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Pharmaceutical Market in Urban Population – A Report

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The pharmaceutical market in urban areas plays an important role in supporting healthcare needs. Urban populations are growing rapidly, and people living in cities often experience different health challenges due to pollution, stress, unhealthy eating habits, and a fast-paced lifestyle. This leads to a higher demand for medicines, especially for diseases such as diabetes, hypertension, respiratory problems, infections, and mental health disorders. This study explores how medicines are used, purchased, and distributed among people living in urban areas. It also looks at the differences between branded and generic drugs and how people make choices based on price, availability, and trust. In urban settings, access to pharmacies, hospitals, and healthcare professionals is generally better compared to rural areas, but there are still challenges such as high costs, lack of awareness, and the influence of advertisements. Information has been gathered from secondary sources like health department reports, pharmaceutical sales records, and market research publications. The study also highlights the growing trend of over-the- counter (OTC) drug use and self-medication practices in cities. Overall, the findings show that while urban populations have better access to medicines, there is a strong need for improving awareness about proper drug use, encouraging the use of affordable generics, and ensuring that quality medicines are available to everyone. The pharmaceutical market in urban areas has great potential to grow further, but it must be supported with strong policies, regulation, and public health education to ensure better healthcare outcomes.

Keywords: pharmaceutical market, urban healthcare, medicine demand, brand awareness, healthcare challenges, pharmaceutical-sales

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1. Introduction

Large, contemporary pharmaceutical corporations have made their way possible through scientific advancements and regulatory actions. The development of potent medications in the 1920s and 1930s, such insulin and penicillin, was not only played a significant role in enhancing population health, but it has also produced a distinct industry. According to Nelson (1983), the major pharmaceutical corporations have their roots mostly in Switzerland, Germany, Italy, the United Kingdom, and the United States. Quality and other legislative enhancements that support the industry's expansion include separating prescription and over-the-counter medications, maintaining safety, and properly labeling. The 1950s and 1960s, which were seen as the start of the gilded age of drug discovery, had successful outcomes due to advancements in pharmaceutical-related sciences, such as molecular biology. Numerous potent medications were developed and manufactured. The first oral contraceptives, heart and blood pressure medications, psychiatric treatments (MAO Inhibitors), chlorpromazine (Thorazine), The tranquillizers, Valium (diazepam), and Haldol (haloperidol). Drug development began to heavily concentrate on cancer treatment in the 1970s (ibid.).[1]

The incidence of some potentially fatal accidents in the 1960s increased the necessity for governmental control of pharmaceutical safety. The most severe was Thalidomide use, which was resulting in birth abnormalities in a large number of babies. In the 1970s, the sector started growing and was headed toward becoming a mega-industry. Large, international pharmaceutical businesses began to appear in the mid-1980s as a result of horizontal and vertical integration. Big pharmaceutical giants and small biotechnology companies forged strategic alliances. Corporate buyouts and mergers between rival companies accelerated this tendency as well.

The 1980s saw a shift in the high-growth scenario. The sector was increasingly dealing with regulatory constraints, innovative hurdles, and the need to address global health issues. Effective HIV/AIDS medications that many of the resource-poor populations in developing nations could obtain were desperately needed.

Despite the development of effective medications to treat heart disease, which at the time was a significant source of revenue for pharmaceutical corporations, the industry was increasingly criticized worldwide.[2]

When India gained its independence in 1947, Western multinational corporations (MNCs) controlled 80–90% of the pharmaceutical market, mostly through imports.

At the time, 99 percent of all pharmaceutical goods in India that were patented were owned by Indian medicine prices were among the highest in the world, as were those of foreign corporations. Until the government enacted policies emphasizing self-reliance through local manufacture, the Indian pharmaceutical business was still dependent on imports during the 1960s.[3]

Government policy resulted in a number of measures, such as the elimination of food, chemical, and pharmaceutical product patents; the establishment of process patents; the restriction of foreign ownership in Indian pharmaceutical firms; and the imposition of price controls on specific formulations and bulk medications. As a result of the lack of legislative safeguards for their copyrighted goods, the majority of international pharmaceutical producers left the Indian market. As a result, foreign medicine producers' stake of the Indian domestic market fell to less than 20% in 2005. Local businesses quickly stepped in to fill the hole left by the MNCs' departure from the Indian market, and by 1990, India was almost self-sufficient in the production of bulk pharmaceuticals and self-sufficient in the production of formulations. [4]

Among the essential resources for preserving and enhancing health, medications are also essential for saving lives. However, medications remain out of reach and costly for far too many people worldwide. 50% of patients do not take their medications as prescribed when they are available.[5]

A class of newly developed chemical substances known as pharmaceuticals has improved our quality of life. The creation, manufacturing, and distribution of both branded and generic medications are under the purview of the pharmaceutical sector.[6]

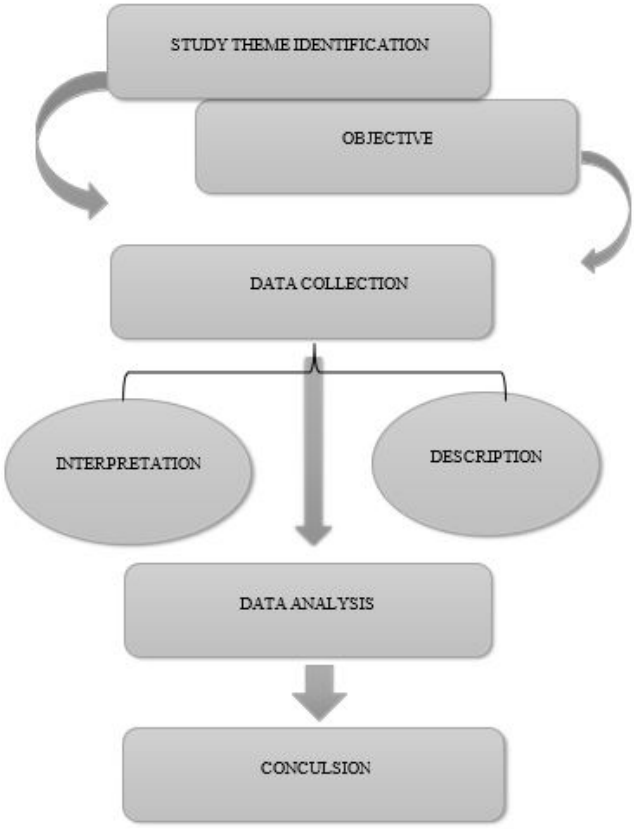
Pharmaceuticals are products that are found, created, manufactured, and sold for use as medications.

These medications are intended to cure and/or prevent disease (as well as potentially alleviate symptoms of illness and/or injury) and are given to patients or self- administered by them. Pharmaceutical companies may deal with "brand" products that are mostly connected to a particular company's history, "generic" medications and medical equipment that do not contain intellectual property, or both in certain circumstances. Regulations that apply to the various sectors of the industry (such as the production of biologics) control entire financial processes, such as the patenting, efficacy testing, safety evaluation, and marketing of these products.[7]

Due to increased globalization, the whole pharmaceutical industry is consolidating. Innovation in the industry has kept the industry alert, and the industry is in a situation where innovation is the only thing that can help it survive. In the pharmaceutical industry, organizations make their decisions based on pharma marketing. Although the nature of marketing pharmaceutical items is undoubtedly different from that of conventional marketing, the theme—that is, identifying needs and providing solutions—remains the same. Consumer purchasing behaviour refers to how people decide to buy, use, or dispose of products and services to meet their needs. It is influenced by the four P's—Product, Price, Place, and Promotion—along with economic, technological, political, and cultural factors. Understanding this behaviour helps assess demand, track brand performance, predict trends, and manage costs. It involves both tangible elements, like the product itself, and intangible elements, like values and beliefs, making it a complex but essential area of study for any market. [8]

Since the late 1980s, the Indian government has worked hard to set the pharmaceutical sector on a stable growth and development path. India's pharmaceutical sector is expanding quickly, and it is anticipated that the country would soon emerge as a worldwide pharmaceutical superpower and leading representative in the field.[9] In addition to highly qualified and driven medical personnel, pharmaceutical items also have an impact on healthcare. The pharmaceutical industry contributes significantly to the enhancement of public health through the development, manufacturing, distribution, and marketing of necessary medications or pharmaceutical goods.[10]

2. Process Adopted for the Study



3. Objectives of the Study

- To give a professional data to research and development to improve various medicines which are more consumed by urban population.
- To evaluate and compare drug utilization trends among in-patient populations within urban healthcare systems.
- To evaluate the impact of drug branding on patient compliance and adherence in urban population.
- Compliance and regulation: Following all the rules and laws in healthcare and

4. Data Collection

Data collection of pharmacy sales for generic and branded drugs is a crucial part of pharmaceutical market analysis, supply chain management, and healthcare planning. The process involves gathering, recording, and analyzing data related to the sale of medications at retail or hospital pharmacies.

Sources of Sales Data:

Retail Pharmacies: Daily/weekly/monthly sales reports.
Hospital Pharmacies: Purchase and dispensing logs.

5. Market Sales for Branded Drugs

CATEGORY OF DRUG	MARKET SALES%
Anti-diabetes	25%
Antihypertensive	23%
Anti-cardiac	20%
Anticancer	9%
Antiulcer	12%
Antipsychotics	3%
Antithyroid	6%
Anti-epilepsy	2%

Table 01: Market sales for Branded Drugs

Interpretation:

"Market Sales for Branded Drugs" provides a breakdown of the market share percentages for different categories of branded pharmaceutical drugs. According to the data, anti-diabetes drugs dominate the market, accounting for 25% of total sales. This is closely followed by antihypertensive drugs at 23%, and anti-cardiac drugs at 20%, highlighting a strong market demand for medications targeting chronic lifestyle diseases such as diabetes, hypertension, and heart-related conditions. Other drug categories hold comparatively smaller market shares: antiulcer drugs stand at 12%, anticancer drugs at 9%, and antithyroid drugs at 6%. The remaining segments—antipsychotics and anti-epilepsy drugs—have the lowest market shares at 3% and 2% respectively. These figures suggest that pharmaceutical companies are primarily focused on the production and sales of drugs for non-communicable diseases, which are increasingly prevalent in the global population.

Figure 1: Market sales for Branded Drugs

Description:

The bar graph titled "Market Sales" visually represents the percentage distribution of branded drug sales across various therapeutic categories. The graph clearly shows that anti-diabetes drugs hold the largest market share at 25%, followed closely by antihypertensive drugs at 23%, and anti-cardiac drugs at 20%, indicating a high demand for medications targeting chronic cardiovascular and metabolic conditions. Antiulcer drugs also have a notable presence at 12%, while anticancer drugs account for 9% of the market. The remaining categories—antithyroid(6%), antipsychotics (3%), and anti-epilepsy drugs (3%)—reflect comparatively lower market shares. This graphical representation supports the data presented in the table and highlights the pharmaceutical industry's strong focus on non-communicable diseases, which are prevalent and require long-term treatment, driving higher market consumption.

6. Ales for Generic Drugs

CATEGORY OF DRUG	MARKET SALES
Anti-diabetes	23%
Antihypertensive	20%
Anti-cardiac	20%
Anticancer	9%
Antiulcer	12%
Antipsychotics	3%
Antithyroid	6%
Anti-epilepsy	3%

Table 02: Sales for generic drugs

Interpretation:

The table shows the sales distribution of generic drugs across different therapeutic categories.

Among all, anti-diabetic drugs (23%) account for the highest sales, followed closely by antihypertensive drugs (20%) and anti-cardiac drugs (20%), indicating a higher burden of lifestyle and cardiovascular-related diseases in the population. Anticancer drugs (9%) and antiulcer drugs (12%) also contribute significantly, reflecting growing cases of cancer and gastrointestinal disorders. On the other hand, drugs such as antipsychotics (6%), antithyroid drugs (3%), and antiepileptics (3%) show comparatively lower sales, possibly due to a smaller patient population or more specialized treatment needs. Overall, the data highlights that chronic lifestyle-related diseases like diabetes, hypertension, and cardiac disorders dominate the generic drug market, suggesting an increasing demand for affordable long-term treatments in these categories.

Figure 02: Sales for generic drugs

Description:

The bar graph represents the sales distribution of generic drugs across various therapeutic categories. The highest sales are observed in anti-diabetic drugs (23%), followed by antihypertensive (20%) and anti-cardiac drugs (20%), which together highlight the dominance of chronic lifestyle-related diseases in the market. Antiulcer drugs (12%) and anticancer drugs (9%) contribute moderately, reflecting the rising incidence of gastrointestinal and cancer cases. In contrast, categories like antipsychotics (6%), antithyroid drugs (3%), and antiepileptics (3%) show relatively lower market sales, suggesting either a smaller affected population or more specialized treatment demand. Overall, the graph indicates that long-term, chronic conditions such as diabetes, hypertension, and cardiac disorders form the largest share of generic drug consumption, emphasizing the growing need for affordable treatment options in these therapeutic areas.

7. Comparative Market Sales for Branded and Generic Drugs

CATEGORY OF DRUG	BRANDED MARKET SALES IN %	GENERIC MARKET SALES IN%
Anti-diabetes	25%	23%
Antihypertensive	23%	20%
Anti-cardiac	20%	20%
Anticancer	9%	9%
Antiulcer	12%	12%
Antipsychotics	3%	3%
Antithyroid	6%	6%
Anti-epilepsy	2%	3%

Table 03: Comparative market sales for Branded and Generic Drugs

Interpretation:

The comparative analysis of market sales for branded and generic drugs shows that the overall distribution across therapeutic categories is quite similar, with slight variations in a few segments. Anti-diabetic drugs hold the highest share in both branded (25%) and generic (23%) categories, followed by antihypertensive drugs with 23% in branded and 20% in generic sales. Anti-cardiac drugs maintain an equal share of 20% in both branded and generic markets, while anticancer and antiulcer drugs also show identical sales distribution at 9% and 12% respectively. Antipsychotics and antithyroid drugs have relatively lower shares, each contributing 3% and 6% in both branded and generic markets. A slight difference is observed in the anti-epilepsy segment, where both branded sales and generic sales of 3% . Overall, the data indicates that generic drugs closely parallel branded drugs in market share across most categories, highlighting a growing acceptance and usage of generics alongside branded formulations.

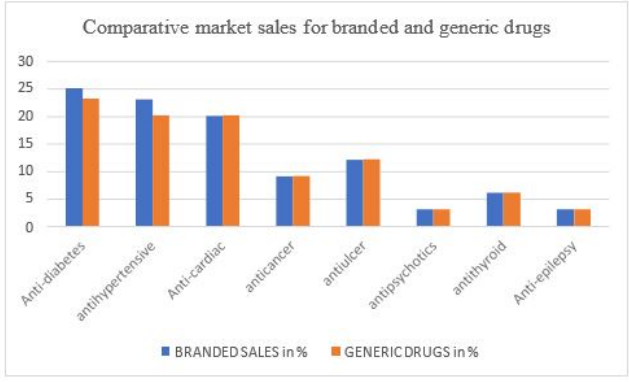


Figure 03: Comparative market sales for Branded and Generic Drugs

Description:

The bar graph illustrates the comparative market sales of branded and generic drugs across different therapeutic categories. It is evident that anti-diabetic and antihypertensive drugs dominate the market, with branded sales slightly higher (25% and 23%) compared to generics (23% and 20%). Anti-cardiac drugs show an equal share of 20% in both branded and generic segments, while anticancer and antiulcer drugs also reflect identical sales at 9% and 12% respectively. For antipsychotics and antithyroid drugs, the market contribution remains relatively low at 3% and 6% for both branded and generics. In the case of anti-epilepsy drugs, both sales are shows same (3%). Overall, the graph highlights that the market share of generics closely parallels that of branded drugs in most categories, indicating a balanced acceptance of both types of formulations.

8. Category-Wise Medicine Consumption

PATIENT TYPE	MARKET SHARE (%)
Inpatient	21%
Outpatient	32%
OTC	47%

Table 04: Category-wise consumption of medicines

Interpretation:

The table says that "Category-wise consumption of medicines" presents the distribution of market share among different patient types. It indicates that Over-the-Counter (OTC) medicines account for the highest share at 47%, highlighting a significant level of self-medication where individuals purchase medicines without prescriptions. This trend may reflect accessibility, affordability, or the treatment of minor ailments that do not require medical consultation.

Outpatient consumption stands at 32%, showing a considerable portion of medicines being prescribed during visits to clinics or hospitals without patient admission. Meanwhile, Inpatient medicine usage is the lowest at 21%, which is expected since hospitalized patients are fewer in number and typically receive specific treatments under close medical supervision. Overall, the data emphasizes the dominant role of consumer-driven OTC purchases in the pharmaceutical market, pointing to the need for awareness and regulation to ensure safe medication practices.

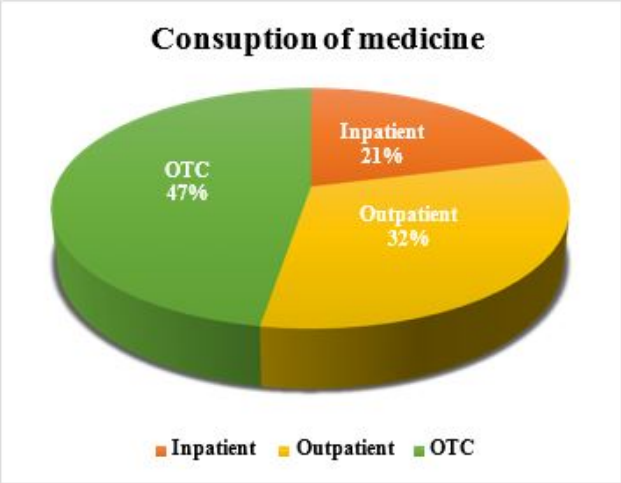


Figure 04: Category-wise consumption of medicines

Description:

The figure includes and pie chart that display the consumption of medicine in urban healthcare, categorized into inpatient, outpatient, and OTC (Over-the-Counter) medication use. The pie chart is color-coded for visual clarity-green for OTC, yellow for outpatient, and orange for inpatient— clearly illustrating the dominance of OTC medicine usage. This analysis provides insight into urban healthcare behavior, where self-medication and outpatient treatments are on the rise. These findings highlight the need for responsible drug use policies and pharmaceutical R&D focused on safe and effective OTC formulations. Moreover, the trend also emphasizes the importance of public health education regarding rational drug use.

9. Influence of Factors Affect Pharmaceutical Market

Categories	Percentage
Doctor prescription	90%
Brand awareness	80%
Price	60%
Advertising / promotion	65%
Nearby shops (accessibility)	92%

Table 05: Influence of factors affect pharmaceutical market

Interpretation:

The data indicates that nearby shop accessibility (92%) and doctor prescriptions (90%) are the most influential factors affecting customer purchasing decisions.

Brand awareness also plays a significant role, with 80% influence, suggesting that well-known brands have a strong market presence. Advertising and promotions contribute moderately at 65%, indicating their role in attracting attention but not as strongly as direct medical recommendations or convenience. Price has the lowest impact at 60%, showing that customers may prioritize trust, accessibility, and professional advice over cost when choosing pharmaceutical products.

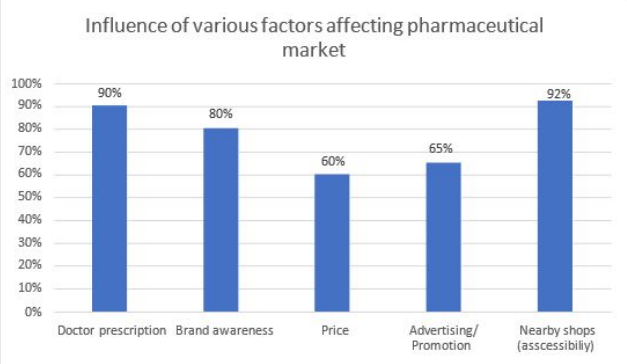


Figure 05: Influence of factors affect pharmaceutical market

Description:

The bar graph says that "Influence of various factors affecting pharmaceutical market" illustrates the percentage influence of five key factors on the pharmaceutical market. The highest influence is seen from nearby shops (accessibility) at 92%, followed closely by doctor prescription at 90%. Brand awareness holds an influence of 80%, while advertising/promotion impacts 65%. Price has the least influence among the listed factors at 60%. This data suggests that accessibility and professional recommendations are the most significant drivers of consumer behavior in the pharmaceutical sector, while price plays a relatively smaller role.

10. Data Analysis for Market Sales

1. Diabetes Mellitus (Type 2)

Definition: A chronic metabolic disorder characterized by insulin resistance or reduced insulin secretion, resulting in elevated blood glucose levels.

Etiology in Urban Areas: Sedentary lifestyle Processed, high-glycemic, food intake Obesity and stress, Genetic predisposition.

Symptoms: Polyuria, polydipsia, polyphagia**,** Fatigue, slow wound healing**,** Blurred vision.

Complications: Neuropathy, nephropathy, retinopathy, Cardiovascular-diseases.

Urban Impact: Urban India shows higher diabetes prevalence (~12-14%) than rural areas (7- 8%), according to ICMR–INDIAB study (2023). Cities like Delhi, Mumbai, and Bengaluru have reported an alarming increase in prediabetes.

Public Health Concern: Requires long-term management, High-cost burden on middle-income urban families.

2. Hypertension (High Blood Pressure)

Definition: A condition in which the blood pressure in the arteries is persistently elevated, usually above 140/90 mmHg.

Etiology in Urban Areas: High sodium diet, Stress and lack of physical activity, Obesity, alcohol, and tobacco use.

Symptoms: Often asymptomatic, May include headaches, dizziness, palpitations.

Complications: Stroke, myocardial infarction, Kidney failure, vision loss.

Urban Impact: 30% of adults in urban India suffer from hypertension (National Family Health Survey 5). Detected more often due to urban access to diagnostic facilities.

Public Health Concern: Frequently co-occurs with diabetes and cholesterol disorders (metabolic syndrome).

3. Cardiovascular -Diseases (CVDs)

Definition: A group of disorders affecting the heart and blood vessels including ischemic heart disease, arrhythmias, and heart failure.

Major Causes in Urban Areas: Hypertension, diabetes, dyslipidemia**,** Poor diet, sedentary life, smoking.

Symptoms: Chest pain (angina), shortness of breath, palpitations.

Complications: Myocardial infarction, stroke, sudden cardiac death.

Urban Impact: Accounts for 30% of all deaths in urban India, as per WHO. Increasing cases in the 30–50 age group due to early lifestyle issues.

Public Health Concern: One of the most expensive disease categories to manage Significant burden on healthcare infrastructure in metro cities.

4. Cancer

Definition: A group of diseases involving abnormal cell growth with potential to invade or spread to other parts of the body.
Common Urban Cancers: Breast, lung, cervical, colorectal.
Etiology in Urban Areas: Pollution (e.g., vehicular emissions)**,** Smoking, alcohol, late pregnancies**,** Dietary habits and sedentary behavior.
Symptoms (depend on cancer type): Unusual lumps, weight loss, bleeding, persistent cough.
Urban Impact: According to Indian Council of Medical Research (ICMR), cancer incidence in cities is twice as high as in rural India. Delayed diagnosis is still a challenge despite advanced facilities.
Public Health Concern: Requires multi-modal treatment: surgery, radiation, chemotherapy, and biologics**,** High cost makes access unequal among urban poor and rich.

5. Gastrointestinal Disorders (GERD, Ulcers)

Definition: A group of conditions affecting the stomach and esophagus, mainly due to excess acid or H. pylori infection.
Common Urban GI Conditions: Gastroesophageal Reflux Disease (GERD)**,** Peptic Ulcers**,** Functional Dyspepsia.
Causes in Urban Areas: Irregular eating habits**,** Junk food, alcohol, smoking**,** Psychological stress.
Symptoms: Acid reflux, bloating, nausea, burning sensation.
Urban Impact: Prevalence is high among office workers, students, and shift workers. Many patients resort to self-medication using proton pump inhibitors (PPIs).
Public Health Concern: Overuse of PPIs may lead to side effects like magnesium deficiency and kidney issues.

6. Psychiatric Disorders

Definition: Mental, behavioral, or emotional disorders that impact thinking, mood, and functioning.
Common Disorders in Urban India: Depression, Anxiety, Schizophrenia, Bipolar Disorder.
Etiology in Urban Settings: Stress from work, studies, and financial pressure**,** Substance abuse (alcohol, drugs), Social isolation, lack of family support.
Symptoms: Sleep disturbances, irritability, delusions, suicidal thoughts.
Urban Impact: WHO (2023) reports 15–20% of urban adults may suffer from a diagnosable mental health condition. High stigma still limits treatment in lower socio-economic groups.
Public Health Concern: Poor mental health leads to loss of productivity, suicide, and poor medication adherence in comorbid patients.

7. Thyroid Disorders

Definition: Disorders of the thyroid gland resulting in hormonal imbalance (hypo- or hyperthyroidism).
Prevalence: Hypothyroidism is most common, especially among women.
Symptoms: Hypothyroidism: Weight gain, fatigue, dry skin, menstrual irregularities**,** Hyperthyroidism: Weight loss, anxiety, palpitations.
Urban Impact: 11% prevalence among urban Indian adults (Abbott India Study 2022) Common in women aged 30–50; detected through routine urban health checkups.
Public Health Concern: Often lifelong treatment with daily thyroxine Requires monitoring and dose adjustment in pregnancy.

8. Epilepsy

Definition: A chronic neurological condition marked by recurrent seizures caused by abnormal electrical activity in the brain.
Causes: Head trauma, infections, brain tumors, congenital abnormalities.
Symptoms: Sudden loss of consciousness, convulsions, blank stares.
Urban Impact: Urban centers have better neurologist access and EEG/MRI diagnostics Social stigma still persists, affecting education and marriage prospects.
Public Health Concern: Requires lifelong anti-epileptic drugs (AEDs) Missed doses can lead to severe consequences (status epilepticus).

11. Conclusion

From my research, I would like to conclude that the pharmaceutical market analysis reveals significant insights into medicine consumption patterns and market demands in urban populations.

1. Market-Driven Manufacturing

Based on the observed demand for particular categories of drugs, pharmaceutical companies can strategically plan and optimize their manufacturing processes.

This approach ensures that the supply aligns with current and future market requirements, thereby improving efficiency and addressing the healthcare needs of the population.

2. Need for Technological Advancement

The study emphasizes the importance of improving and upgrading manufacturing tools and techniques. To remain competitive and responsive to changing demands, pharmaceutical industries must adopt advanced technologies and research methodologies. This includes modernizing production systems, enhancing quality control mechanisms, and investing in continuous development.

3. Research-Oriented Strategy

Research plays a crucial role in understanding drug consumption trends and guiding the development of targeted medicines. This study serves as a vital tool for researchers to focus on specific groups or categories of drugs that demonstrate significant sales or therapeutic impact. By doing so, pharmaceutical research and development (R&D) can better cater to public health needs, ultimately leading to more effective and tailored drug formulations

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