months)

Stunting among Under-five Children in Myanmar

2017-2018

40%

26.7%

30%

20%

10%

0%

Mon | Yangon | Magway | Sagaing | Tanintharyi | Kachin | Mandalay | Nay Pyi Taw | Bago | Union | Kayah | Shan | Kayin | Rakhine | Ayeyarwady | Chin
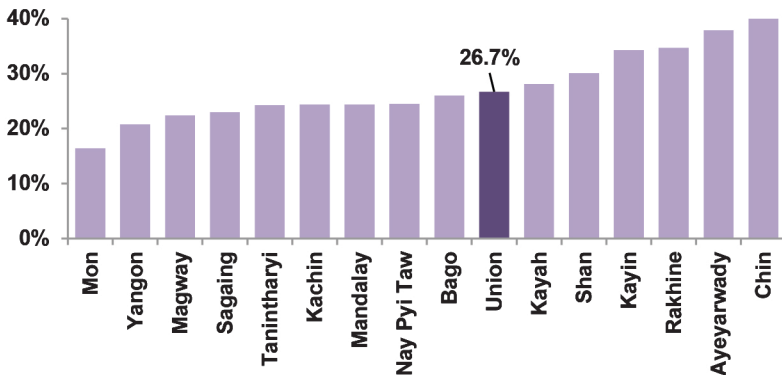
Source: Myanmar Micronutrient and Food Consumption Survey (2017-2018)

Anaemia among different Target Groups, Myanmar

2017-2018

(Percent with Anaemia)

- Children 6-59 months: **35.6%**
- Children 5-9 years: **51.1%**
- Girls 10-14 years: **29.8%**
- Pregnant women: **40.0%**
- Lactating women: **35.4%**
- Non-pregnant non-lactating women: **30.3%**
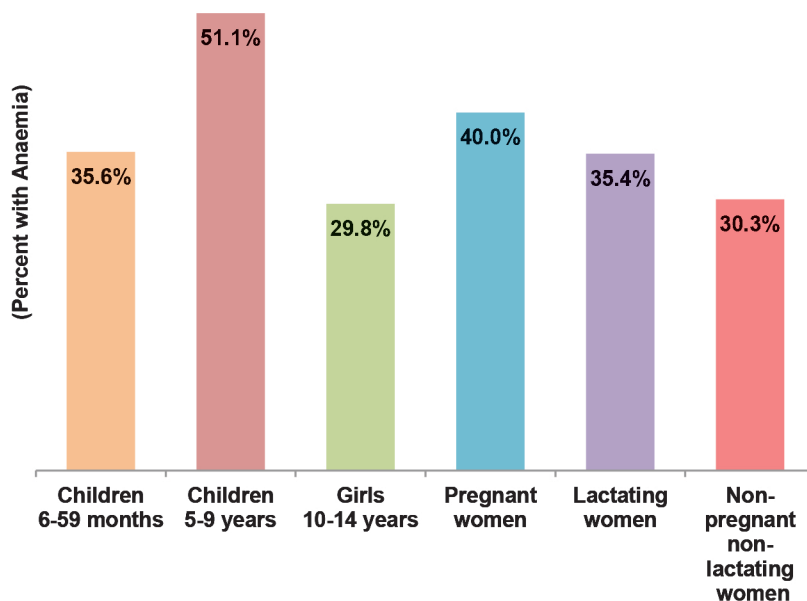
Source: Myanmar Micronutrient and Food Consumption Survey (2017-2018)

Diabetic Cases Receiving Care from Public Health Facilities by State and Region, 2019

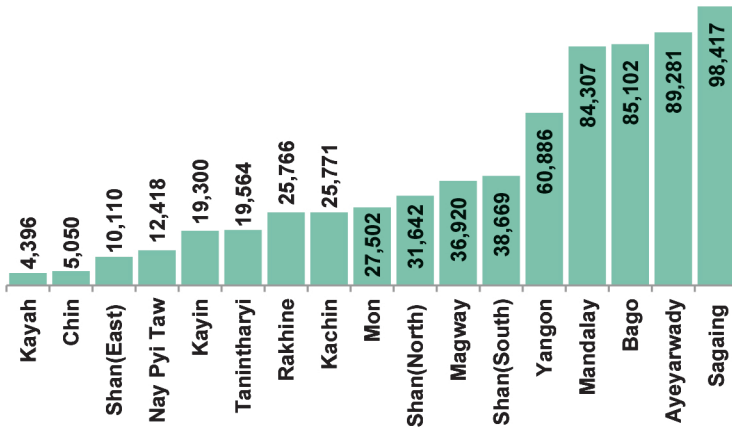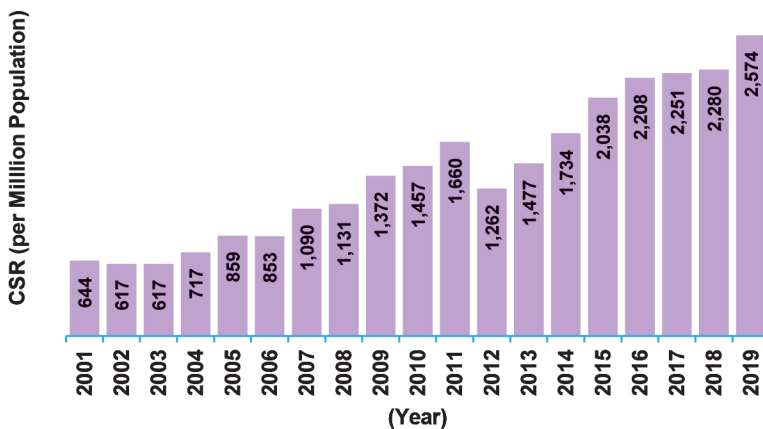| State/Region	Cases
Kayah	873
Chin	976
Shan (East)	2,203
Nay Pyi Taw	3,848
Rakhine	5,428
Kayin	6,413
Shan (North)	8,272
Kachin	10,838
Tanintharyi	10,990
Shan (South)	11,539
Mon	13,275
Magway	22,647
Bago	25,533
Ayeyarwady	29,658
Sagaing	36,826
Yangon	45,392
Mandalay	54,549
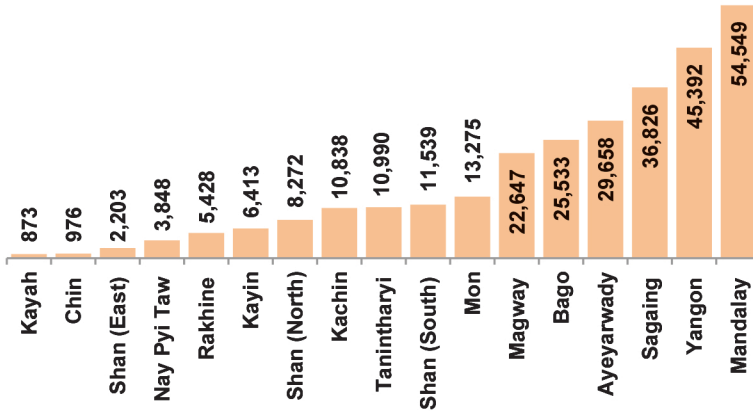
Hypertension Cases Receiving Care from Public Health Facilities by State and Region, 2019

State/Region	Cases
Kayah	4,396
Chin	5,050
Shan(East)	10,110
Nay Pyi Taw	12,418
Kayin	19,300
Tanintharyi	19,564
Rakhine	25,766
Kachin	25,771
Mon	27,502
Shan(North)	31,642
Magway	36,920
Shan(South)	38,669
Yangon	60,886
Mandalay	84,307
Bago	85,102
Ayeyarwady	89,281
Sagaing	98,417

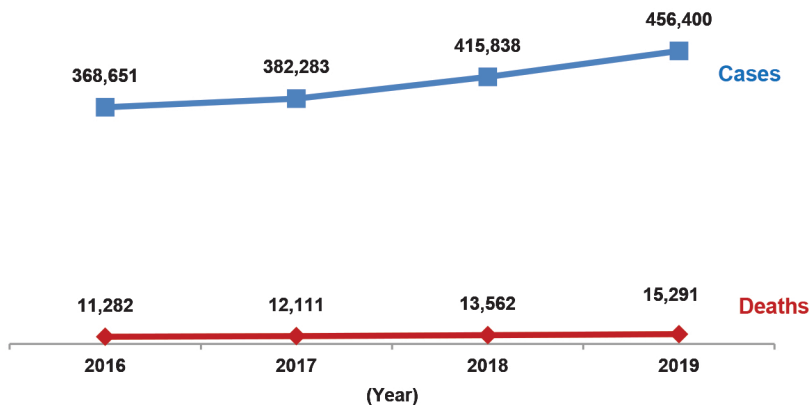*Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports*
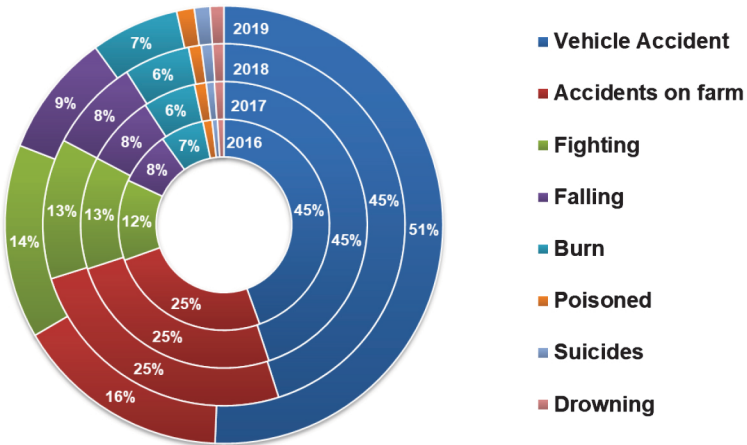
Cataract Surgery Rate in Myanmar, 2001-2019

CSR (per Million Population)

644, 617, 617, 717, 859, 853, 1,090, 1,131, 1,372, 1,457, 1,660, 1,262, 1,477, 1,734, 2,038, 2,208, 2,251, 2,280, 2,574

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

(Year)

Source: Trachoma Control and Prevention of Blindness Program, Department of Public Health, MoHS

Injury Cases and Deaths, Myanmar, 2016-2019

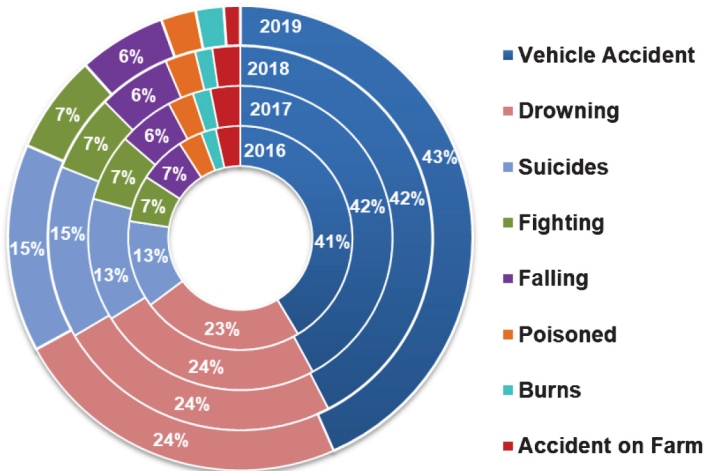368,651 382,283 415,838 456,400 **Cases**

11,282 12,111 13,562 15,291 **Deaths**

2016 2017 2018 2019

(Year)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Causes of Injuries, Myanmar, 2016-2019

Legend:
- Vehicle Accident
- Accidents on farm
- Fighting
- Falling
- Burn
- Poisoned
- Suicides
- Drowning

Deaths among Injury Cases, Myanmar, 2016-2019

Legend:
- Vehicle Accident
- Drowning
- Suicides
- Fighting
- Falling
- Poisoned
- Burns
- Accident on Farm

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports

Types of Injuries by State and Region, 2019

Legend:
- Vehicle Accidents
- Accidents on farm
- Fights
- Falls
- Burns
- Poisoning
- Suicides
- Drowning
- Occupation
- Other injuries

States and Regions (top to bottom): Shan (East), Kayah, Chin, Nay Pyi Taw, Kayin, Tanintharyi, Rakhine, Shan (South), Kachin, Mon, Shan (North), Yangon, Magway, Ayeyarwady, Bago, Mandalay, Sagaing

X-axis: 0, 20,000, 40,000, 60,000, 80,000

(# of Reported Cases)

Source: Public Health Statistics, HMIS, Department of Public Health, Ministry of Health and Sports