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Availability & Pricing of Essential Medicines in Myanmar

Influencing Factors & Recent Trends

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Preface & Acknowledgements

This report on the Availability and Pricing of Essential Medicines in Myanmar relies on multiple assessments (2021 - 2023) conducted jointly by the World Bank and World Health Organization as well as other publicly available information.

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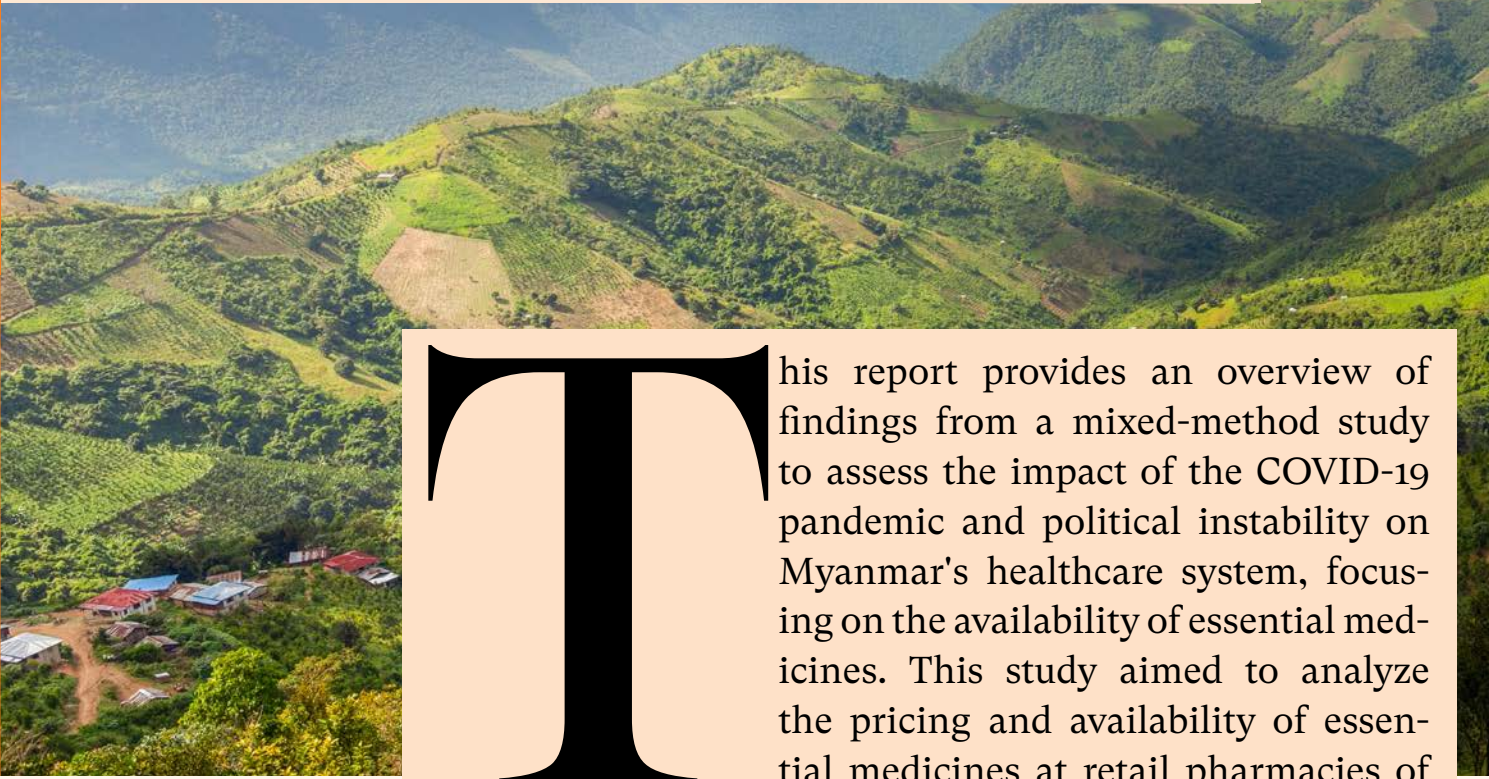


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Executive summary




This report provides an overview of findings from a mixed-method study to assess the impact of the COVID-19 pandemic and political instability on Myanmar's healthcare system, focusing on the availability of essential medicines. This study aimed to analyze the pricing and availability of essential medicines at retail pharmacies of the private healthcare sector. In collaboration with WHO, this study combines quantitative data collection from retail pharmacies and qualitative interviews with key stakeholders in the pharmaceutical industry of the private sector.

Myanmar's healthcare system has been disrupted during the COVID-19 pandemic and by the political instability following the 2021 military takeover, thereby reducing service capacity and diminishing trust in the public sector leading many to seek healthcare services from the private sector.

Economic and regulatory shocks—such as currency volatility and difficulties in importing and distributing medical supplies—have contributed to long-lasting increases in the prices of essential medicines. The study found that the costs





of essential medicines varied significantly depending on the brand and geographical location. There were shortages of medicines—particularly injectable drugs—and some essential medicines were available in only a limited number of pharmacies throughout the country.

Factors influencing medicine availability and pricing included prolonged import licensure processes, delayed customs clearance, and changes in the importation process and procedures.

The study further explored the coping mechanisms households and healthcare providers employ to address the rising prices of essential medicines. Many individuals with chronic conditions reported reducing or skipping medication intake due to financial constraints. Healthcare providers adjusted their prescription choices, often opting for more affordable brands, to mitigate the impact on patients. However, these coping mechanisms were insufficient to alleviate the negative consequences of rising medicine prices.

Based on the findings, this study emphasizes the urgent need to address the root causes of rising medicine prices in order to ensure the availability and affordability of essential medicines for all individuals in Myanmar. It is imperative for healthcare providers to consistently strive towards promoting the utilization of generics as opposed to branded alternatives. In addition, a thorough evaluation of the existing import quotas and licensing procedures for medical supplies and drugs should be conducted to enhance their efficiency. Another crucial step would be to reduce or eliminate import tariffs on generics. Moreover, it is essential to bolster the supply chain system and enhance the accessibility of essential medicines. By gaining a comprehensive understanding of the prevailing issues, targeted interventions and programs can be designed to safeguard the health and wellbeing of Myanmar's population.

1 Introduction



A

mid the COVID-19 pandemic and political instability, the healthcare system in Myanmar faces profound and wide-ranging disruptions, resulting in a detrimental impact on access to essential health services. Across all levels of the healthcare sector, the consequences have been far-reaching. Reduced service capacity and diminishing trust in the public sector have forced many individuals to turn to the private sector for their healthcare needs. Compounding these challenges, economic and regulatory shocks such as the volatility of currency markets and difficulties in importing and distributing medical supplies and consumables have contributed to long-lasting increases in the prices of essential medicines.

Myanmar has been applying an essential medicines policy for many years, and the current National Essential Medicines List (NEML) dates from 2016 and includes 486 medicines. The average availability of essential medicines (as defined by the NEML) in 2014 was 80 percent at public referral hospitals, 75 percent at public township hospitals, and 59 percent at public primary health centers, with corresponding stock-out rates of 24 percent, 19 percent, and 18 percent.¹ To date, there

¹ National Medicine Policy Implementation, 2018–2021. <http://www.doms.gov.mm/wp-content/uploads/2019/12/National-Medicines-Policy-Strategy-and-Implementation-Plan.pdf>



are no nationwide figures on the availability of essential medicines across private healthcare facilities in the country.

The Food and Drug Administration (FDA), a department under the Ministry of Health, regulates over 17,000 registered pharmaceutical products, while the Department of Traditional Medicines oversees 12,000 traditional medicines. The country has 170 wholesalers, over 10,000 medicine retailers, and eight manufacturing sites. The National Drug Quality Testing Laboratory tests around 1,000 medicinal samples annually, with a 3-5 percent failure rate.² The concepts of the National Medicine Policy (NMP), essential medicines, and rational use of medicines are not yet systematically incorporated into the curricula of health professionals. An assessment in 2014 highlighted issues such as polypharmacy, and overuse of antibiotics and multivitamins, resulting from irregular monitoring of medicine utilization. Myanmar exhibits the highest antibiotic use in ASEAN.³

With more than 100 pharmaceutical distributors operating in Myanmar, Switzerland's DiethelmKellerSiberHegner (DKSH) and Thailand's Maxxcare are the leading channels. Additionally, brands like Zuellig, Abbott, Bayer, Eisai, GSK, J&J, Novartis, Pfizer, Roche, Sanofi, and Servier, along with various generic brands from India, China, Bangladesh, Pakistan, Thailand, and Vietnam, hold significant market shares. The market is highly price-sensitive, and the concern for Intellectual Property Rights (IPR) remains, as counterfeit products are prevalent.⁴

Essential medicines are pivotal in ensuring universal access to quality healthcare, yet the ongoing political crisis has significantly hampered their availability in Myanmar. This crisis has given rise to new obstacles in the supply chain, resulting in a scarcity of essential medicines. The frequent supply chain disruption alongside the deteriorating socio-economic situations render the cost of essential medicines increasingly unaffordable.

² National Medicine Policy Implementation, 2018–2021. Ibid.

³ National Medicine Policy Implementation, 2018–2021. Ibid.

⁴ Burma - Country Commercial Guide, 2021. Ibid.



2 Objectives



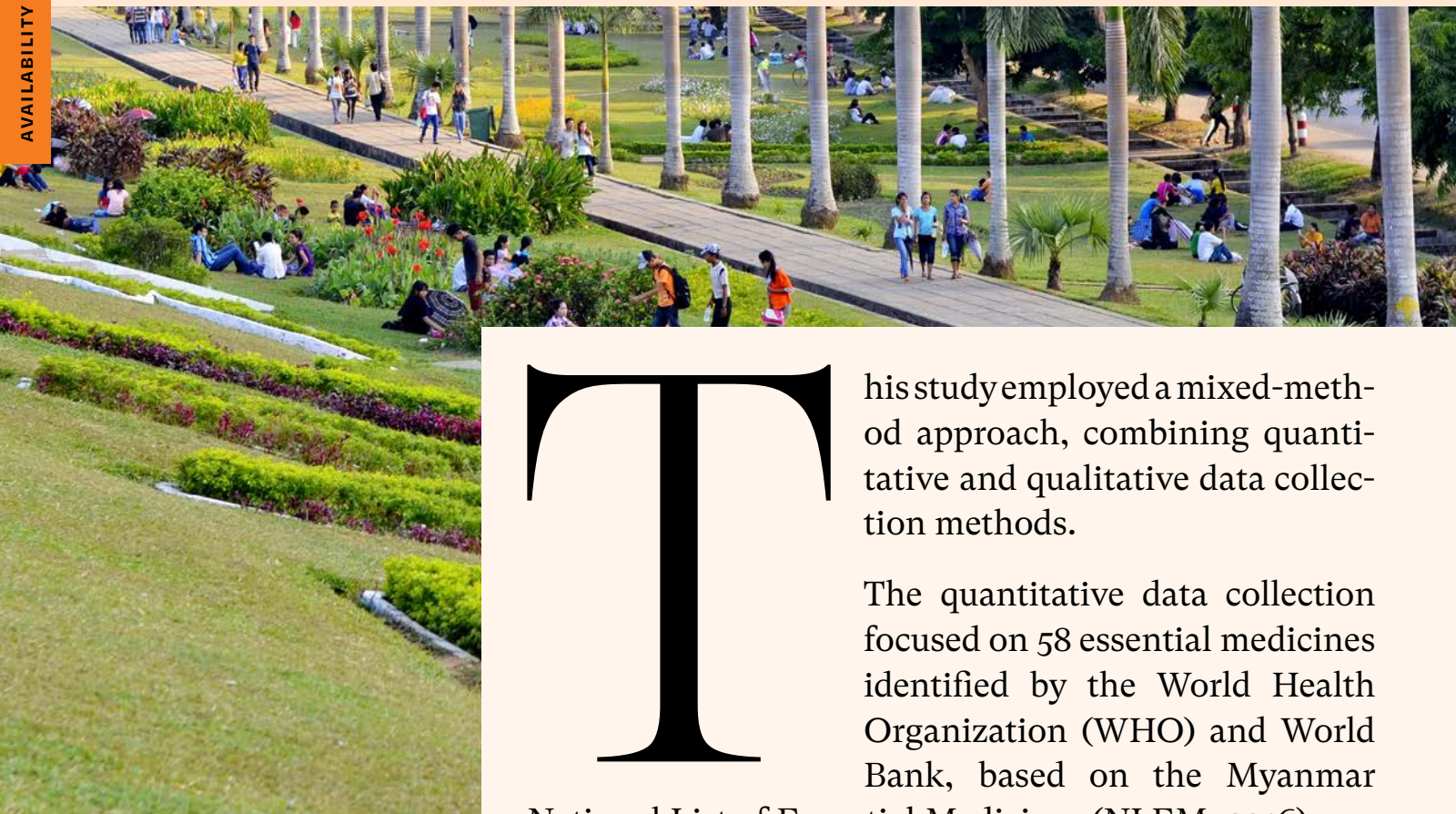
This study aims to: 1) Examine essential medicine's prices, affordability trends, and domestic distribution from 2021-2023. 2) Provide insights on the impact of the political crisis on the availability, accessibility and cost of essential medicines.



3



Methodology



This study employed a mixed-method approach, combining quantitative and qualitative data collection methods.

The quantitative data collection focused on 58 essential medicines identified by the World Health Organization (WHO) and World Bank, based on the Myanmar National List of Essential Medicines (NLEM, 2016), encompassing 486 medicines. Data were collected for at least three product types for each identified medicine: the originator brand, the most-sold generic equivalent, and the lowest-priced generic equivalent in a commonly used strength and dosage form and/or a standard pack/strip. To track the prices of these medicines, a panel of 40 private retail pharmacies was recruited across the country using purposeful sampling described below. Monthly price tracking was conducted for four months, starting from March 2023.



The study gathered data from key distribution hubs, particularly Yangon, Mandalay, and state/region capitals and complemented this with data from one township in each state/region included in the study. It was not possible to include some states/regions experiencing ongoing active conflicts (i.e., Chin, Kayah, and Sagaing) due to accessibility challenges for data collection (refer to Table 2 for details). Obtaining data from public sector facilities under the current political circumstances was not feasible. However, available information indicates that most of the population purchases medicines from pharmacies in the private sector, thus warranting focused exploration of the private market for essential medicines.

Based on the WHO and Health Action International publication on methodologies to measure medicine prices, availability, affordability and price components⁵. In the event of a dropout, replacements were sourced from the same township. If no eligible pharmacy was available in the same township, replacements were sought from the nearest township in the same region/state. A research firm was contracted to conduct data collection, validation and primary analysis jointly conducted by the World Bank and WHO.

In addition to these 40 retail pharmacies, a mystery shopping exercise⁶ was carried out, involving ten pharmacies that included both standalone shops and those within private hospitals. Due to challenges in collecting data on the lowest-priced brands, only prices for the best-selling brands were collected during the mystery shopping process. Furthermore, historical data from the past two years was collected, to the best extent possible, as many pharmacies found it challenging to provide historical data. This additional data aimed to retrospectively offer insights into the trend of medicine prices retrospectively, thus complementing the prospective data gathered through monthly price tracking.

5 WHO/HAI. Measuring medicine prices, availability, affordability and price components World Health Organization & Health Action International. 2nd edn. 2016 <https://www.who.int/publications/i/item/WHO-PSM-PAR-2008.3>

6 The exercise involved conducting surveys where individuals visited private hospital pharmacies, posing as patients, and inquired about the prices of various essential medicines. The purpose of incorporating this approach, alongside the self-reported panel of pharmacies, was to gather information about the availability of essential medicines and pricing at private hospital pharmacies. Additionally, the exercise aimed to increase the validity of the study design and accuracy of the findings in addition to collecting the self-reported price data of essential medicines from different sources.



The qualitative segment of the study involved conducting 65 in-depth interviews with key stakeholders in the pharmaceutical sector, including relevant experts, importers, distributors, wholesalers, international non-governmental organizations (NGOs), and retail pharmacies. These interviews aimed to gain insights into various aspects, such as supply and demand dynamics, pricing mechanisms, and challenges related to importing and distributing essential medicines. By engaging with these stakeholders, this study sought to obtain a comprehensive understanding of the intricacies and complexities within the pharmaceutical sector in Myanmar, enabling a nuanced analysis of the factors influencing the availability and pricing of essential medicines.

By combining quantitative and qualitative data collection methods, the study aimed to gather a robust understanding of the availability and pricing of essential medicines in the private health sector of Myanmar. The data collected from the panel of pharmacies and the mystery shopping exercise were complemented by available historical data as well as information obtained through in-depth interviews.

Findings from these data on essential medicines have been complemented with results from other analytical work conducted in 2023, including the third round of the Measuring Access to Health Phone Survey⁷ and a Study on Private Sector Healthcare Providers' Perspectives on Healthcare Service Provision that involved weekly polling and monthly surveys with a sample of health care providers through the Z-Waka⁸ medical e-learning platform.

⁷ World Bank and World Health Organization have conducted three rounds of household phone surveys (2021, 2022 and 2023) to measure trends in health seeking behavior and use of health services in Myanmar.

⁸ See Z-Waka website at <https://z-waka.com/>



TAB. 1 DETAIL SCOPE OF QUANTITATIVE AND QUALITATIVE METHODS

Data	Source	Research method	Frequency	Sample
Quantitative Study				
Medicine Prices and Availability	Private pharmacies (independent, chain/franchise and private hospital pharmacies) in Yangon, Mandalay, Nay Pyi Taw, capitals of each State/Region, and a selection of smaller townships	Tracking prices of a basket of 58 essential medicines selected from Myanmar National List of Essential Medicines (2016)	Monthly (over four months)	n = 40 Chain/franchise and private hospital pharmacies: n=10
Qualitative Study				
Challenges in supply and demand of essential medicines, including consideration of rules and regulatory changes	Relevant associations, pharmaceutical importers/distributors, wholesale/retail pharmacies, health facilities, procurement teams from NGOs/INGOs in Yangon & Mandalay	In-depth interviews (IDIs) and Short interviews (SIs)	Once	35 IDIs and 30 SIs

TAB. 2 DISTRIBUTION OF PHARMACIES FOR THE QUANTITATIVE STUDY*

	Pharmacies for mystery shopping	Pharmacies for monthly price tracking
Ayeyarwady		2
Bago		2
Kachin		2
Kayin		2
Magway		2
Mandalay	3	7
Mon		2
Naypyitaw		2
Rakhine		2
Shan		2
Tanintharyi		2
Yangon	7	13
Total	10	40

* The greater weightage is given to the two largest population centers of Yangon and Mandalay due to the higher concentration of population and private health sector entities in these two regions.



4 Findings



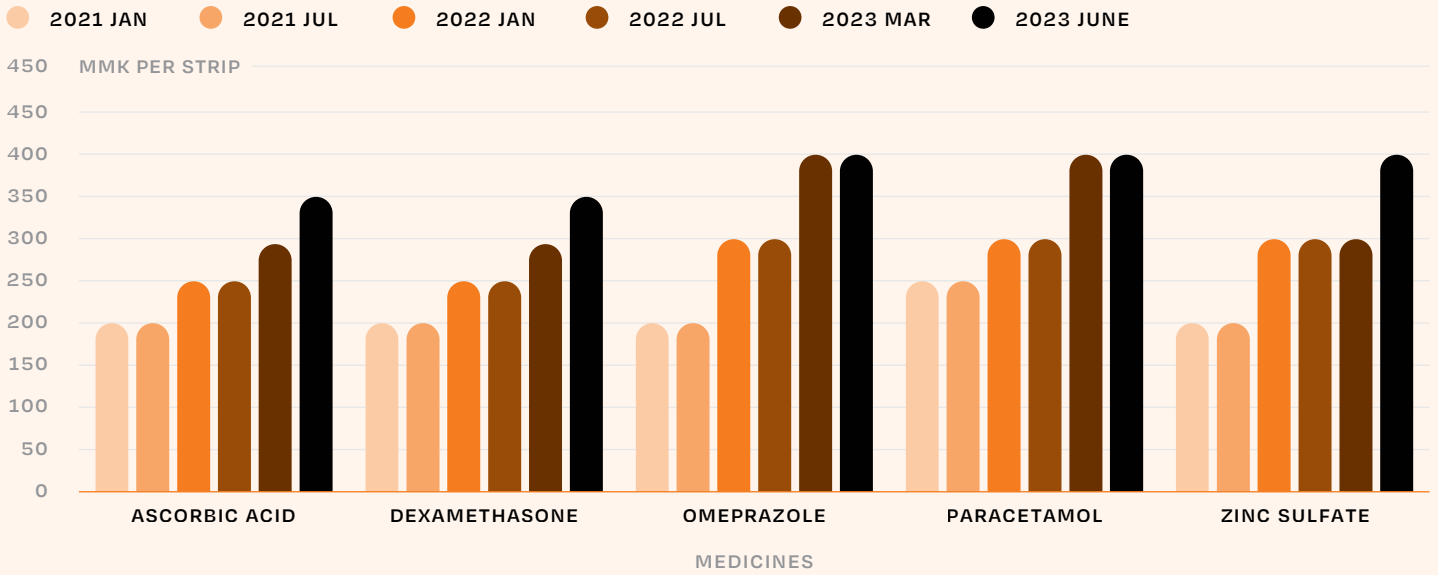
4.1

Price Changes

The ongoing crisis has precipitated a fresh array of challenges within the supply chain, resulting in the scarcity of essential medicines and rendering many unaffordable. Notably, vitamins, cough medicine, and antibiotics experienced an average increase of 40 percent in their prices during the waves of the COVID-19 pandemic in 2020 and 2021. A significant surge was observed between July 2021 and January 2022, coinciding with Myanmar's third wave of the COVID-19 pandemic (Figure 1 and Figure 2). The main reasons behind price increases of medicines during the pandemic were related to reduced supply volume (stemming from border closures, reduced transportation and limited availability of some types of medicines sold only by quota) despite the high demand.



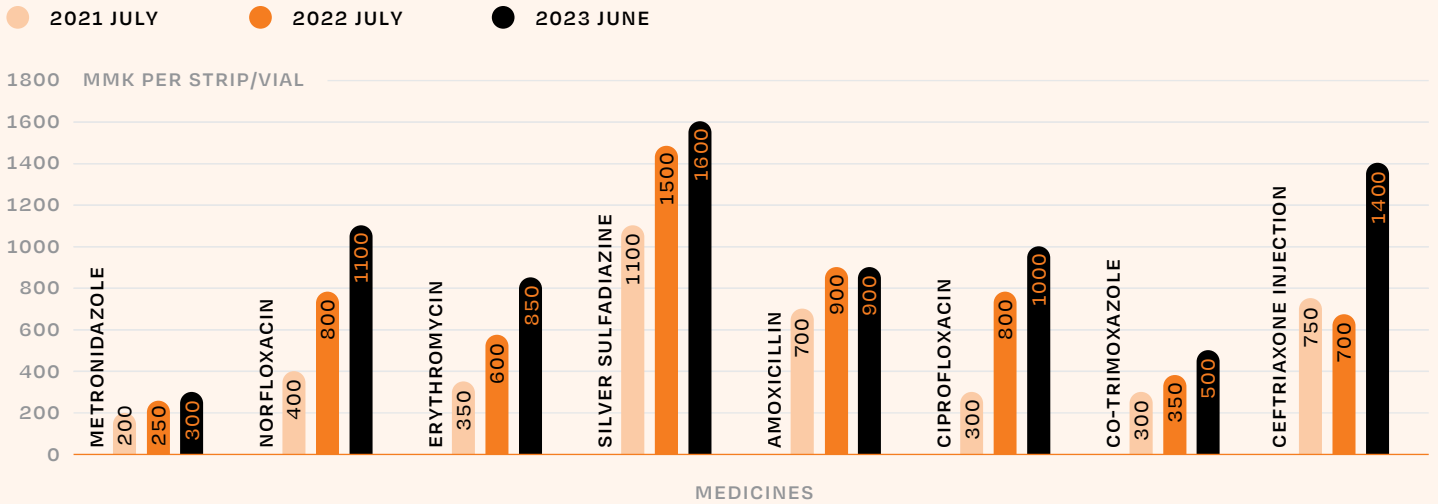
FIG. 1 PRICE OF MEDICINES WIDELY USED DURING COVID-19 WAVES*



*A case study of two pharmacies in Nay Pyi Taw Region on the historical price data (Jan 21 Jun 23) on most sold brands.

Source: World Bank estimates using data from the World Bank and World Health Organization's Essential Medicines Retail Price Tracking (Quantitative), 2023.

FIG. 2 PRICES OF COMMONLY USED ANTIBIOTICS, JULY 2021 AND JUNE 2023*^



*COVID-19 3rd wave occurred between Jul 2021 and Jan 2022.

Source: Estimates from World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative) data, 2023

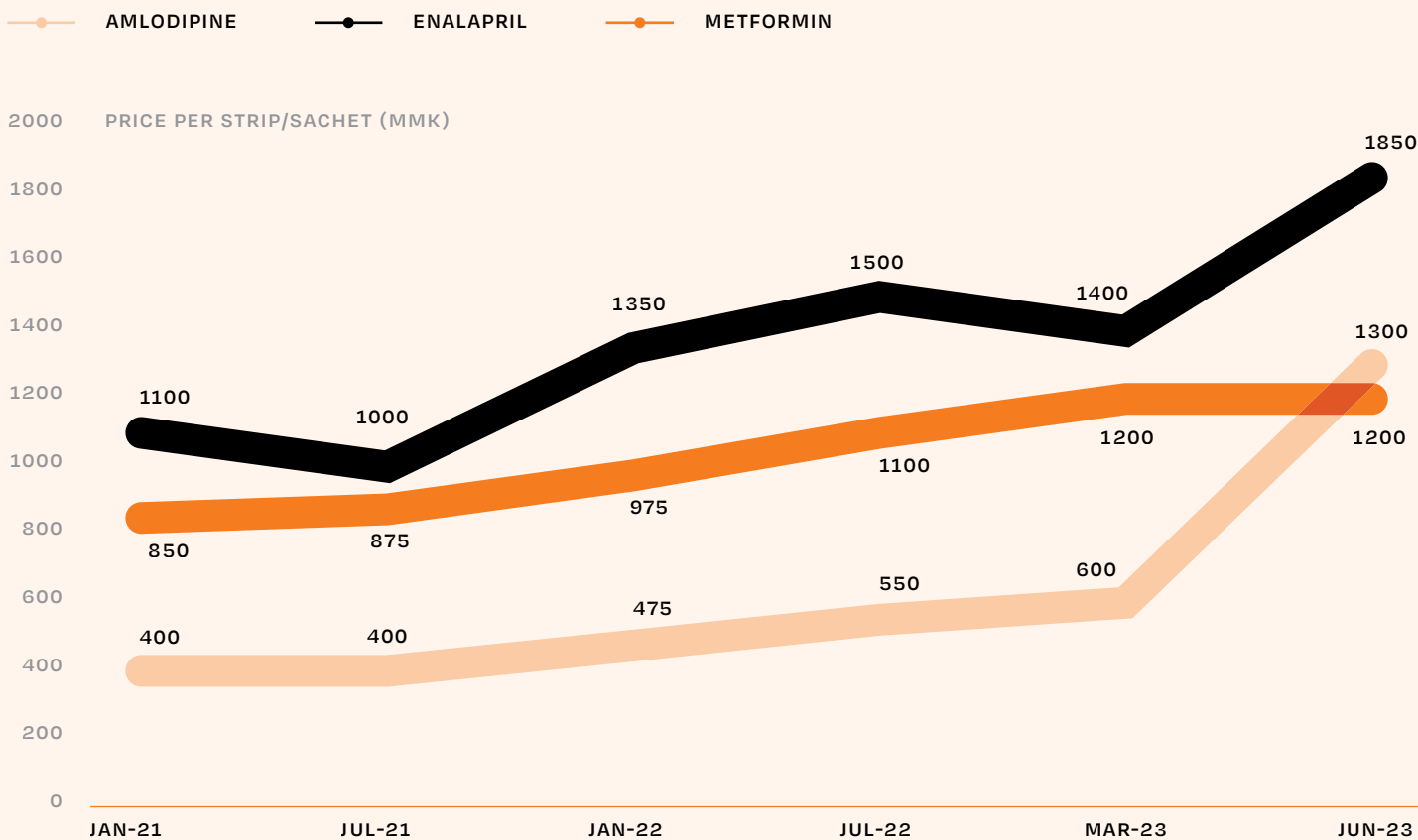
^A case study of two Nay Pyi Taw Region pharmacies on the most sold brands' historical price data (July 2021, July 2022, June 2023).



In 2022, frequent fluctuations in currency exchange rates led to price escalations across all drug categories, ranging from 30 percent to 200 percent. Medicines for NCD treatment such as anti-hypertensive and anti-diabetic drugs were particularly impacted. Essential medicines for NCDs in 2023 cost almost double their pre-crisis prices, with metformin rising from MMK 850 to MMK 1,200 per strip, Amlodipine escalating from MMK 400 to MMK 1,300 per strip (Figure 3). The interviews revealed no optimism for medicine prices to fall back to pre-February 2021 levels due to ongoing political instability. The currency exchange rate fluctuation is cited as the biggest factor for increased prices. A considerable time lag exists for prices to fall back after exchange rates stabilize. For example, the medicine prices increased drastically when the exchange rate suddenly rocketed in August/September 2022 by reaching more than MMK 3,000 for US\$1 in a matter of weeks. The exchange rate stabilized around MMK 3,000 by the end of September 2022; however the medicine prices did not fall until early 2023, and even then, the fall was only marginal (i.e., not proportionate with the change in the exchange rate) (Figure 4).

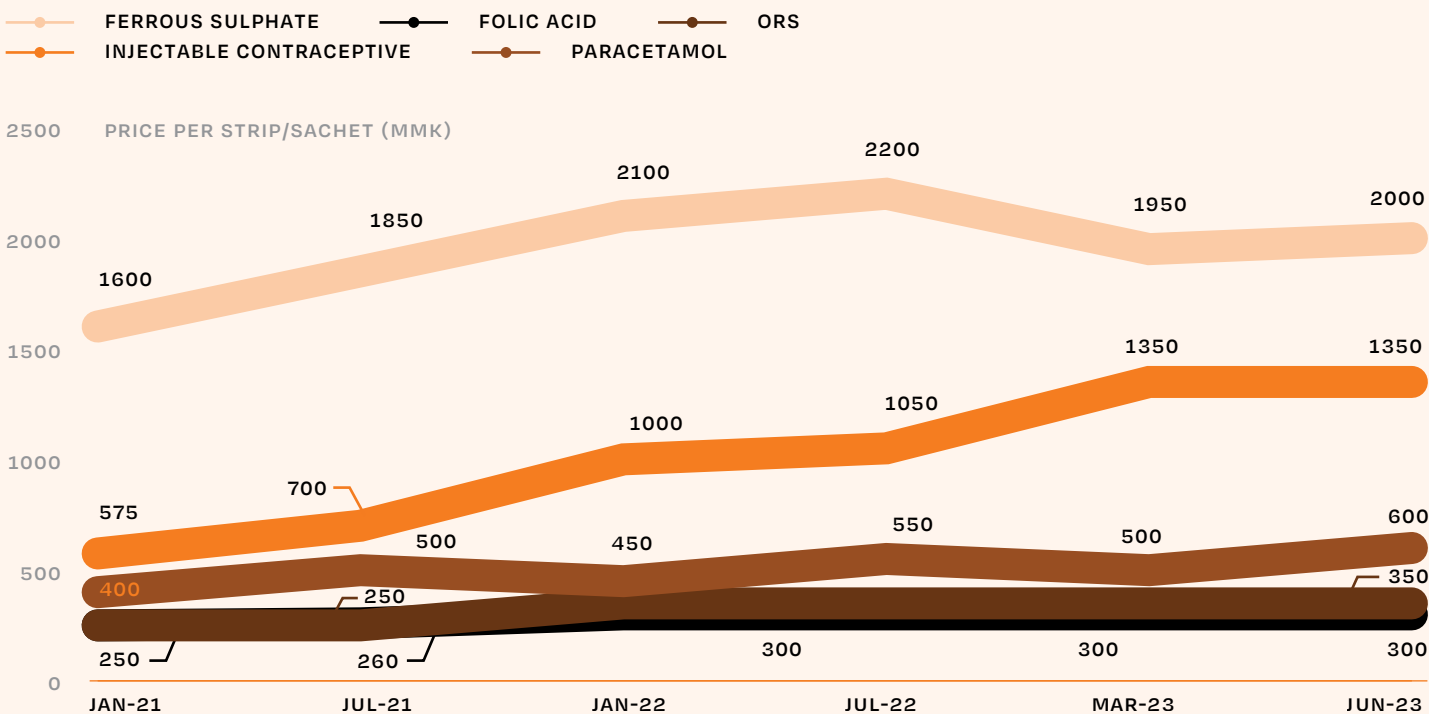


FIG. 3 MEDIAN PRICES OF NCD MEDICINES BETWEEN JANUARY 2021 AND JUNE 2023 PRICE FOR 1 STRIP/SACHET (MMK)



Source: Estimates from World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative) data, 2023.

FIG. 4 MEDIAN PRICES OF SELECT COMMONLY USED MEDICINES BETWEEN JANUARY 2021 AND JUNE 2023, PRICE FOR 1 STRIP/SACHET (MMK)



Source: Estimates from World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative) data, 2023.



The 2023 Access to Health Services Phone Survey found that nearly 80 percent of respondents observed an increase in NCD medication prices within the preceding six months, with 65 percent reporting increases exceeding 20 percent (Figure 5). Providers' Perspective Study also corroborate this trend, with nearly all respondents noting an upsurge in anti-hypertensive and anti-diabetic medications costs, primarily falling within 20 to 50 percent (Figure 6). In addition to increasing medicine prices, treatment/consultation fees are cited as increasing from 2021 to 2023. Half of the healthcare providers surveyed in April 2023 raised consultation fees in the past year and majority of them are likely to raise the fees again in 2023 (Figure 7). According to survey results, prescribing less expensive alternative drugs has emerged as a coping mechanism many doctors employ in response to the mounting prices of medications.

FIG. 5 HOUSEHOLD EXPERIENCES IN PRICES CHANGES FOR NCD MEDICINES (ROUND 3, FEB-MAR 2023)

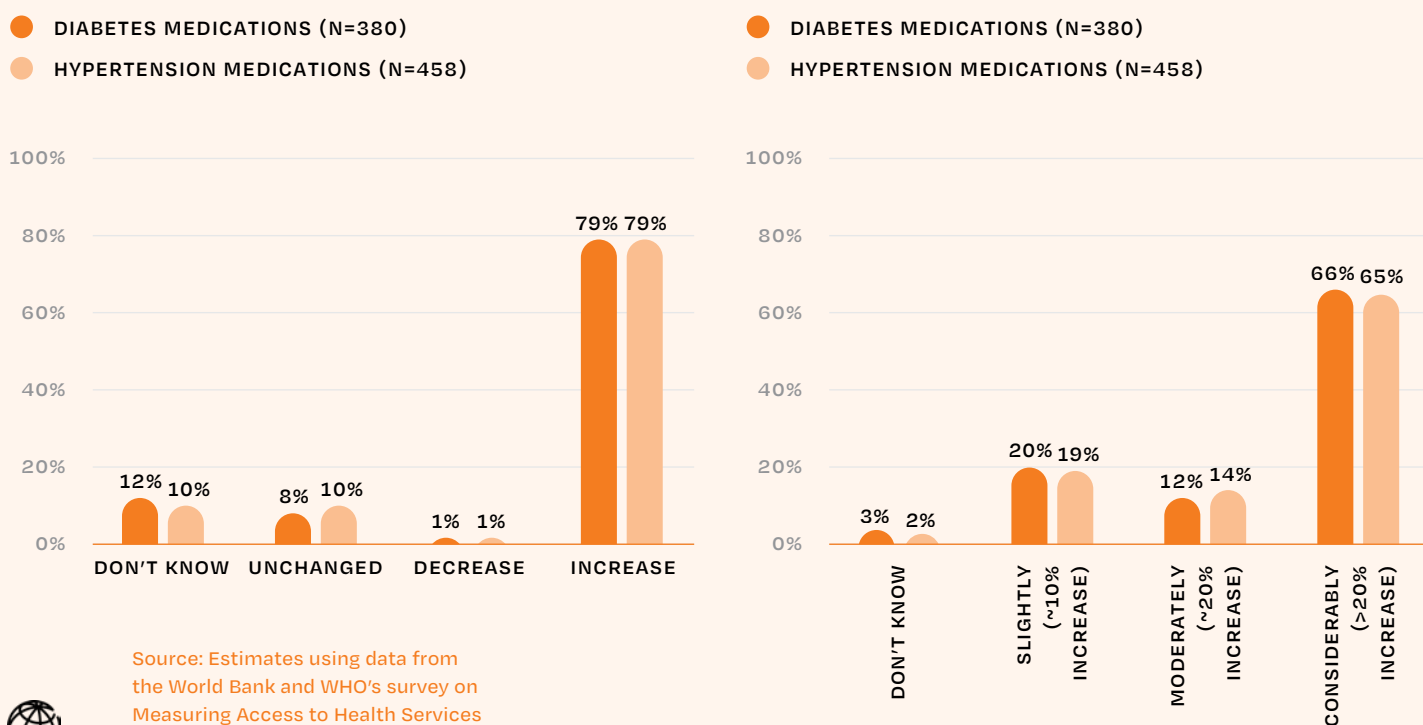
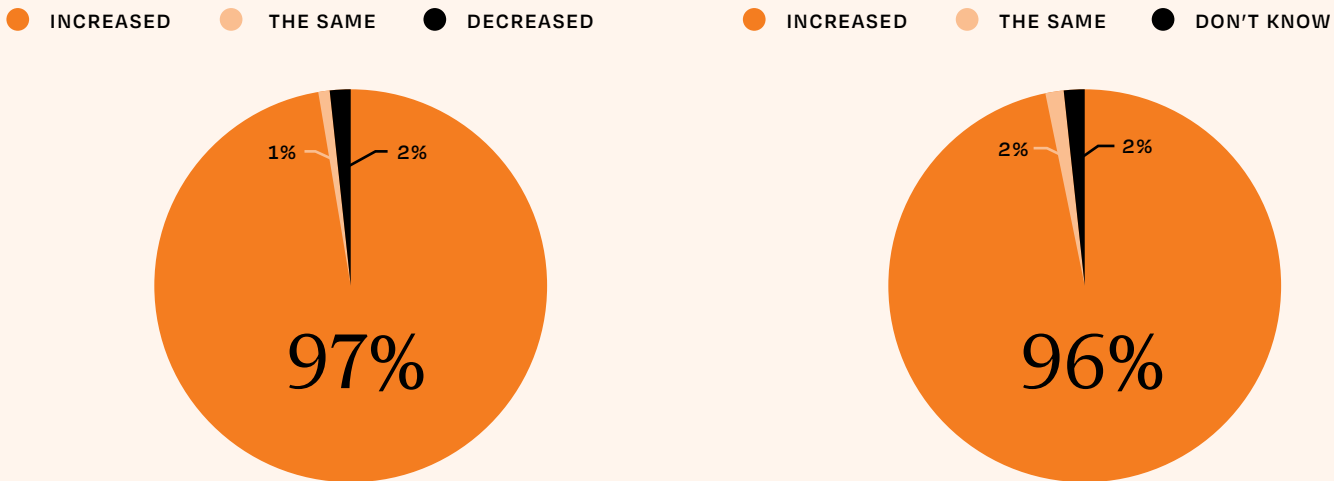


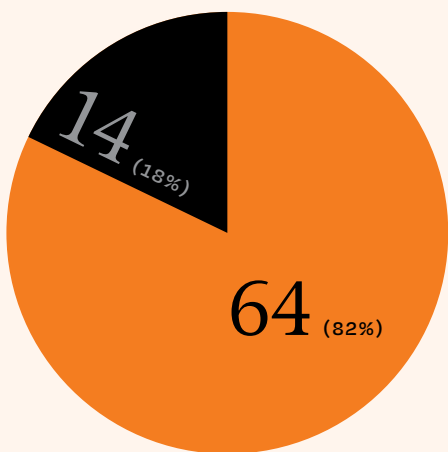
FIG. 6 COST OF ANTI-HYPERTENSIVE AND ANTI-DIABETIC DRUGS (N=118)



Source: Estimates using data from the World Bank's study on private sector healthcare providers' perspectives on healthcare service provision (2023)

FIG. 7 HEALTHCARE PROVIDERS WILL RAISE THE FEES IN 2023 (N=78)

- LIKELY TO RAISE THE FEES IN 2023
- UNLIKELY TO RAISE THE FEES IN 2023



Source: Estimates using data from the World Bank's study on private sector healthcare providers' perspectives on healthcare service provision (2023)





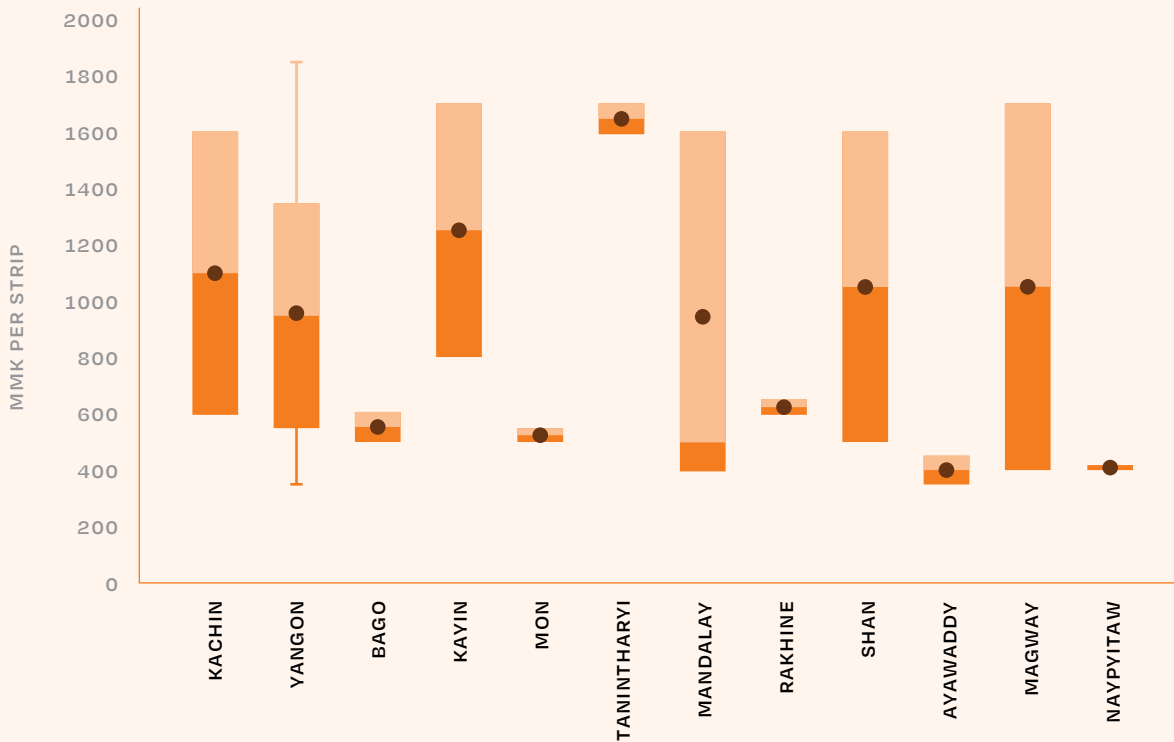
4.2

Price Variation

The prices of medicines vary significantly depending on the brand and geographical location. For example, amlodipine and metformin demonstrate an extensive price range, with notable differences observed among the most popular brands across the country (Figures 8 and 9). Furthermore, significant price variation is also evident among pharmacies within specific states or regions. It is worth noting that the most-sold brands of surveyed medicines differ across vendors and geography, contributing to significant variability in the nationwide market. Among these locations, Yangon, the country's most significant urban center, offers the broadest range of brands, resulting in the largest price variation. The median amlodipine price in the States is approximately 10 percent higher than in the Regions.



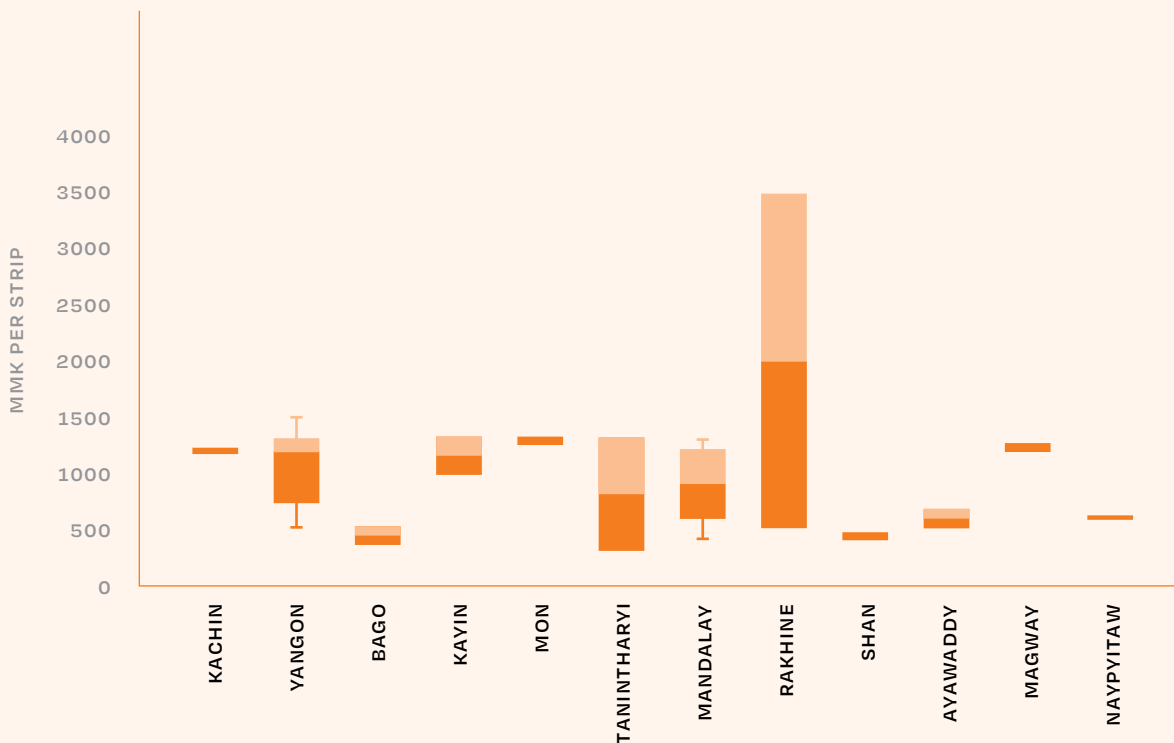
FIG. 8 PRICE VARIATIONS OF AMLODIPINE* ACROSS STATES AND REGIONS (N=47)



*Calcium channel blocker used to treat high blood pressure (hypertension) and prices are for the most-sold brands only

Source: Estimates from World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative) data, 2023

FIG. 9 PRICE VARIATIONS OF METFORMIN* ACROSS STATES AND REGIONS (N=49)



*Metformin is the primary first-line medication for the treatment of type 2 diabetes

Source: Estimates using data from the World Bank and World Health Organization's Essential Medicines Retail Price Tracking (Quantitative), 2023.



Consumer Choices: In many instances, consumers/patients opt for brands or non-generic equivalents that are not the lowest-priced options. Myanmar consumers often pay a premium for their preferred brand, even when a cheaper alternative is available. This can be attributed to the strong brand loyalty among Myanmar consumers. The median price ratio between most sold brands and lowest priced brands of some selected medicines is in table 3 below. Most of the Median Price Ratios (MPRs) of the most sold brands (89%) are not more than two times than that of the lowest priced brands except for commonly used NCDs drugs such as Metformin (2.18), Enalapril (2.95) and Furosemide (5.06). Table 4 provides a summary of findings on buying-selling price ratios and price differences for 58 essential medicines, while Table 5 provides their median prices at standalone pharmacies and private hospital pharmacies.

TAB. 3 MEDIAN PRICE RATIO BETWEEN MOST SOLD BRANDS AND LOWEST PRICED BRANDS

Type of Medicines	Strength	Dose form	Unit	Median Price (Most sold brands)*	Median Price (Lowest priced brands)^	Median Price Ratio (Most sold vs. Lowest priced)
Alimentary tract and metabolism						
Zinc sulfate	20mg	tab	(1tab x 10)	600	400	1.50
Oral Rehydration Salts (ORS)	WHO formulation	powder	1 sachet	350	320	1.09
Vitamin B 1 (Thiamine hydrochloride)	50mg	tab	(1tab x 10)	350	340	1.03
Domperidone	10mg	tab	(1tab x 10)	500	320	1.56
Ascorbic acid	100mg	tab	(1tab x 10)	300	290	1.03
Dexamethasone	500mcg	tab	(1tab x 10)	375	300	1.25
Metformin	500mg	cap/tab	(1tab x 10)	1200	550	2.18
Omeprazole	20mg	cap/tab	(1tab x 10)	450	425	1.06
Cardiovascular system						
Amlodipine	5mg	tab	(1tab x 10)	600	500	1.20
Enalapril	5mg	tab	(1tab x 10)	1400	475	2.95
Furosemide	40mg	ampoule	(2ml x 10 ampoules)	2025	400	5.06
Hydrocortisone injection	100mg	vial	1 vial	1350	725	1.86

TAB. 3 MEDIAN PRICE RATIO BETWEEN MOST SOLD BRANDS AND LOWEST PRICED BRANDS (CONT.)

Type of Medicines	Strength	Dose form	Unit	Median Price (Most sold brands)*	Median Price (Lowest priced brands)^	Median Price Ratio (Most sold vs. Lowest priced)
Dermatological						
Calamine Lotion	15%	lotion	1 bot (60ml)	775	550	1.41
Povidone iodine	10%	solution	1 bot (15ml)	1000	825	1.21
Miconazole	2%	cream	15g tube	800	700	1.14
Silver Sulfadiazine	1%	cream	25g tube	2200	1800	1.22
Genito urinary system and sex hormones						
Injectable Contraceptive (Medroxyprogesterone (acetate depot)	150mg/ml in 1 ml vial	injection	1 vial	1350	1150	1.17
Oral Contraceptive Pills (OCPs) (ethinyl estradiol+ Levonorgestrel)	30mcg+50-125mcg,	tab	(1tab x 28)	1750	1300	1.35
Anti-infectives for systemic use						
Benzathine penicillin	1.44g benzylpenicillin (2.4 million IU) in 5ml	vial	1 vial	1175	650	1.81
Metronidazole	200mg	tab	(1tab x 10)	350	300	1.17
Norfloxacin	400mg	cap/tab	(1tab x 10)	1100	1000	1.10
Ciprofloxacin	500mg	tab	(1tab x 10)	1150	850	1.35
Co-trimoxazole	400mg/80mg	tab	(1tab x 10)	500	485	1.03
Ceftriaxone injection	1g/vial	vial	1 vial	1350	700	1.93
Amoxicillin	500mg	cap	(1tab x 10)	1025	900	1.14
Erythromycin	500mg	tab/cap	(1tab x 10)	1650	1250	1.32
Cefixime	400mg	tab	(1 tab x 10)	2425	2000	1.21
Acyclovir (cream)	5%	cream	5g tube	2500	1600	1.56

* Sample size to calculate the median price of most sold brands vary from 18 - 50 pharmacies

^ Sample size to calculate the median price of lowest priced brands range from 1 to 25 pharmacies

Across all categories, trade margins are the highest for Amlodipine and Benzathine penicillin at 1.8 and 1.6 times respectively, followed by Vitamin B complex, Diclofenac, Diazepam, and Amitriptyline at 1.5 times (Table 4).



TAB. 4 BUYING-SELLING RATIO AND PRICE DIFFERENCE (PROFIT MARGIN) OF 58 ESSENTIAL MEDICINES

Sr.	Anatomical Therapeutic Classification	Generic	Buying - Selling Price Ratio	Buying - Selling Price Difference
1.	Alimentary tract and metabolism	Zinc sulfate	1.2	125
2.		ORS	1.2	50
3.		Vitamin B 1 (Thiamine hydrochloride)	1.2	60
4.		Domperidone	1.3	100
5.		Ascorbic acid	1.2	50
6.		Dexamethasone	1.3	100
7.		Metformin	1.1	90
8.		Omeprazole	1.4	140
9.		Vitamin B complex	1.5	535
10.		Hyoscine	1.2	300
11.	Blood and blood-forming organs	Acetylsalicylic acid	1.0	-20
12.		Ferrous Sulphate	1.1	150
13.		Folic Acid	1.2	50
14.		Dextrose	1.1	150
15.		Dextrose and Sodium chloride	1.2	225
16.		Ringer Lactate	1.1	150
17.		Saline	1.2	200
18.	Cardiovascular system	Amlodipine	1.8	580
19.		Enalapril	1.2	335
20.		Epinephrine	1.1	190
21.		Furosemide	1.2	80
22.		Hydrocortisone injection	1.2	200
23.		Simvastatin	1.2	180
24.	Dermatological	Calamine Lotion	1.3	130
25.		Povidone iodine	1.2	175
26.		Miconazole	1.2	95
27.		Silver Sulfadiazine	1.2	425
28.	Genito urinary system and sex hormones	Injectable Contraceptive (Medroxyprogesterone (acetate depot))	1.1	100
29.		OCP (Ethinyl estradiol+ Norethindrone)	1.0	75
30.		OCP (ethinyl estradiol+ Levonorgestrel)	1.1	200



TAB. 4 BUYING–SELLING RATIO AND PRICE DIFFERENCE (PROFIT MARGIN) OF 58 ESSENTIAL MEDICINES (CONT.)

Sr.	Anatomical Therapeutic Classification	Generic	Buying – Selling Price Ratio	Buying – Selling Price Difference	
31.	Anti-infectives for systemic use	Antisnake Venom Serum (Cobra)	1.0	50	
32.		Antisnake Venom Serum (Viper)	1.0	50	
33.		Benzathine penicillin	1.6	215	
34.		Metronidazole	1.2	50	
35.		Norfloxacin	1.2	200	
36.		Ciprofloxacin	1.2	200	
37.		Co-trimoxazole	1.3	135	
38.		Ceftriaxone injection	1.2	250	
39.		Amoxicillin	1.1	100	
40.		Erythromycin	1.3	450	
41.		Cefixime	1.1	250	
42.		Acyclovir (cream)	1.1	200	
43.		Musculoskeletal system	Ibuprofen	1.2	140
44.			Diclofenac	1.5	100
45.	Antiparasitic products, Insecticides and repellents	Benzyl Benzoate	1.2	150	
46.		Albendazole	1.3	90	
47.		Chloroquine	1.3	130	
48.	Nervous system	Paracetamol	1.3	125	
49.		Diazepam	1.5	700	
50.		Amitriptyline	1.5	220	
51.		Carbamazepine	1.1	120	
52.	Respiratory system	Salbutamol	1.4	2,450	
53.		Dextromethorphan	1.2	150	
54.		Chlorpheniramine	1.3	60	
55.	Sensory organs	Lignocaine (Hydrochloride)	1.2	350	
56.		TEO	1.1	100	
57.		Atropine	1.1	150	
58.	Out of ATC classification	Condoms	1.4	148	



TAB. 5 BUYING – MEDIAN PRICES OF MOST SOLD BRANDS AT STANDALONE PHARMACIES (N=43) VS PRIVATE HOSPITAL PHARMACIES (N=7)

Sr.	Anatomical Therapeutic Classification	Generic	Price at Pharmacies	Price at Hospitals
1.	Alimentary tract and metabolism	Zinc sulfate	600	1,000
2.		ORS	350	325
3.		Vitamin B 1 (Thiamine hydrochloride)	400	315
4.		Domperidone	500	500
5.		Ascorbic acid	300	425
6.		Dexamethasone	400	400
7.		Metformin	1,200	1,200
8.		Omeprazole	500	575
9.		Vitamin B complex	1,250	3,550
10.		Hyoscine	1,900	1,650
11.	Blood and blood-forming organs	Acetylsalicylic acid	825	415
12.		Ferrous Sulphate	2,000	2,000
13.		Folic Acid	300	325
14.		Dextrose	1,300	1,425
15.		Dextrose and Sodium chloride	1,400	1,515
16.		Ringer Lactate	1,300	1,375
17.		Saline	1,400	1,450
18.	Cardiovascular system	Amlodipine	1,200	1,600
19.		Enalapril	1,825	1,875
20.		Epinephrine	1,850	3,000
21.		Furosemide	600	1,500
22.		Hydrocortisone injection	1,375	1,500
23.		Simvastatin	930	-
24.	Dermatological	Calamine Lotion	600	1,325
25.		Povidone iodine	1,000	2,520
26.		Miconazole	700	1,000
27.		Silver Sulfadiazine	2,200	3,000
28.	Genito urinary system and sex hormones	injectable Contraceptive (Medroxyprogesterone (acetate depot))	1,350	1,300
29.		OCP (Ethinyl estradiol+ Norethindrone)	1,600	-
30.		OCP (ethinyl estradiol+ Levonorgestrel)	1,650	1,300



TAB. 5 BUYING – MEDIAN PRICES OF MOST SOLD BRANDS AT STANDALONE PHARMACIES (N=43) VS PRIVATE HOSPITAL PHARMACIES (N=7) (CONT.)

Sr.	Anatomical Therapeutic Classification	Generic	Price at Pharmacies	Price at Hospitals	
31.	Anti-infectives for systemic use	Antisnake Venom Serum (Cobra)	1,850	-	
32.		Antisnake Venom Serum (Viper)	1,850	-	
33.		Benzathine penicillin	600	1,175	
34.		Metronidazole	320	350	
35.		Norfloxacin	1,200	1,950	
36.		Ciprofloxacin	1,100	1,200	
37.		Co-trimoxazole	600	650	
38.		Ceftriaxone injection	1,450	4,000	
39.		Amoxicillin	1,000	1,000	
40.		Erythromycin	1,875	2,900	
41.		Cefixime	2,600	-	
42.		Acyclovir (cream)	2,600	2,700	
43.		Musculoskeletal system	Ibuprofen	800	700
44.			Diclofenac	300	900
45.	Antiparasitic products, Insecticides and repellents	Benzyl Benzoate	1,100	350	
46.		Albendazole	400	400	
47.		Chloroquine	1,950	900	
48.	Nervous system	Paracetamol	600	650	
49.		Diazepam	1,750	2,200	
50.		Amitriptyline	650	700	
51.		Carbamazepine	1,900	1,900	
52.	Respiratory system	Salbutamol	7,300	8,300	
53.		Dextromethorphan	900	750	
54.		Chlorpheniramine	280	290	
55.	Sensory organs	Lignocaine (Hydrochloride)	2,000	4,000	
56.		Tetracycline Eye Ointment (TEO)	1,200	1,250	
57.		Atropine	1,200	5,000	
58.	Out of ATC classification	Condoms	500	500	





4.3

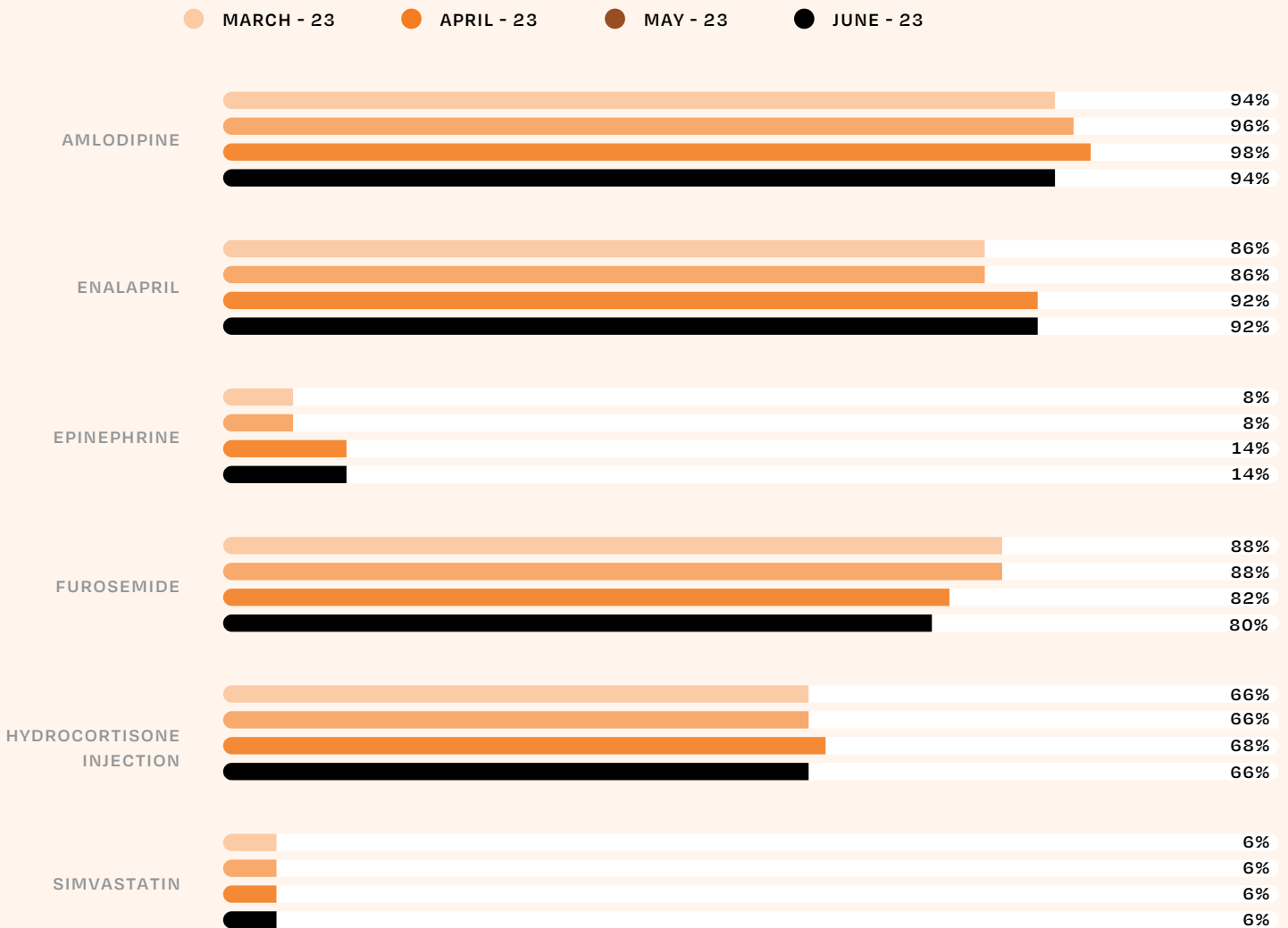
Availability of Essential Medicines

According to key informant interviews, shortages of medicines in Myanmar are attributable to several factors, including price hikes made at the discretion of sellers, fluctuations in currency exchange rates, changes in the importation process and procedures, closures of ports and companies, panic buying, reduced imports, and the decision to halt imports of less commonly used brands. Approximately 28 percent of pharmacies surveyed faced stock-outs or did not stock roughly 30 percent of the listed medicines (less than 40 out of 58). Injectable drugs such as Epinephrine, Ceftriaxone, and Benzathine Penicillin were generally less available than oral medications. Notably, anti-snake venom serum was available in only one out of the 50 surveyed pharmacies (Figures 10 & 11).



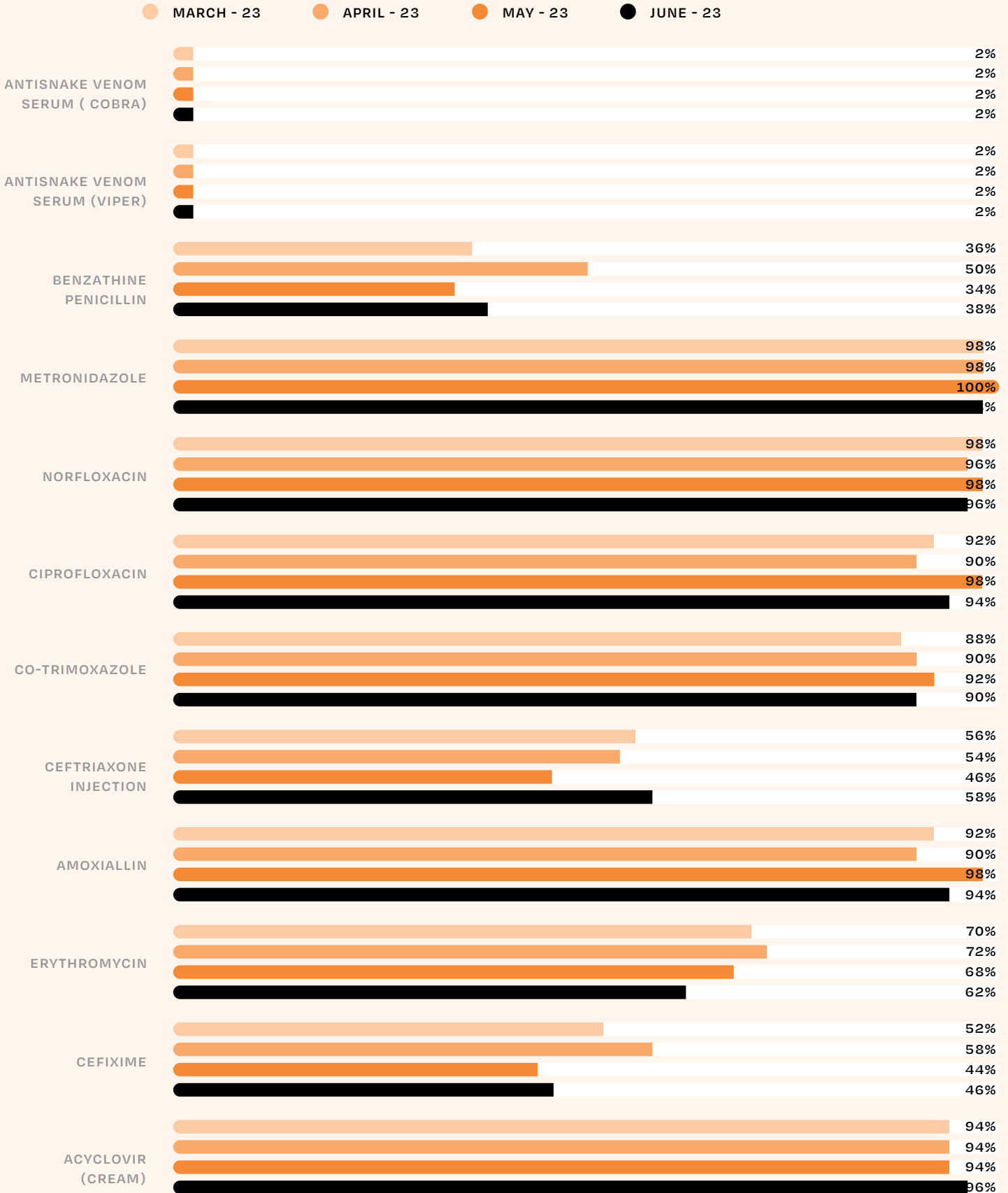


FIG. 10 SELECT MEDICINES FOR CARDIOVASCULAR SYSTEM AVAILABILITY MARCH THROUGH JUNE 2023 (N=50)



Source: Estimates using data from the World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative), 2023

FIG. 11 SELECT MEDICINES (ANTI-INFECTIVES⁹ FOR SYSTEMIC USE) AVAILABILITY MARCH THROUGH JUNE 2023 (N=50)



Source: Estimates using data from the World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative), 2023

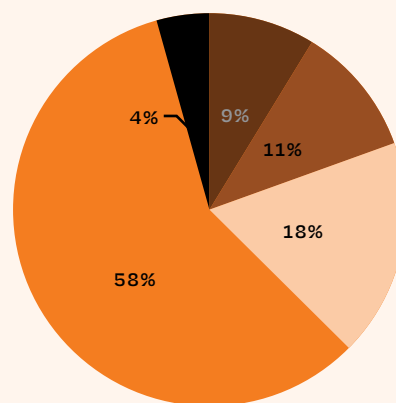
⁹ Anti-infectives are medicines that work to prevent or treat infections, they include antibacterials, antivirals, antifungals and antiparasitic medications. <https://www.pfizer.com/science/therapeutic-areas/anti-infectives/about-anti-infectives#:~:text=Anti%2Dinfectives%20are%20medicines%20that,antivirals%2C%20antifungals%20and%20antiparasitic%20medications.>



More than 90 percent of the surveyed healthcare professionals reported experiencing shortages in essential medicines within the past six months (Figure 12). These shortages can have detrimental effects on patients who are seeking essential medicines to treat and consistently manage chronic health conditions. The providers' perspective study supports this statement, revealing that over 88 percent of healthcare professionals surveyed recognize adverse effects of medicine shortages on the quality of patient care (Figure 13). Interviews conducted with pharmacies, importers, and distributors indicate that shortages of certain brands persisted for periods ranging from 2 weeks to 6 months in 2022 due to delayed import permits or licenses, currency fluctuations, and limited supply. Since mid-2022, some brands have become unavailable as companies refrain from importing them due to increased prices resulting from inflation. The availability of specific brands depends on importers and pharmaceutical companies, with some being restocked within days while others require up to 6 months for replenishment.

FIG. 12 FREQUENCY OF MEDICINE SHORTAGES EXPERIENCED IN THE PAST 6 MONTHS (N=205)

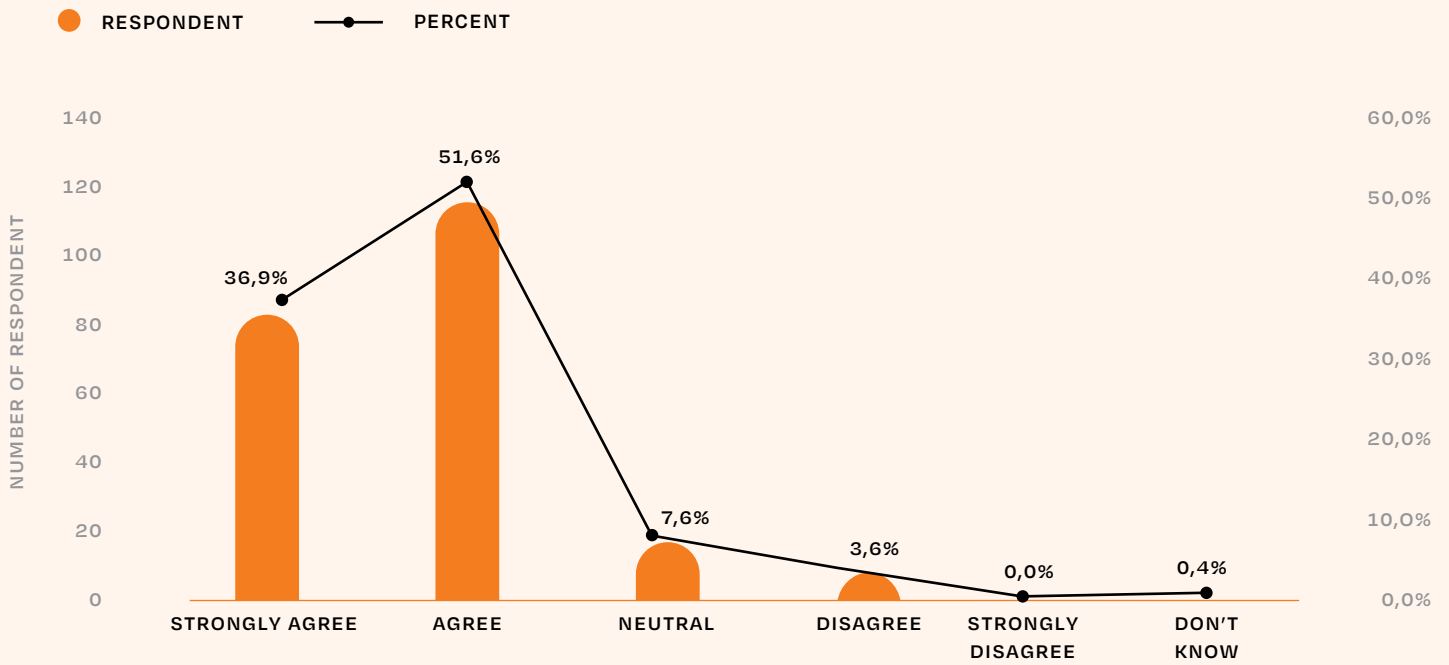
● DAILY
 ● WEEKLY
 ● MONTHLY
● OCCASIONALLY
 ● NEVER



Source: Estimates using data from the World Bank's study on private sector healthcare providers' perspectives on healthcare service provision (2023)



FIG. 13 ADVERSE EFFECTS OF DRUG SHORTAGES ON QUALITY OF CARE (N=225)




Source: Estimates using data from the World Bank's study on private sector healthcare providers' perspectives on healthcare service provision (2023)



4.4

Influencing Factors & Their Impacts

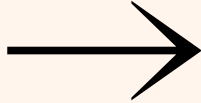


Based on the studies conducted, critical medication shortages in 2022-2023 have surpassed the levels seen during the COVID-19 crisis (2020-2021). Throughout the pandemic, there were frequent stock-outs of medicines used for COVID-19 treatment, vitamins, and antibiotics. The primary reason behind these stock-outs during the pandemic was the high demand for specific medications, surpassing the limited supply, and the limited availability of products due to quota sales during the various waves of COVID-19.

In 2022-2023, the shortages persisted, with popular brands of over-the-counter drugs and chronic disease medications frequently being out of stock and certain brands even becoming unavailable altogether. There

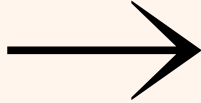


were shortages of 3 to 4 brands on a monthly basis, typically lasting between 3 to 6 months. Since 2021, rules and regulatory changes have contributed to greater shortages of certain medicines. According to key informant interviews, the primary changes include:



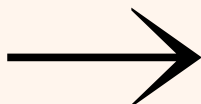
Prolonged import licensure process

The requirements for obtaining an import license have resulted in longer lead times and increased costs for importing medical commodities. The introduction of a manual license application process (in place of a previously used electronic process) has added to the time-consuming and bureaucratic nature of the procedure.



Delayed customs clearance and tax exemption endorsement

NGOs/INGOs are encountering difficulties with customs clearance due to the slow processing of tax exemption endorsements. The extended waiting time for the tax exemption certificate further hampers the timely clearance of imported medical commodities.

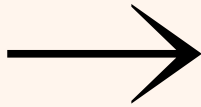


Restriction on drug importation and distribution

Policy changes have led to targeted restrictions on specific drug groups, particularly impacting the importation of malaria drugs. This restriction poses a significant challenge in distributing malaria drugs to remote areas with ongoing conflict and the presence of armed groups, resulting in shortages in beneficiary areas.

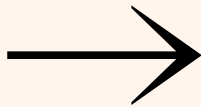


Additionally, several leading causes contributing to the pricing and availability issues of essential medicines include:



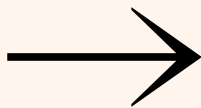
Brand selection for imports

Since mid-2022, certain brands have become unavailable as companies have stopped importing them due to increased prices.



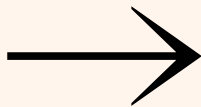
High transport costs

The major logistical challenge in 2022 has been the significant rise in transportation costs, driven by increasing fuel prices. Consequently, companies can no longer offer free delivery within the country, leading them to rely on third-party delivery services.



Armed conflicts

Armed conflicts have caused delays and challenges in importing essential medicines to the country and distributing essential medicines within the country.



Discontinuation of the credit system

Most pharmaceutical companies have ceased selling products on credit, affecting the dynamics of buying and selling essential medicines.

These factors collectively impact the pricing and availability of essential medicines, posing challenges to ensuring a consistent and affordable supply for those in need.





4.5

Coping Mechanisms of Households & Providers



The rise in medicine prices has significantly impacted individuals' purchasing power, particularly those with chronic conditions who can no longer afford the same quantity of medications. Both quantitative and qualitative data have consistently shown that the prices of nearly all essential medicines have increased between 2021 and 2023. At the same time, household wellbeing has declined dramatically. A recent study by The World Bank using the Myanmar Household Welfare Survey found that household incomes dropped 40 percent in real terms (33 percent nominal).¹⁰ Declines are more pronounced for rural, older and male-headed households, ranging from a 35 percent decrease in the poorest quintile to 41 percent in the richest quintile. Declining incomes are pushing households to their limits of coping, resulting in increases in borrowing money, purchasing food on credit, and selling assets.

¹⁰ World Bank, May 2023, draft report. "Labor Market Indicators and Household Wellbeing in Myanmar".

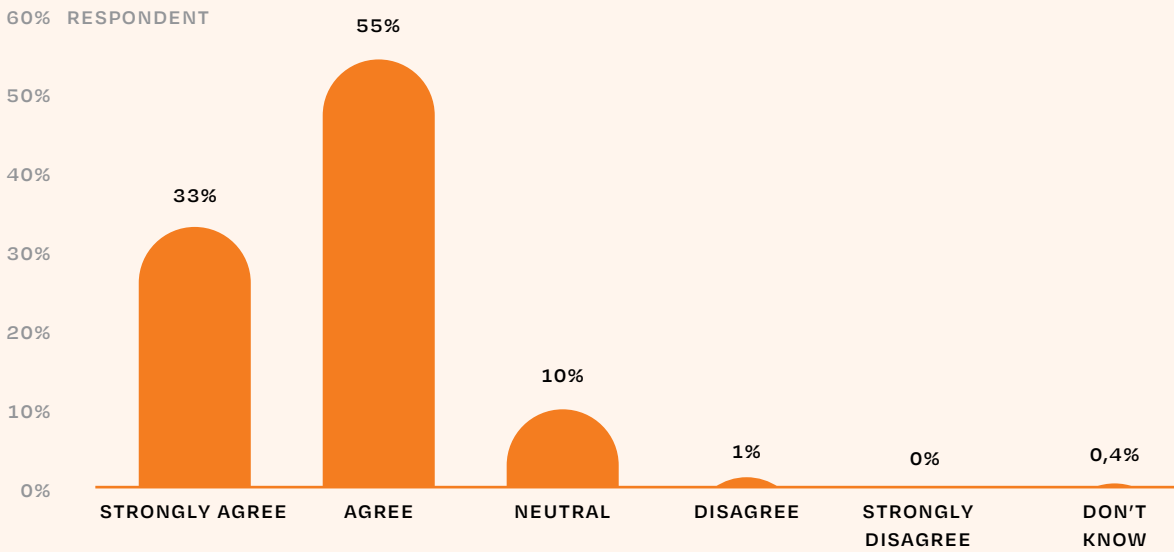


The 2023 national phone survey revealed that most respondents (84.1 percent) with hypertension or diabetes reported reducing or skipping medication intake due to financial constraints within the preceding six months. Approximately 80 percent reported experiencing a surge in medication costs during the same period, with the majority reporting increases exceeding 20 percent. A total of 84 percent of households with members affected by hypertension resorted to cutting back or skipping doses of medication due to the burden of medication costs. Almost half of these households (48 percent) faced moderate to severe challenges in acquiring the necessary medications. Among households with a member with diabetes, 86 percent of respondents reported regular medication adherence, although 59 percent encountered difficulties in obtaining the required medications. Only 16 percent of respondents reported skipping medication due to cost-related issues in the past six months. Patients who cannot afford their previous brands seek alternatives, leading pharmacies to stock affordable brands of acceptable quality. Additionally, due to financial constraints, more customers purchase medicines at shorter intervals (e.g., every ten days instead of monthly). This trend became more prevalent in 2022.

Private health sector entities have implemented various measures to mitigate the impact of price increases (Figure 14). These include stocking more affordable brands, reducing the volume of high-priced brands, adjusting selling prices based on market rates, and suggesting alternative brands with similar properties to customers. Almost 90 percent of the healthcare providers interviewed agreed that patients' affordability influences their prescription choices. And 80 percent of healthcare providers interviewed prescribe alternative brands to mitigate medicine shortages (Figure 15).

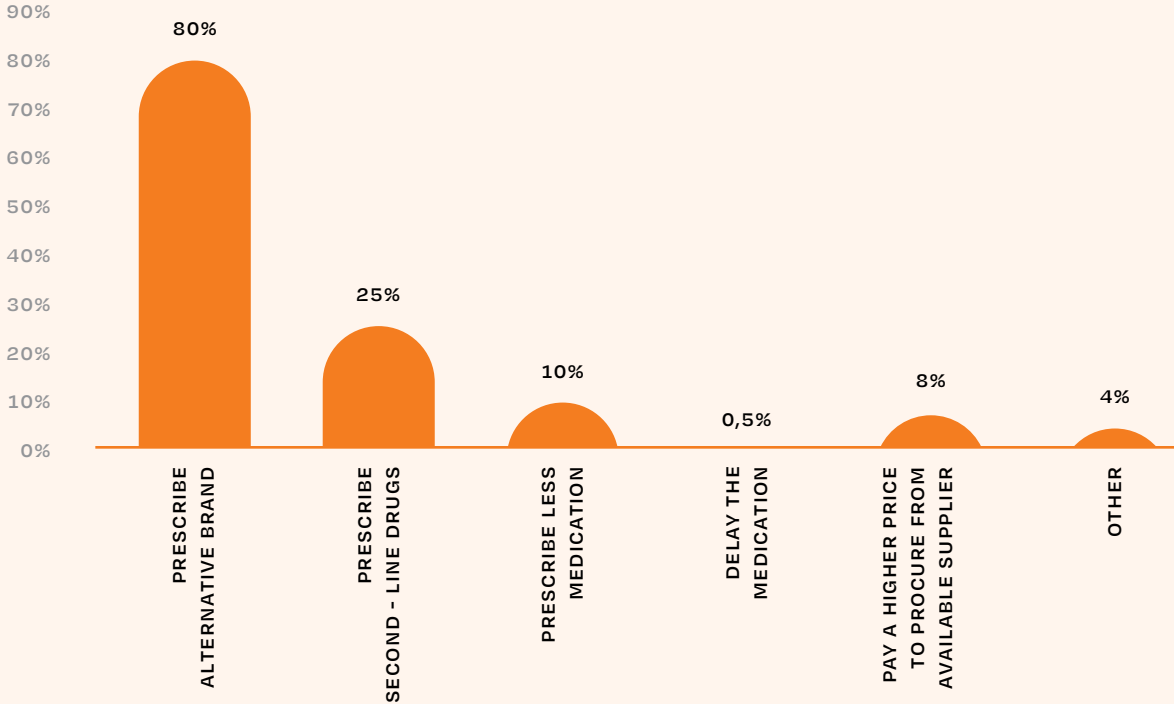


FIG. 14 PATIENT AFFORDABILITY INFLUENCES HEALTHCARE PROVIDER PRESCRIPTION (N=231)



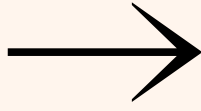
Source: Estimates using data from the World Bank and WHO's Essential Medicines Retail Price Tracking (Quantitative), 2023.

FIG. 15 STRATEGIES EMPLOYED BY HEALTHCARE PROFESSIONALS TO MANAGE MEDICINE SHORTAGES (N=204)



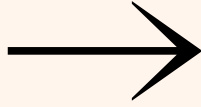
Source: Estimates using data from the World Bank's study on private sector healthcare providers' perspectives on healthcare service provision (2023)

Furthermore, coping mechanisms adopted by providers, medicines importers and retailers to address the rising prices and shortages of essential medicines include:



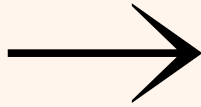
Shifting Imports

Due to port closures and prolonged custom clearance processes, drug importers have opted to use border crossings to maintain drug supply.



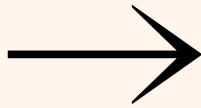
Quota Systems

Pharmaceutical companies have implemented sale quota limits for selling specific brands to address supply issues.



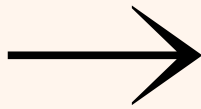
Emerging Suppliers

As established pharmaceutical companies have ceased importing certain brands because of their high costs, new market entrants are offering affordable medication options, addressing cost concerns in the importation process.



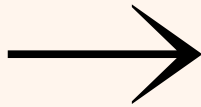
High-End Medication Management

Companies are reserving limited quantities of high-priced drugs for affluent customers while promoting alternative substitutes to the public.



Diversified Stock

Providers have increased low-priced brand inventory and decreased high-priced stock.



Alternative Recommendations

Providers are encouraging customers to consider purchasing similar alternative brands.



Conclusion

The findings of this report highlight the concerning issue of rising medicine prices in Myanmar and its significant impact on individuals' purchasing power, especially those with chronic conditions. The inability to afford the same quantity of medications has forced many individuals to seek alternative, lower-priced brands or generic equivalents offered by pharmacies.

Furthermore, financial constraints have compelled customers to purchase medicines at shorter intervals, reflecting the challenges they face in managing their healthcare expenses. Most concerningly, a large proportion of individuals with chronic conditions have been forced to stop taking medicines as prescribed due to increased costs.

Additionally, quantitative and qualitative evidence confirms the overall increase in prices of essential medicines between 2021 and 2023. Inflation and currency exchange rate fluctuations since 2022 have emerged as the primary drivers of these price hikes. Importation challenges, particularly at ports, have further exacerbated the issue, contributing to shortages of specific brands and a decline in overall medicine imports.

To address the impact of rising prices, several measures have been implemented by private health sector entities, such as stocking more affordable brands, reducing the volume of high-priced brands, adjusting selling prices based on market rates, and suggesting alternative brands or generic equivalents with similar properties to customers. These efforts aim to alleviate negative consequences on customers/patients by providing more accessible and cost-effective medication options. Despite these measures, findings from this study indicate that rising medicine prices continue to adversely affect quality of care and management of chronic health conditions for many people across Myanmar.



