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Universal Health Coverage in BRICS

What can India learn from the BRICS experience?

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1. Introduction

Universal Health Coverage (UHC) has been a major topic of discussion and debate in the recent past globally, especially since the passage of a UN General Assembly resolution on universal health coverage (UHC) in December, 2012[1]. While global organizations such as the WHO and the World Bank have defined UHC, it is still not apparent that all countries interpret UHC in a similar fashion. It has been argued that UHC has been labelled in a variety of ways and implemented based on the interpretation by countries, indicating the need for a global operational definition[3]. Evidence does exist, however, to indicate that broader health coverage generally leads to improved health, especially for the poor via better access to services[2].

The first Global Monitoring Report on Tracking Universal Health Coverage, brought out jointly by WHO and the World Bank[4], defines UHC thus: all people receiving the health services they need, including health initiatives designed to promote better health (such as anti-tobacco policies), prevent illness (such as vaccinations), and to provide treatment, rehabilitation, and palliative care (such as end-of-life care) of sufficient quality to be effective, while at the same time ensuring that the use of these services does not expose the user to financial hardship. The Sustainable Development Goals (SDGs) also contain a specific goal for UHC, making progress towards UHC a global as well national imperative.

Over the last decade or more, India has also been articulate about the country's need to have UHC. However, the recent history of the country's attempt at greater health coverage raises the issues of interpretation of UHC specifically, as well as prioritization of health in general. The BRICS countries as a whole are not necessarily the best examples of how UHC is to be implemented. The group is small, the economic and political situations are somewhat different and the experiences are diverse. Nevertheless, this diversity of experiences is possibly sufficient to understand the "do's and don'ts" in the path to UHC, and would contain important lessons for India. There are earlier analyses on this subject as well where a slightly different set of indicators have been used to look at the progress towards UHC[5]. We aim to expand the analysis substantially with more recent data and also use a slightly different approach to understand where India's position vis-a-vis the other BRICS countries in the context of UHC.

We start by laying out a framework to understand how one might measure progress towards UHC in section 2. In the next section, we look at the health status and disease profile in these countries, which is important to understand priorities within any UHC package. In section 4, we look at selected indicators discussed in section 1 to understand the countries' progress

towards UHC. Section 5 and 6 analyse governance and health reforms respectively. In Section 7 we present our conclusions based on the analysis on how countries have fared and what India might take away as valuable lessons from these varied experiences.

2. Understanding UHC in BRICS countries: a framework

The World Health Report of 2010[6] laid out a simple list of three questions that countries need to take into account to frame policies around UHC:

- ✓ Who in the population is covered?
- ✓ What services are they covered by?
- ✓ What level of financial protection do they have when accessing services?

Firstly, these three questions are critical to ask while planning for UHC and require an evidence-based analysis of the current situation. This in turn requires that a vision document or a blueprint of intent is drawn up within countries that visualize the various steps that are required to move towards UHC. Whether and to what extent the steps are adhered to subsequently is important, but the intent document is a key indicator of the government's prioritization and sincerity in implementing UHC.

Secondly, it is now well-established that UHC works well with predominantly compulsory financing mechanisms like taxes or social health insurance contributions[7]. This makes public finance critical and evidence exists to show that OOPS is inversely related to government spending[7]. Therefore, public finances on health are important indicators of a government's prioritization of the health sector.

Yet a third criterion to understand progress towards UHC is to what extent countries have been able to consolidate and merge fragmented pools. It has been argued that fragmented coverage tends to be ineffective, inefficient and inequitable, and countries should aim for full population coverage from the very beginning[8]. For example, basing priority-setting on socio-demographic characteristics like gender, ethnicity, religion etc may not be the most efficient way of progressing towards UHC[9].

The WHO proposes three criteria that countries can consider in evaluating which services to cover: cost-effectiveness, priority to the worse off, and financial risk protection.[10] By these criteria, primary health care services are at the top of the list, since these reach the widest of

populations and are the first contact point between the patient and the health system. Access to medicines also seems to be high on the list of services that people care about[11]. Thus, countries that have been able to make primary health services accessible and available for their populations can be said to have taken a significant step towards a UHC: a more comprehensive approach can only be built on a functional primary health care system.

There is some debate and differences among experts on whether or not cost-effectiveness should be given an equal weightage as a criterion for giving priority to the worse off[12]. There may be services that are not high up on the cost-effectiveness chart but are mostly targeted at the worse off, and therefore, improve utility significantly. In fact, priority to the worse off and financial risk protection may relatively be more important, and within these interventions one can choose the most cost-effective one. Thus, this criterion is not separately evaluated in the country context. Instead, we use the more standard way of looking at financial protection by analysing trends in OOPS and impoverishment, both of which would give a clear indicator of the extent of protection offered to population in general and to the poor in particular.

There are two other parameters that are important in the context of UHC: the first one is to study the reform process that precede and accompany the rolling out of the UHC. While many of the indicators mentioned above are relevant to analyse reforms, we study here the presence or absence of continuous and incremental reforms in these countries, to understand the intent to stay on course for reaching the objectives laid out in the vision document. Whether the reforms were reforms in the true sense and were successful are not the main questions: it is whether the countries could monitor and evaluate their policies around UHC and attempt course-correction if required.

The second parameter has to do with governance; do countries with better governance perform better to improve access to health services? In fact, governance could also influence the body of reforms and their implementation. While governance is a difficult and different area of enquiry, some summary measures might be helpful to understand where the BRICS countries stand and to understand their performance in the context of UHC.

Finally, an important objective is to see how India has fared in improving access to health services for its population and whether there are lessons that it can learn from the experiences of the other countries within the BRICS. The study necessarily draws heavily on existing literature on individual country analyses. Comparable data is sparse, but wherever possible, we have used existing data to make our points and arrive at conclusions.

3. Health status and disease burden in BRICS

Do the countries have a similar disease burden? Table 1 gives the top 10 causes of deaths across the BRICS countries and changes between 2005 and 2015 from the 2015 Global Burden of Diseases.

On the whole, non-communicable diseases (NCDs) dominate the top ten causes of mortality in these countries. Ischemic heart disease, cerebro-vascular diseases and COPD are the three common causes within the top ten causes of mortality in BRICS nations. Some other relatively common causes of mortality in the top ten are road injuries, diabetes and Alzheimer's disease. Among communicable diseases, lower respiratory infections are common across countries as a major cause of deaths. South Africa is the only country to have as many as four communicable (and preventable) diseases among the top ten causes of mortality viz. HIV/AIDS, lower respiratory infections, tuberculosis and diarrheal diseases. India follows closely with three (barring HIV/AIDS) of these diseases being the main causes of mortality. The decadal change in the share of each disease in total mortality shows a mixed picture except for communicable diseases, which show a decline for all countries barring lower respiratory infections in Brazil. Top ten causes of mortality that register the highest decadal growth are road injuries (Brazil), Alzheimer disease (Russia and China), chronic kidney disease (India) and diabetes (South Africa). On the other hand, top mortality causers with lowest decadal growth are interpersonal violence (Brazil), self-harm (Russia), neonatal pre-term birth (India), COPD (China) and HIV/AIDS (South Africa).The increasing burden of NCDs in BRICS countries is a very important challenge with implications about out-of-pocket spending (OOPS) on the one hand, and response of the health system – including UHC – on the other[13]. In fact, countries with significant dual burden of diseases face more challenges of investing limited funds across competing uses.

Table 1: Burden of disease in BRICS

Rank	Brazil		Russia		India		China		South Africa	
	Top 10 causes of death, 2015	**% change 2005-2015**	**Top 10 causes of death, 2015**	**% change 2005-2015**	**Top 10 causes of death, 2015**	**% change 2005-2015**	**Top 10 causes of death, 2015**	**% change 2005-2015**	**Top 10 causes of death, 2015**	**% change 2005-2015**
1	Ischemic heart disease	18.8%	Ischemic heart disease	-12.0%	Ischemic heart disease	16.7%	Cerebrovascular disease	-8.9%	HIV/AIDS	-50.1%
2	Cerebrovascular disease	13.3%	Cerebrovascular disease	-24.3%	COPD	4.3%	Ischemic heart disease	19.0%	Ischemic heart disease	-5.5%
3	Lower respiratory infection	19.3%	Cardiomyopathy	-15.5%	Cerebrovascular disease	7.3%	COPD	-27.1%	Cerebrovascular disease	-13.1%
4	COPD	19.3%	Alzheimer disease	42.6%	Lower respiratory infection	-22.6%	Lung cancer	15.2%	Lower respiratory infection	-22.8%
5	Diabetes	15.9%	Lung cancer	-9.7%	Diarrheal diseases	-31.7%	Liver cancer	-5.4%	Diabetes	-0.3%
6	Interpersonal violence	-2.1%	Self-harm	-30.0%	Tuberculosis	-30.7%	Stomach Cancer	-14.8%	Tuberculosis	-24.8%
7	Alzheimer disease	35.5%	Colorectal Cancer	-0.6%	Diabetes	34.8%	Road injuries	-19.7%	Interpersonal violence	-16.8%
8	Road injuries	45.8%	Lower respiratory infection	-17.8%	Chronic kidney disease	20.6%	Alzheimer disease	38.8%	Road injuries	-16.6%
9	Chronic kidney disease	32.7%	COPD	-19.6%	Neonatal preterm birth	-39.5%	Hypertensive heart disease	29.8%	COPD	-7.6%
10	Lung cancer	25.3%	Stomach Cancer	-23.7%	Road injuries	-2.7%	Lower respiratory infection	-14.3%	Diarrheal diseases	-47.0%

A set of 4 basic health indicators have been presented in Table 2 to show how the countries are faring in terms of specific health outcomes and a summary outcome index has been constructed to make the comparisons easier.

Table 2: Health outcome in BRICS

Countries	Life Expectancy at Birth, 2014		Maternal mortality ratio (modeled estimate, per 100,000 live births), 2015		Infant mortality rate (per 1,000 live births), 2015		Under-5 mortality rate(per 1,000), 2015		Outcome Index (using life expectancy at birth, maternal mortality rate and infant mortality rate)
	Level	Trend Growth 2000-2014 (%)	Level	Trend Growth 2000-2015 (%)	Level	Trend Growth 2000-2015 (%)	Level	Trend Growth 2000-2015 (%)	
Brazil	74.4	0.44	44	-2.39	14.6	-4.67	16.4	-4.74	0.620
China	75.8	0.39	27	-5.59	9.2	-8.12	10.7	-8.41	0.925
India	68.0	0.63	174	-5.23	37.9	-3.87	47.7	-4.47	0.194
South Africa	57.2	0.48	138	3.97	33.6	-3.97	40.5	-5.18	0.026
Russian Federation	70.4	0.72	25	-6.14	8.2	-6.17	9.6	-6.19	0.903

Source: World Bank and World Health Organization. Note: The index for a country is an average of its normalized score in each indicator. The process of normalization is $(X-X_{min})/(X_{max}-X_{min})$, where X is the indicator.

The difference between the highest (China) and the lowest (South Africa) life expectancy at birth is as high as 19 years. The low LEB in South Africa is primarily on account of the HIV/AIDS epidemic because of which it declined from 62 years in 1992 to 52 in 2005. Russia currently is the best performer in basic outcome indicators of maternal and child health. India fares the worst with child mortality rates more than four times and maternal mortality rate close to seven times that of Russia. When compared to the other populous country China, India's maternal and child health outcomes are alarming, a fact that underlines the importance of provision of and access to primary care.

Russia has made the highest improvement in life expectancy at birth over time (2000 to 2014), as exemplified by the trend growth rate, followed by India. However for child health outcomes, India shows the least improvement in these fifteen years while China shows the maximum improvement. Russia registers the largest decline in maternal mortality in this one and half decade while South Africa actually shows an increase in maternal mortality. China gets the top

position in the overall index of health outcome followed by Russia, Brazil, India and South Africa. Needless to say, country level aggregates conceal the disparities in health outcomes across gender and socio-economic groups which is an important indicator of equitable health outcomes and access to services.

4. Progress towards UHC: selected indicators

a. Access to primary and basic care

While summary statistics are available that indicate what percentage of population is covered, these are slightly misleading as indicators of UHC coverage because these include different programmes and schemes, many of which may not be what the country needs or aligned to the philosophy of UHC. Instead, we use access to quality services for primary health care needs of the population along with a set of recommended indicators for monitoring progress towards UHC, but mainly to understand access to primary care across countries. Health MDG-related UHC indicators or tracer indicators[4] include demand for family planning met by modern methods, antenatal care visits, skilled attendants at birth, immunization coverage, improved water and sanitation, access to antiretroviral (ARV) therapy and TB treatment. Further, Sustainable Development Goal 3.8 specifically mentions the importance of access to "safe, effective, quality and affordable essential medicines and vaccines for all", making access to medicines an important indicator as well[11].

However, in the absence of data on all the indicators, we select the ones with data for all the 5 countries, and construct an index based on these indicators given in the last column (Table 2).

The country with the best access to basic services is Brazil, followed by China and Russia respectively. South Africa and India trail behind, with India being at the bottom of the ranking for these indicators. The most alarming status is that of sanitation in India. Only 40 percent of Indians have access to improved sanitation. In fact, while India is certainly an outlier in this respect, other BRICS countries too are noticeably short of universal access to improved sanitation. This is applicable to tuberculosis case detection rate as well.

Table 3: Access to primary and preventive care in BRICS

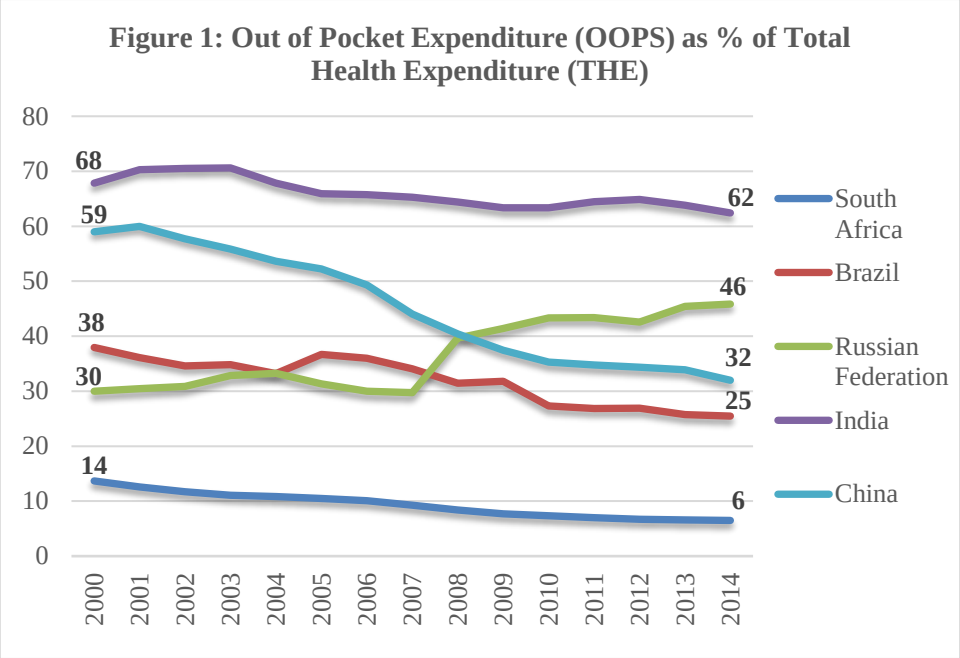
Countries	Immunization, DPT (% of children ages 12-23 months), 2014	Tuberculosis case detection rate (%, all forms), 2014	Births attended by skilled health staff (% of total)	Married or in-union women of reproductive age with need for family planning satisfied with modern methods (%)	Improved water source (% of population with access), 2014	Improved sanitation facilities (% of population with access), 2014	Access Index
Brazil	93	82	99.1	89.3	98.1	82.7	0.873
China	99	88	99.9	96.6	94.8	75.4	0.868
India	85	74	74.4	63.9	94.1	39.5	0.177
Russia	97	85	99.6	72.4	96.9	72.2	0.760
South Africa	70	68	81.1	81.1	92.8	65.8	0.233

Note: The family planning indicator are for the years 2006 (Brazil), 2001 (China), 2008 (India), 2011 (Russia) and 2004 (South Africa). The skilled birth attendance indicators is for the years2013 (Brazil and India), 2014 (China), 2008 (Russia) and 2004 (South Africa). The source for both is WHO. The index for a country is an average of its normalized score in each indicator. The process of normalization is$(X-X_{min})/(X_{max}-X_{min})$, where X is the indicator.

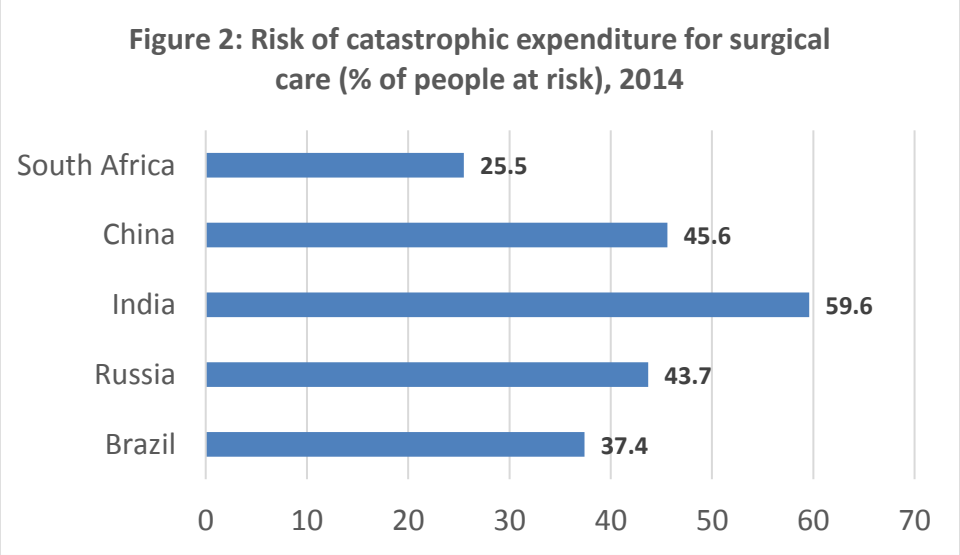
b. Financial protection

Next, we look at the second dimension of path to UHC – financial protection. The share of out-of-pocket expenditure in total health expenditure of a country is a commonly used indicator of the need for financial protection - especially of the poor - from the costs of health care.

Figure 1 presents a fifteen-year trend in this indicator for BRICS. India has the highest share of OOP in total health expenditure while South Africa has the lowest. In fact, India is the only country in this group to have more than half of its health expenditure financed out-of- pocket. All the countries except Russia show a decline in the share of OOP over the years, although the rate of decline varies. The most significant decline has happened in the case of China where the share of OOP declined by 27 percentage points in 15 years, the same being only 6 percentage points for India. Russia presents a peculiar case where the share of OOP in total health expenditure has increased by 16 percentage points in the last fifteen years.



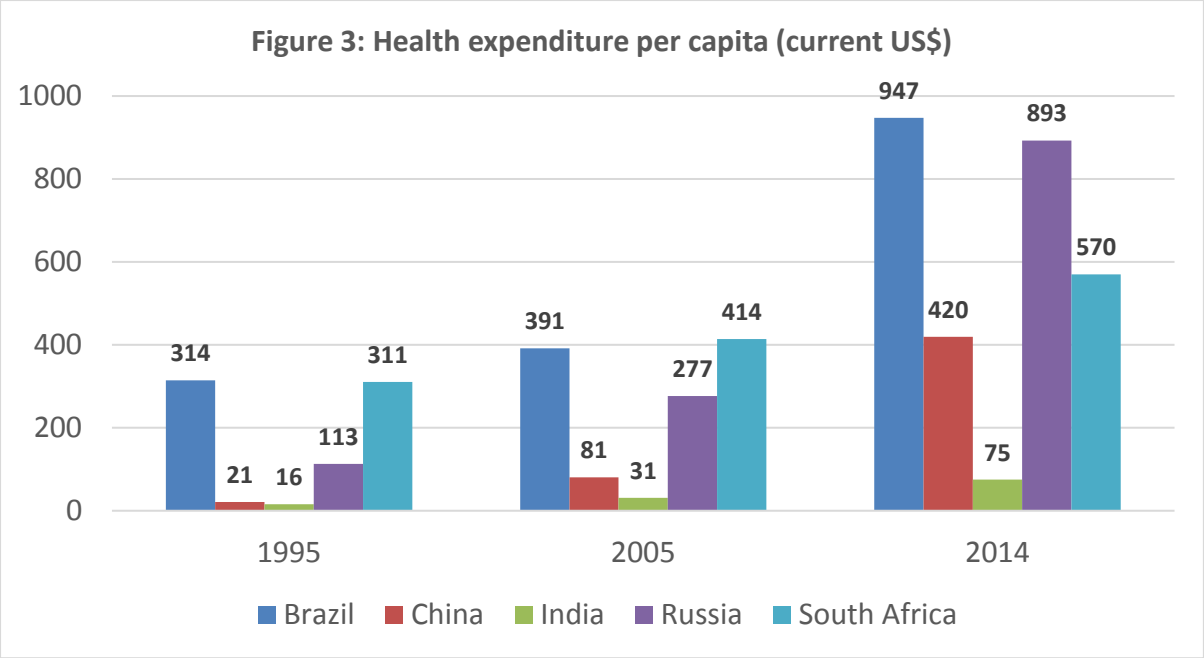
The immediate fallout of a high OOP share in total health spending is the risk of catastrophic expenditures and impoverishment. The only indicator for which data was available to measure catastrophic expenditure was for surgical care (Figure 2). India is the most vulnerable by this measure of financial vulnerability from OOP health care expenses. Needless to state that data for the entire spectrum of health services (not only surgical and anaesthetic) would have given a more nuanced picture, but would probably not have altered India's ranking.



Note: Catastrophic expenditure is defined as direct out of pocket payments for surgical and anaesthesia care exceeding 10% of total income.

c. Financing for UHC

How do the countries compare in terms of how much is spent on health? Figure 3 gives the total per capita expenditure, which includes both public and private finances.



Per capita health expenditure in 2014 was the highest ($947) in Brazil (see Figure 3), 13 times that of India at $75. However, the per capita GDP of Brazil was only 5 times that of India. Brazil has historically been the bigger and the most consistent health spender among BRICS. Between 1995 and 2005, the highest increase (20 times) in per capita health spending, however, happened in China followed very distantly by South Africa (8 times). Viewed in conjunction with Figure 1, it can be stated that except Russia, the share of private OOP expenditure had an increasingly marginal contribution to this increase in total expenditure over time. In other words, much of this increase in per capita total health expenditure in China has been on account of increased government spending on health.

While not measured as an indicator of UHC, government health finances remain a critical component of UHC, whether spent on expanding its own services to provide access or to expand, a social health insurance programme, primary care or pre-payment systems. Higher GDP going into health of a country has been seen as an important indicator of political commitment[14, 15].

Table 4: Public financing of health in BRICS

Countries	Health expenditure, total (% of GDP)			Health expenditure, public (% of GDP)		
	1995	**2005**	**2014**	**1995**	**2005**	**2014**
Brazil	6.5	8.3	8.3	2.8	3.4	3.8
China	3.5	4.7	5.5	1.8	1.8	3.1
India	4.0	4.3	4.7	1.1	1.1	1.4
Russia	5.4	5.2	7.1	4.0	3.2	3.7
South Africa	8.3	7.8	8.8	3.4	3.3	4.2
Countries	**Health expenditure, public (% of total health expenditure)**			**Health expenditure, public (% of government expenditure)**		
	1995	**2005**	**2014**	**1995**	**2005**	**2014**
Brazil	43.0	41.5	46.0	8.4	5.0	6.8
China	50.5	38.8	55.8	15.9	9.8	10.4
India	26.2	26.5	30.0	4.5	4.5	5.0
Russia	73.9	62.0	52.2	9.1	11.7	9.5
South Africa	41.4	42.7	48.2	13.0	13.0	14.2

Note: THE: Total Health Expenditure, GGHE: General Government Health Expenditure, GGE: General Government Expenditure.

Table 4 presents the performance of BRICS nations in some of the key indicators related to public financing of health -- total health expenditure in GDP, general government health expenditure in GDP, general government health expenditure in total health expenditure and general government health expenditure in general government total expenditure.

The first aggregate gives the proportion of GDP spent on health and is inclusive of private health expenditure as well. South Africa and Brazil spend more than 8 percent of their GDP on health. While Brazil, China, India and Russia have incrementally enhanced their health share of GDP over the twenty years, South Africa has been steadily spending around 8 percent during the same period. India spends less than 5 percent of its GDP on health and displays one of the lowest percentage point increase between 1995 and 2014.

How much do governments spend on health out of total income? For this, the second aggregate – general government health expenditure as a share of GDP – is useful and it shows that South

Africa spends the most with Brazil, Russia and China following closely. India's government spending on health is very low, around 1 percent of GDP. Governments of all the other BRICS nations spend more than double the amount as share of their respective GDP's. The highest increase in the share of public expenditure on health between 1995 and 2014 happened in China followed closely by Brazil. The lowest increase in this share was evident in the case of India while in case of Russia the share actually declined.

This pattern is sharper when one looks at how much of the health spending is from government sources, the third column. All the countries, with the exception of India, spend almost half or more of their total health spending from government sources. Except Russia, all the nations increased their share of public finance in total health spending during the 20 year period. This is significant since in the nineties, close to three-fourths of health spending in Russia came from the government, way above the other BRICS nations. The biggest turnaround in this indicator appears to have happened for China which saw a significant decline in the share of public spending in total health spending between 1995 and 2005, but thereafter increased by 17 percentage points between 2005 and 2014. Currently China has the highest share of public spending in total health spending among BRICS, at 56 percent.

Finally, the last column shows how health is prioritized by Governments facing competing claims on its resources; general government health spending as a percentage of total government spending is highest in South Africa. This is followed by China and Russia and Brazil. Here again India ranks low as it spends just 5 percent of its total government expenditure on health. However, for China and Brazil the share has declined from their 1995 levels.

Overall, the three indicators above indicate that China and Brazil have done consistently the best in terms of moving towards UHC, especially if one considers the changes in terms of public spending on health in the recent past. Russia and South Africa are also not doing too badly and often have interchanging places in the rankings among these 5 countries. However, the gap between the performance of these countries and that of India is often quite stark when we look at the body of evidence presented.

5. Enabling environment: governance and reforms

a. Governance

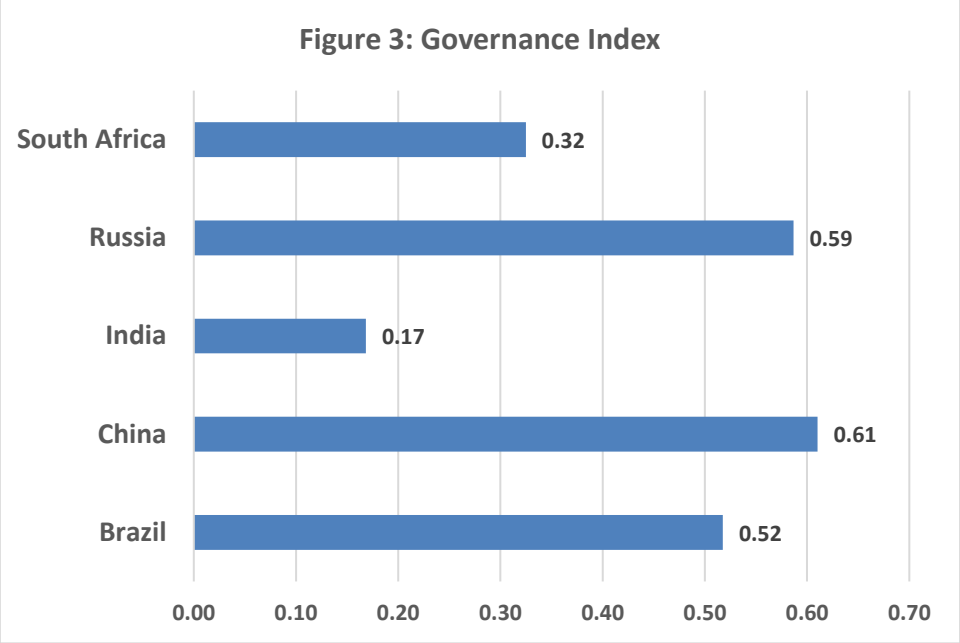
There are two important angles to the UHC process that are often overlooked, one more than the other. These are reforms and governance. While reforms are often talked about, there are few studies that have looked at the comparative picture of reforms in the health sector in countries to see why countries have such uneven records in terms of progress towards universal access. We deliberately mention health sector reforms rather than reforms for UHC, because to achieve good outcomes in the health sector requires much more than merely putting in place UHC systems. In fact, for UHC to work, one needs a series of incremental reforms – big or small – happening steadily over time.

Mere allocation of public resources does not always yield the desired outcomes. This is primarily due to the quality of governance, a concept that is elusive, and therefore its measurement, very often subjective. An indistinct relationship between public spending and outcome is often related to the aspect of governance[16]. There have been a number of studies linking overall governance performance with health outcomes. Some studies[17,18,19] have found governance indicators like voice and accountability, political stability and violence, government effectiveness, regulatory burden, rule of law and graft to be significantly negatively related to infant mortality. Also, investments patterns have been seen to change with significant corruption, and investments disproportionately more on physical infrastructure rather than health and education[20]. Other studies show that greater citizen participation and better governance can lead to greater efficacy in government action in general[21]. Also, political commitment, higher tax revenues and greater democracy are associated with a higher share of GDP going to public health spending[22]. Differences in the efficacy of public spending has been attributed to mainly the quality of governance, with better health outcomes from public spending reported from countries with better governance[23]. WHO defines governance in the health sector to mean "a wide range of steering and rule-making related functions carried out by governments/decisions makers as they seek to achieve national health policy objectives that are conducive to universal health coverage"[24].

The idea of 'governance' range from a simple statist interpretation, that governance is what governments do, to a much wider interpretation of governance as the way in which individuals, groups, and institutions, both public and private, manage their affairs and resolve conflicts of interest in an orderly manner[25,26,27]. In this work, we adopt a mixed interpretation of

governance whereby good governance pertains to (1) delivery of services (banks, electricity, water, sanitation, physicians and teachers) of good quality and (2) general governance indicators (ease of doing business, corruption, unemployment, gender equality and sustainability). We constructed an index for governance based on 11 selected indicators representing these aspects (Figure 3).

China appears to be the best governed country while India lies at the bottom with a substantial difference in their respective governance indices. Overall, China, Russia and Brazil seem to have better governance indicators in the group



Source: Raw indicators (World Development Indicators, Transparency International)

Note: The index for a country is an average of its normalized score in each indicator. The process of normalization is (X-Xmin)/(Xmax-Xmin), where X is the indicator.

These findings are consistent with findings on progress towards UHC, especially if one notes that South Africa spends substantially on public financing on health but has not made similar progress on some of the other indicators of UHC, indicating the possibility of governance playing a role - one would expect health spending to be more efficient in the better governed countries generally. While no firm conclusions can be drawn from such a small sample size, it does seem to confirm that better governance and better health coverage would probably go together.

The indicators of governance and performance of these countries on each of them is given in Table 1 of the Annex.

b. Health sector reforms

The most important piece of the puzzle is the role played by reforms in the health sector, specific to UHC or otherwise. We analyse the role of reforms in each of the countries in this section.

i) Brazil

Prior to 1988, social security institutions, especially the National Institute for Social Medical Assistance (INAMPS), formed the cornerstone of the health system. In 1988, the new constitution of the country established health as a fundamental right and duty of the state, which started a process of health system reform which was spread over many years. However, the process of reforms can be said to have started somewhat earlier though not in such fundamental form. Brazil's health coverage was run on a model of social security based on compulsory contributions by employers and employees, leaving a large section of informal and agricultural sector workers uncovered until the 1970s, when it was expanded to include particular services[28]. It has been argued that the movement for Brazilian health reform involved various segments of society right from the middle of the 1970s, and principles of universality and equality formed the basis of much of the discourse on reforms[29]. With the constitutional reform, the Unified Health System (SUS) was set up and many administrative and organization changes were effected in the health system in the subsequent years, including a significant expansion of capacity of the system, decentralization for service delivery, measures to address regional disparities among others. The Family Health Programme or the FHS is a key part of the national Unified Health System funded primarily through taxes, and it offers free primary care to a majority of Brazilians. It is a cornerstone of the public health delivery system in the country[30]. In addition to the SUS, the country has the Complementary Medical Care System or the SSAM, which caters to a limited segment of the population.

According to a World Bank assessment, one of the major accomplishments of the SUS has been to unify and integrate several independent systems of financing and service provision into a single publicly funded system covering the whole population[29]. Also, all three tiers of the government – federal, state and municipal – have participated in the reforms, making the vision of reforms quite a unified one.

There are some issues that remain critical in the Brazilian health system. There are distributional access issues mirroring socioeconomic determinants of health, and inequity in access remains a critical area of concern. While public financing seem high compared to some of the other BRICS countries, funding has remained a challenge, and Brazil's share of public spending in GDP has remained somewhat low placing Brazil far below the OECD average for government share of health expenditures.[31] This is surely going to impact a faster pace of UHC due to the rapidly rising NCDs. Also, the rapid expansion of the FHS has led to a physician shortage resulting in the controversial Mais Médicos (More Doctors) programme[32] which involved importing doctors from other countries. This has resulted in quality concerns. The quality of health services and inputs are deemed quite uneven at the municipal levels. Also, the non-poor often prefer to seek services in the private sector due to overcrowding and waiting time, though they also visit the public sector to get costly treatments, again leaving the poor to use the SUS[33].

Despite these challenges, Brazil is an example of a country that has carried out incremental reforms in the health sector, and has shown sincerity in course-correction over the years. The second feature of the Brazilian reforms is the earnest engagement of a wider network of stakeholders and civil society, who took – and continues to take - an active interest in reforms. For example, there have been public protests regarding the need for greater public investment in health care, which could have partially triggered the launch of its pay-for-performance scheme within the FHS[31], one of the largest such schemes in the world. Also, by design, FHS is run with community participation and therefore, is truly based on community participation.

Finally, evidence-based policy making is another feature of the Brazilian system which has helped it continually evolve and make changes, resulting in course corrections as and when required[34].

ii) <u>China</u>

China's success in UHC has been hailed as extraordinary and China has been the focus of many studies since it started its reform process in 2009[35,36], when it announced its Health Care System Reform. The Implementation Plan for the Recent Priorities of the Health Care System Reform visualized provision of affordable medical care for all its citizens by 2020[37]. The reform envisaged a complete overhaul of China's healthcare system, and addressed all aspects of the

health system. Particular focus was given to the grassroots medical networks, infrastructure, personnel, hospital reforms and drugs and medicines. Earlier, China had a well-performing system of rural health care, and the Rural Cooperative Medical Schemes (RCMS) was seen as a success. Social insurance and bare foot doctors made the rural health system a sturdy one[38]. However, the move towards market economy resulted in major reversals and the system witnessed high OOPS, stemming mainly from the government's omission to address the health system while it transited to a market economy.[35]

Currently, China operates a three-level medical service system: national level, province level, and county level. It has three main coverage systems: the Urban Employee Basic Medical Insurance (UEBMI), the New Cooperative Medical Scheme (NCMS) and the Urban Resident Basic Medical Insurance (URBMI). These programmes are run in a parallel manner, without resource or service pooling. It also has an essential drug programme which has resulted in significant reduction in OOPS.

One main feature of the reforms was to double annual public health spending, which was necessary to achieve the goals set out in its vision for health sector reform. Thus, unlike Brazil, China has moved towards reforms by greatly augmenting its current level of spending. It has also managed to strengthen the primary health care system and bring down OOPS in a relatively short time[39].

However – as in the case of Brazil – China also is facing challenges in terms of rising costs due to shift in disease patterns and others concerns like quality of services and provider incentives. It has been argued that China's health system is hospital-centric and volume-driven, with quality concerns[39]. However, these concerns have been recognized by the government and in 2015 a national strategy has been endorsed named "Healthy China" which will guide the next phase of reforms[39]. China is an example of a serious prioritization of health, as displayed by the huge investment made in the health sector and the series of reforms that continues to take place in the country.

c. Russia

After the collapse of Soviet Union, the Russian Federation continued with a universal system of basic health care that was state run and free at point of access[40]. This system helped to improve and stabilize health outcomes over the years to a large extent, though there remained

problems of access to non-basic care. However, during 1980s and 1990s, lack of reforms led to a deterioration of the health system and even basic health outcomes worsened significantly. Lack of personnel and modern equipment were some of the major concerns for the ailing health sector. To this was added the problem of huge influx of migrant workers resulting in deepening of inequality in access and outcomes.[40]

The 1993 Health Insurance Law introduced the legal framework for the health insurance system[41]. In 1996, the Russian Constitution provided all citizens right to free healthcare under Mandatory Medical Insurance in 1996. The National Priority Project in Public Health came into being in early 2000s. With this came a series of reforms and changes in the health system - introduction of medical insurance, competitive contracting, co-payments and privatization, that resulted in rapid and "massive de-statization"[42]. The system did not perform as expected mainly because it was not preceded by administrative, regulatory and legal reforms. OOPS increased and state finances declined sharply. Two channels of government financing was created, one based on wage taxes and the other on general tax revenues, the latter being the more unstable source[41]. The underfunding of inputs, including that of personnel, created "shadow commercialization" which essentially meant that government appointed medical personnel used informal shadow payments for their services[43].

In 2010, the law on Federal Mandatory Insurance Fund (FOMS) was introduced in Russia, In 2012, a set of measures were announced that were designed to overhaul the health care system in Moscow and some major proposals around personnel and equipment were made that caused a significant level of controversies and protests in the country. The Russian system of decentralization has raised many concerns; the three tiers of the system – federal, regional and municipal each have their revenue collecting and service-providing functions, but the management and regulation of the entire system remains complex[41]. The chronic deficit of FOMS, mismatch between fixed rates for medical services and actual costs, centralized administration of a an attempted decentralized system, chronic personnel shortage all have led to a situation which has often led to alarmist conclusions[44] and a cry for real reforms[45.]

With relatively high health spending, Russia is a case of substantial inefficiencies in spending which translates into suboptimal health outcomes, high OOPS and significant inequalities in access and financing across regions, economic and social classes[40,46]. Private health insurance has increased over the years in Russia[47]. While its health outcomes are close to that of China

and Brazil, in comparison to OECD countries, Russia does not perform that well. However, there is evidence of sincerity in health sector reforms and evidence does suggest that incremental changes have been taking place, though a much more evidence-based approach is required to yield superior results.

d. South Africa

The post-Apartheid period in South Africa saw a number of incremental reforms in the health sector to address the immense inequalities in access and outcome that was the norm during the apartheid regime. This included public health legislation and policies and a unified national health system, increasing infrastructure at primary care level, removing user fees for maternal and child health services to name a few[48]. Despite this, the country saw unprecedented worsening of burden of disease, with HIV and TB wiping out much of the gains achieved through development.

To tackle the worsening health situation, in 2008, the government brought out the Health Sector Road report which resulted in the Ten Point Plan, which was intended 'to guide government health policy and identify opportunities for coordinated public and private health sector efforts, in order to improve access to affordable, quality health care in South Africa' [48]. A performance agreement between the President and the Minister of Health was signed in October 2010 for the implementation of the Negotiated Service Delivery Agreement (NSDA) for the Health Sector. The NSDA process requires that government departments harmonise the implementation of their respective service delivery agreements so as facilitate delivery of the 12 key outcomes.

In 2011, the Green Paper on National Health Insurance was brought out which contained the principles for developing National Health Insurance (NHI). The objectives were to improve access to quality healthcare services and provide financial risk protection against health-related catastrophic expenditures. The proposal visualised the development of comprehensive healthcare to be provided through accredited and contracted public and private providers, with a strong focus on health promotion and prevention services at the community and household level. The proposal also contained a realistic target of timeline, with the first 5 years to be used to strengthen the public sector in preparation for new NHI systems. The plan was to launch the new central NHI fund in 2014/15[49].

However, the NHI did not quite take off, and in 2015, the government released the White Paper on NHI. The paper proposed that NHI will be made compulsory and will be introduced in three phases over a 14-year period. In Phase I, focus will be on strengthening the public sector. In the second phase, population registration and creation of a transitional fund to purchase non-specialist primary care would be the focus. Finally, in Phase III, the aim will be to operationalize the NHI fund fully and make it a strategic purchaser and single payer of comprehensive health services, including specialist services[50].

While it is early to comment on the progress and implementation of the NHI, there is some concern that the necessary homework to make NHI a reality remains to be done. For example, there have been delays in operationalising the independent Office of Health Standards Compliance, necessary for ensuring compliance with standards laid down for treatment. Some of the changes envisaged in the White paper require far-reaching legislative changes as well, in for example, the National Health Act and the Medical Schemes Act, but details are not laid out in the White paper on how exactly such changes should be brought about[50].

e. India

The constitution of India considers the "right to life" to be fundamental and obliges the government to ensure the "right to health" for all, without any discrimination. The Constitution indicates the government's role in the health sector and lays down obligations on the Central Government, but makes health a State subject. To a significant extent, India's health sector has been shaped by the federal structure of the country and centre-state divisions of functions, responsibilities and financing.

The total health expenditure in India for 2013-14 was 4.02 percent of the country's GDP, with government expenditure at 1.15 percent of GDP[51], which is lower than the average for low-income countries[52]. Out of total health expenditure in India, household out-of-pocket expenditures are 69.1 percent. The high OOPS and low public investment have remained more or less the main features of the Indian health care system over many years.

There have been a few attempts at moving towards a wider health coverage system, notably the High Level Expert Group set up by the Planning Commission, which brought out a blueprint of the possible ways India could move towards UHC. With a change in the

government at the Centre, a National Health Assurance Mission was set up as well, which submitted another blueprint of UHC to the government. The recommendations of these committees were not implemented. Apart from these, there have been two major programmes which can be thought of as highlights of India's health sector journey over the years. These are the National Rural Health Mission (NRHM) launched in 2005 and the Rashtriya Swasthya Bima Yojana (RSBY) launched in 2008.

The NRHM – now called the National Health Mission or NHM – can possibly be called a true health sector reform, in that it changed in some fundamental ways the workings of the health systems in the country. The aim of NRHM was to "carry out necessary architectural correction in the basic health care delivery system"[53] mainly to improve access by strengthening health systems especially in the rural areas. There have been numerous studies on the NRHM and while some argue that it may not have improved the situation like envisaged initially, it has led to improvements in parameters like immunization, institutional deliveries and antenatal care[54]. Like most programmes that are across the health sector, the NHM may have played relatively a greater role in the national programme priorities like disease control programmes of the government. While the changes were not uniform across states, the NRHM did usher in some significant process changes and strengthened health systems considerably in many states of India.

The RSBY is one of the largest a social welfare scheme which gives health coverage to poor informal sector workers and currently covers more than 41 million poor families. It is a hospitalization scheme and was launched by the Ministry of Labour and Employment (MOLE); only last year it has been transferred to the Ministry of Health and Family Welfare (MOHFW). The RSBY is seen by some as the most successful health sector reform – and not merely a programme - in India. There is little doubt that the enrolment into the programme is massive, but whether it has achieved its objective of reducing OOPS on hospitalization and improving access is still being contested. Few studies exist that look at the impact of health insurance on out-of-pocket spending (OOPS) and the evidence seem to be mixed on whether or not coverage for hospitalization like the RSBY reduces OOPS[55,56,57,58]. Nevertheless, some argue that the mere fact that RSBY happened on such a massive scale was because of strong political will to make a difference in the social welfare situation in India and it has the potential to move the UHC agenda forward[59].

The reason why RSBY cannot be called a health sector reform in the true sense of the term, especially in the context of UHC, is because RSBY happened in isolation, as a scheme and not as a part of a coherent well-planned UHC strategy. RSBY was not based on the principle of risk and income pooling, was not comprehensive and did not fit into any broader plan for UHC.

More worrying is the widespread trend across states to replicate the RSBY model, without paying attention to its merits and demerits and with very little evidence-based understanding of whether or not it will improve access and reduce costs in the system. In the last budget, the Prime Minister announced a National Health Protection Scheme, which is essentially RSBY in a scaled up fashion for the entire BPL population with a higher ceiling amount of Rs 1,000,00[60].

A set of health sector reforms for UHC has yet to take place in India, and it is yet to draw up a blueprint of a comprehensive UHC programme. As for incremental reforms, there have not been that many over the years, evidenced by a poorly performing primary health care system, almost totally unregulated private market for health, and lack of comprehensive coverage for the majority of the population. The significant inequity in access and financing situation has remained somewhat the same over the years, and government's priorities in the health sector[61] can be further questioned based on its very low investment in the sector.

6. UHC in BRICS: takeaways for India

The experiences of the four countries in improving access to health services in their countries towards universality offer valuable insights and lessons that India can learn from. In Table 5 we summarize the key points that emerged from the 4-country (excluding India) analysis above.

The last column in Table 5 indicates that the two countries that have made substantial progress towards UHC are Brazil and China with almost all the parameters showing positive results. While both the countries are struggling with concerns like shortage of physicians made worse by increasing NCDs, Brazil in particular has some way to go in raising the share of health in total government expenditure. Nevertheless, Brazil's attempt at consolidation and pooling is commendable, because it uses general tax revenues to give similar services to all its population groups.

Table 5: Key parameters in the progress towards UHC in BRICS nations

	Blueprint or vision of UHC	Increased share of public funding	Functional primary health care system	Pooling	Regulation	Major reforms	OOPS declined over the years	Progress towards UHC
Brazil	Yes	Yes, but low	Yes	Yes, unified services	Yes	Yes	Yes	++++
Russia	Yes	No, declined somewhat	Yes	No	No	No	No, it has risen	++
India	No	No	No	No	No	No	Yes, marginally	+
China	Yes	Yes	Yes	Few separate pools	Yes	Yes	Yes, sharply	+++
South Africa	Yes	Yes	No	No	Incomplete	No	Yes	+

All the countries except India have a vision document for UHC, though Russia and South Africa have yet to translate all the stated objectives into action. Both Russia and South Africa could not implement all the administrative and legal reforms and as a result these countries are struggling with complex and sticky issues of operational inefficiencies. Russia's is a unique case because of its political economy legacy, but abrupt changes in policies and programmes without proper groundwork has delayed and arrested progress towards UHC. As a result, Russia has been struggling with high OOPS. The only two countries with proper reforms and implementation are Brazil and China, despite the varied concerns with the current situation. The governance results indicate that with Brazil and China, Russia has also done well, and it may not be very difficult for it to turn things around with proper planning and foresight.

What lessons can India draw from these experiences?

While both Brazil and China have been able to make serious progress towards UHC, the differences between the two are quite stark. Brazil's reforms were truly incremental, undertaken gradually over many years; China had a much faster process. Also - and this may be related to the previous point – the investment by the government in Brazil has been steady and grown modestly, while China saw a sharp increase in government expenditure on health. If India wants to fast-pace its move towards UHC, it might want to consider China model and

immediately prioritize health by moving from the very low expenditure levels to a level that can at least make it possible to take the initial steps towards UHC. Otherwise, if it wants to take it slow – the better model might be that of Brazil's with numerous reforms preceding the actual UHC roll out and incrementally thereafter. The latter is in some ways superior because unless one is absolutely sure of what it implements, sudden and abrupt changes might not be the best way forward. The experiences of Russia and South Africa indicate that some legal and administrative reforms are absolutely necessary before making major changes in the architecture of health financing and service delivery.

The other important fact that emerges from these country experiences is the importance of strengthening primary care. In fact, while Brazil and China have been able to do so, Russia is another example of a country that is able to offer some basic services to its population, due to its historical legacy. While Russia has not done as well in UHC despite fairly high investments, given its positive governance outcomes, a moderately well-functioning primary health care system and fairly high health expenditure levels, it has the potential to rectify the various inefficiencies that have befallen the health care system – calling for yet another round of well-directed reforms. India has the option of either moving towards a comprehensive UHC programme or investing on primary care for now, and building UHC on a strong health system subsequently. While improving social determinants of health would go a long way to improve inequities in the system – as is clear from the case of South Africa – this is a broader developmental issue that can happen simultaneously, and should not stop specific health sector reforms from happening.

While India's poor governance record puts up a natural constraint on any fast-paced reforms, it needs to at least acknowledge the country's need for comprehensive health coverage and draw up a vision document that can be used as a benchmark to tally progress. Clearly, such a document can only be drawn up with serious prioritization of health, which is not evident yet from its public financing patterns. Also, it would require a wider consultation with multiple stakeholders, backed up by solid evidence-based research, as has been happening in Brazil. Civil societies have been able to work with the government in Brazil and to a much lesser extent in South Africa, but not so much in China and Russia[62]. Wider consultations and inputs from civil societies are critical for reality checks. So far, in India, the health sector programmes including launch of various health insurance schemes has happened in a very centralized manner without wider stakeholder participation in the processes. This has meant that neither

criticisms nor constructive suggestions have been taken on board before launching new schemes or scaling up old ones.

A very important issue that emerges from the analysis is the issue of decentralization and regional factors. All the BRICS countries have federal structures where the structure of decentralization has played a key role in access to health services. In fact, much of the complexity in delivering equitable and efficient health services has to do with the tiered federal structures in these countries. While South Africa grapples with intense inequalities in access between poor and rich areas and populations, China's fiscal decentralization has often led to uneven outcomes and the matching funds arrangement has meant many facilities are dependent on their local governments' fiscal capacities. Russia has inequalities in human resources and infrastructure across regions, and despite increased funds at the centre, the allocations of finances have been quite uneven. Also, it has a very complicated system of federal and regional health budget financing and health insurance funds. While Brazil also is dealing with uneven quality and availability of infrastructure and personnel, it is nowhere as stark as in some of these other countries, and a higher health spending and better allocations with enhanced funds might be able to improve the situation.

India on the other hand, has yet to articulate its own vision of UHC and financing in the context of its federal structure, where health is state subject and the state governments are the major spenders. It makes little sense then for the central government to plan UHC on its own, when neither service provision nor significant financing come from it. The Fourteenth Finance Commission has decreed that a greater part of the divisible pool taxes would now go to the states, making the states squarely responsible for prioritizing health. In this scenario, India would need very careful planning around the centre and states' roles in financing and provisioning of health services. Should there be one consolidated scheme or should each state decide on how it wants to design a UHC package? Given that there are significant personnel and infrastructure gaps currently in many states, and states have historically not prioritized health in the sense of higher spending, what role can the central government play? Here the Brazil model is useful and evidence-based planning around UHC is the first step India should take. The planning would also require understanding where reforms are absolutely necessary and which reforms can happen during the course of the roll out.

A key area requiring focus is the public-private split in financing and provision. This is going to be a key issue in India where the private providers are the major players. Each of the BRICS

countries has had their own private sector issues. Brazil's private health insurance sector has emerged as a very important player though within rules set out by the relevant federal government institutions. China has been actively encouraging private players and has taken steps to remove regulatory barriers for greater ease of entry and stay; in fact, selected private hospitals are now eligible to provide reimbursable treatment for patients funded through social healthcare insurance.[63] South Africa already has a large private provider and insurance sector. India will have to understand how lack of proper regulation in some of these countries have increased inequalities and decide how long it should wait before putting in place a series of regulation that would curb malpractices and economic burden on households. Whether or not it decides to have UHC, regulation is an area where reforms have been long overdue.

In sum, lessons from BRICS countries indicate that since India has yet to articulate a plan or vision for UHC, it can prepare itself better by learning from experiences of other countries, including BRICS. Such experiences are, after all, the best evidence base that the country can have in hand, to plan better for a future where a majority of Indians can access health services that they require at costs that they can easily bear.

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Annex

Table 1 on governance indicators

Indicators and Index	**Brazil**	**China**	**India**	**Russian Federation**	**South Africa**
Commercial bank branches (per 100,000 adults), 2014	47.3	8.1	13.0	37.0	10.9
Ease of doing business index rank (1=most business-friendly), 2016	123.0	78.0	130.0	40.0	74.0
Electric power transmission and distribution losses (% of output), 2013	16.4	5.8	18.5	10.1	8.5
Improved sanitation facilities (% of population with access), 2015	82.8	76.5	39.6	72.2	66.4
Improved water source (% of population with access), 2015	98.1	95.5	94.1	96.9	93.2
Physicians (per 1,000 people), 2011	1.9	1.5	0.7	4.3	0.8
Research and development expenditure (% of GDP), 2012	1.2	1.9	0.8	1.1	0.7
Unemployment, total (% of total labor force) (national estimate), 2014	4.8	4.1	4.9	5.2	24.9
Proportion of seats held by women in national parliaments (%), 2016	9.9	23.6	12.0	13.6	42.0
Pupil-teacher ratio in primary education (headcount basis), 2014	21.2	16.2	32.3	19.8	32.3
Corruption Perceptions Index Rank (1=least corrupt), 2015	76	83	76	119	61
GOVERNANCE INDEX	**0.52**	**0.61**	**0.17**	**0.59**	**0.32**