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An assessment of progress towards universal health coverage in Brazil, Russia, India, China, and South Africa (BRICS)

Robert Marten, Diane McIntyre, Claudia Travassos, Sergey Shishkin, Wang Longde, Srinath Reddy, Jeanette Vega

Brazil, Russia, India, China, and South Africa (BRICS) represent almost half the world’s population, and all five national governments recently committed to work nationally, regionally, and globally to ensure that universal health coverage (UHC) is achieved. This analysis reviews national efforts to achieve UHC. With a broad range of health indicators, life expectancy (ranging from 53 years to 73 years), and mortality rate in children younger than 5 years (ranging from 10.3 to 44.6 deaths per 1000 livebirths), a review of progress in each of the BRICS countries shows that each has some way to go before achieving UHC. The BRICS countries show substantial, and often similar, challenges in moving towards UHC. On the basis of a review of each country, the most pressing problems are: raising insufficient public spending; stewarding mixed private and public health systems; ensuring equity; meeting the demands for more human resources; managing changing demographics and disease burdens; and addressing the social determinants of health. Increases in public funding can be used to show how BRICS health ministries could accelerate progress to achieve UHC. Although all the BRICS countries have devoted increased resources to health, the biggest increase has been in China, which was probably facilitated by China’s rapid economic growth. However, the BRICS country with the second highest economic growth, India, has had the least improvement in public funding for health. Future research to understand such different levels of prioritisation of the health sector in these countries could be useful. Similarly, the role of strategic purchasing in working with powerful private sectors, the effect of federal structures, and the implications of investment in primary health care as a foundation for UHC could be explored. These issues could serve as the basis on which BRICS countries focus their efforts to share ideas and strategies.

Introduction

Brazil, Russia, India, China, and South Africa (BRICS) not only represent 43% of the world’s population, but also, as WHO Director General Margaret Chan declared, “represent a block of countries with a fresh and invigorating approach to global health”, and as such challenge existing global health orthodoxy. At the World Health Assembly in May, 2012, the BRICS countries “stressed the importance of universal health coverage (UHC) as an essential instrument for the achievement of the right to health [and] welcomed the growing global support for UHC and sustainable development”. But how do the BRICS countries measure up to national commitments to achieve UHC? Building on recent national studies of UHC efforts (as well as country series published in The Lancet for Brazil, India, China, and South Africa), in this paper we review, assess, and compare UHC efforts in each of the BRICS countries. Because there is not yet a standard, internationally agreed quantitative framework to measure progress towards UHC, in this analysis we review national data and present a qualitative analysis of efforts to reach UHC in each of the BRICS countries. Defined as access to needed health services and financial risk protection, UHC is a shared health policy goal for all the BRICS countries, and is increasingly regarded as an overarching goal for health in the post-2015 development agenda. Although there are notable differences within and across these countries in terms of wealth, health indicators, and systems (table I), in this paper we use a simple framework to assess health systems and reforms towards UHC (as defined in the 2010 World Health Report), and consider these efforts and remaining challenges.

Brazil

Health system and reform to reach UHC

Brazil is a federative republic with three levels of autonomous government: 26 states and a federal district and 5564 municipalities. It has close to 200 million citizens, and is largely urban (85%). Brazil’s 1998 Constitution formally established health as a right for all citizens, and led to the creation of the Unified Health System (SUS): a complex decentralised public system with community participation, directed at provision of universal, comprehensive, collective and individual health care. SUS is funded mainly by federal government, and by states and cities, through taxes and social contributions.

Services are delivered by public and private providers, and are free at the point of delivery. The private sector is dominated by a growing health insurance market. Although coverage is uneven and highest in wealthier areas, it covers an estimated 25% of the population (48 million people). Copayment is not a widespread practice, but it is increasing. In 2008, private per-head health-related expenditures were triple that of public per-head expenditure. In view of the fact that people covered by private health plans are healthier, richer, and younger than are those not covered, substantial inequalities exist between private and public systems. In 2010, the Brazilian private health market was estimated to be about US$36 billion—only slightly less than the $38 billion spent by all Brazilian states and municipalities.

Since the establishment of SUS, access to health care has increased, and use has become more equitable across regions and income groups. The Family Health Program

For the Brazil Series see http://www.thelancet.com/series/health-in-brazil

For the India Series see http://www.thelancet.com/series/india-towards-universal-health-coverage

For the China Series see http://www.thelancet.com/series/china

For the South Africa Series see http://www.thelancet.com/series/health-in-south-africa
(PSF), providing primary care, has expanded substantially (55% in 2012), but not in the wealthiest areas. The PSF has reduced admissions to hospital through delivery of better primary care and achievement of equity in prenatal care. The PSF raised demand for specialised care, but access barriers to secondary and more complex care remain high. SUS also includes a National Immunisation Programme (PNI) and the Farmácia Popular, which delivers free medicines for diabetes, hypertension, asthma, and other diseases through accredited private drugstores, and has a large organ transplantation programme.

Out-of-pocket payment patterns vary across income groups. Among the poorest group, direct expenditures are spent mainly on purchasing of medicine. The richest group spends proportionally less on diagnostic tests, but is the heaviest consumers of these procedures.17 Unable to afford private health plans, and paying proportionally higher out-of-pocket rates (19%), access is most difficult for the lower middle-class. These patterns suggest overuse in the private sector, and underuse in the public sector. Evidence also suggests that the private sector’s size creates unfair competition, drawing services and financial and human resources from SUS,16 which contributes to inequity, inefficiency, and low effectiveness.

Challenges to reach UHC
Brazil is witnessing rapid social, demographic, and disease burden changes. Despite the global financial crisis, the health system is dependent on continued economic and social development. More broadly, the government is facing political pressure from widespread public demonstrations demanding better public policies, including health. The government’s restricted health financing remains a major problem. Private interest groups continue to influence government decisions.18 Tax subsidies for private health care contribute to an expanding private sector. The government must respond to these challenges through firmer commitments to a larger and more effective public health sector. The Ministry of Health is seeking to redress health distributional inequities by addressing physician and infrastructure shortages, but faces strong opposition from medical associations. It is also upgrading public health-care technological infrastructure to positively affect prices.

Russia
Health system and reform to reach UHC
Russia is a presidential federative republic with 83 regions; it has 143 million citizens and is largely urban (74%).19 Russians’ health status and health system deteriorated rapidly after the collapse of the Soviet Union; however, the situation has begun to improve.20 The mortality rate decreased from 16·1 per 1000 in 2005, to 13·3 per 1000 in 2012. Although the Soviet constitution was the world’s first to guarantee the right to UHC, social status, working conditions, and geographical residence all create variable access to quality health facilities.

Russia’s public sector still dominates. In 2012, 9·8% of patients selected private providers for outpatient care and 1·7% for inpatient care.20 Services covered by public funding include outpatient and inpatient care, emergency care, and medicines and supplies for some population groups (including veterans, parents and wives of deceased military servicemen, children in the first 3 years of life and those <6 years from large families, disabled individuals, disabled children <18 years, citizens affected by radiation because of Chernobyl, and others). All citizens have the right to medicines for inpatient care. Some population groups have the right to a 50% discount on medicines for outpatient treatment.

Introduced in 1993, employers contribute to the mandatory health insurance (MHI) for their employees at a rate of 5-1% (2011).21 Regional budgets cover the non-working population. The MHI benefit package covers outpatient and inpatient care except for tertiary and specialised health care. Except military personnel and prisoners, MHI covers all citizens (the military and prisoners have the right for the same benefit package as all citizens, but health care for them is funded from the national budget). Tax funds are used to fund health care not included in the MHI benefit package, and to subsidise public health-care facilities.

Table 1: Comparison of key indicators across BRICS countries

| Indicator                              | Brazil | Russia | India | China | South Africa |
|----------------------------------------|--------|--------|-------|-------|--------------|
| Life expectancy (years, 2011)           | 73     | 70     | 65    | 73    | 53           |
| Maternal mortality ratio (per 10 000 livebirths, 2010) | 56     | 34     | 200   | 37    | 300          |
| Under-5 mortality rate (per 1000 livebirths, 2012) | 14.4   | 10.3   | 56.3  | 14    | 44.6         |
| Prevalence of HIV in adults aged 15–49 years (% of infection, 2011) | 0.3%   | 0.8-1.4% | 0.3% | <0.1% | 17% (2011)   |
| Physicians density (per 1000 population, year) | 1.76 (2009) | 4.3 (2006) | 0.65 (2009) | 1.46 (2010) | 0.76 (2011) |
| Probability of dying between ages 30 and 70 years from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease (% of population, 2008) | 20% | 32% | 27% | 21% | 27% |

BRICS=Brazil, Russia, India, China, and South Africa.
The shortage of funding after the Soviet Union’s collapse was partly compensated by an increase in private expenditure. Public facilities were allowed to charge for services complementary to free health care, and free health-care services were replaced by chargeable ones. The share of patients who paid for outpatient diagnostic services increased from 8·8% in 1994, to 22·5% in 2011; for inpatient care, this figure increased from 13·8% to 30·3%. A substantial part of payments are made informally. In 2011, 34% of patients paying for outpatient visits indicated that they did so informally, whereas the proportion for inpatient services was 67%. Private spending amounted to 40% of total spending in 2011. 88% of private spending is spent out-of-pocket.

Recent government policies have focused on improving and equalising access to quality care. Free medicines have been provided to several vulnerable groups. A National Health Project (2006–13) and several regional programmes have led to large-scale modernisation and the construction of new hospitals. In 2011, MHI reform focused on equalising access by consolidating administration and increasing contributions. MHI funds are pooled and allocated regionally to equalise per-head funding according to a federal standard. The reform is introducing the purchase and removal of barriers for private providers.

**Challenges to reach UHC**

Russia’s high mortality rate is still the most important challenge; the government has set a target to increase life expectancy to 75 years by 2025. To achieve this target, Russia needs to not only modernise and offer effective care, but also reinvigorate efforts for health promotion. This effort will require additional financial resources; however, compared with 2012, public funding in the 2013–16 budgets increases spending by only 4%. Gross domestic product (GDP) spent on health is expected to decrease from 3·7% in 2012, to 3·4% in 2016. Related to this fact is the regional distribution, variability in resources, and broad income inequalities. Per-head public health funding has differed between four and five times between regions, and this difference has increased in the past decade. There are considerable divergences in access. According to a 2003 survey, patients receiving free inpatient care without any additional payment ranged from 74·2% to 55·7% in different regions.

Another key challenge is how to combine the guarantees of free health-care provision with the reality of private health financing. Although economic constraints do not allow an increase in public health funding, political constraints do not allow a revision of existing guarantees. An adequate response to the challenges requires both increasing public financing and modernising for efficiency, as well as reforming the guarantee and financing of health services.

**India**

**Health system and reform to reach UHC**

India is a federal republic with 28 states and seven union territories; it has 1·241 billion citizens, and is largely rural (70%). Public financing of health is only 1·04% of GDP, and out-of-pocket spending is high (3·16% of GDP). Expenditure on medicines accounts for 72% of out-of-pocket spending. In 2004, financial barriers led to roughly a quarter of the population unable to access health services; 35% of patients admitted to hospital were pushed into poverty. Paying for health pushed 60 million Indians below the poverty line in 2010.

India’s mixed health system has seen a progressive decline in public services and growing dominance of unregulated private providers. Since 2005, the National Rural Health Mission (NRHM) has improved primary maternal and child health services, but does not yet provide necessary primary and secondary care. Government-funded schemes form the largest component of health insurance. Government employees are entitled to care at public facilities and are compensated for costs at recognised private facilities. These schemes are supplemented by several new national or state insurance programmes. Managed by the Ministry of Labour and introduced in 2008, Rashtriya Swasthya Bima Yojana (RSBY) is one of the most prominent new schemes, and covers hospital care for around 120 million Indians. Although the scheme does provide access to both public and accredited private providers, it does not cover outpatient care, primary care, or high-level tertiary care. Financial protection is also not assured, because hospital costs and outpatient costs are beyond the coverage limit. State schemes in Andhra Pradesh, Karnataka, Tamil Nadu, and Rajasthan have mostly provided access to tertiary care, with varying levels of cost coverage.

In 2010, India’s Planning Commission commissioned a High Level Expert Group (HLEG) on UHC. It called for an increase in public financing of health to 2·5% of GDP by 2017, with preferential allocation (up to 70%) for primary care. It recommended that an essential package of primary, secondary, and tertiary services be provided through cashless and principally tax-funded mechanisms. The HLEG also called for investments in health workers, the creation of public health and health management cadres, access to essential drugs, community participation, and action on social determinants of health. Following the HLEG’s recommendations, India’s 12th Development Plan proposes almost a doubling in public financing (from 1·04% to 1·87%). It calls for piloting of state UHC models, and transformation of the NRHM into National Health Mission (NHM) by the addition of an urban component. It recommends provision of free essential generic drugs, expansion of RSBY, and creation of public health and management cadres.
**Challenges to reach UHC**

**Barriers are not only technical, but also political.** Coordinated political will at both the state and central levels is required. The federal budget for 2013–14 does not inspire confidence in political commitment. Although the budget represents a 21% increase, this amount is inadequate. There are also major regulatory issues that need to be urgently addressed. The public sector is overly centralised, rigid, and poorly managed, whereas the private sector caters to the needs of a large section of the population, is mostly unregulated, and comprises both formal and informal providers.

The government has focused its concerns on delivery of services through a largely underfunded public health sector while a rapidly growing private sector competes with government providers. If RSBY and state government-funded insurance schemes continue to expand and fragment health services (through their continued neglect of primary and ambulatory care), to integrate them in the future will be difficult. Over the next 5 years, such schemes are also likely to divert resources from primary care to more expensive secondary and tertiary care.

Finally, the absence of qualified and trained human resources to support implementation platforms could have an adverse effect. Present shortages of skilled personnel, paramedics, medical supplies, and equipment seriously undermine India’s efforts to deliver UHC.

**China**

**Health system and reform to reach UHC**

China is a republic with 23 provinces, five autonomous regions, and four municipalities; it has 1·344 billion people, and is roughly equally split between rural (48%) and urban (52%) populations. China is undergoing a huge economic, social, environmental, and disease burden transformation. The population is increasingly demanding access to health services and reductions in personal health-care expenses. The 2003 outbreak of severe acute respiratory syndrome (SARS) served as a catalyst to focus the government’s attention on health. Total health expenditure increased from ¥74·7 billion in 1990, to ¥1998 billion in 2010, and average per-head health expenditure increased from ¥65·4 in 1990, to ¥1490·1 in 2010. In response to public discontent, China’s health reform between 2003 and 2008 has focused on extension of coverage and promotion of equitable access, particularly for rural populations.

In 2003, the government established the New Rural Cooperative Medical Scheme (NRCMS)—a scheme financed mainly by the government, with small contributions from farmers and collectives, to cover medical costs. 95% of farmers (812 million) were covered by June, 2012. In 2007, the government launched the Urban Resident Basic Health Insurance (URBHI) to cover the urban population not covered through the Urban Employee Basic Health Insurance (UEBHI). The UEBHI covers roughly 30% of the population and is jointly funded by employers and employees. For the NRCMS and URBHI, reimbursement rates for inpatient expenses in 2012 were regulated to be 75%. Simultaneously, China established a Medical Financial Assistance system (MFA) for the poorest citizens, which covers medical care for more than 68·76 million people, including direct aid to severely disabled people, elderly patients, and seriously ill patients in low-income families. These three systems, NRCMS, URBHI, and MFA, complement each other and greatly expanded the range of health service benefits.

The government recently formulated its 12th 5-year plan which focuses on increasing and optimising the allocation of human resources, controlling costs, increasing government investment, and reducing health spending to less than 30%. More specifically, the plan focuses on increases to NRCMS funding to improve financial protection—eg, fiscal subsidies to enrollees will increase to ¥360 by 2015. The government will also establish an evolving mechanism to increase funding as well as fiscal subsidies. Meanwhile, efforts will be made to standardise and improve reimbursement plans, enhance inpatient reimbursement, and undertake broad outpatient pooling fund reimbursement continuously to increase the number of people benefiting from the NRCMS. A stronger regulatory system and reform of hospital governance also need to be created.

To complicate matters, the government is still undergoing a tremendous political transition at national and regional levels, including at the Ministry of Health. Many members of the political administration are new and just beginning to incorporate UHC into their agenda.

**South Africa**

**Health system and reform to reach UHC**

South Africa is a quasifederal republic with nine provinces; it has 5·09 million people, and most of the population live in urban areas (62%). Because of apartheid’s legacy, considerable disparities in health status across race groups remain. For example, life expectancy in 2004 ranged from 64 years for white people to 49 years for black people. There are also inequalities across geographical areas. Despite a constitutional obligation to the right to access health services, the health
system remains deeply divided, with the richest people covered by private insurance and everyone else reliant on poorly resourced public sector services. Low-income and middle-income formal sector workers also face financial protection challenges.

The health system falls far short in provision of equitable access to needed, effective health care. The poorest groups have lower rates of health service use and derive fewer benefits from use of health care, despite the burden of ill health being far greater on these groups. There are considerable barriers to access, particularly for the poorest people. There is an absolute shortage of health workers and an uneven distribution between sectors and geographical areas.

There is little mandatory prepayment funding or tax-based funding, which accounts for just over 40% of total funding and wide disparities in spending. Although US$1370 was spent per private insurance beneficiary in 2008, less than $220 was spent on health care for those dependent on tax-funded health services. Other major challenges include fragmented risk pools, with nearly 100 private insurance schemes, operating as separate risk pools, and ineffective provider payment mechanisms that provide weak incentives for efficient provision of quality services.

The government is committed to moving towards UHC over a 15-year period, with three 5-year phases. The first phase will create conditions for efficient and equitable provision of high-quality public services by addressing infrastructure deficiencies and ensuring routine availability of essential medicines and other quality improvement strategies.

There is a particular focus on primary health care, including introduction of community health workers and community-based nurses, initially delivering promotive services directly to households. The reforms also focus on management improvements within hospitals and health districts to ensure that managers have the requisite skills. The intention is to gradually delegate more authority to individual hospitals and create district health authorities.

In the second phase reforms will create a purchaser-provider split, and establish a National Health Insurance Fund. It will be tax-funded, through allocations from general tax revenue and possibly additional earmarked taxes, and pool funds and purchase services from both public and private health-care providers.

### Challenges to reach UHC

Although the government is committed to pursuing UHC, these plans face opposition from some groups, although often not overtly. Private insurance schemes and providers are concerned that they will be adversely affected by the reforms.

The National Treasury has financial feasibility concerns, particularly in view of the current global economic crisis. Reform is focused on creation of a solid primary health foundation, including preventive and promotive services. Strong purchasing power and effective provider payment mechanisms are also crucial. Modelling of the resource requirements for UHC indicates that although total expenditure on health care would increase only slightly (at more than 8% of GDP), spending from public funds would need to increase from present rates of around 4% of GDP to more than 6%.

However, there are risks of pooling all funds in a single fund, particularly in the absence of robust governance and accountability mechanisms. These details have not yet been outlined in key policy documents.

Human resources are another serious challenge. Although reforms create an entitlement to a broad range of services, delivery will not be possible without additional staff. Several strategies are being explored, including task-shifting, increasing training capacity, and drawing on private sector resources.

### Towards UHC in BRICS countries: key similarities

Instead of identifying lessons learned, the BRICS countries show considerable, and often similar, challenges. These challenges draw attention to areas in which BRICS countries could focus their efforts to share ideas and strategies. Our review suggests that the most

|                  | Brazil | Russia | India | China | South Africa |
|------------------|--------|--------|-------|-------|--------------|
| Out-of-pocket spending on health (% of total health expenditure, 2011) | 57.8% | 35%    | 59%   | 35%   | 7%           |
| Gini index (year) | 54.7 (2009) | 40.1 (2009) | 33.4 (2005) | 47 (2007) | 63.1 (2009) |
| GNI per head (US$, 2011) | $11,420 | $20,560 | $3,590 | $8,390 | $10,710 |
| Annual GDP growth rate (5-year average, 2007–11) | 4.4% | 2.8% | 7.8% | 10.4% | 2.8% |
| Public expenditure on health (% of GDP, year) | 3.3% (2005), 4.1% (2011) | 3.2% (2005), 3.7% (2011) | 0.9% (2005), 1.2% (2011) | 1.8% (2005), 2.9% (2011) | 3.4% (2005), 4.1% (2011) |
| Private expenditure on health (% of GDP, 2009) | 4.9% | 1.9% | 2.8% | 2.3% | 5.1% |
| Health expenditure (% total of GDP, 2010) | 9% | 5.1% | 4.1% | 5.1% | 8.9% |

BRICS=Brazil, Russia, India, China, and South Africa. GNI=gross national income. GDP=gross domestic product.

Table 2: Overview of health protection programmes in BRICS countries
pressing problems are: raising insufficient public spending; stewarding mixed private and public health systems; ensuring equity; meeting the demands for more human resources; managing changing demographics and disease burdens; and addressing the social determinants of health. The heavily contested political nature of health reform is also evident in each country.

Increases in public funding can be used to show how BRICS health ministries could usefully engage. Table 2 suggests that all BRICS countries have in recent years devoted more public funding to health. The biggest increase was in China, albeit from a very low base. This increase is likely to have been facilitated by China’s rapid economic growth rate. However, the BRICS country with the second highest economic growth rate, India, has had the least improvement in public funding of health services. Future research to understand why there have been such different levels of prioritisation of the health sector in China and India could be useful. Brazil, Russia, and South Africa have all had far lower economic growth rates, and all face opposition to increases in public spending on health because of the present economic crisis. There could be mutual benefit for the BRICS countries to discuss strategies about how to deal with this challenge.

Similarly, the role of strategic purchasing and other mechanisms in overcoming large, powerful private sectors, particularly in Brazil, India, and South Africa, could be explored. The effect of the quasifederal or federal structure of most BRICS countries on efforts to move towards UHC, and the implications of investing in improved primary health-care services as a foundation for UHC (through the Brazilian Family Health Program, the Indian NHM pilots, and the South African primary health-care re-engineering programme), could also be of value to document lessons learned.

**Conclusions**

Each of the BRICS countries has some form of national commitment to the right to health and is engaged in reform towards UHC (table 3). However, all have some way to go. The BRICS group was established as a set of emerging economies with the potential to exert considerable influence regionally and globally. Although the BRICS formation was initially based on macroeconomic interests, the BRICS countries have the potential to be important leaders on a range of social policies. In view of South Africa and Brazil’s previous commitments to UHC, through the Foreign Policy and Global Health group and within discussions on the post-2015 agenda for health,26 the BRICS group will probably also focus on and advocate for UHC. The latest BRICS Health Communiqué supported the recent UN resolution on UHC, and stated the countries are “committed to work nationally, regionally and globally to ensure that UHC is achieved”.27 If they are not leading by example in making progress, it will be of little value for BRICS to individually and collectively advocate for UHC. The BRICS countries must succeed in moving towards UHC, not only because they account for nearly half the world’s population, but also because they serve as important role models for other countries within their respective regions. In view of this opportunity to expand influence further through UHC and the chance to exchange and share learning on how to best achieve UHC, it seems likely that as the BRICS Ministers of Health Group continues to meet, they will increase their focus on UHC.

**Contributors**

RM conceived the paper and coordinated its overall structure. He contributed to the writing and editing of each draft, and worked closely with each of the other authors to align the structure and develop the conclusions. DM wrote the first draft of the South Africa section, and
contributed to the editing and revising of the other sections. CT wrote the first draft of the Brazil section, and contributed to the editing and revising of the other sections. SS wrote the first draft of the Russia section, and contributed to the editing and revising of the other sections. WL wrote the first draft of the China section, and contributed to the editing and revising of the other sections. JV contributed to the overall concept of the paper and contributed to the writing and revising of various drafts.

Declaration of interests
We declare that we have no competing interests.

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References
1. WHO. WHO Director-General addresses first meeting of BRICS health ministers. July, 2011. http://www.who.int/inside/who/2011/BRICS_20110711/en/ (accessed March 5, 2014).
2. Instituto de Relaciones Internacionales. Joint Communique of the BRICS Members States on Health. May 22, 2012. http://www.int.radic.com/revistas/revista_dvd/revistas/cd%20revista2012/ documentos/BRICS%20joint%20Communique%20Health%20.pdf?option=com_docman&task=doc_download&gid=52&Itemid=21 (accessed Sept 20, 2013).
3. Knaul FM, González-Pier E, Gómez-Dantes O, et al. The quest for universal health coverage: achieving social protection for all in Mexico. Lancet 2012; 380: 1539–79.
4. Anun R, Aydin S, Chakraborty S, et al. Universal health coverage in Turkey: enhancement of equity. Lancet 2013; 382: 65–99.
5. Garrett L, Chowdhury AM, Pablos-Méndez A. All for universal health coverage. Lancet 2009; 374: 1294–99.
6. WHO. World Health Report 2010. Health systems financing. Path to universal coverage. Geneva: World Health Organization, 2010.
7. Vega J. Universal health coverage: the post-2015 development agenda. Lancet 2013; 381: 779–80.
8. The World Bank. Life expectancy at birth, total (years). http://data.worldbank.org/indicator/SP.DYN.LE00.IN (countries (accessed Sept 20, 2013).
9. WHO. WHO Global Health Observatory. Maternal mortality. http://www.who.int/gho/maternal_health/mortality/maternal/en/ (accessed Sept 20, 2013).
10. WHO. WHO Global Health Observatory. Under-five mortality. http://www.who.int/gho/child_health/mortality/mortality_under_five/en/ (accessed Sept 20, 2013).
11. WHO. WHO Global Health Observatory. Data on the size of the HIV/AIDS epidemic. http://apps.who.int/gho/data/node.main.622?lang=en (accessed Sept 20, 2013).
12. The World Bank. HIV/AIDS in India. July 10, 2012. http://www.worldbank.org/en/news/feature/2012/07/10/hiv-aids-india (accessed Sept 20, 2013).
13. WHO. WHO Global Health Observatory. Health workforce. http://gamapserver.who.int/gho/interactive_charts_health_workforce/PhysiciansDensity_Total/atlas.html (accessed Sept 20, 2013).
14. WHO. WHO Global Health Observatory. Mortality: risk of premature death from target NCDs by country. http://apps.who.int/gho/data/node.main.A857?lang=en (accessed Sept 20, 2013).
15. The World Bank. Population total. http://data.worldbank.org/indicator/SP.POP.TOTL (accessed Sept 20, 2013).
16. Bahia L, Scheffer M. Planos y seguros privados de salud. In: Giovannella L, Escorel S, de Vasconcelos Carvalho de Noronha J, Ivo de Carvalho A, eds. Políticas e sistema de saúde no Brasil (2nd edn). Rio de Janeiro: Fiocruz and Cebes, 2012: 359–425.
17. Ugli MA, Porto SM, Piola SF. Financiamento e alocação de recursos em saúde no Brasil. In: Giovannella L, Escorel S, de Vasconcelos Costa Lobato L, Carvalho de Noronha J, Ivo de Carvalho A. Políticas e sistema de saúde no Brasil (2nd edn). Rio de Janeiro: Fiocruz and Cebes, 2012: 427–56.
18. Abrucio LF. Trajetória recente da gestão pública brasileira: um balanço crítico e a renovação da agenda de reformas. Rio de Janeiro: RAP Edição Especial Comemorativa, 2007: 67–86.
19. Rechel B, Roberts B, Richardson E, et al., and the OECD. Health and health systems in the Commonwealth of Independent States. Lancet 2013; 381: 1146–55.
20. National Research University Higher School of Economics. Russian Longitudinal Monitoring Survey—HSE. http://www.hse.ru/en/itrom/ (accessed Sept 20, 2013).
21. Popovich L, Potapchik E, Shushkin S, Richardson E, Varcoux A, Mathivet B. Russian Federal Health system review. Health Syst Transit 2011; 13: 1–190, xii-xiv.
22. Fotaki M. Informal payments: a side effect of transition or a mechanism for sustaining the illusion of ‘free’ healthcare? J Soc Pol 2009; 38: 649–70.
23. Gordeev VS, Pavlova M, Groot W. Informal payments for health care services in Russia: old issue in new realities. Health Econ Policy Law 2014; 9: 25–48.
24. WHO. European health for all database (HFA-DB). http://data.euro.who.int/hfadb (accessed Sept 20, 2013).
25. Ministerstvo finansov Rossiyiskoy Federatsii. Osnovnye napravleniya byudzhetnoy politiki na 2014 god i planovy period 2015 i 2016 godov. [Ministry of Finance of the Russian Federation. The main directions of budgetary policy for 2014 and the planning period of 2015 and 2016.] http://www.minfin.ru/ (accessed Sept 20, 2013).
26. Shishkin SV, Vlassov VV. Russia’s healthcare system: in need of modernisation. BMJ 2009; 338: b2132.
27. Shishkin S, Bondarenko NV, Burdyak AY, et al. Evidence about equity in the Russian health care system. The report prepared in accordance with the Bilateral Cooperative Agreement between the Russian Federation and the World Health Organization for 2006–2007. Moscow, 2007. http://www.socpol.ru/eng/research_projects/pdf/proj25_report_eng.pdf (accessed March 5, 2014).
28. Planning Commission. Twelfth Five Year Plan 2012–17 Government of India. http://planningcommission.gov.in/plans/planel/12thplan/welcome.html (accessed March 5, 2014).
29. National Sample Survey Organisation. National sample survey: 60th round. New Delhi: Ministry of Statistics and Programme Implementation, Government of India, 2005.
30. The struggle for universal health coverage. Lancet 2012; 380: 859.
31. Shepherd-Smith A. Free drugs for India’s poor. Lancet 2012; 380: 874.
32. Das J, Leino J. Evaluating the RSBY: lessons from an experimental information campaign. Econ Polik Wkly 2011: 46: 85–93.
33. Dror DM, Vellakkal S. Is RSBY India’s platform to implementing universal hospital insurance? Indian J Med Res 2012; 135: 56–63.
34. Selvaraj S, Karan KA. Why publicly-financed health insurance schemes are ineffective in providing financial risk protection. Econ Polik Wkly 2012; XVIL: 60–68.
35. Ministry of Finance. Union budget 2013–2014. Government of India. http://indiabudget.nic.in/ (accessed Sept 20, 2013).
36. De Costa A, Johannson E, Diwan VK. Barriers of mistrust: public and private health sectors’ perceptions of each other in Madhya Pradesh, India. Qual Health Res 2008; 18: 756–66.
37. Sheikh M, Cometto G, Davivier R. Universal health coverage and the post-2015 agenda. Lancet 2013; 381: 725–26.
38. The Lancet. What can be learned from China’s health system? Lancet 2012; 379: 777.
39. Yip WC-M, Hsiao WC, Chen W, Hsu S, Ma J, Maynard A. Early appraisal of China’s huge and complex health-care reforms. Lancet 2012; 379: 831–42.
40. Ministry of Health, PRC. The Development of China’s New Rural Cooperative Medical Scheme. 2012. http://www.moh.gov.cn/mohbgt/s3582/201209/55893.shtml (accessed March 7, 2014).
41. The State Council of PRC. Notice issued by the State Council on the programming and implementation plan of deeping the reform of the medical and healthcare system during the “12th Five-Year Plan” period. 2012. http://www.gov.cn/zwgk/2012-03/21/content_2096671.htm [accessed Feb 6, 2013] [in Chinese].
42. Tang SL, Tao J. Bekedam H. Controlling cost escalation of healthcare: making universal health coverage sustainable in China. BMC Public Health 2012; 12 (supl 1): 58.
43. Alaba O, McIntyre D. What do we know about health service utilisation in South Africa? Dev South Afr 2012; 29: 704–24.
44. Ataguba JE, McIntyre D. Who benefits from health services in South Africa? Health Econ Policy Law 2013; 8: 21–46.
45 Ataguba JE, Akazili J, McIntyre D. Socioeconomic-related health inequality in South Africa: evidence from General Household Surveys. Int J Equity Health 2011; 10: 48.
46 Cleary S, Birch S, Chimbindi N, Silal S, McIntyre D. Investigating the affordability of key health services in South Africa. Soc Sci Med 2013; 80: 37–46.
47 Silal SP, Penn-Kekana L, Harris B, Birch S, McIntyre D. Exploring inequalities in access to and use of maternal health services in South Africa. BMC Health Serv Res 2012: 12: 120.
48 Health Economics Unit. Community preferences for improving public sector health services in South Africa. What aspects of public sector health service quality improvements should be prioritised? HEU Policy Brief. Cape Town: Health Economics Unit, University of Cape Town, 2012.
49 McIntyre D, Doherty J, Ataguba J. Health care financing and expenditure. In: Van Rensburg H, ed. Health and health care in South Africa. Pretoria: Van Schaik Publishers, 2012.
50 Department of Health. National Health Act (61/2003): Policy on National Health Insurance. Government Gazette 14523. Pretoria: Department of Health, 2011.
51 McIntyre D, Ataguba JE. Modelling the affordability and distributional implications of future health care financing options in South Africa. Health Policy Plan 2012; 27 (suppl 1): i101–12.
52 WHO. National Health Accounts dataset. http://www.who.int/nha/en (accessed Sept 20, 2013).
53 World Bank. Index GINI. http://data.worldbank.org/indicator/SI.POV.GINI (accessed Sept 20, 2013).
54 World Bank. GNI per capita. http://data.worldbank.org/indicator/NY.GNP.PCAP.CN (accessed Sept 20, 2013).
55 World Bank. GDP growth (annual%). http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG (accessed Sept 20, 2013).
56 Canfin P, Eide EB, Natalegawa M, et al, and the Foreign Policy and Global Health group. Our common vision for the positioning and role of health to advance the UN development agenda beyond 2015. Lancet 2013; 381: 1885–86.
57 Delhi Communique. The second BRICS health minister declaration. Jan 12, 2013. http://pib.nic.in/newsite/erelease.aspx?relid=91533 (accessed Sept 20, 2013).