Irrational prescribing of medicine and increasing burden of medical cost on poor household in India: a challenge for public health

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Abstract

Medicine is one of the most important contributors of life expectancy. Essential medicine is the foremost cause of death and disability in developing countries can be prevented, cured and improved with cost-effective essential medicine. But besides this thousands of people don’t have access to essential medicine. Majority of the people spent their huge share of income on medicine which traps them into a vicious circle of poverty. The huge prescription of medicine is a main cause of treatment delay. Essential medicines save lives and enhance the health of population but only when they are accessible in an inexpensive, reasonable and affordable cost, and when they are use in an appropriate way. Besides certain police measures and programs a huge chunk of population doesn’t have access to essential medicine and this remain the pivotal public health issue in India. Availability of harmless, effective, affordable and quality medicines for all is one of the most important targets of Sustainable Development Goals. For acquiring universal health coverage access to safe, effective and affordable essential medicine is a paramount aspect. The main aim of this paper is to examine the burden of medicine cost and its socio-economic impact on households. This paper is based on secondary date. It is estimated that by improving access to existing essential medicines and vaccines, about 10 million lives per year could be saved. The studies revealed that as much as 25%-70% of overall health expenditure in developing countries is spent on medicines whereas, around 10% of health expenditure in most high-income countries is consumed by medicines. In India medicine consumed higher share of total health expenditure over 43%. Several studies depict that more than three lakh crore rupees that households spent on health, and about 42% of the total out-of-pocket expenditure (OOP) went in procurement of medicines. Households spent around 28% of the OOP spending in private hospitals and this constitutes 62.6% of the total OOP health spending in India both government and private source.

Keywords: Expenditure on medicine, out-of-pocket expenditure. irrational medicine, essential medicine

Introduction

Medicines are a vital source for reducing pain especially for those who residing far from healthcare system. The reason behind this is very obvious. The contributions of medicines are most important in healthcare systems. Medicines enhanced the health indicators and reduce the burden of disease but it only possible when they are affordable and accessible for all. In the contemporary time there has been a substantial debated on the fact that the rising price of medicine creates hindrance in the path of accessibility to health. Majority of the people cannot afford medicine due to high price. They account the substantial amount of total health expenditure in India. Millions of people in developing countries delay medical treatment due to burden of health expenditure. The main concern here is that the rising medical cost on inappropriate prescription of medicines. These have a great socio-economic impact on the household. Unreasonable use of medicines is a menace that the healthcare system confronting all over the globe. Such irrational practices are very harmful and deteriorate health care delivery. They create barriers for the poor patients and the outcome in exhaustion of already limited resources that may have been useful for catering other health related needs. So, from the above discussion we realized that there is a need to talk about the rational use of medicine that uplift the health indicator in particular and health care system in general. The “rational use of medicine” not only promotes health care system but also increase accessibility and reduces the burden of health care cost from poor household. In India majority of the people pay full cost on medicine from their own pocket because of the inappropriate health insurance courage. The World health organization (WHO) report revealed that more than half of all medicines are
inappropriately prescribed, dispensed, or sold. Furthermore, about 50% of patients are failed to take correct medicines. The issue of use of irrational medicine mostly evident in third world nation which lead deteriorates health system because of less attention towards the implementation of drug price policies. The excessive use of irrational medicine weakens the potential to access essential medicine. Essential medicine play utmost role to reducing mortality and morbidity rate but only when they are easily accessible, affordable, qualitative in nature and used in a proper way. Besides improving health indicators in India as compare to earlier time but still absence of essential medicine persist the grave public health concern, that also create problem in the path of sustainable development goal. Aftermath, monitoring the menace of irrational medicine use is realised to be most vital not only for promoting healthcare services but also favourable for sustainable use of resource. A study reveals that as much as 25%–70% of overall health expenditure in developing countries is spent on medicines whereas, around 10% of health expenditure in most high-income countries is consumed by medicines.


According to World Health Organisation, in developing and transitional countries, in primary care less than 40% of patients in the public sector and 30% of patients in the private sector are treated in accordance with standard treatment guidelines. A survey carried out by Hill AM, Barber MJ, & Gotham D, on estimated costs of production and potential prices for the WHO Essential Medicines List in 2018, which depicts that in low-income and middle-income countries (LMICs), only 58% of essential medicines are available in the public sector, and 67% in the private sector, according to surveys of pharmacies. Medicines account for a quarter of all health expenditures globally, and 100% of health expenditures for about half of households in Low-income and middle-income countries. In India, around 50–65% of the population don’t accessing medicines.

Almost 70% of Indians’ overall medical expenses are out-of-pocket and 70% of those expenses are on drugs alone Out-of-pocket expenditure pushed 34 million people below the poverty line (McMullan Patrick, et al, 2108. p1) [6]. As Almarsdottir and Traulsen point out, “industrialised countries can to some extent afford medicines that are new and expensive, whereas most developing countries will have to be very restrictive and keep to essential drug lists. Both these decisions can be viewed as rational in the light of each country’s economic situation”. However, the growing health care spending in most developed countries has reignited debates that perhaps even in these rich nations, the EML concept may still be very applicable and highly essential.


Irrational Prescribing and Corruption

The increasing corruption and growing destructive practices in medical domain depicts that there is paramount need to initiate a sold mechanism which will safeguard the public health needs. Irrational prescribing refers to prescribing that fails to conform to good standards of treatment. The irrational prescribing consists of five ways, namely: under-prescribing, over-prescribing, incorrect prescribing, extravagant prescribing, and multiple prescribing. Under-prescribing indicates the occurrence where the vital medicines are not prescribed, or an inadequate dose or treatment spell is delivered. This can happen when, for instance, an insufficient weight-based dosage is directed in patients such as children. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5419375/pdf/pharmacy-04-00035.pdf accessed in 2-1-2019).

Van den Heuvel et al. carried out a study among Dutch general practitioners, which revealed that 65% of patients, prescribing physicians after thorough consideration decided not to prescribe a specific medication. Under-prescribing can pay to substantial morbidity and mortality, while it vests an area of medicine use that has involved less consideration. Wauters et al., for example, has described a strong link between under-prescribing and misuse with hospitalization and death among a cohort of community-dwelling elderly people aged 80–120 years. Over-prescribing refers to cases where a medicine that is not indicated is prescribed, or if indicated, the duration of treatment is too long or the quantity of medicine given to patients exceeds the amount required for the current course of therapy. This can include, for instance, giving 21 days course of an antibiotic for a minor infection that requires just 7 days of treatment, or when an antibiotic is prescribed in the first place for a suspected viral infection. Incorrect prescribing also happens when a medicine is given for the incorrect diagnosis, the prescription is arranged inadequately, or modifications are not made to incorporate the patient’s co-existing medical, genetic, or environmental conditions. Extravagant prescribing is said to have befall when a prescriber issues a more luxurious medicine when a less lavish one of comparable safety and efficacy exists, or where a prescriber treats a patient symptomatically instead of tackling the underlying serious condition. An example may include writing an unnecessarily expensive cough mixture when it presents no documented extra benefits from commonly available cheaper options. Though the above types of irrational prescribing happen in different frequencies across regions of the world, the WHO has outlined some commonly encountered patterns of irrational prescribing. Some of the commonly observed patterns include the excessive use of injections, multiple drug prescriptions, the excessive use of antibiotics for treating minor acute respiratory infections (mostly viral in origin), and the use of minerals and tonics for managing malnutrition. This list is not exhaustive, and highlights the extent to which the inappropriate use of medicines remains a worldwide challenge. The main reason of all above said prescribing is profit maximization. All these irrational prescribing led to out of pocket health expenditure. The inappropriate prescribing decimates the socio-economic condition of the poor household and trap them into vicious circle of poverty from which they can never come out. (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5419375/pdf/pharmacy-04-00035.pdf accessed in 2-1-2019)

Factors responsible for the Irrational Use of Medicines

There are so many factors that are responsible for the irrational prescribing or use of medicines. These factors can be outlined to numerous stages of the medicine use cycle, and can be generally categorized into those deriving from patients, prescribers, workplace (health system), supply system (including industry influences), regulation, drug information or misinformation, or a mixture of these factors. Unaware patients who may have the insight that there occurs a pill for every illness can utilize excessive pressure on health providers to prescribe medicines, even when this is not
needed. The impact of patients in the prescription of various drugs such as antibiotics has been widely recognized. Regarding prescriber-related factors, irrational prescribing can arise as a consequence of numerous internal or external factors. For example, the prescriber may accept freebies in the form of gift, cash or travel reimbursement, which may be linked to their lack of training in rational prescribing. Furthermore, the lack of incentives and penalties for irrational prescribing can encourage doctors to prescribe unnecessary medications. To control this issue, the Indian government has implemented several policies. For instance, the National Health Mission (NHM) aims to improve the quality of healthcare services in the country by providing essential drugs at affordable prices. This can help reduce the burden on patients and promote rational prescribing. Therefore, it is crucial to address these challenges by improving the training and education of healthcare professionals, implementing strict regulations, and providing adequate incentives and penalties for rational prescribing.
between the public spending on health and reduction in burden of OOP expenditure. As government spending increase on health (7%) this the burden OOP payment decreases as the same percentage (7%). As per the National Health Accounts (NHA) reports the high cost on medicines are the vital economic burden on the household that snatch the basic necessities by majority of poor households. This survey depicts that more than three lakh crore rupees that households spent on health, and about 42% of the total out-of-pocket expenditure (OOP) went in procurement of medicines. Households spent around 28% of the OOP spending in private hospitals and this constitutes 62.6% of the total OOP health spending in India both government and private source (NHA, 2014-15). A case published on the Hindustan Times (Hindustan Times, Dec 11, 2017) about a private hospital (Fortis Hospital) in Gurgaon which revealed that a girl of seven year old who suffering from dengue admitted in this hospital and later on she died aftermath, the doctors said to the family that to pay the bill a sum of over Rs16 lakh, which was shocking for them. So from this we can acknowledge that how can a poor family buy good health.

<table>
<thead>
<tr>
<th>Items</th>
<th>Household OOP Spending (Rs crore)</th>
<th>Percentage of OOP payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacies</td>
<td>1,30,451</td>
<td>43.13%</td>
</tr>
<tr>
<td>General hospitals - Private</td>
<td>86,189</td>
<td>28.50%</td>
</tr>
<tr>
<td>General hospitals - Government</td>
<td>22,429</td>
<td>7.42%</td>
</tr>
<tr>
<td>Medical and diagnostic laboratories</td>
<td>20,610</td>
<td>6.81%</td>
</tr>
<tr>
<td>Providers of patient transportation &amp; emergency rescue</td>
<td>18934</td>
<td>6.26%</td>
</tr>
<tr>
<td>Offices of general medical practitioners</td>
<td>15,760</td>
<td>5.21%</td>
</tr>
<tr>
<td>Providers of preventive care</td>
<td>4,225</td>
<td>1.40%</td>
</tr>
<tr>
<td>All Other ambulatory centres</td>
<td>1,645</td>
<td>0.54%</td>
</tr>
<tr>
<td>Other health care providers not elsewhere classified</td>
<td>1,210</td>
<td>0.40%</td>
</tr>
<tr>
<td>Retail sellers and Other suppliers of durable medical good &amp; medical appliances</td>
<td>559</td>
<td>0.18%</td>
</tr>
<tr>
<td>Other health care practitioners</td>
<td>412</td>
<td>0.14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,02,424</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>


The tables 2 revealed that Out of pocket spending is very high (43%) on medicine. OOP payment is higher in private hospital (28.50%) then in Government hospital (7.42). Diagnostic test also account higher amount (6.81%) transportation and emergency rescue (6.26). The burden of OOP payment decimates the socio-economic life of households. The financial burden on health is the key cause of treatment delay in India. CK Misra, (Former Union health secretary) at a conference organised by National Institute of Public Policy (NIPFP) said that “OOP, when catastrophic, results in seven crore people falling back into poverty line,” (Hindustan Time, 11 Dec, 2017). There is no clear evidence about the medical cost on irrational medicine. But the NHA & NSSO provides only the general cost on medicine which is high as compare to other medical goods. The vital concern in healthcare sector is high cost of drugs/medicine and endorsing high prized non-generic medicine. There is no matter for consumers if these medicines are essential but they prescribed non-essential drugs which are the main source of income loss of poor household. This depicts that there is a need of strong regulation on pharmaceutical firm.

Figure 1 revealed that rural household spent their income (68%) on medical treatment and borrow 25% while in the urban household spent their 75% income on treatment which is more than rural household and borrow 18% which is less than rural household. Figure 2 revealed that medicine is the only single medical good on which rural household spent over 71% while urban household spent 68% which is slightly lower than rural households. After medicine rural household spent around 15% on diagnostic test and urban household spent 16% on the same items. So this demonstrated that good health is remaining a dream for majority of the population in both rural and urban area in India. Only those can buy well-being who have socially, economically and politically well sound.


**Fig 1:** Region wise percentage distribution of Source of Money for Medical Treatment of households


**Fig 2:** Percentage distribution of Total expenditure by household on different items

International Comparison

Fig 3: Comparison of Key Health Financing Indicators for BRICS, US, UK For 2014

As a percentage of GDP, Indian spends only 1.1% on health in 2014-15 (NHA). National Health Policy (2017) set an objective of increasing this figure to 2.5% of GDP by 2025 (Hindustan Time, 2017). The figure 3 revealed that India has highest OOP expenditure in the world.

Figure 3 also depicts that among the entire above said nation public spending on health is very low (29%) in India, OOP payment (62%) and private spending on health (71%) are very much high as compare to other above-mentioned nations. In this figure we can see that United Kingdom public spending is very high among all the mentioned nations which also reduced OOP expenditure. So India need to increase public spending on health then there is a possibility in OOP payment reduction.

Conclusion
The increasing corruption and growing destructive practices in medical domain depicts that there is paramount need to initiate a sold mechanism which will safeguard the public health needs. If the government fail to tackle this menace then there is a possibility that in future public health face a challenge in choosing costly medicine for chronic disease, particularly cancer disease. Well-being is an asset for the countries socio-economic and political elevation. Therefore, there is a vital need to design strategies to mend affordable access to essential medicines under the current health care reform.

Reference