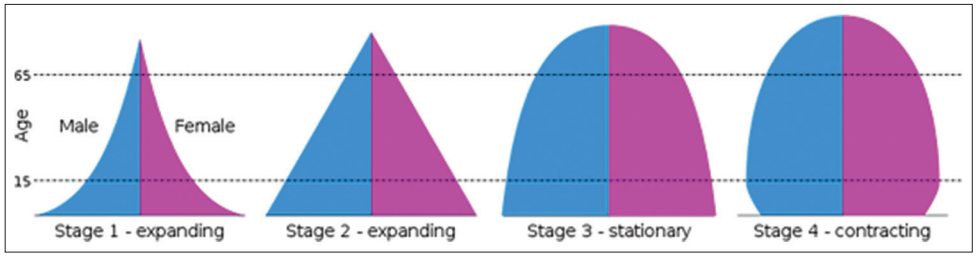
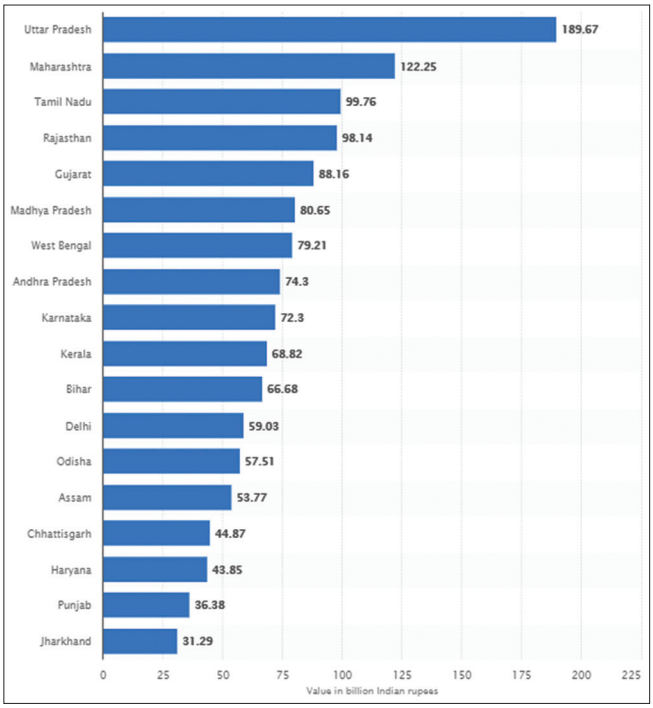


AQ9 **Graph 1: Population pyramid of India by graphical representation of sex and age**
Source: Worldometer, India demographic



AQ8 **Fig. 1: State-wise public spending on healthcare in India of Financial Year 2018**
Source: Statista

infrastructure and insurance products. These are still the neglected component in India under health system (FICCI, 2014, p.8).

While talking about the health status of elderly in India, the data are collected by focusing on clinical studies while some is gathered by primary research. According to National Sample Survey report conducted in 1995–96 states that more than 70% of elderly were economically dependent and 5% lived alone and 55% in urban areas and 52% in rural have more than one chronic disease such as hypertension, diabetes, arthritis, asthma, and heart disease. While by 2004, there was an increase in hospitalization and government hospital services used by elderly. In 2007, the WHO country office for India concluded that problems with elderly will increase with coming years. Their confinement to homes and bed increases with the growing age.

OECD COUNTRIES AND THEIR HEALTH SPENDING

OECD countries spending on healthcare and LTC are projected to increase in coming 50 years. The cost is expected to reach approximately 13% of Gross domestic product (GDP) by 2050. In this cost containment scenario, cost will rise 10% of GDP on average across all OECD countries. OECD countries differentiate between the health-care expenditure and LTC expenditure. OECD countries are accounted for 20% of world's population and is responsible for nearly 90% for health spending globally. Health-care expenditure is mainly determined by non-demographic factors, with understanding of residual expenditure growth which are understood by the evolution of health prices and technological innovation. Whereas in LTC, the expenditure is based on the estimated number of dependents provided. In current scenario, the health expenditure is determined by dependency ratio itself. The projection on health spending is mainly based on public expenditure. However, the countries differently treat tax expenditure at large in OECD countries. This introduces serious dissemination between public and private expenditure.

Health expenditure and income are a debated issue if talked in one context. In terms of health-care expenditure, OECD countries are much anticipated in terms residual expenditure growth that is technology, relative prices, and institutions and policies apart from demographic and income basis. However, residual expenditure can vary from countries like it ranges from 5% in Korea and New Zealand while 0.5% in Germany and France. In other words, public health expenditure combines demographic, income, and residual expenditure. Demographic elements are measured by death-related cost and healthy ageing effects; income is based on elasticity of health expenditure. The projected growth rate expenditure is relatively high for young age children and remain stable for prime age period start increasing by the increase in age. The health spending on people above 65 years of age is 6 times higher than the young children. "Consistent with a large number of the previous studies (Felder *et al*., 2000; Seshamani and Gray, 2004; Breyer and Felder, 2006; and Werblow *et al*., 2007; etc.), this paper assumes that what matters for health spending is not ageing but rather the proximity to death, that is, the so-called "death-related costs" hypothesis" (De la Maisonneuve and Martins, 2015, p.68). The arguments lie that the expenditure increases suddenly when the person is near to death. Thus, it can be asserted that not the ageing population but the mortality rate tends push up the health expenditure.

As the health spending by increasing age surge then it is important to peep into the non- demographic factors of income and residual growth. Once the income growth is accounted then the residual growth becomes explanatory. The public health expenditure projected by OECD countries is based on the adoption of new technologies and modifying incentives through change government health institutions. LTC is not only an issue for developed countries but is and much serious topic for low-and middle-income countries as it talks about life expectancy of that country. OECD journals pointed out that globally 13.6 million shortage of employed caregivers and conditions is specifically worse in Asian-pacific regions. Pointing out further, countries lacking LTC are the countries where inappropriate use of hospital care and emergency services is higher; therefore, the cost is higher. This is somewhat similar to the situation in developed countries where elderly resides for loner time period in hospitals due to lack of LTC.

INDIA IN COMPARISON WITH DEVELOPED COUNTRIES

Health-care system in developing country like India has somewhat similarities with U.S despite the fact U.S. spend 17% of GDP on healthcare after OECD countries spending 36% of GDP. Both countries are from a policy perspective focuses on cost containment, quality, and easy access for patient. Both work in controlling health-care cost by expanding

AQ10 **Table 1: Health-care expenditure among BRICS countries**

BRICS Countries	Life Expectancy at Birth (years)	Per Capita Health Expenditure	GDP per capita (Purchasing power parity US $)	Health-care expenditure as % of GDP	Out of pocket as % of total HCE
Brazil	73	1121	11,634	8.9	30.6
Russia	69	807	22,408	6.2	31.4
India	65	59	3714	3.9	61.2
China	73	278	8408	5.2	36.6
South Africa	53	689	11,028	8.5	16.6

Source: World Development Indicator 2011 *et al*., Determinant of Private Healthcare Utilization and Expenditure Patterns in India

AQ5,10 **Table 2: Major source of healthcare expenditure for households in rural and urban area**

Quintile Class of UMPCE*	% of households reporting as source of finance for meeting the medical expenditure					
	household income/ savings	borrowings	sale of physical assets	contribution from friends / relatives	others	all
(1)	(2)	(3)	(4)	(5)	(6)	(7)
RURAL	Public	Private	All	Public	Private	All
1	65.6	26.8	1.1	5.3	0.5	100
2	67.1	25.8	1.4	4.8	0.5	100
3	68.1	25.3	0.6	5.1	0.5	100
4	68.8	26.0	0.4	3.8	0.8	100
5	68.1	23.1	0.9	6.9	0.7	100
All	**67.8**	**24.9**	**0.8**	**5.4**	**0.7**	**100**
URBAN						
1	68.4	21.7	0.4	6.4	2.7	100.0
2	71.8	21.9	0.4	4.5	1.1	100.0
3	74.1	20.7	0.3	3.9	0.7	100.0
4	74.9	16.1	0.3	6.9	1.6	100.0
5	80.9	13.7	0.4	3.7	1.0	100.0
All	**74.9**	**18.2**	**0.4**	**5.0**	**1.3**	**100.0**

Source: Ministry of Statistics and Program Implementation, Health National Profile

health insurance and improving quality services by providing access to new technologies and medicines, laboratories, and infrastructure. Similar to US, India deals with high concerns regarding geographical disparity in health-care system. In some state's money is spent more on healthcare than other states. The table explains that Uttar Pradesh has spent 190 billion rupees on health-care system which is the highest among all the states whereas Jharkhand is the lowest among public spending on healthcare that is nearly 31 billion rupees. From North-east states, Assam has the lowest spending on healthcare.

India like US in terms of people's behavior recommend private hospitals for the treatment. Private hospitals to increase their income overprescribe drugs and treatment. Nevertheless, 60% of all hospitals are publicly owned. In addition, both also work on fee for service to give money to providers. However, the difference in both countries health-care system cannot be overlooked. As mentioned before, US spend 17% of its GDP on healthcare which is a far bigger percentage than what India spends. In terms of geographical variation in US, there is an issue regarding overutilization and wasted resources at different regions whereas in India, the issue circulates around societal inequalities and uneven distribution of resources. Furthermore, India lacks in terms of insurance coverage and government contribution in health-care expenditure. The major concern of all is training of primary caregivers outside cities in India and regulation on impediments on the use of non-physician doctors for giving prescribed medicines. This ignorance has an impact on out of pocket spending on healthcare.

INDIA AMONG BRICS COUNTRIES

India's population is arising at alarming rate which requires the immediate attention of all professionals. The age pyramid structure depicts the rise in the percentage of old age population and epidemiological transition particularly non-communicable disease. According to the census of India 2011, Indian population of 1.21 billion out of which 8% is old age population, that is, people 60 and above 60 years of age making up to approximately 104 million of people. It is projected to grow from 8% to 20% by 2050, according to the State of World Population 2019 report by the United Nations Population Fund (EconomicTimes, 2019). "The Elderly in India 2016 report by Ministry of Statistics and Program Implementation states that there were 103.8 million (8.6% of the population) elderly persons in 2011 as compared to 76.6 million (5.6%) in 2001. The report states that 71% of the elderly population resides in villages while 29% are in the cities" (Ponnuswami and Rajasekaran, 2017). Below is the graphical representation of the emerging older age population which explains the current scenario through third and fourth stage.

The sex ratio of older people is good for females. Based on the current estimated rate population, above 60 years of age will outnumber the population of 0–14 years of age by 2050. The impact will also be seen on dependency ratio among older population. The demographic transition will show a decline in the number of children aged 0–14 and increase in the number of older populations.

As country progress both demographically and epidemiologically, the nature of expenditure on healthcare also changes. Communicable disease can be handled by few public spending; however, non-communicable diseases require expensive treatment as they longer time period to get cured. According to the report by 2012, the World Health Organization estimated that 80% of death were attributed by non-communicable diseases. Together with high life expectancy, it tells about a country is on the advance stage of demographic and epidemiological transition. There are countries in which death due to non-communicable diseases is responsible for high mortality in certain regions. India is a country which is confronted by both communicable and non-communicable diseases. Unfortunately, health-care system is ill-equipped to deal with these challenges. Developed countries and Central Asia have the highest health-care expenditure with 9.6% of GDP.

In contrast, the South Asian countries have lower spending on healthcare around 3.8% of GDP. Health-care spending is slightly higher that is 3.9% but it is still very less from most of the developed countries. In addition, if compared with middle-income countries India's spending is the lowest even among the BRICS countries. Like OECD countries, the health expenditure is calculated on the basis residual expenditure growth and this even more important for BRIICS countries. Planning Commission report 2013 pointed out that during 11th 5-year plan (2007–12), the health funding by center and state increased by 0.94% of GDP–1.04% of GDP. However, India still failed to achieve desired health-care facilities. Negligence in creating resources and inefficiency in managing available resources have created gap in actual and desired health facilities outcomes (Barik and Desai, 2014, p.53). Twelfth 5-year plan (2012–2017) on the other hand is set to work on Universal Health Coverage and to achieve long-term health goals. Below is the table explaining the life expectancy at birth, health expenditure on GDP and GDP per capita for BRICS countries to understand the areas requires attention for health prioritization as in these countries, people end up spending a big amount for health out of their pockets. Nonetheless, it does vary from state to state according to health facilities.

Not only about BRICS countries but according UN report 2015, the availability of LTC service is low at global stage. About 48% of older population are not covered by any formal provisions, "46% are excluded from any coverage that does exist by some form of means testing; and only 5.6% of older persons worldwide are covered by

legislation that provides coverage for all" (UN, 2015)[1]. In addition, there is a worst condition in the availability of formal employed caregivers in BRICS countries. There are still majority of people who are untrained professionals and do not receive the amount to maintain quality. Due to small family sizes and socio-economic changes, many elderly people rely on these untrained caregivers such as in China. In China, elderly receive care from these untrained caregivers who are poorly paid especially women who have low level of education. Due to lack of infrastructure in all these countries government fails to levy taxes on informal workers working in these sectors, this limits the tax base as well as public spending on healthcare. While looking at China and India, one can clearly mark a sharp line between them that both countries largest population with major percent of rural population and are growing economies thus, there is a rising demand for health-care system. Both the countries stand on the slope of Millennium Preston Curve that shows the correlation between GDP per capita and life expectancy. US on the other hand is at the outline.

In India states with higher per capita incomes shows higher life expectancy rate. Societal wealth can be increased by investment in education, health-care services, and improved health status. One of the reasons for both India and China to have such less investment in public health is because the major part of public funds goes for wages of public servants. Frthermore, India faces the problem of both communicable and non-communicable diseases which highly affluent in urban areas. The contrast between these contrasts is that China has emphasized more on public hospitals as more beds are found there in health-care services whereas India has more health-care services in private hospitals. India has benefitted more from international donors such as World Bank, International Monetary funds, and Gate Foundation. China on the other hand is committed on educating children about diseases which is backed up by social mobilization and resources which India does not have provision of. This difference was manifest by the WHO that India's infant mortality rate is twice of that of China.

A LOOK AT INDIAN HEALTH-CARE EXPENDITURE

Health expenditure in Indian context means the funds allocated by the government to state and territory government and also the state and union territory government allocate to health service providers. Despite goal-oriented policies adopted by Indian government, the widening socio-economic disparity having an outcome of health service in the country (Bhukta and Patra, p.1). Recently, with the initiation of National Rural Health Mission Central government has started spending a considerable amount on primary and secondary health-care system in states. More than 90% of health expenditure is incurred by Ministry of Health and Family Welfare (MoHFW) alone by the Center. However, there are other ministries who are also involved for public health expenditure by the center but MoHFW is covers major part of it. Although main funding is government provided whereas the major health-care service providers are private. Indian health-care expenditure has increased from 3.9% of GDP–4.69% of GDP in 2019. The spending is more as compared to its neighboring country like Pakistan and Sri Lanka but still far behind than OECD countries. In 2001, health-care expenditure in India was Rs 2472.33 crore which drastically by the year 2011 to 18641.47 crore. "It registered a CAGR of 20.16% over the period from 2000–2001 to 2010–2011. On average, the public health expenditure in India during this period has increased with an annual growth rate of 23%" (Bhukta and Patra, p.6).

From a percentage of total expenditure on health, 25% accounts from government and 75% from private. The budgetary allocation under state and MoHFW under health sector is Rs.25557.00 crore currently.

Major health-care service in India is out of pocket as insurance is nearly negligible. Despite free government health-care services, certain services like medication and treatment costs good amount. A treatment of small morbidity in government hospital costs Rs 319 and in private it cost Rs 350 which does not portray a large difference until the problem get stuck at major chronic illness. Average cost for long-term illness is Rs 4569 in government facilities and Rs 6139 in private health-care hospitals (Barik and Desai, 2014, p.53). For major illness, people prefer visiting private hospitals due to high quality care and easy access. Burns in his study on India's health-care industry pointed out that for people to access a proper health-care system then there should be balance between cost containment, high quality acre, and patient access. No country put equal focus on all the three goals. However, policy makers tried expanding health-care services through insurance coverage such as Medicare and Medicaid to cover the cost for poor and elderly. With the rise in the need for utilizing services especially at older age, quality services the focus remained on broader insurance coverage as population were in the greater need for the healthcare services. In past decade, the focus shifted to the quality of services and pay for performance as people emphasis more on quality services.

HEALTH INSURANCE

Researchers such as Burns and Azam pointed out that above 70% of expenditure is covered from out of pocket. According to India Human Development Index report, Indian household spend 6% of their monthly allowance on healthcare out of which rural area spend more than urban areas. It can be said that the health-care expenditure is common for all income groups; however, income varies. People in rural area end up spending major portion of their incomes on healthcare, that is, 14.5%. Furthermore, in urban areas, there is an easy access of health-care services that make them cheap in comparison to services in rural area. People in rural area have to travel either locally or to urban areas for proper health service (Barik and Desai, 2014, p.56). It is estimated that 10% of hospitalization cost in cue on lodging of patients, medical supplies, and transportation.

Talking about the out of pocket expenses, Rastriya Swasthya Bima Yojana (RSBY) is considered an innovative scheme to provide cashless health-care services to the beneficiary household (Azam, 2016, p.1). It is a Central Government Scheme initiated on October 1, 2007 to provide health beneficiaries to people below poverty line (BPL). "At present, there are 36,332,475 active smart cards across 29 states and UTs. Beneficiaries under RSBY are entitled to hospitalization coverage up to Rs. 30,000 for most of the diseases that require hospitalization. Government has fixed the package rates for the hospitals for a large number of interventions. Pre-existing conditions are covered and there is no age limit" (National Health Profile, 2018, p.184). Government has strictly restricted the endorsement of out of pocket expenditure for the prepayment of insurance money as many people observe the hardship in assembling money.

Like India, other developing countries have used tax revenues to subsidize health insurance for people especially in rural areas. For example, Indonesia launched a health insurance scheme for the poor to bring all Indonesian people under one insurance cover. As RSBY started in 2007, many places in India received the scheme in a very staggered way. Short-term morbidities are still not covered by RSBY until required hospitalization.

POLICIES FOR OLDER POPULATION

Research for LTC has not been extensive in India. Indian Council of Medical Research in 1985 started funding the research on ageing population. Since various projects have been funded by the department of non-communicable diseases on various aspects of geriatrics and gerontology (UNESCAP, 2016, p.5). "The Government of India started addressing the challenges of a growing number of older persons in the 1990s and adopted the National Policy on Older Persons (NPOP) in 1999. Thereafter, the Maintenance and Welfare of Parents and Senior Citizens Act in 2007 defined the responsibilities of the family and the State in providing care for older persons. While policies and the law provided the framework, the most visible intervention in old age care

1. The data is presented by International Labour Organisation, 2015.

was the launching of the National Program for Health Care of the Elderly in 2011" (UNESCAP, 2016, p.4). In addition, every state in India has implemented social welfare.

National Policy for Older Population seeks a life cycle of people after the age of 60 years of age. It also seeks prevention against discrimination inflicted on older women on the account of gender, widowhood, and age. NPOP action strategies are welfare, education, financial security, health security, and shelter. They are partnered with non-governmental organizations. They also provide pensions to the elderly BPL. Their main motive is to access to affordable health-care services for the elderly. For the poor, the cost is covered by the subsidy and provide health insurance for all class divide with the help of private and public health service providers.

FUNDING ISSUE FOR ELDERLY PEOPLE

According to FICCI report, the household with elderly people accounts for monthly per capita, expenditure on health is 3.8 times more to the household with no elderly person. Thus, household comprising of elderly people spend a good amount of their monthly income on health-care needs as compare to the house with no elderly. When this juxtaposed with unstable income and economic dependence of elderly people, then this required the immediate policy attention. "According to NSSO 2006, only 33.5% of the elderly were economically independent, while 13.3% were partially dependent, and 51.8% were fully dependent on their children" (FICCI, 2014, p.10). Further adding to financial problems is the lack of social security, limited access or no access to benefits like provident funds and pension schemes making financial compound even bigger. This results in out of pocket expenditure on healthcare for elderly. Patients mostly preferred private health-care services. It was only women who seemed for free or unpaid services at public or government hospitals as compared to men. "According to Consumer Expenditure Survey by National Sample Survey Office (NSSO) in 2011–12, 18% of households in India faced catastrophic health expenditures" (MoHFW, 2014). It was estimated that out of pocket expenditure is 10% higher than the total household expenditure and sometimes it leads the household to go below the poverty line. Nonetheless, National Health Policy 2017 is bound to reduce OOP by 25% by 2025. Reducing OOPE will be considered as one of the biggest targets to hit in LTC under health sector. Further, they aim to reduce OOP by health insurance given to poor and vulnerable population without any premiums and affordable premiums to affordable income groups.

CONCLUSION

Public health expenditure in India is inequitable and research on LTC for elderly is not very extensive. It is inefficient in a way that allocated public funds do not yield the amount of benefits estimated for the population and also resources are unequally distributed. Government expenditure on healthcare accounts for small portion on health budget. Central government contributes to large share of public funds on healthcare out of state and local budget. The main purpose of this paper is to analyze the health-care expenditure in health sector in India and the pattern for accessing healthcare especially in the context of LTC. The findings entail that public expenditure is growing every year but at a very slow pace thus, it requires immediate government intervention in this matter.

The major portion of public funds goes in wages and salaries to public servants thus, very small budget is left for health sector. Due to this, people end up spending a big sum of money out of their pockets. The money spent on health-care expenditure is much higher that the household expenditure on food and shelter. Conditions get much worse of the dependent population seeking LTC as they are financially insecure. Any household spending less out of their pockets it means that there is a reduction in the use of health-care services as the amount used by low or income groups accounts for similar expenditure both in private and public health-care sectors. However, government has taken initiative to look into it and have also made LTC as their area of focus as the percent of growing population will increase in coming years.

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