

**“Availability, Accessibility & Affordability of
Medicines & Medical Devices at Stockist in
Saharanpur, Uttar Pradesh”**

Dissertation submitted to



**The IIHMR University, Jaipur
for the partial fulfilment for the award of the degree
of**

Master of Business Administration (MBA)

**Pharmaceutical
Management**

By

NIYATI TALWAR

IIHMR-
U/02/2021-
23/0321 MBA
PM-13

Under the supervision and guidance of

DR. SAURABH KUMAR BANERJEE

Dean & Associate Professor

School of Pharmaceutical

Sciences IIHMR

University

Jaipur

2023

**“Availability, Accessibility &Affordability of
Medicines & Medical Devices at Stockist in
Saharanpur, Uttar Pradesh”**

Dissertation submitted to



**The IIHMR University, Jaipur
for the partial fulfilment for the award of the degree
of**

Master of Business Administration (MBA)

**Pharmaceutical
Management**

By

NIYATI TALWAR

IIHMR-
U/02/2021-
23/0321 MBA
PM-13

Under the supervision and guidance of

DR. SAURABH KUMAR BANERJEE

Dean &Associate Professor

School of Pharmaceutical

SciencesIIHMR

University

Jaipur

2023

IIHMR UNIVERSITY
JAIPUR, RAJASTHAN

DECLARATION BY THE STUDENT

I hereby declare that this dissertation titled “**Availability, Accessibility & Affordability of Medicines & Medical Devices at Stockist in Saharanpur, Uttar Pradesh**” is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in this text.

Date: 26-05-2023

Signature of Student

Place: Jaipur

Niyati Talwar

IIHMR-02/2021-23/0321

MBA PM-13

IIHMR University, Jaipur

IIHMR UNIVERSITY

JAIPUR, RAJASTHAN



DECLARATION BY THE FACULTY GUIDE

This is to certify that dissertation titled “**Availability, Accessibility &Affordability of Medicines & Medical Devices at Stockist in Saharanpur**”, Uttar Pradesh” is a record of the research work undertaken by **Niyati Talwar** in partial fulfilment of the requirements for the award of the degree of MBA – Pharmaceutical Management from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Date: 26-05-2023

Signature of Guide

Place: Jaipur

Dr. Saurabh Kumar Banerjee

Dean & Associate Professor

School of Pharmaceutical Management

IIHMR University, Jaipur

ABSTRACT

By making price comparisons and facilitating the location of stockists, knowledge about the availability and cost of pharmaceuticals promotes customers' speedy access to affordable medications and medical devices. Analysis of how the discourse on medicine access impacts consumers' access to information about prices and availability. Stock out of medicines, near expiry and labelling errors, factors determining cost and availability were considered. 78% of the stockist, stock products of MNC'S and 14% of the stockist work with Indian companies and 8% of the stockist work with MNC & Indian companies. 79% of the stockist manage their inventory via computerized system, for pharmaceutical products, which shows stockist of Saharanpur utilize the technology and software's to maintain stock and keep records. 54% of the stockist for pharmaceutical companies are inclined towards implementation of price control and 43% of the stockist of medical devices are inclined towards increasing funding towards healthcare. 57% of the stockist discussed about manufacturing cost as an important factor in determining the cost of medical device or a product. Research revealed that the elements made it simpler for consumers to locate trustworthy information about drug prices and availability The quality of healthcare and the wellbeing of patients can be greatly enhanced by ensuring an adequate supply, simple use, and affordability of these goods. To solve these issues and promote fair access to medications and devices, government regulations, regulatory frameworks, and healthcare initiatives are essential. Pricing that is more transparent and value-based assessments with respect to consumer prospective will shape healthcare industry in a better way.

Keywords: Inventory, Stockist, Multi-National Companies, Price Control, Medical Devices & Pharmaceutical Companies

ACKNOWLEDGEMENT

As I have come towards the completion of my project report, I would like to seize this opportunity to acknowledge all the valuable contribution in my study.

It is the pleasure to utilize this unique opportunity to express my deep sense of gratitude and offer my most sincere and humble regard to my esteemed Faculty & guidance of Dean & Associate Professor, School of Pharmaceutical Management, IIHMR, Jaipur, for his unparalleled and excellent, continuous encouragement and support for completion of my course and dissertation. His disciplines, principles, simplicity, and fearless work environment was cherished during the course.

I owe a great deal of application & gratitude to him as without his cooperation it would have been difficult to shape my project work.

I often wonder, if one gets to see “GOD” in the mortal life they might be like parents who shower their best fortunes always on me. From the deepest depth of my heart to express my thanks. I bow my head to the feet of my loved Parents, brother and family members, who’s uncompromising life principles, love and affection has always been unshared and showered upon me at all stages of life and giving me more than what I deserved in my life and without whose encouragement, co-operation and good wishes the work would have been impossible.

Last but not the least, I wish to express my gratitude towards “GOD- Almighty ” who gave me the strength and courage to fulfill my dream and showered me his choicest blessings.

Date: 25-05-2023

Place: Jaipur

Niyati Talwar

Name & Signature of Student

TABLE OF CONTENTS

TABLE NO.	TITLE	PAGE NO.
1	Introduction	1 -2
1.1	Relevance with respect to public health	3-7
1.2	Impact of the industry – Financial expenses	7-8
1.3	Damaging the reputation	8
1.4	How do recalls Impact Consumers	8
1.5	Clinical Impacts	9
1.6	Monitoring and evaluation	10
2.0	Review of literature	12-15
3.0	Methodology	16-17
3.1	Introduction	18
3.2	Research Design	18
3.3	Sample Selection	18
3.4	Data Collection	19

3.5	Data Analysis	19
3.6	Ethical consideration	19
4.0	Results (Includes facts, figures, Graphs & Charts)	20-33
5.0	Discussion	34
5.1	Stockist & their network	35
5.2	Delivery time & Time to fulfil orders received	35
5.3	Challenges faced by stockist	36
5.4	Updates of latest trends in pharmaceutical Indusrty	36
5.5	Important factors in determining cost of products	37
6.0	Recommendation & Mitigation strategies	38-40
7.0	Conclusion	41-42
8.0	Bibliography	43-46
9.0	Annexure - A	47-60

LIST OF GRAPHS

SR. NO.	TITLE	PAGE NO.
4.1.1	Management of inventory & system utilized for pharmaceutical products	23
4.1.2	Management of inventory & system utilized for medical devices	24
4.1.3	Management of inventory & system utilized for pharmaceutical products & medical devices	24
4.2.1	How stockist ensure timely delivery of orders received for medicines	25
4.2.2	How stockist ensure timely delivery of orders received for medical devices	25
4.2.3	How stockist ensure timely delivery of orders received for medical devices & pharmaceutical products	26
4.3.1	Factors contributing to cost of medicines	26
4.3.2	Factors contributing to cost of medical devices	27
4.3.3	Factors contributing to cost of medical devices & medicines	27
4.5.1	Should govt have the power to negotiate drug prices with companies	31

LIST OF TABLES

SR.NO	TITLE	PAGE NO.
4.1	Depiction of stockist of Indian and MNC	21
4.2	Depiction of stockist of pharmaceutical products & medical devices	21
4.3	No. of years as stockist for pharmaceutical products/medical devices	22
4.4	Depicts no. of organizations	22
4.5	Should government have the power to negotiate prices with companies with percentage	30

ABBREVIATIONS

1. MNC's: Multinational Companies
2. Indian companies: INDCOs
3. Stockist: STK
4. Pharmaceuticals: Pharma
5. Medical devices: Med-devices
6. Saharanpur: SHP
7. Inventory: INV
8. Price control: PC
9. Healthcare: HC
10. Manufacturing cost: Manuf. cost
11. Government regulations: Govt. regs
12. Regulatory frameworks: Reg. frameworks
13. Value-based assessments: VBA
14. Medications: Meds
15. Medical equipment: Med equipment
16. Affordable: Afford.
17. Adequate supply: Adeq. supply
18. Simple use: Easy use
19. Government regulations: Govt. regs
20. Availability: Avail.
21. Accessibility: Access.
22. Affordability: Afford.
23. Supply chain: SC

CHAPTER 1

INTRODUCTION

INTRODUCTION

The accessibility, price, and availability of medications and medical equipment at stockists are essential components of healthcare systems around the world. Stockists, such as pharmacies, hospitals, and medical supply shops, are essential in ensuring that patients and healthcare professionals have access to the required drugs and equipment. These three important aspects and their importance in healthcare are briefly discussed in this introduction.

Availability: The existence of medications and medical equipment on hand at various healthcare facilities is referred to as availability. To address the demands of patients, stockists labour to maintain an inventory of numerous drugs and medical equipment. However, circumstances like supply chain disruptions, manufacturing limitations, or regulatory restrictions might occasionally have an impact on availability. To meet the needs of people and communities for healthcare, it is essential to provide a steady supply of necessary drugs and equipment.

Accessibility: Accessibility emphasizes how simple it is to purchase medications and medical equipment from stockists. Patients can easily get the healthcare items they need since accessible stockists are frequently situated in handy areas. But accessibility varies depending on where you are, with urban regions typically having better accessibility because there are more stockists there. Due to a lack of infrastructure and healthcare facilities, obtaining stockists may be difficult in rural or isolated places. Promoting public health and eradicating health inequities depends on ensuring equitable access to medications and medical equipment.

Affordability: Affordability includes the cost of purchasing drugs and medical equipment from stockists. Patients' capacity to get necessary healthcare items can be considerably impacted by the price of prescriptions and equipment. Healthcare systems, insurance coverage, and pricing practices all have an impact on affordability. Brand-name and generic pharmaceuticals have different prices, and governmental policies like price limits or subsidies can affect affordability. Medical supplies and equipment are made more inexpensive for patients by health insurance coverage and reimbursement programmes.

1.1 RELEVANCE WITH RESPECT TO PUBLIC HEALTH

Healthcare Systems That Are Cost-Effective: Stockists' accessibility, affordability, and availability of medications and medical equipment all play a role in these healthcare systems. The financial burden of healthcare on individuals and society as a whole is lessened when people have access to affordable pharmaceuticals and medical equipment. This can result in better treatment regimen adherence, fewer hospitalisations, and improved general health, which can save healthcare systems money over the long run.

The availability, usability, and affordability of medications and medical equipment at stockists are essential for public health preparedness. To properly respond to public health emergencies, natural disasters, or pandemics, adequate stockpiling of vital pharmaceuticals and equipment at stockists is necessary. Strong systems that guarantee these items are accessible, affordable, and available help improve public health preparedness and response capabilities.

In conclusion, debating the accessibility, price, and availability of medications and medical equipment at stockists is extremely important for public health. It has an immediate influence on public health readiness, health equity, illness control, and cost effectiveness. Public health initiatives can enhance general population health, lessen health inequities, and promote fair access to healthcare by tackling these issues.

Epidemiological transition brought on by altered illness patterns is worrisome. The Indian therapeutic segment has always been heavily dominated by the acute disease segment. Due to problems with public cleanliness and sanitation, this market will keep expanding steadily. But as prosperity, life expectancy, and disorders linked to a sedentary lifestyle increase, the disease profile is steadily evolving to include more chronic diseases.

Since drugs, vaccines, and other supplies are essential components of the healthcare

system, their function and relevance are crucial. A very big portion of the world's population lacks access to necessary and lifesaving medications, which are considered to be society's most important instruments for preventing, treating, and curing disease. WHO (2004) defines essential medications as those that meet the majority of the population's healthcare needs and are chosen with adequate consideration for illness prevalence, evidence of efficacy and safety, and comparative cost-effectiveness. The notion of essential medicines first emerged in the 1970s.

In 1975, the WHO published the first version of its list of essential medications, which is updated every two years. The first necessary medication list in India was published in 1996, and it has since been updated based on the nature, frequency, and other aspects of various diseases.

Not only after independence, but also for a very long time before that, the Indian Pharmaceutical Industry was crucial in guaranteeing the adequate production and delivery of important pharmaceuticals. Since the last few decades, this business has transformed from a low-performing, expensive sector to a profitable one with international competition. India currently ranks 14th in terms of value and is the world's second-largest volume manufacturer of pharmaceuticals. Despite this development, millions of Indian households lack access to necessary medications due to a lack of funds. For three reasons, it is crucial to evaluate the costs, accessibility, and affordability of medications in India.

First and foremost, most of the the population's out-of-pocket spending on pharmaceuticals combined with low-income levels and lower purchasing power renders them vulnerable. Second, the recent epidemiological shift and resulting change in illness patterns present a significant challenge to both policymakers and the nation of India as a whole. Third, there are numerous government policies, programmes, and initiatives at the federal, state, and local levels that aim to offer preventive, promotional, curative, and rehabilitative services for better access to healthcare facilities, including the provision of necessary medications at no cost or at a reduced cost. The evaluation of drug costs, accessibility, and affordability in India has a substantial impact on the long-term viability of health care development, and this study offers a comprehensive analysis of the literature.

Pharmaceuticals undoubtedly contribute to the advancement of world health and development. concepts and perspectives that have shaped the discourse on global health and formed the basis for health and development policy in more than 150 nations. Items 1 through 8 list availability of drugs (through ATMs) as a critical element.

Having medicines continuously accessible and reasonably priced at public or private health facilities or pharmacy stores that are within an hour's walk of the population is referred to as "ATM."⁹ Access considers supply continuity and timeliness for at least two reasons. First, the therapeutic effects of several medications depend on their timely administration. Second, maintaining compliance with a chronic treatment has a good impact on health outcomes.¹⁰ It is widely acknowledged that information availability makes prompt and ongoing access to inexpensive medications and even broader pharmaceutical systems strengthening (PSS)¹¹ possible. An initial analysis of well-known ATM and PSS frameworks, however, showed that these frameworks prioritise information as a tool to enable governments and organisations to purchase medications for populations or communities.

In the last mile of their quest for inexpensive medications for themselves, consumers place less importance on information as a tool for decision-making. (The "last mile" in this context refers to the area where the patient interacts with the point of service, like a neighbourhood pharmacy. Consumers are people or families who buy medications for their own usage. Engaging with 'information' as a purely macro-level decision-making tool could possibly mask micro-level access difficulties that consumer knowledge could reduce, just as national-level data on medical care can obscure significant discrepancies at lower levels of organisation.

Many factors, including affordability, prudent use, sustainable finance, and dependable supply networks, affect access to medicines. High drug costs are one factor limiting access to medications. Due to patient noncompliance with treatment and ensuing hospitalisation for major problems, this may have a negative impact on patients' health as well as the healthcare system. To remove any obstacles that may be preventing access to medicine, it is necessary to make sure that medications are affordable.

An approach to gauging affordability is to modify pricing based on average per-person income. This makes it easier to grasp how much a medicine is worth in relation to the amount of money the typical individual has available to spend on prescription drugs. The SNPP's goals include increasing generic prescribing, generic substitution, and the creation of price regulations for medications. These are intended to be included in upcoming regulatory initiatives.

It has been noted that there is a persistent lack of medications in public health facilities, which forces patients to purchase medications from the private sector. The best solution to improve the situation must be based on reliable evidence, which can also be used to determine whether governmental controls are required to ensure that consumers can access vital medications at the lowest possible cost.

A medication review is an occurrence to get back to the creator a group or a whole presentation run of a medication item, generally because of the location of wellbeing issues or medication item imperfection. At the point when drug items are known to affect clients because of their deficient quality, security or viability, they might be exposed to a review and all connected data's are accounted for to the medication office. At the point when Food and Medication Organization (FDA) found an infringement of the regulations, it gives a review order by which a firm eliminate or address the market item. The office would start lawful activity in the event that the orders were not followed. There is a group liable for organizing all viewpoints connected with item review. The group is made out of try to configuration, production and sell protected and solid items, the likelihood still a review organizer and individuals from the different useful regions. Notwithstanding an organization's best exists that hazardously inadequate medication item might arrive at the clients. These items might cause fiascos, prompting antagonistic decisions in drug item obligation prosecutions. The quality administration of protests and medication item reviews are important to guarantee the wellbeing of client. Reviews can be either unconstrained by the maker, or once in a blue moon, directive by FDA. Reviews shift in seriousness and in the activity that should be contracted. It is conceivable that occasionally a medication organization might review just a particular cluster or parcel. Nonetheless, there are sure different situations when all groups or loads of the medication experience review from the market.

Reviews are a reasonable elective provision by the FDA for eliminating or rectifying showcased customer items, their naming, or potentially limited time writing that disregard the regulations administrated. Firms might start a review following notice of an issue by FDA or a state office, considering a conventional solicitation by FDA, or as requested by FDA. Makers or potentially merchants may likewise start a review out of the blue to satisfy their obligation to shield the general wellbeing from drug items that show a gamble of injury or gross parody or are generally inadequate. The FDA drug review and different activities have been delegated the accompanying five classes:

Class I review: Incorporates a wellbeing danger circumstance where there is sensible chance that the utilization of the item will prompt serious, unfriendly wellbeing outcomes or passing.

- Class II review: Incorporates a potential wellbeing danger circumstance where there is a slim chance of unfavourable wellbeing outcomes from the utilization of the medication item.

- Class III review: Incorporates what is going on where the utilization of the medication item isn't probably going to cause antagonistic wellbeing result.

- Market withdrawal: When an item has a minor infringement that wouldn't be dependent upon FDA lawful activity "market withdrawal" happens. The medication item is taken out by the firm from the market or remedies the infringement.

- Clinical gadget wellbeing alert: Delivered in conditions where a clinical gadget might introduce an irrational gamble of significant damage. These circumstances likewise are viewed as reviews in specific cases.

1.2 IMPACT ON THE INDUSTRY – FINANCIAL EXPENSES

How costly is it to pull out an item? Provides details regarding the costs of an item review for organizations can be tracked down in many spots. The main thing you can rely on is that it will be a gigantic measure of cash — potentially sizable enough to bankrupt a business forever. Telling the proper controllers, illuminating all shoppers, and different expenses are only a couple of instances of the quick costs you will cause.

In certain conditions, it very well may be important to battle expensive claims notwithstanding the expense of reputational hurt.

1.3 DAMAGING THE REPUTATION

The main thing is how much an organization's image notoriety is influenced result scratch-offs. There is no doubt that the impact on an organization's standing and brand picture can be far more regrettable than the moment monetary weight of reviewing a hazardous thing.

Brand achievement is extraordinarily affected by notoriety, and food brands' notorieties depend on quality, trust, customer fulfilment, and security. Reviews might bring about a decrease in client dedication, mischief to the organization's picture, and the chance of exorbitant and negative lawful activity. Besides, high-profile cases draw in undesirable media consideration.

The genuine monetary effect of brand harm is trying to ascertain. In any case, irate clients who offer their viewpoints via web-based entertainment stages can have a horrible and durable impact on an organization.

As per a customer study, 15% of individuals could at no point ever purchase the reviewed item in the future, and 55% of them would switch brands after a review, whether or not it was over in a short while. Moreover, 21% of respondents said they would purposefully keep away from the reviewed item as well as the whole product offering created by the organization at the focal point of the review.

1.4 HOW DO RECALLS IMPACT CONSUMERS?

Buyers who have utilized a medication that has been reviewed because of wellbeing concerns could doubtlessly encounter unfortunate results. Shopper expenses might increment because of reviews on the off chance that they are expected to buy another drug that might be more costly assuming a medicine is reviewed. Then again, they can get a total discount or substitute.

The vulnerability and disarray that follow a medication review might leave buyers puzzling over whether they ought to continue to take the reviewed prescription or change to another option, which affects them too.

Not many examinations have been finished in low and center pay nations, just detailing expanded personal costs as the monetary effect of medication deficiencies. The executives of medications deficiencies relies unequivocally upon the medical services framework with a very much oversaw drug inventory network and took on medical services model.

Importation of meds on account of public deficiency prompts serious monetary effects troubling the public authority. In the EU, the import/trade measures are not fit, and various nations have various strategies to permit the import and product of meds in lack. The absence of concordance and the equal import from EU or extra-EU nations might compromise the medications' accessibility in a country with a far-reaching influence. The uncontrolled development of medications could be deteriorated by this far-reaching influence, causing serious monetary effects.

1.5 CLINICAL IMPACTS

Clinical results of medication deficiency have been accounted for in most of concentrates in created nations. Furthermore, a few medications in the dim market become unacceptable with time as put away in non-ideal circumstances and lead to compromised wellbeing results.

The accessible internet-based meds might have quality issues. Many exploration investigations discovered that web-based buying happens in big league salary nations like Malta, the Assembled Realm, Netherlands, with an expanded gamble of fake medications and expanded drug costs than neighbourhood.

Drug deficiencies lead to improper options in remedy, compromised wellbeing, delayed medical clinic stay, readmission, dismalness, and mortality in agricultural nations Logical investigations have demonstrated that the interfered with treatment because of the medication deficiency for antiretroviral treatment (Craftsmanship) prompted inadequate results, collections of medication opposition transformations, and treatment disappointment .For a few basic drugs, their lack will bring about the retraction of medical procedure. For instance, the lack of protamine sulfate will prompt the scratch-off of heart medical procedure. Medical procedure wiping out may deteriorate the sickness, draw out clinic stay, and uncover emergency clinic procured contaminations. All the more truly, the deficiency of certain medications might prompt higher mortality. Because of

chemotherapeutic medication lack, the death rate was high, however fundamental medications, including anti-infection agents, Phytonadione, electrolyte arrangements, analgesics, and narcotics, were likewise involved Drug deficiency additionally expanded web-based buying of fake items in center pay nations

Drug deficiencies brought about differed humanistic effects on patients, and medical care experts saw many kinds of examination in created nations .and non-industrial nations. Concentrates on in the Unified Realm, Canada, and the US found that deficiencies typically lead to patient protests, disappointment, outrage, disappointment, diminished adherence, and mental impacts. Patients likewise whine of voyaging uneasiness about different drugs, and face postponed a medical procedure. The medication deficiency circumstance makes doctors disappointed, focused, exasperated, lost patients' trust, in any event, undermining them Doctors need to pick patients for getting restricted accessible medications or are compelled to choose elective treatment. The circumstance turns out to be more basic for malignant growth patients.

A couple of concentrates in LIMCs detailed that experts face expanded disappointment, danger, viciousness, negative work environment circumstance. They need to invest additional work and energy into dealing with the deficiencies. The patients lost trust in the emergency clinics and worry about substitutes impacts.

1.6 MONITORING & EVALUATION

It is necessary to have a seamless supply chain and timely procurement in order to provide everyone with high-quality essential medications. It would ensure that all medical facilities, including those in the most remote areas of the nation, would receive the necessary number of important medications on time. When such programmes are started and carried out, it is always assumed that the targeted population benefits. However, it has been noted that systems frequently do not operate as intended, leading to issues like stock-outs or overproduction, which result in a scarcity of medicines or an accumulation of medications that are long past their expiration date. In addition to losing much-needed money, this prevents all those who urgently want drugs from receiving them. A crucial management tool, monitoring and evaluation, ought to be incorporated into the programme. Surveys should be conducted on a regular basis to monitor medication accessibility. There is sufficient proof that the availability of essential medicines is

frequently used irrationally and indiscriminately, defeating the very purpose of their availability. As a result, it is essential to improve how essential medicines are used by both the general public and health professionals (using Standard Treatment Guidelines).

CHAPTER 2

REVIEW OF LITERATURE

Suh Hee- Guk et al 2011, Most people in impoverished nations who require medications must pay for them out of their own pockets. This study focuses on works that investigate the disparity between the price of prescription drugs and solutions to it. Although laws to eliminate tariffs and taxes on medications and to restrict mark-ups are practical ways to avoid excessive supplemental costs, lowering the manufacturer's pricing has a bigger impact on cost.

Bhargava Anurag et al 2013 The majority of Indians purchase healthcare from the private sector, which is a requirement that accounts for a significant portion of healthcare-related expenditure. To ease the burden of healthcare costs, the government must increase the availability and affordability of generic and essential medicines in the market. It can do this because India's large pharmaceutical industry is a major source of foreign exchange.

Bansal Deepika et al 2013, When the World Health Organisation (WHO) issued its first list in 1977, the Essential Medicine Concept, a significant advancement in healthcare, began. One of the most economically efficient aspects of contemporary healthcare is the appropriate use of critical medications. Evidence-based selection has replaced expert evaluation in the selection process. The initial Indian list was released in 1996, while the most recent iteration, which included 348 medications, was released in 2011, eight years later. India spends less on healthcare than other industrialised nations. India faces a significant challenge in ensuring that its 1.2 billion citizens have access to pharmaceuticals by concentrating on supplying necessary medications. Countries will have difficulty choosing expensive medications for oncology, rare disorders, and other conditions in the future.

Mhlanga S Brenda et al, 2014, Although medications are crucial to healthcare, their costs can make them prohibitive for some patients. Few studies have examined the costs of necessary medications in low- and middle-income countries in terms of patient affordability.¹⁶ chronic disease medications were surveyed using the standardised approach created by the World Health Organisation and Health Action International. Data from 10 private retail pharmacies and 10 public health facilities were gathered in a single administrative area. The prices of medications under the originator brand (OB) and the lowest-priced generic equivalent (LPG) were tracked, and these costs were then compared to international reference prices (IRPs). The lowest-paid unskilled government employee's daily salary was used to determine affordability.

Prinja Shankar et al, 2015, Free access to necessary medications is a crucial aspect of universal health care. However, more than two-thirds of the population in India has either no access or limited access to important medications. This has increased individual out-of-pocket spending on medications. The states of Punjab and Haryana are working to institutionalise drug procurement practises so that all public hospitals and health facilities would always have free access to basic medications. This study was conducted to evaluate the accessibility of medications at public health institutions in the two states. Second, we evaluated the effectiveness of the inventory and storage management systems in medical facilities.

Prinja Shankar et al, 2015, Free access to necessary medications is a crucial aspect of universal health care. However, more than two-thirds of the population in India has either no access or limited access to important medications. This has increased individual out-of-pocket spending on medications. The states of Punjab and Haryana are working to institutionalise drug procurement practises so that all public hospitals and health facilities would always have free access to basic medications. This study was conducted to evaluate the accessibility of medications at public health institutions in the two states. Second, we evaluated the effectiveness of the inventory and storage management systems in medical facilities.

Yousefi Nazila et al ,2015 In order to give businesses a competitive edge, supply chain management is crucial. One of the most crucial difficulties in SCM is ensuring enough information flow across the supply chain. As a result, managing and integrating data and information across the supply chain can greatly benefit from the use of certain information systems. In that it can impact social and political perspectives, the pharmaceutical supply chain is more complicated than many other supply networks. On the other hand, because of its complexity and the government restrictions that apply to this industry, managing the pharmaceutical supply chain is challenging. Iranian pharmaceutical manufacturing has advanced significantly, but there are still many problems with controlling the information flow in the supply chain.

Pujari M. Neelkanth et al ,2016 With around 14.9% of its population under the age of five, Uttar Pradesh is the fourth most populous state in India. The state has relatively high child mortality rates. To lower morbidity and mortality in children, cheap medications in suitable formulations must always be available. The purpose of the study is to provide

evidence on the accessibility and affordability of important paediatric medications in the Indian state of Uttar Pradesh. In Uttar Pradesh's public sector facilities, it is difficult to find children's medications. In the private sector, children's medications are relatively expensive. To increase access to medicines for children, the availability of medications needs to be addressed urgently.

Mcmullan Patrick et al, 2018, First, all stakeholders in India agree that access to medications is a big issue, but affordability is only one of many. Second, while the HIF concept has received a lot of support from stakeholders, there are significant questions regarding its scalability, generalizability, and influence on access to medications. Third, the HIF and other emerging drug-related health policies can afford to take more extreme measures, such as operating outside the current intellectual property rights structure, focusing on both generic and branded pharmaceuticals, or expanding to research and development. To maximise the possibility of future innovations in access to medications being successful, those innovations must involve important stakeholders from the relevant countries.

Gautham Meenakshi et al ,2022, In rural India, healthcare and antibiotics are delivered by untrained providers, yet little is known about the medications they carry. We evaluated the availability of the antibiotics as well as their sales volumes, retail pricing, percentage markups for IPs, and affordability by conducting a cross-sectional survey of such informal providers (IPs) in two districts of West Bengal. Out of the 196 IPs that carried antibiotics, 85% carried tablets, 74% carried syrups, suspensions, and drops, and 18% carried injections. 42 active antibiotic components, including 278 branded generics from 74 producers, were kept on hand in all of the IPs. Amoxicillin potassium clavulanate (52% of the IPs), cefixime (39%), amoxicillin (33%), azithromycin (25%) and ciprofloxacin (21%) were the top five active ingredients that were stocked.

CHAPTER 3

METHODOLOGY

The availability and cost data collected from numerous pharmacies might be extensive and dynamic. Access to appropriate therapy is significantly influenced by the cost and accessibility of medications. In different Indian States, there are few statistics on the costs and accessibility of common medications in the public and private sectors. To assess these measures, survey was conducted.

The Indian healthcare system has a significant issue related to unequal access to medications. Baseline information is required to create efficient public health policies and offer fair access to necessary medications. Using standardised WHO/HAI methodology, the current survey was carried out to look into the cost, accessibility, and affordability in Saharanpur, Uttar Pradesh.

The Objectives of this research study are:

- To investigate accessibility of pharmaceutical products and medical devices
- To investigate the affordability and assess the pricing strategy.
- To investigate impact of government regulations at stockist level.
- To investigate the challenges and propose mitigation strategies at stockist level.

Research Question:

Percentage of product recall and stock out of medicines and it impacts consumer behaviour.

How it influences retailer buying power and decision-making?

Plan of the research work:

1. Create a survey form.
2. Data Collection by interviewing the concerned person handling the stock.
3. Data Cleaning and sorting
4. Data Analysis and Discussion

3.1 INTRODUCTION

The study topic was analysing how stockist recommendations & work scenario affects retailers' adoption, and this methodology outlines the procedures used to collect and interpret the data. The goal of the study was to ascertain how stockist endorsement and patient acceptance of medical technology & pharmaceutical products interact.

3.2 RESEARCH DESIGN

A cross-sectional survey was used as the research methodology for this study.

This was done to achieve the study's goal, which was to evaluate how stockist's recommendations made at a particular moment affect market. Respondents who have taken part in the survey were examined using question-based data.

3.3 SAMPLE SELECTION

Sample Size: 88

No. of respondents: 78

Place: Saharanpur, Uttar Pradesh

Designation of Respondents: Stockist

Picked up the participants who were available and eager to take part in the study for convenience sampling. Use of email invitations, personal networks, and social networking sites to find people was done. To guarantee that a diverse range of participants were represented in the study, the study enlists people from a variety of age groups, genders, ethnicities, and socioeconomic backgrounds. Although this method might not be representative of the full population, it will nevertheless yield useful information for the study.

3.4 DATA COLLECTION

Participants were surveyed through interaction to gather data. Some of the themes covered in the questions were based on pharmaceutical products lines and medical devices, its use and stock and inventory management. Questions based on profits and challenges faced were also covered in the questions concerning use.

3.5 DATA ANALYSIS

Descriptive statistics was used to analyse and summarise the data based on the questions and the demographic information. Microsoft Excel was used to summarise the data. Pivot tables were used to analyse the data, and various graphs, including bar charts, pie charts, column charts, and maps, were used to visualise it.

3.6 ETHICAL CONSIDERATION

Each subject was asked for his/her informed consent prior to participating in the study, and the research will abide by all ethical guidelines for research involving human people. The voluntary nature of the study, participants' freedom to revoke their participation at any time, and the confidentiality of their data will all be explained to participants. Only the academics working on the project will have access to the collected data, which will be kept securely.

CHAPTER 4

RESULTS

A survey was conducted amongst stockists of pharmaceutical industry in Saharanpur.

Stockist were segmented based on Indian or Multi-National Companies or other organisations that store and supply pharmaceuticals and medical devices to a range of healthcare facilities, including pharmacies, hospitals, clinics, and other medical centres.

78% of the stockist, stock products of MNC'S and 14% of the stockist work with Indian companies.

8% of the stockist work with MNC & Indian companies.

SR.NO	Stockist of Indian and MNC Companies	Percentage
1	MNC	78%
2	Indian	14%
3	Both	8%

Table: 4.1 Depiction of Stockist of Global / Indian Companies

53 out of 78 stockists have segmentation of pharmaceutical products. 16 out of 78 have medical devices stock and 9 work for both.

SR. NO.	Segment / Category	Number
1	Pharmaceutical Products	53
2	Medical Devices	16
3	Both	9

Table: 4.2 Depiction of Stockist of Pharmaceutical products & Medical Devices

A glance of years of experience as a stockist is given below in a form of table.

54% of the stockist have been into healthcare industry as a stockist for more than 12 years.

No. of years	Percentage
0 -4	0%
4 – 8	10%
8 – 12	36%
More than 12	54 %

Table : 4.3 No. of years as a stockist for pharmaceutical products / Medical Devices

A data depicting no. of organizations a stockist has.

38 stockists out of 78 stock for more than 7 organizations, either an MNC Or an Indian company.

No. of organizations	No. of Stockist
3 -4	8
5-6	12
6-7	20
More than 7	38

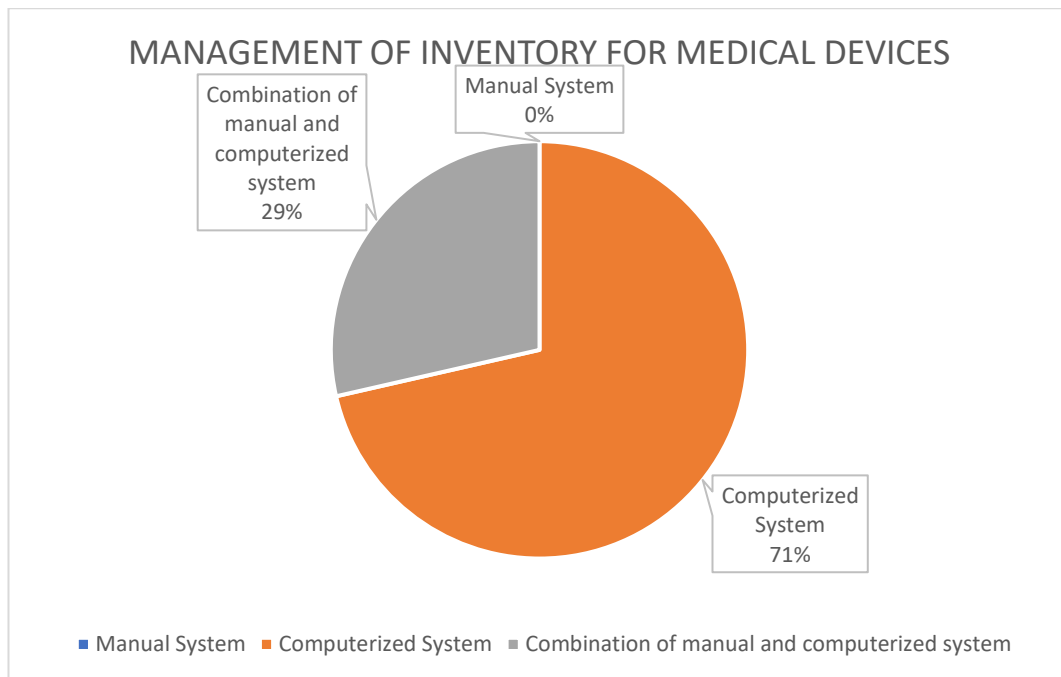
Table 4.4 Depicts No. of organizations a stockist has.

The techniques used by firms to properly regulate and maintain ideal levels of inventory are referred to as inventory management. This is true across a range of sectors, including pharmaceuticals. To guarantee product availability, cut costs, prevent stockouts, and improve overall operations, effective inventory management is essential.

79% of the stockist manage their inventory via computerized system, which shows stockist of Saharanpur utilize the technology and software's to maintain stock and keep records.

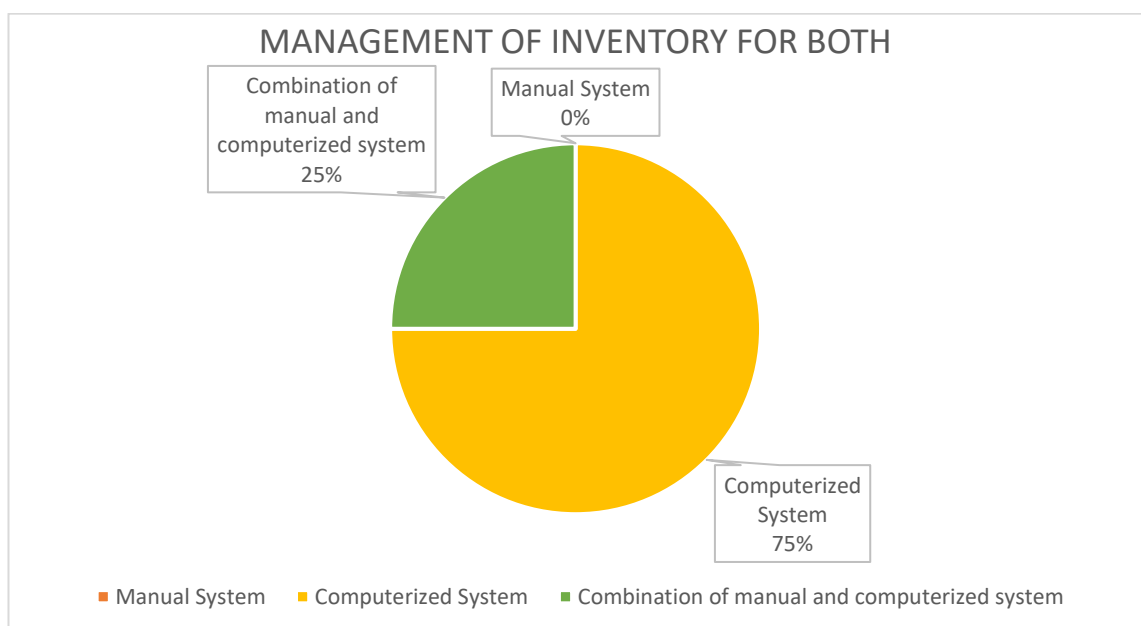


Graph 4.1.1: Management of inventory & system utilized for Pharmaceutical Products



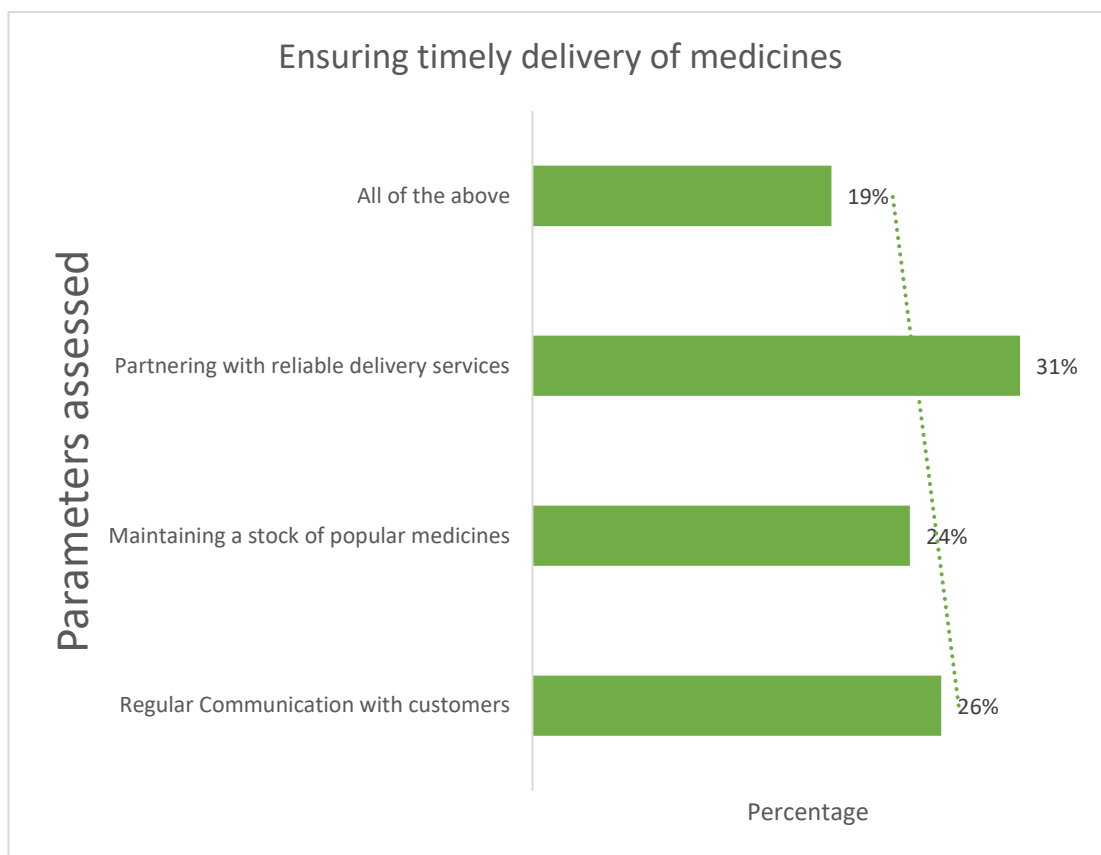
Graph 4.1.2: Management of inventory & system utilized for Medical Devices

71% of the stockist manage their inventory via computerized system for medical devices & 25% use combination of both for medical device and pharmaceutical products, which shows stockist of Saharanpur utilize the technology and software's to maintain stock and keep records.

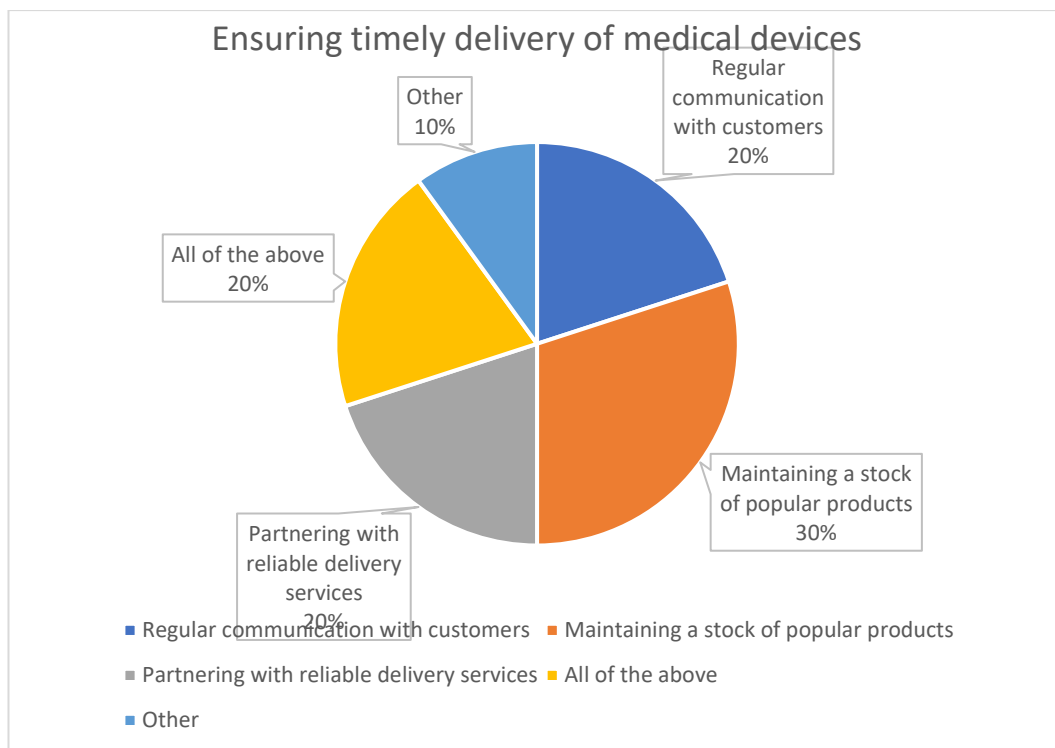


Graph 4.1.3: Management of inventory & system utilized for Medical Devices & Pharmaceutical Products

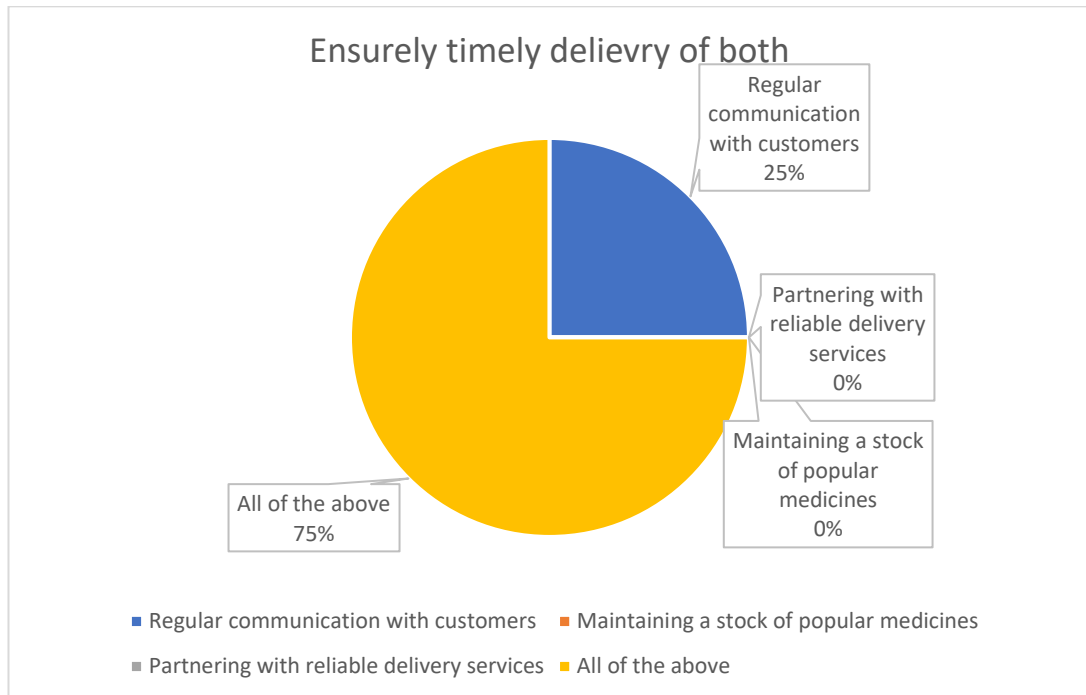
Ensuring timely delivery of products is crucial to maintain the health and well-being of patients. Here, a graph defines percentage with factors.



Graph 4.2.1 How stockist ensure timely delivery of orders received.

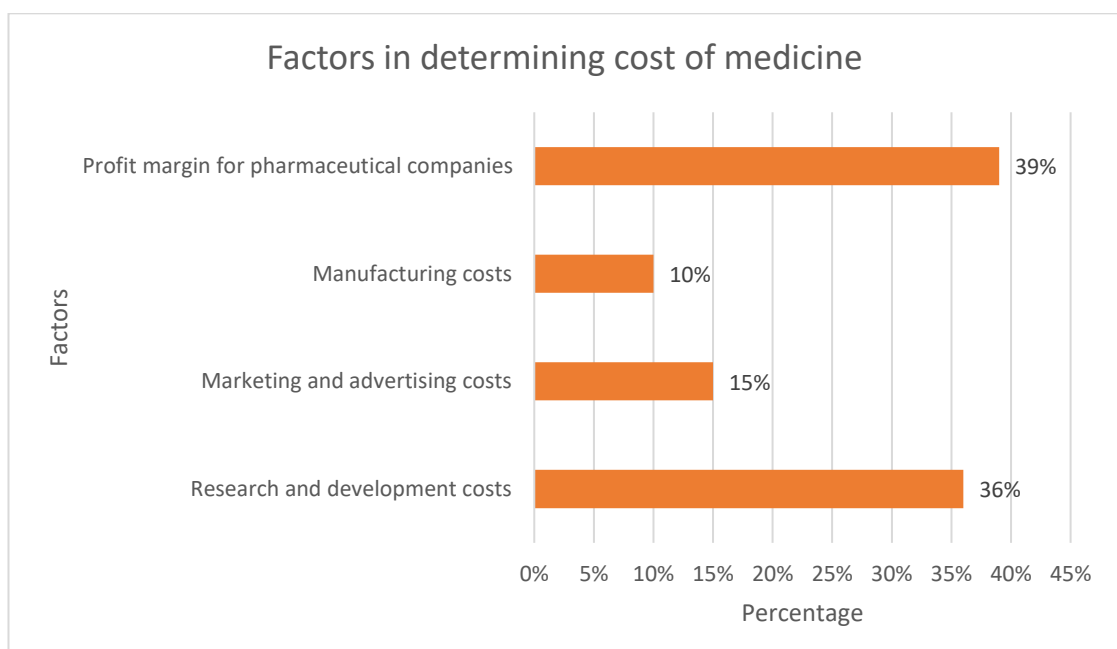


Graph 4.2.2 How stockist ensure timely delivery of orders received.

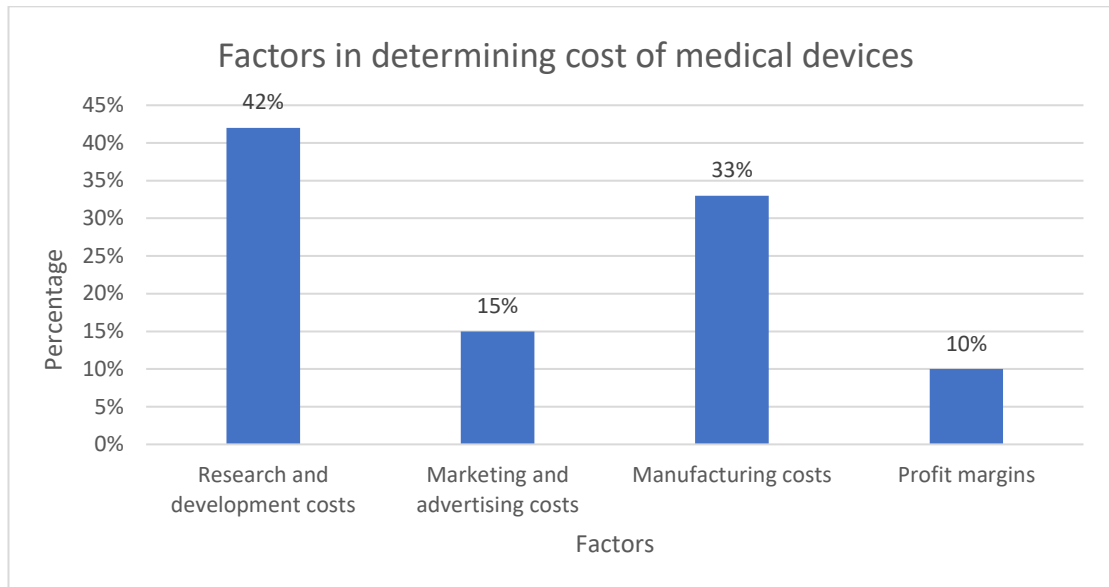


Graph 4.2.3 How stockist ensure timely delivery of orders received for medical devices and pharmaceutical products.

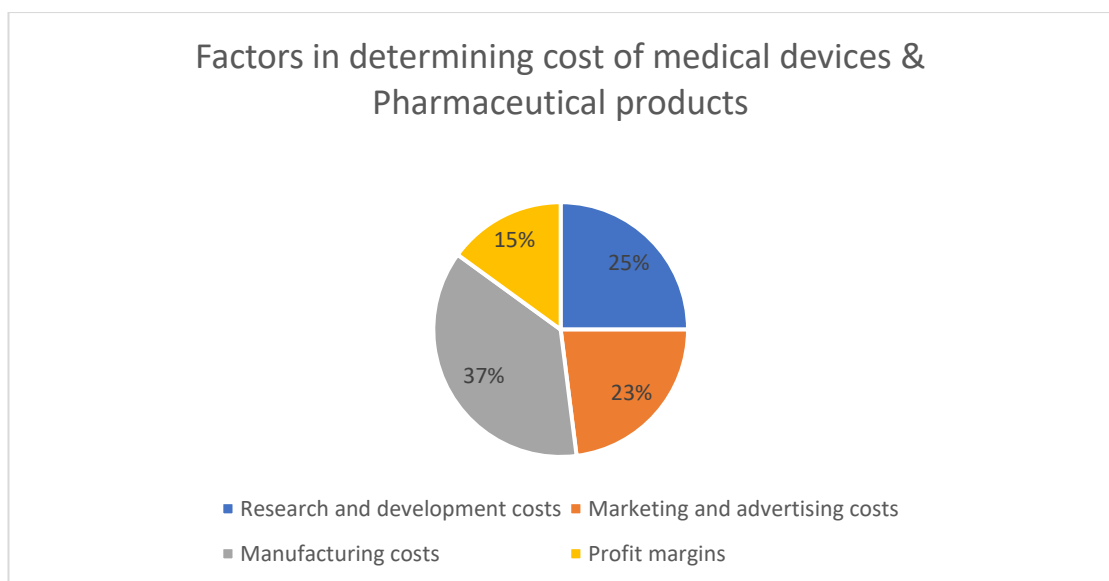
Representation of factors determining cost of medicines and medical devices along with percentage.



Graph 4.3.1 According to stockist what factors contribute to determination of cost for medicines.



Graph 4.3.2 According to stockist what factors contribute to determination of cost for medical devices along with percentage.



Graph 4.3.3 According to stockist what factors contribute to determination of cost for medicines and medical devices.

A representation of challenges faced by the stockist, out of which competitive environment and inventory management tops the factors.

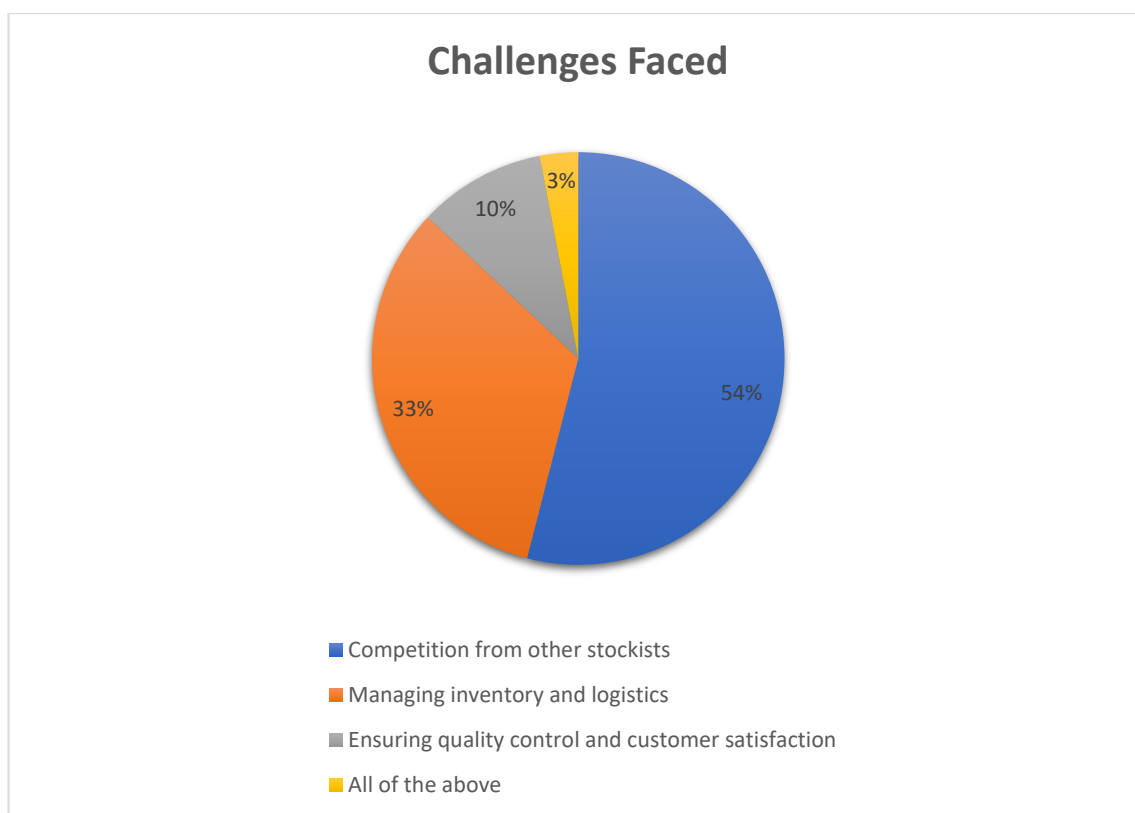


Chart 4.1.1 Challenges faced by Stockist.

Some pictures depicting data analysed for substandard products, expired products, stock out, labelling and corrections related to it and power to negotiate drug prices with companies.

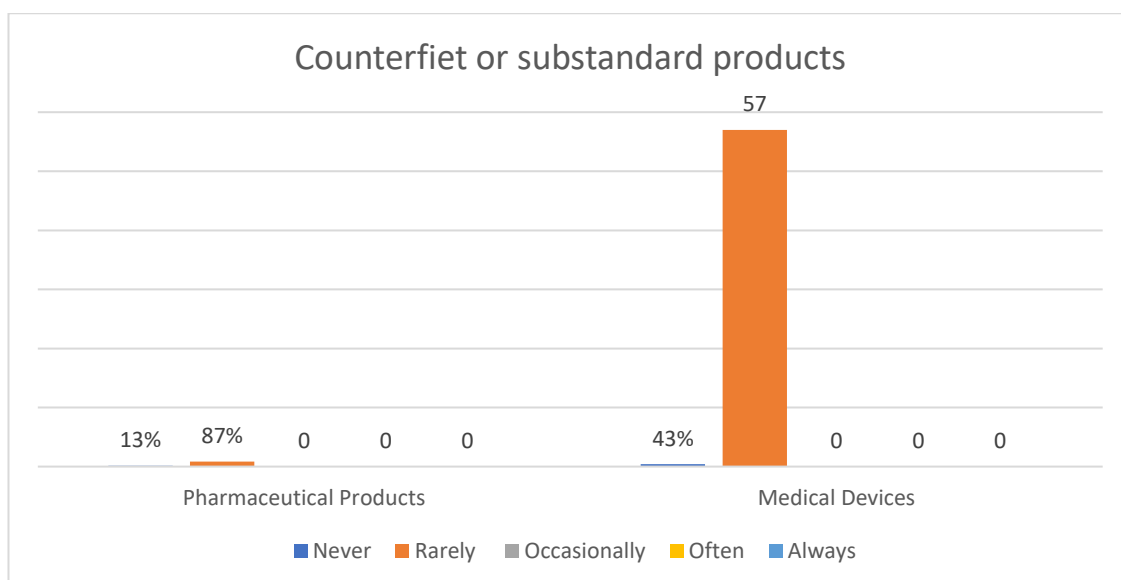


Fig: 4.1 Percentage of counterfeit or substandard pharmaceutical products or medical devices

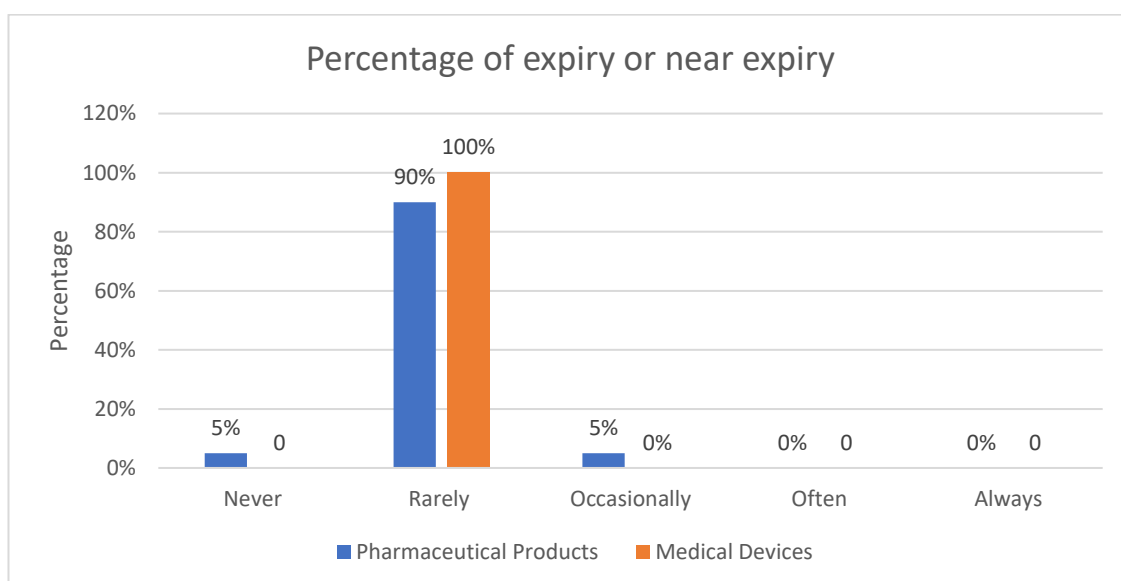


Fig: 4.2 Percentage of expired or near-expiry pharmaceutical products and medical devices

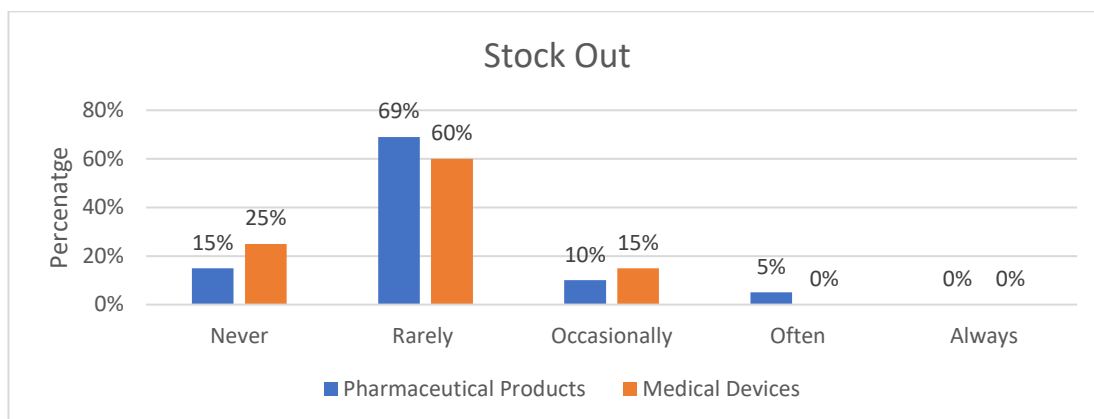


Fig: 4.3 Percentage of stock out of pharmaceutical products & Medical Device

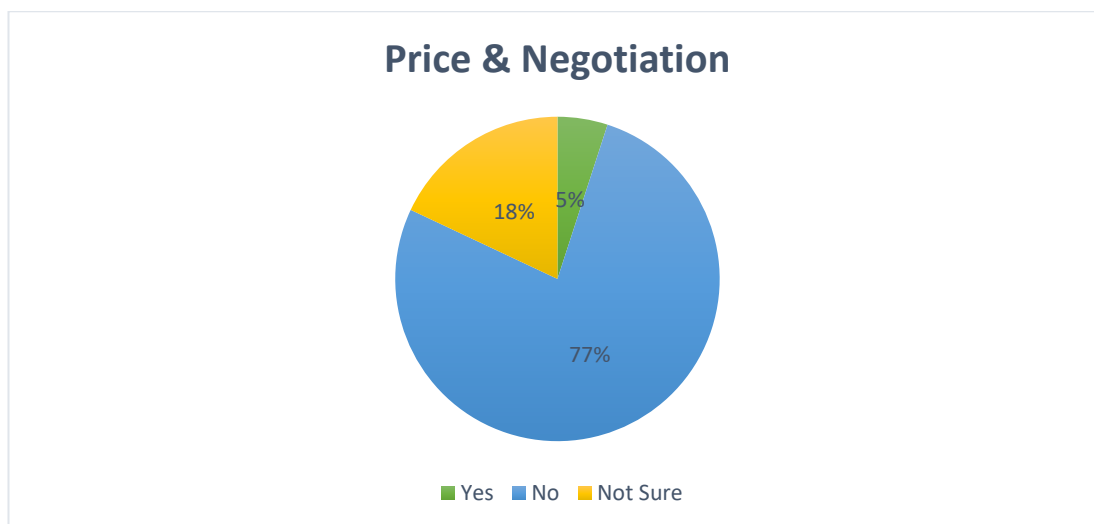


Fig 4.4 Should governments have the power to negotiate prices with companies.

Answer	Percentage
Yes	5%
No	77%
Not sure	18%

Table 4.5. Should Governments have the power to negotiate drug prices with companies with percentage.

Improving accessibility and affordability of medicines is crucial for ensuring equitable healthcare. Implementation of price controls on medicines is one the biggest factor contributing to GDP of the country. 54% of the stockist think that to improve accessibility and affordability of medicines implementation of price controls is a major parameter.

21% of the stockist think that an increase in government funding will lead to accessibility and affordability of medicines.

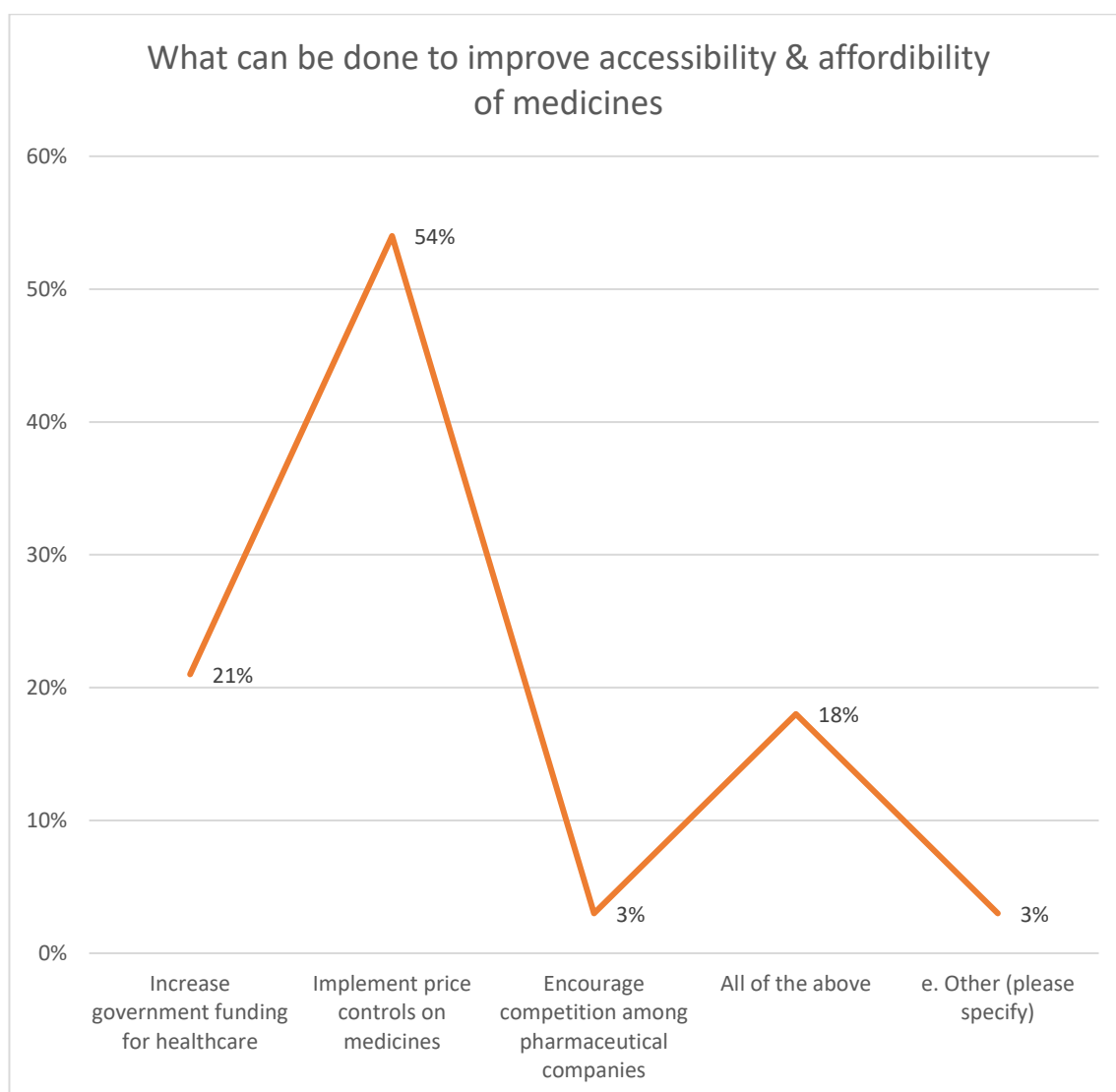


Chart 4.2.1 What can be done to improve accessibility & affordability.

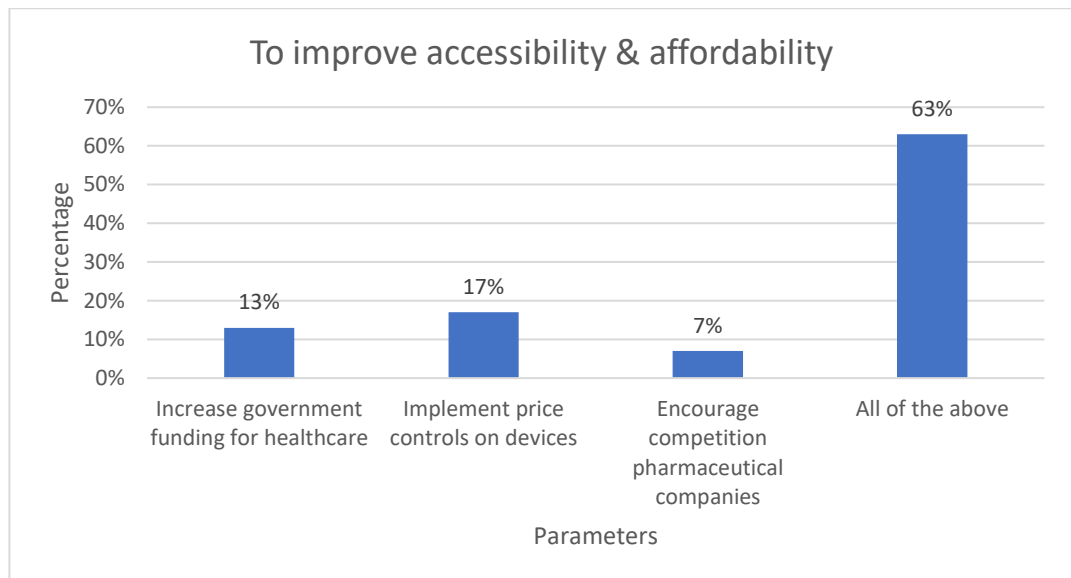


Chart 4.2.2 What can be done to improve accessibility & affordability for medical devices

Regularly attending conferences and workshops and staying updated with reference to publications and news helps to take a follow up on latest trends in healthcare industry.

Visualization of parameters is given below.

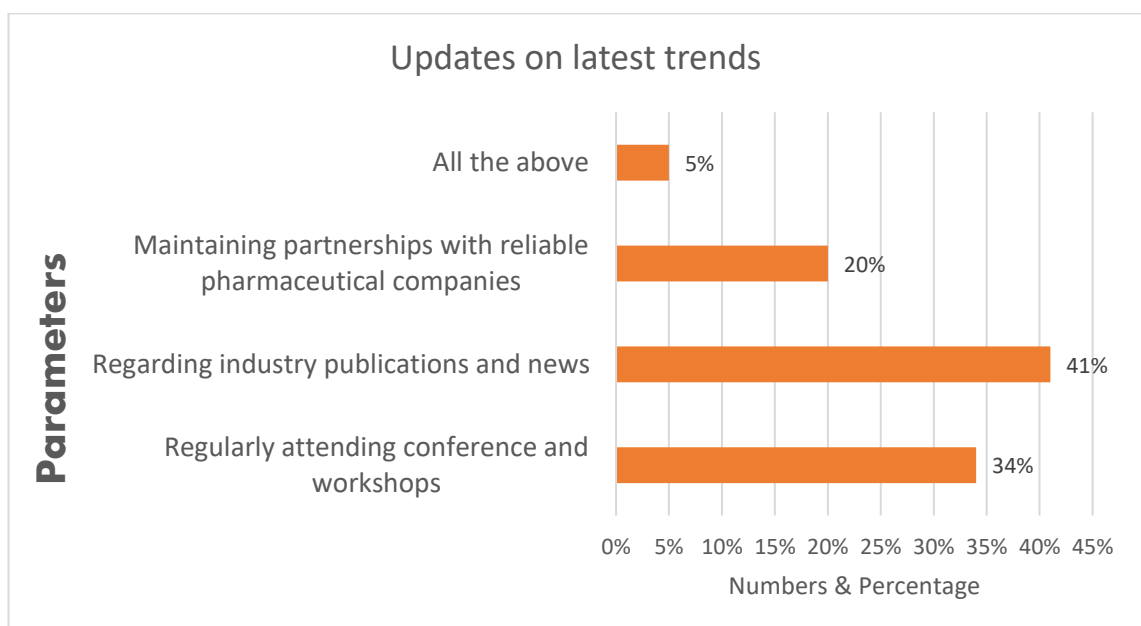


Chart 4.3.1 How Stockist stay updated with the latest medicines and trends in the pharmaceutical industry.

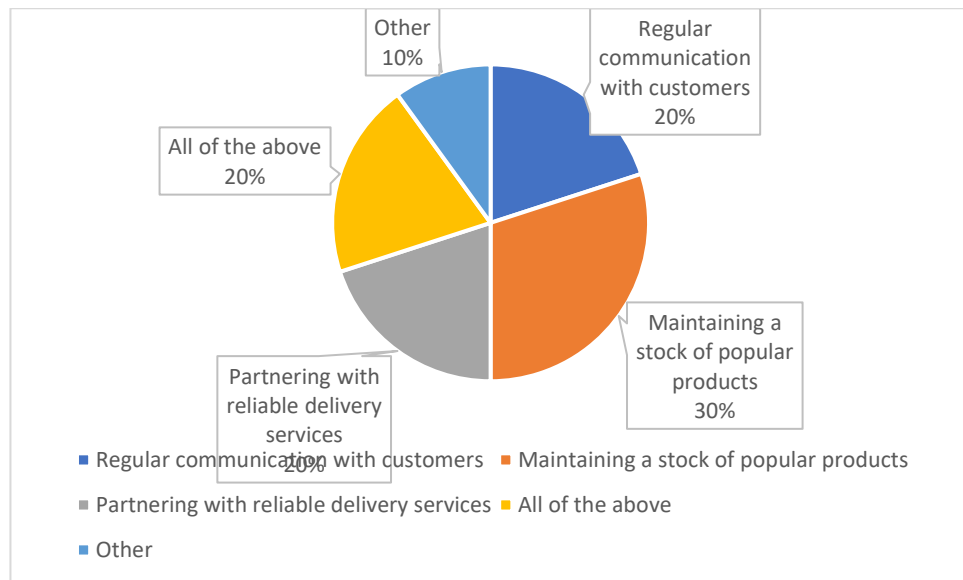


Chart 4.3.2 How Stockist stay updated with the latest medicines and trends in medical device industry.

CHAPTER 5

DISCUSSION

5.1 STOCKIST & THEIR NETWORK DISTRIBUTION

Depending on the nation and its distribution structure, there may or may not be stockists present at the district level in the pharmaceutical sector.

At the district level, there are typically a number of stockists or wholesalers who operate as a bridge between the stores or healthcare providers and the pharmaceutical manufacturers. These distributors often keep distribution centres or warehouses where they keep the pharmaceutical products.

The number of stockists in a district might change according on the population, healthcare system, and demand for pharmaceutical goods, among other things. There may be several stockists operating to meet the demand for pharmaceuticals in densely inhabited areas or locations with a high concentration of healthcare services. However, there can be fewer stockists in places with low populations or with weak healthcare infrastructure.

It's vital to remember that different countries and regions may have different distribution network specifics. As a result, depending on the local laws, market dynamics, and distribution methods of a given nation or region, the existence and structure of stockists at the district level may change.

Saharanpur, Uttar Pradesh has approximately 150+ stockist.

77% of people answered **Pharmaceutical Products** for being a stockist and rest answered being a stockist of medical devices.

5.2 DELIVERY TIME & TIME TO FULFIL ORDERS RECEIVED.

It is always advisable to speak with local stockists or wholesalers who provide more precise and up-to-date information based on their unique operations and capabilities for need specific information regarding delivery schedules in a certain area.

Stockist of Pharmaceutical companies must properly manage their inventory in order to maintain adequate stock levels, reduce stockouts, and satisfy client demand.

Effective supply chain management and logistics are required to guarantee the timely delivery of medications to merchants. Stockist in Saharanpur, focus on regular communication with retailers, maintaining stock and partner with delivery agents.

5.3 CHALLENGES FACED BY STOCKIST.

The pharmaceutical sector is a fiercely competitive one, with numerous stockists vying for customers among merchants and healthcare providers. To keep and win over new clients, stockists encounter difficulties with pricing demands, contract negotiations, and upholding strong customer connections.

Inventory management- Most of the Stockists effectively manage their inventory to ensure that a variety of medications are available while preventing overstocking or stockouts. Demand for a product while keeping in mind its shelf life and storage requirements are challenging.

33% stockist found managing inventory and warehousing of products as a challenge due to holding cost, turnaround time and pre orders receiving.

5.4 UPDATES OF LATEST TRENDS IN THE PHARMACEUTICAL INDUSTRY

Saharanpur is a tier 3 City and stockist here have formed associations and committees to stay updated with latest trends and follow regulatory compliance.

Also, As discussed with some of the top stockist of the city, I understood their participation in seminars.

5.5 IMPORTANT FACTOR IN DETERMINING THE COST OF PRODUCTS.

Profit Margins

Pharmaceutical firms' profit margins differ depending on a number of variables, such as the size of the business, its business model, its product range, market dynamics, and the global and regional environment. It is significant to highlight that the pharmaceutical industry is diversified and that profit margins across different companies can vary greatly.

R&D Cost

The cost of research and development (R&D) varies significantly in the pharmaceutical sector based on several variables, including the complexity of the ailment being addressed, the type of drug being created, the regulatory requirements, and the overall success rates of R&D projects. It's crucial to remember that the cost estimates given are approximations and may change depending on the details.

With estimates ranging from hundreds of millions to over a billion dollars, the overall cost of R&D for a single medicine can be astonishing. It is important to note that because many drug candidates do not complete the entire research process and do not succeed in reaching the market, large R&D costs contribute to the financial risks faced by pharmaceutical companies. These expenses affect the price of pharmaceutical items, as can elements like patent protection and market exclusivity.

43% stockist think R& D effects pricing and 31% were inclined towards profit margins.

CHAPTER 6

RECOMMENDATION & MITIGATION STRATEGIES

To improve the accessibility and affordability of pharmaceutical products & Medical Devices.

It takes the cooperation of many parties, including governments, pharmaceutical corporations, healthcare providers, and patient advocacy organisations, to improve the availability and cost of medications. The measures and tactics can assist increase cost and accessibility.

Negotiation and Price Regulation: To reduce the price of medications, governments can enact price regulation policies. This may entail negotiating fair prices with pharmaceutical firms, especially for necessary and life-saving pharmaceuticals. Governmental initiatives and policies may be designed to make sure that medicines are priced in a way that both represents their worth and considers patient affordability.

Mitigation Strategy: The regulatory environment can change over time and new rules or initiatives might be implemented. Therefore, for the most recent information on monitoring programmes for pharmaceuticals and medical devices in India, it is advised that DPCO of India, can run surveillance programs in each district and submit data to official government sources or regulatory agencies.

Grants and Research financing: Governments and public organisations can raise financing for drug development and research, particularly for conditions where there is a medical need. This may encourage creativity and the creation of more economical therapeutic options. Academic institutions and small biotech businesses that do research can benefit from grants and subsidies.

Mitigation Strategy: The process of luring, enticing, and facilitating the involvement of government bodies as investors in various projects, initiatives, or financial possibilities and onboarding investors. This process will entail putting forward investment ideas, attending wants and needs of government investors, negotiating terms and agreements, getting required approvals, and setting up continuing reporting and communication channels for researchers.

Health Insurance and Universal Healthcare Coverage: By lowering patients' out-of-pocket costs, expanding health insurance coverage, and instituting universal healthcare

systems can increase access to medications. Governments can aim towards universal healthcare coverage that covers necessary drugs and treatments.

Mitigation Strategy: Launch of health budget portal at district level that will provide information and transparency regarding the budget allocation, expenditure, and financial management related to healthcare and public health initiatives. It will serve as a tool for citizens, policymakers, and stakeholders to access and analyze data related to healthcare funding and resource allocation.

Pricing that is more transparent and value-based assessments: These two factors can help people make well-informed decisions. Governments and healthcare systems have the power to compel pharmaceutical corporations to provide evidence of the worth and cost-effectiveness of their products.

It's crucial to remember that no one solution can handle all facets of affordability and accessibility. Meaningful and long-lasting improvements require a complete strategy that combines various tactics and is adapted to certain healthcare systems and situations.

Mitigation Strategy: Setting up and structuring a team to work efficiently towards a particular target or goal for pricing which is consumer centric. Focus should be placed on developing a team structure and pricing strategy that corresponds with the needs, preferences, and affordability of the target customer group when constructing a team from a consumer perspective. Businesses may improve customer satisfaction, draw in and keep customers, and ultimately accomplish their company goals by developing a team and pricing strategy that is in line with consumer perceptions. To maintain ongoing success, regular evaluation and change based on customer input and market dynamics are crucial.

CHAPTER 7

CONCLUSION

Healthcare systems must have access to medications and medical equipment that is both affordable and readily available. The quality of healthcare and the wellbeing of patients can be greatly enhanced by ensuring an adequate supply, simple use, and affordability of these goods. To solve these issues and promote fair access to medications and devices, government regulations, regulatory frameworks, and healthcare initiatives are essential. Healthcare systems can better fulfil the requirements of individuals and communities, encouraging greater health and quality of life, by working to increase availability, accessibility, and affordability. Supply chain plays a crucial role in the pharmaceutical industry and medical device industry and is often referred to as the backbone of the sector.

A sustainable supply of vital medicines for the public sector is guaranteed by effective drug supply management. Each step in the cycle (choosing important medicines, acquiring them, distributing them, and using them) has an impact on how well the others operate. If one component is not effectively handled, the other components will inevitably be impacted. Centralised procurement and supply chain management (SCM) by a contracted organisation or states managing distribution through an existing network but with proper use of digital technologies seem promise given the limitations. The usage of essential and generic medications as well as sensible diagnostic, prescriptive, and therapeutic practises need to be made more widely known, in addition to building procedures for the procurement and delivery of suitable medications and equipment. This is feasible, and resources can be mobilised, and human resources can be quickly taught using the knowledge already acquired in the nation. By providing drugs that the poor cannot pay and lowering out-of-pocket costs, this will significantly improve the situation and prevent catastrophic health expenditures from happening.

CHAPTER 8

BIBLIOGRAPHY

1. Santos HLBS, Rosario N. Access to medication: key to achieving treatment goals. Bull World Health Organ. 2008 Jun [cited 2023 May 25];86(6). Available from: <https://pubmed.ncbi.nlm.nih.gov/18568261/>
2. Mureyi D, Gwatidzo SD, Matyanga CMJ. Consumers' access to information about medicine prices and availability as an enabler of last mile medicine access: A scoping review. J Med Access [Internet]. 2022 Jan 1 [cited 2023 May 22];6. Available from: <https://journals.sagepub.com/doi/full/10.1177/27550834221098598>1.
3. Impact of Pharma Recalls on the Industry and Consumers [Internet]. [cited 2023 May 25]. Available from: <https://www.pharmacy.biz/understanding-the-impact-of-pharma-recalls-on-the-industry-and-consumers/>
4. Shukar Sundas, Fatima Zahoor, Khezar Hayat, Amna Saeed , Ali Hassan Gillani, Sumaira Omer , Drug shortages : Causes , Impact and mitigation strategies , Front Protocol 09 July 2021 , Volume 12 - 2021 <https://doi.org/10.3389/fphar.2021.693426>
5. Olaniran, A., Briggs, J., Pradhan, A. et al. Stock-outs of essential medicines among community health workers (CHWs) in low- and middle-income countries (LMICs): a systematic literature review of the extent, reasons, and consequences. Hum Resour Health 20, 58 (2022). <https://doi.org/10.1186/s12960-022-00755-8>
6. Cameron A, Ewen M, Ross-Degnan D, Ball D, Laing R. Medicine prices, availability, and affordability in 36 developing and middle-income countries: a secondary analysis. The Lancet. 2009;373(9659):240–9.
7. Hayford K, Privor-Dumm L, Levine O, Hopkins Bloomberg J. Improving Access to Essential Medicines Through Public-Private Partnerships. 2004.
8. <https://www.pharmacy.biz/understanding-the-impact-of-pharma-recalls-on-the-industry-and->

[consumers/#:~:text=Recalls%20may%20result%20in%20a,damage%20is%20challenging%20to%20calculate.](#)

9. Suh GH. High medicine prices and poor affordability. *Curr Opin Psychiatry*. 2011 Jul;24(4):341-5. doi: 10.1097/YCO.0b013e3283477b68. PMID: 21532479.
10. Bhargava A, Kalantri SP. The crisis in access to essential medicines in India: key issues which call for action. *Indian J Med Ethics*. 2013 Apr-Jun;10(2):86-95. doi: 10.20529/IJME.2013.028. PMID: 23697486.
11. Bansal D, Purohit VK. Accessibility and use of essential medicines in health care: Current progress and challenges in India. *J Pharmacol Pharmacother*. 2013 Jan;4(1):13-8. doi: 10.4103/0976-500X.107642. PMID: 23662019; PMCID: PMC3643337.
12. Mhlanga BS, Suleman F. Price, availability, and affordability of medicines. *Afr J Prim Health Care Fam Med*. 2014 Jun 24;6(1): E1-6. doi: 10.4102/phcfm.v6i1.604. PMID: 26245401; PMCID: PMC4502837.
13. Prinja S, Bahuguna P, Tripathy JP, Kumar R. Availability of medicines in public sector health facilities of two North Indian States. *BMC Pharmacol Toxicol*. 2015 Dec 23; 16:43. doi: 10.1186/s40360-015-0043-8. PMID: 26699711; PMCID: PMC4690305.
14. Yousefi N, Alibabaei A. Information flow in the pharmaceutical supply chain. *Iran J Pharm Res*. 2015 Fall;14(4):1299-303. PMID: 26664401; PMCID: PMC4673962.
15. Neelkanth M Pujari, Anupam Kr Sachan, Yatindra Kumar. Cross-sectional study on availability and affordability of some essential child-specific medicines in Uttar Pradesh. *Int J Med Sci Public Health*. 2016; 5(10): 2047-2051. doi:10.5455/ijmsph.2016.26022016400
16. McMullan v. Catholic Healthcare W., No. 1 CA-CV 16-0328 (Ariz. Ct. App. Jun. 12, 2018)
17. Gautham M, Miller R, Rego S, Goodman C. Availability, Prices and Affordability of Antibiotics Stocked by Informal Providers in Rural India: A Cross-Sectional Survey. *Antibiotics (Basel)*. 2022 Apr 14;11(4):523. doi: 10.3390/antibiotics11040523. PMID: 35453278; PMCID: PMC9026796.
18. González Peña OI, López Zavala MÁ, Cabral Ruelas H. Pharmaceuticals Market, Consumption Trends and Disease Incidence Are Not Driving the Pharmaceutical Research on Water and Wastewater. *Int J Environ Res Public*

Health. 2021 Mar 4;18(5):2532. doi: 10.3390/ijerph18052532. PMID: 33806343; PMCID: PMC7967517.

19. González Peña OI, López Zavala MÁ, Cabral Ruelas H. Pharmaceuticals Market, Consumption Trends and Disease Incidence Are Not Driving the Pharmaceutical Research on Water and Wastewater. Int J Environ Res Public Health. 2021 Mar 4;18(5):2532. doi: 10.3390/ijerph18052532. PMID: 33806343; PMCID: PMC7967517.

ANNEXURE - A

Stockist Questionnaire

Dear Participant,

Thank you for considering taking my survey. I value your opinion and your input will help me in my research studies.

Before you begin the survey, I would like to provide you with some important information:

Purpose of the survey:

This survey is being conducted to better understand the accessibility & affordability of medicines and medical devices at stockist.

Voluntary Participation:

Participation in this study is completely voluntary. You have the right to refuse to participate or withdraw from the study at any time without penalty or loss of benefits to which you are entitled. Your decision to participate or not will not affect your current or future relationship with the researcher.

Confidentiality and privacy:

Your responses will be kept confidential and will only be used for research purposes. Your personal information will not be shared with any third parties. The data will be stored securely and will be used for statistical analysis only.

Contact information:

If you have any questions or concerns about this survey, please contact at niyati.talwar.98@gmail.com. I appreciate your feedback and look forward to hearing from you.

By proceeding with the survey, you indicate that you have read and understood the information provided in this consent form and voluntarily agree to participate in this study.

1. Organization Name / Firm Name *

Enter your answer

2. You are a stockist of *

- ☐ Pharmaceutical Products
- ☐ Medical Devices
- ☐ Both

3. How long have you been a stockist for pharmaceutical products / Medical Devices? *

- ☐ 0 - 4 Years
- ☐ 4 - 8 Years
- ☐ 8 - 12 Years
- ☐ More than 12 Years

4. You are a stockist of which pharmaceutical company / Medical Device Company ? *

☐ Global

☐ Indian

☐ Both

5. How many organizations of pharmaceutical products / medical devices do you stock ? *

☐ 3 - 4

☐ 5 - 6

☐ 6 - 7

☐ More than 7

6. What type of product division do you stock for chronic segment?

☐ Cardiovascular

☐ Diabetes

☐ Respiratory

☐ Oncology / Cancer

☐ Neuropathic or psychiatric

☐ Nephropathic

☐ Muscoskeletal

☐ Other

7. What type of pharmaceutical products do you stock ?

- ☐ Novel Drug Formulations
- ☐ Oncological Formulations
- ☐ Parenteral Formulations
- ☐ Topical Formulations
- ☐ Oral Formulations

8. What type of Products do you stock ?

- ☐ Single use (single use devices (i.e. syringes, catheters))
- ☐ medical equipment (i.e. anesthesia machines, patient monitors, hemodialysis machines)
- ☐ in vitro diagnostics (i.e. glucometer, HIV tests)
- ☐ personal protective equipment (i.e. mask, gowns, gloves)
- ☐ surgical and laboratory instruments

9. In how much time do you deliver orders to retailers ? *

☐ Within 24 hours

☐ Within 48 hours

☐ Within 72 hours

☐ Within 96 hours

10. How do you manage inventory for medicines / medical devices ? *

☐ Manual System

☐ Computerized System

☐ Combination of manual and computerized system

☐ None of the above

11. How do you ensure timely delivery of medicines / medical devices to retailers? *

- ☐ Regular communication with customers
- ☐ Maintaining a stock of popular medicines
- ☐ Partnering with reliable delivery services
- ☐ All of the above

12. What is the process for handling customer complaints and feedback ? *

- ☐ Maintaining a complaint and feedback system
- ☐ Addressing customer concerns promptly
- ☐ Taking necessary steps to improve customer satisfaction
- ☐ All the above

13. What are the challenges you face as a stockist of pharmaceutical companies / medical device companies ? *

- ☐ Competition from other stockists
- ☐ Managing inventory and logistics
- ☐ Ensuring quality control and customer satisfaction
- ☐ All of the above

14. How do you stay updated with the latest medicines and trends in the pharmaceutical industry / medical devices ? *

- ☐ Regularly attending conferences and workshops
- ☐ Regarding industry publications and news
- ☐ Maintaining partnerships with reliable pharmaceutical companies
- ☐ All the above

15. How often do you encounter expired or near-expiry products? *

- ☐ Never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Always

16. How often do you encounter counterfeit or substandard products ? *

- ☐ Never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Always

17. How often do you encounter products with incorrect labeling or packaging ? *

- ☐ Never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Frequently

18. What do you think is the most important factor in determining the cost of products? *

- ☐ Research and development costs
- ☐ Marketing and advertising costs
- ☐ Manufacturing costs
- ☐ Profit margin for pharmaceutical companies

19. Should governments have the power to negotiate prices with companies? *

- ☐ Yes
- ☐ No
- ☐ Not sure

20. Do you face stock - out of medicines / products ? *

- ☐ Never
- ☐ Rarely
- ☐ Occasionally
- ☐ Often
- ☐ Always

21. How often customers are unable to afford a prescribed medication? *

- ☐ Frequently
- ☐ Occasionally
- ☐ Rarely
- ☐ Never

22. What do you think can be done to improve the accessibility and affordability of medicines? *

- ☐ Increase government funding for healthcare
- ☐ Implement price controls on medicines
- ☐ Encourage competition among pharmaceutical companies
- ☐ All of the above
- ☐ e. Other (please specify)

23. Any other , Pls specify

Enter your answer

24. Recommendations / suggestions

Enter your answer