

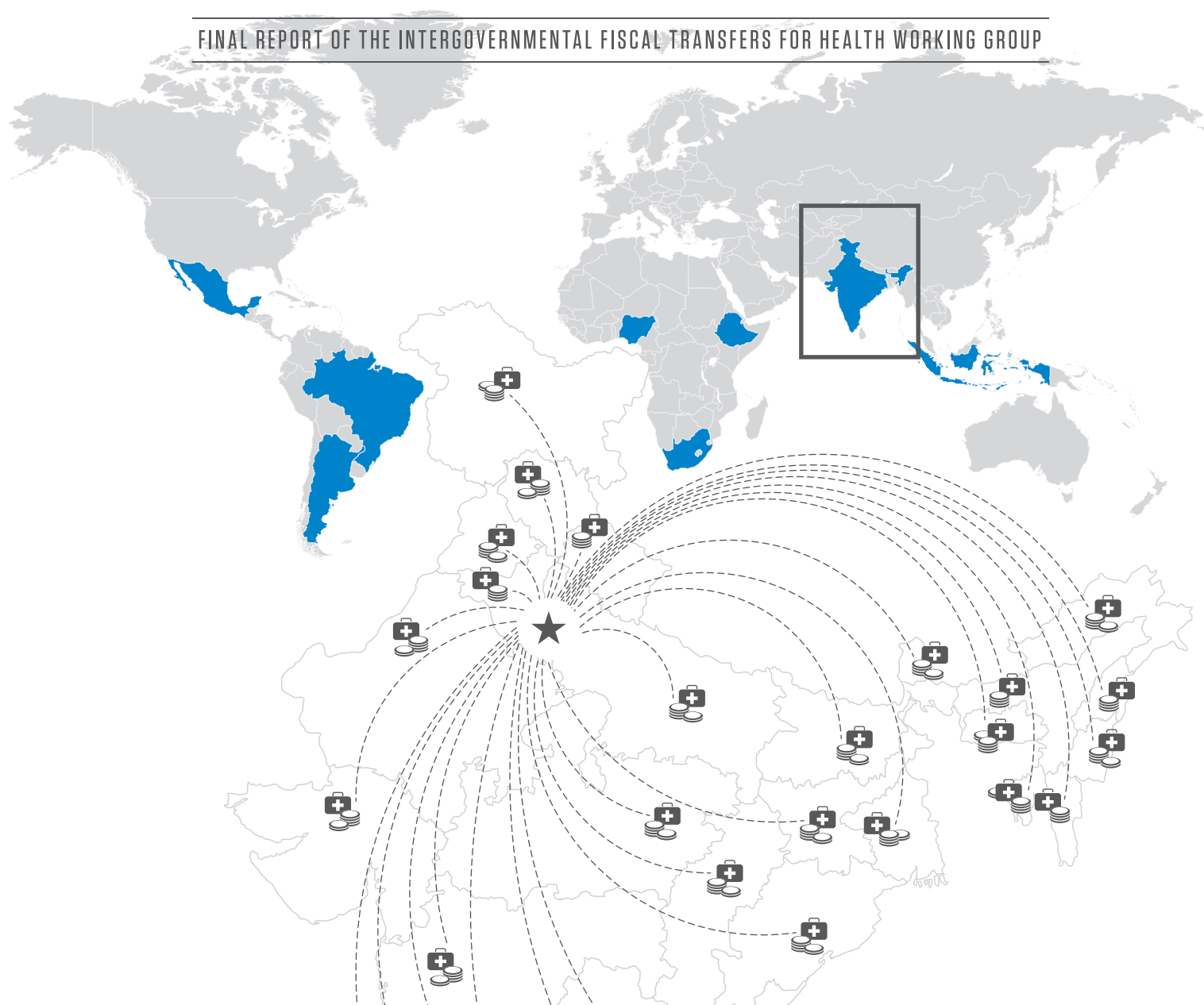
POWER TO THE STATES

MAKING FISCAL TRANSFERS WORK FOR BETTER HEALTH

CENTER FOR GLOBAL DEVELOPMENT

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ACCOUNTABILITY INITIATIVE, CENTRE FOR POLICY RESEARCH



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Preface

India embodies many perplexing contradictions in development. A middle-income country with a powerful diplomatic and economic presence at the global level, and citizens in business, science, and the arts with world-class contributions, India is also home to more desperately poor people than all the nations of Sub-Saharan Africa combined.

India also matters for global health, accounting for about a fifth of the global population and a fifth of the global disease burden too, much of it preventable. But the central government spends only 1 percent of gross domestic product (GDP) on health, over three-quarters of which is subnational, raised and spent by states. Health status, access, and care vary greatly across states, and the decentralization of health systems and spending to date has had at best mixed results.

For many years, the Center for Global Development (CGD) in Washington, D.C., has worked on global health financing issues and—separately—has drawn out lessons that India teaches the world, and the Accountability Initiative at the Centre for Policy Research in New Delhi has promoted informed and accountable financing and expenditure in India itself. Now, we have partnered in a joint working group in one area that makes a difference for both organizations: how the relationship between the center and the state in a large federal country like India can be shaped in a way that is most likely to improve outcomes for people's health.

This working group report assesses past efforts to reform India's fiscal and health policies and makes a set of actionable

recommendations that may also be relevant to other countries and development partners facing similar challenges. The recommendations recognize that power and money in India have shifted to the states and that the center's role should move away from direct service provision financing toward a focus on public goods and minimum guarantees in health—using the system of intergovernmental fiscal transfers as a lever and an enhanced set of data, research, and accountability mechanisms as enablers. CGD and the Accountability Initiative are longtime advocates of outcomes-based approaches to improve the quality and local accountability of funding, such as through Cash on Delivery Aid, and that emphasis is reflected in this report as well.

CGD and the Accountability Initiative will continue to monitor what the Indian Prime Minister, the Ministry of Finance, the National Institution for Transforming India Policy Commission (NITI Aayog), and the Ministry of Health do to move ahead on these recommendations, so crucial for building India's leadership in global health. Each has a role to play but must first align on a vision where states are in the lead on service provision and the center uses its tools to enhance incentives for more rapid progress on health.

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This document is the final report of the Working Group on Intergovernmental Fiscal Transfers for Health, a partnership of the Center for Global Development and the Accountability Initiative at the Centre for Policy Research. The report was authored by Victoria Fan, Anit Mukherjee, Amanda Glassman, Yamini Aiyar, Avani Kapur, Smriti Iyer, H.K. Amarnath, Rifaiyat Mahbub,

Yuna Sakuma, and Vikram Srinivas and draws from working group discussions and research conducted by the authors. Lauren Post and John Osterman coordinated production of the report. We are grateful to the Bill & Melinda Gates Foundation for its financial support of this working group. All errors and omissions are our own.

Executive summary

Most money and responsibility for health in large federal countries like India rests with subnational governments—states, provinces, districts, and municipalities. The policies and spending at the subnational level affect the pace, scale, and equity of health improvements in countries that account for much of the world’s disease burden: India, Indonesia, Nigeria, and Pakistan.

Fiscal transfers between levels of government can—but do not always—play an important role in turning money into outcomes at the subnational level. Well designed, transfers can help put states on a level financial playing field by equalizing spending across states and adjusting allocations for the health risks of each state’s population. Transfers can increase accountability and create incentives for greater spending or effectiveness in service delivery.

But transfers are rarely designed with attention to their desired outcomes. To get to better outcomes, international experience suggests that transfers need to be reexamined and reformed along three dimensions. First, central government’s allocation of national revenues to subnational governments should respond to needs and population size. Second, transfers should generate incentives to improve subnational governments’ spending quality and performance on outcomes. Third, independent systems to monitor, evaluate, and provide feedback data on subnational performance can generate greater accountability to the central government, parliaments, and legislatures as well as to citizens. These insights are seemingly simple and suggestive, but each country starts from its own unique history that requires careful technical analysis and political savvy to define reforms with genuine potential to improve health.

Since many countries face similar challenges in this domain, the Center for Global Development (CGD) in Washington, D.C., and the Accountability Initiative at the Centre for Policy Research in New Delhi have undertaken joint research and co-chaired a working group to learn from and inform fiscal transfers in one rapidly growing middle-income country, India. The working group asked and sought to answer two questions:

- How well have fiscal transfers worked for health in the past?

- How should fiscal transfers be designed and implemented in the future so that they align with subnational health needs and incentivize outcomes at the subnational level?

This report is a result of that endeavor and reflects the unique perspectives and expertise of center and state actors, health and fiscal policymakers, academics, and civil society actors. It is based on a series of meetings and discussions of the evidence base and policy options for aligning center-to-state funding mechanisms with the goal of improved health.

How well have fiscal transfers worked for health in the past?

Fiscal transfers to date have not reduced the substantial and persistent inequalities in health expenditure and outcomes across Indian states. The working group examined two major sources of center-to-state flows over time: the 12th and 13th Finance Commissions and the National Rural Health Mission (NRHM).

The 12th and 13th Finance Commissions took different approaches to health-specific transfers, the former based on expenditure needs and the latter based on health outcomes. Our analyses found several weaknesses and unintended consequences of these specific-purpose transfers.¹ The 12th Finance Commission recommended health-specific transfers known as equalization grants for health to the seven Indian states with the lowest health indicators. The goals of the transfers were to reduce inequality in per capita expenditure across the seven states and to encourage states to prioritize health within their own expenditures. However, the conditions attached to the transfers proved problematic, and nearly 20 percent of the funds remained unused.² Allocations to states under the 13th Finance Commission were conditional on states reducing their infant mortality rate. However, because of the design of the allocation formula and problems with the baseline data, a handful of states captured a large share of the transfers, and states that saw substantial declines in infant mortality were not always adequately compensated.³

The NRHM aimed to address interstate inequalities in infrastructure, human resources, and maternal and child health services by grouping states according to health status and need, consolidating central flows by creating “flexible pools,” using small cash transfers to pregnant women and health workers to increase health service use, and mandating state co-financing. Analysis reveals that the additional central transfers had not sufficiently responded to state needs, and the program’s one-size-fits-all approach in focus countries failed to account for socioeconomic differences among them. NRHM spending instead was closely linked to a state’s ability to request and spend NRHM funds rather than to a state’s intrinsic need for health services. The program aimed to allow states to propose their own action plans based on their specific needs, but in practice states had to adhere to budget line items prescribed by the central government. The cash transfer program—Janani Suraksha Yojana—appears to have increased the number of institutional deliveries in India, but it is unclear whether payments actually reach women and whether its focus on deliveries has diverted attention from other reproductive health services. Further, there is limited evidence of its impact on outcomes. In general, there is disagreement about, and limited evidence to show, that NRHM has improved health outcomes.

How should fiscal transfers be designed and implemented in the future?

In 2015 India began implementing a broad fiscal reform following the recommendations of the 14th Finance Commission, devolving an unprecedented 10 percentage point increase in tax revenues to states, reducing fragmentation of all central transfers, and increasing state fiscal space in general. These reforms have also meant that centrally sponsored schemes such as the NRHM have less funding available and will be a shrinking share of total public spending on health by the central government. The broader reforms that mean states can plan and spend more based on their own priorities, but there is also a downside risk that states may not choose to spend the funds on health.

Getting center-to-state transfers for health right thus assumes greater importance. The working group recommendations build on three dimensions of allocation, incentives, and accountability found to be important for health spending and outcomes internationally.

Build on the 14th Finance Commission devolution and allocate toward better health in states

The unconditional general purpose transfers of the tax devolution to states represent an effort to give more fiscal power to states and address interstate inequities in resource mobilization capacity and expenditure needs. This does not directly address inequalities in health allocations or outcomes. Thus, the central government should continue its allocations for health to states but use its funds to leverage greater and smarter investments in health by states.

To this end, international efforts to reform fiscal transfers and manage subnational expenditure to improve health should be considered. As states gain more autonomy through unconditional transfers, it will be important to look at best practices in prioritizing health investments. England, Brazil, and South Africa can offer insights and ideas for India (see Appendix 1).

Moreover, to make health transfers more predictable and to facilitate multiyear planning and investments, the central government should indicate how and how much central funding for health is expected to be allocated over time. At the same time, states should draw up a health sector medium-term expenditure framework that allows benchmarking of budgetary allocations across states over time.

Move toward better design of performance-based fiscal transfers for health

Transfers beyond the tax devolution grants from center to states should be based on performance. And the payments should be linked to the achievement of independently verified outcomes and made per unit of achievement rather than on achieving a predetermined aggregate target.

The Government of India should use its limited funds in the following ways:

- *Pay for health outcomes.* The Government of India, in consultation with states, should choose a single, simple metric of health status regardless of the model of service delivery adopted.⁴ The award would incentivize good performance, rather than act as a reimbursement for costs that should be covered by state treasuries. The metric could be based on the infant mortality rate, and the Government of India could pay for each averted infant death.

- *Pay for performance.* A complementary payment mechanism could rely on an index of health indicators. Each additional percentage increase in the mean index, weighted by population, would be associated with a specific payment.
- *Pay the state, health workers, and women.* Payments can be provided to different agents; we recommend payments be made at least to the state, and the state in turn can be encouraged to design incentives that cascade to agents within their state, such as health workers, hospitals, or individual beneficiaries.
- *Leverage digital platforms to create an electronic health record database.* The digital platform Aadhaar should be used as a basis for electronic health records that would be managed by the national health information authority. The central government should bear the cost of setup and maintenance of the digital infrastructure and frame rules for privacy and data use.
- *Engage donors to fund technical assistance for the health information system.* India should seek the help of development partners to create a modern strategic information system, at both the national and state levels, with checks and balances to assure accuracy, timeliness, and availability of key data to decisionmakers and stakeholders at all levels.

Invest in better data and evaluation research by strengthening health information, data, and related accountability systems

India should build an ecosystem for investment in better data, research, and accountability mechanisms to enable policymakers to target existing health inequities and reward better performers. It should:

- *Establish an independent authority to collect, manage, and analyze health data.* The government of India should establish an independent national health information authority tasked with collection, management, and analysis of health data as its core business. It would have legal status with strict data and privacy protection and dissemination protocols. It would also facilitate independent research and evaluation of health status trends and use.

Structure of this report

The report first explores the performance of past efforts to reform India's fiscal and health policies by analyzing the center-to-state funding flows under the 12th and 13th Finance Commissions and the NRHM. It then looks at recent policy reforms that came with the 14th Finance Commission, which radically transformed how public financing is transferred to states. Finally, the report lays out recommendations for how India could leverage fiscal transfers to improve health. Importantly, while this report focuses on India, it also raises an urgent agenda for further research and evaluation in other countries facing similar decisions around the design of their fiscal and health policies.



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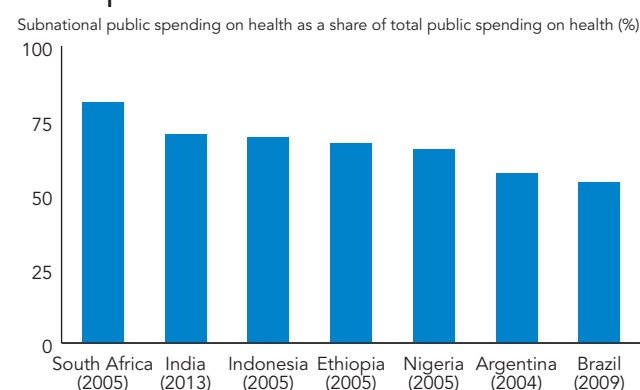
Health is subnational

In large federal countries most money and indeed responsibility for health lies not with the central government but with subnational governments such as states, provinces, and municipalities (figure 1.1).⁵ In Brazil, China, India, Indonesia, and South Africa subnational governments account for half to three-fourths of total government expenditure on health.⁶ Further, Ethiopia, Kenya, and Nigeria are increasingly shifting the responsibility for implementation to subnational governments, with the objective of better targeting and enhanced accountability of service delivery. How countries achieve better health outcomes will depend largely on how health is financed at the subnational level. Fiscal transfers will play an increasingly important role in translating resources to outcomes.

There is often a mismatch between the amount of revenue collected by subnational governments and their expenditure responsibilities for delivering social services, including health. This necessitates fiscal transfers from the federal government—which collects most of the taxes—to subnational governments, where most of the spending takes place. Brazil, India, and Indonesia have constitutional mandates and institutions that determine the devolution and distribution of tax revenue among states and municipalities. Along with revenues collected through local taxes, intergovernmental fiscal transfers determine the total resources available to subnational governments to invest in health priorities according to local needs.

When designed well, intergovernmental fiscal transfers can increase the accountability and effectiveness of service delivery at the subnational level. The transfers represent a potentially influential and underexploited policy instrument to reduce inequalities and generate incentives for better health outcomes along three dimensions.⁷ First, as the central government distributes its share of national revenues among subnational governments, allocation of central monies can respond to health needs. Second, allocation formulas and transfer modalities can generate incentives with regard to states' own spending and performance. Third, systems can be put in place to measure and report state performance, thereby generating

Figure 1.1 In large federal countries most money for health lies with subnational governments such as states, provinces, and municipalities



Source: Glassman and Sakuma 2014.

greater accountability. Motivation of the different fiscal allocation methods and formulae for health is provided in Appendix 2.

Although there is extensive knowledge about different fiscal transfer mechanisms, there is limited empirical evidence about their effectiveness and efficiency, especially with regard to improving health outcomes in low- and middle-income countries. Based on a review of international literature, Glassman and Sakuma (2014) summarized the design principles of better practices (observed mainly in high-income settings) across these dimensions (table 1.1).

Building on this framework and a review of intergovernmental fiscal transfers worldwide, this report takes a deep dive into one country, India, to review the architecture of fiscal transfer mechanisms in order to address the following questions:

- How are fiscal transfers best aligned to subnational health needs?
- How can fiscal transfers create positive incentives for states in terms of efficiency and health outcomes?
- What lessons surrounding fiscal transfers from other settings are relevant for India?

Table 1.1 Better practice in the design of fiscal transfers for health

| PRACTICE | DESCRIPTION |
|---|--|
| Better practices in allocation | |
| Responds to need | Allocation for health is based on an objective, simple, and easy-to-understand formula that responds to health needs given fiscal constraints (for example, through outcome-based transfers). |
| Generates a predictable flow of resources | Future health transfers are predictable and stable; a government may publish five-year projections (with ceilings and floors) while accommodating major changes to the formula through hold-harmless provisions. |
| Promotes equity | Allocation varies directly with health-related fiscal need factors and inversely with the tax capacity of subnational entities. |
| Better practices in creating incentives for effort | |
| Fulfills health system objectives | In order to fulfill health system objectives, transfer conditions specify health results to be achieved (for example, through output-based transfers). |
| Promotes efficiency | Transfer system generates incentives for sound fiscal management and encourages efficient practices. |
| Allows autonomy in the use of grants | Subnational governments have independence and flexibility in setting priorities for health. |
| Creates incentives for subnational fiscal effort | Subnational governments have an incentive to commit additional funding or policy attention to effective health programs and initiatives. |
| Better practices in accountability | |
| Ensures financial and performance accountability | National governments are held accountable for transfer system design and operations; subnational governments are held accountable to the national government and its citizens for financial integrity and results. |
| Promotes transparency | Allocation formula and allocations are public and disseminated widely to achieve as broad a consensus as possible on the objectives and operation of the program. |

Source: Glassman and Sakuma 2014.

India is not the only country grappling with the challenges of designing appropriate fiscal policies in the health sector. Several middle-income countries are aiming to increase public spending on health while rapidly devolving finance and responsibilities for service delivery to subnational governments. Further, many of these countries are facing rapid “graduation” from health aid and have done little to plan for transition, particularly from a fiscal perspective. Health specialists are often unaware of the broader fiscal architecture and policies that affect the health sector. This report thus helps bridge this disciplinary gap between health specialists (in ministries and departments of health) and public finance specialists (in ministries of finance and treasury departments). It centers on how fiscal transfers should be designed and implemented to incentivize better outcomes at the subnational level. This report focuses on India while raising an urgent agenda for further policy research and evaluation in India and beyond.

Since January 2014, the Accountability Initiative, based at the Centre for Policy Research in New Delhi, and the Center for

Global Development (CGD) in Washington, D.C., have been jointly engaged in a research project aimed at articulating a reform agenda for creating an improved system of intergovernmental transfers for health. To this end, the Accountability Initiative and CGD convened a working group of center and state actors, health and fiscal policymakers, academics, and civil society actors to discuss the evidence base and develop ideas and policy options for aligning center-to-state funding mechanisms to improve health.

This report builds on the discussions that took place in the working group meetings. It begins by assessing the performance of past efforts to reform India’s fiscal and health policies. To do so, it draws on Accountability Initiative–CGD systematic analyses of center-to-state funding flows, particularly of the 12th and 13th Finance Commissions and the National Rural Health Mission (NRHM). Next, it analyzes this new era of fiscal transfers amidst recent policy changes. Finally, it proposes a set of actionable recommendations to leverage fiscal transfers to improve health in India

Box 1.1 Key institutions in India's fiscal transfer system

Finance Commission. Every five years the central government appoints a constitutionally mandated Finance Commission to advise the president and provide recommendations on how the central government should share its revenue—nearly 10 percent of the country's GDP—with its 29 state governments. The recommendations are based on consultations with every state government individually and with the central government. The commission's report is submitted to the parliament at the end of its mandate. Conventionally, the central government accepts the report and implements the recommendations through the Ministry of Finance.

Planning Commission. The Constitution includes economic and social planning as a joint responsibility of the center and the states. As such, the Planning Commission was formed with the objective of providing resources to states for long-term investment in infrastructure and in social and economic

services, in accordance with Five-Year Plan targets. Planning Commission transfers came through various channels: formula-based normal central assistance, additional central assistance (mostly project financing in infrastructure), and special central assistance (on the basis of state-specific priorities). The Planning Commission was disbanded in August 2014 and replaced by the National Institution for Transforming India Policy Commission.

Centrally sponsored schemes. Centrally sponsored schemes are designed and implemented by ministries of the central government to support state-level expenditure in such areas as education, health, energy, water resources, and agriculture, often with the help of donor agencies. The flagship centrally sponsored scheme for health, the National Rural Health Mission, was started in fiscal year 2005/06 and was renamed the National Health Mission in 2012/13 when the program was extended to urban areas.

and suggests actions that will be relevant for other countries facing similar challenges.

India provides a unique opportunity to study intergovernmental fiscal transfers for health for several reasons.

First, India has made slow progress on health indicators and has missed the Millennium Development Goal targets for health. Progress in health outcomes, already very low, has been slower than in other lower income countries in the region, such as Bangladesh and Nepal. Moreover, public expenditure on health is only about 1.1 percent of GDP, compared with 3.1 percent in China and 4.6 percent in Brazil. Consequently, the share of out-of-pocket expenditure on health is large, with some estimates at nearly 70 percent of total spending on health, with likely important implications for medical impoverishment.⁸ India thus needs to substantially increase its expenditure on health if it intends to reduce poverty, address inequality, and catch up to other middle-income countries.

Second, health is a state responsibility in India per the constitution. However, amendments have given the central government joint responsibility in such areas as population control and family

planning, prevention of the spread of infectious diseases, and regulation of food and drugs. This overlap of responsibility in financing of health between the central and state governments requires an effective and efficient system of fiscal transfers. In the last decade the central government has taken an active role in financing and designing health programs, most importantly the NRHM, with states responsible for implementation. As India moves to reform the centrally sponsored schemes such as the National Rural Health Mission, it also needs to reform its health financing system to increase efficiency and improve outcomes, especially the intergovernmental fiscal transfers for health.

Third, there have been multiple channels of fiscal transfers in India, consisting mainly of the Finance Commission, Planning Commission, and centrally sponsored schemes (box 1.1). This has led to fragmentation in the flow of resources from central to state governments, which makes policy implementation complex. Over the years these channels have sought to expand fiscal transfers to states specifically for health. However, the allocation and distribution impact of these transfers across states have not been studied

in detail. This in-depth study on India can also provide guidance to other countries as they undertake strategic reform in their fiscal policies on health.

Finally, major changes have taken place in the policy and institutions governing fiscal transfers in India over the last year. Following the election of a new central government in May 2014, the Planning Commission was disbanded in August, and a new institution, the National Institution for Transforming India Policy Commission (NITI Aayog), was created in its place. However, the institution's roles and responsibilities have not yet been clearly demarcated. The 14th Finance Commission report released in February 2015 recommended a substantial increase in the devolution of tax revenue to the states. States have greater fiscal autonomy and financial resources, while the power of the central government to increase expenditure on centrally sponsored schemes has been reduced.⁹ Along with the stated political objective of cooperative federalism between the center and the states, these policy reforms provide an opportunity to recommend a more effective and efficient system of fiscal transfers for health over the next decade.

These policy changes bode well for greater state fiscal autonomy, but their implications for the health sector are unclear. In this context of changing fiscal architecture, India must answer a crucial policy question: How can the central government best support states in improving health? How to delineate center-to-state roles and design better fiscal transfers to improve health outcomes has not yet been addressed in the context of the changed policies.

Past work in India has found that increases in central government funding allocated to states for health led to decreases in states' spending on health.¹⁰ But it remains unclear whether the opposite is also true: as central government spending in health decreases, will health spending by states increase in response? In a more optimistic scenario states will step up to fill the gap in health spending that is expected from decreased central government spending. In the worst case scenario states may shift allocation away from health. In short, what are the upside and downside risks for states as they adjust to the new fiscal federalist architecture? These uncertainties represent a window of opportunity for this report to contribute to the debate that will shape India's health policy for the foreseeable future.

2

Trial and error: Lessons from past approaches

Since taking power in May 2014, the National Democratic Alliance government has launched a series of major policy reforms in the spirit of cooperative federalism, radically altering the ways in which public funding—including for health—is transferred to states. The approach has been to reduce the fragmentation and increase predictability of resource transfers to states. The government disbanded the Planning Commission and established the NITI Aayog as the top policy advisory group, accepted the recommendations of the 14th Finance Commission to increase the share of taxes going to the states, and announced its intention to reform centrally sponsored schemes to make them more responsive to states' needs.

To understand the implications of these changes for health, this chapter reviews the fiscal transfer architecture with a focus on past approaches to fiscal transfers as tools to improve expenditure and outcomes in states. It analyzes two key transfer channels—the Finance Commission transfers for health and the NRHM. Finally, it draws on the discussions of the working group and Accountability Initiative–CGD analysis to distill lessons for health in the new policy environment.

An overview of past fiscal transfer policy

Historically, India's system of intergovernmental fiscal transfer has been complex and fragmented, characterized by multiple institutions and modes of delivery. With more than six types of major transfer channels (figure 2.1), most funding went through the Finance Commission and Planning Commission. In 2014/15 tax devolution and grants to states under the Finance Commission accounted for 4.37 percent of GDP, and planning grants under the Planning Commission accounted for 3.23 percent of GDP (including centrally sponsored schemes). The importance of centrally sponsored schemes has grown substantially over the last decade, to nearly 0.8 percent of GDP in 2014/15, up from less than 0.2 percent in 2000–01.¹¹

Finance and Planning Commission grants were based partly on formulas determined by the respective institutions (see Appendix 1

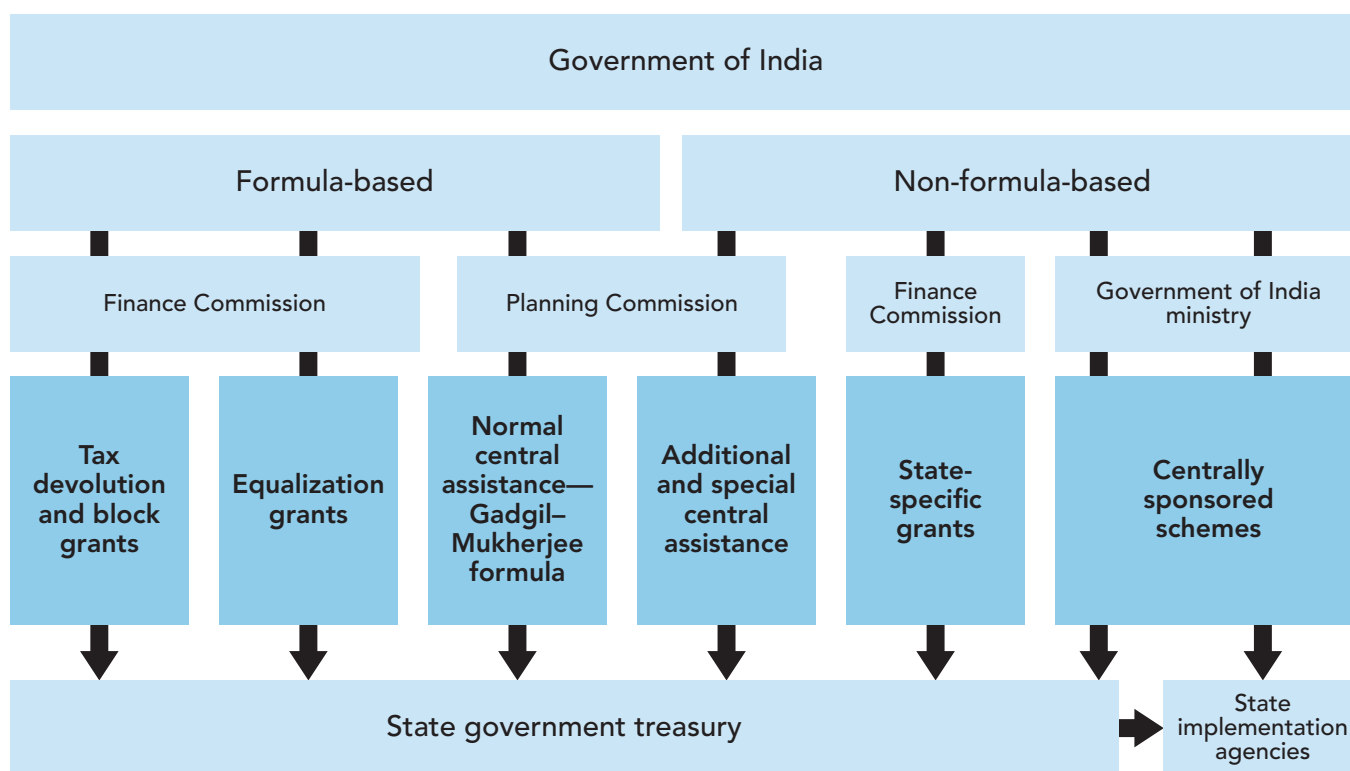
for details). Over the years the share of formula-based plan grants declined, replaced by project-specific grants, mostly through centrally sponsored schemes. The centrally sponsored scheme transfers were almost entirely discretionary at the state level, determined largely by national priorities, budgeting guidelines, and financial performance. Formula-based transfers accounted for as much as 80 percent of all transfers in the late 1990s. However, the percentage began to decrease from the early 2000s, eventually reaching 66 percent in 2007, where it remained until 2013.¹²

Figure 2.2 summarizes the shares of different components in total transfers to states over the last decade. Fiscal transfers through the Finance Commission consist of general purpose transfers (formula-based tax devolution and block grants), specific purpose transfers (education, health), and state-specific grants (disaster relief and special needs). Planning Commission transfers consist of normal central assistance based on the Gadgil-Mukherjee formula (explained in Appendix 3) as well as additional central plan assistance and special plan assistance based on state demand. Transfers to states through centrally sponsored schemes increased considerably from 2005 to 2006 onward, determined largely by higher budgetary allocation to central government ministries, such as health. The share of taxes in total fiscal transfers to states shows an upward trend from 2010/11 onward, reflecting the increase in tax devolution recommended by the 13th Finance Commission for 2010–15. Although the share of centrally sponsored schemes has declined, it still accounted for nearly 25 percent of total plan transfers. It is in this context that the proposed reform of the centrally sponsored schemes assumes significance, especially for health.

Our review of the data and deliberations of the working group led to three key observations regarding recent trends in fiscal transfers in India:

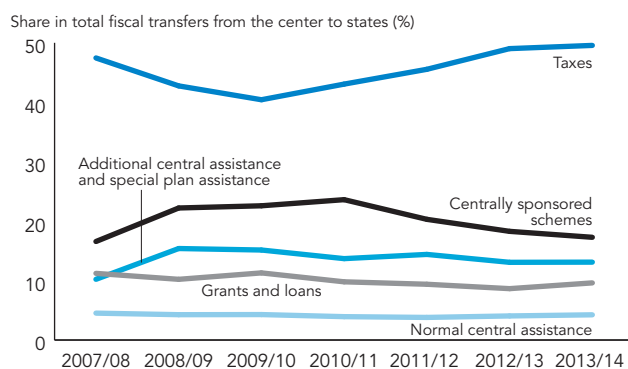
- Formula-based, unconditional fiscal transfers, allocated based on objective criteria and providing a predictable flow of resources to states, have become less important over time.

Figure 2.1 The architecture of intergovernmental fiscal transfers in India



Source: Mukherjee 2014.

Figure 2.2 The share of taxes in total fiscal transfers to states shows an upward trend from 2010/11 onward, reflecting the increase in tax devolution recommended by the 13th Finance Commission



Source: Accountability Initiative—CGD calculations.

- State-specific, conditional grants from Finance Commissions, including the so-called equalization grants for health, increased in importance and accounted for nearly 10 percent of 13th Finance Commission transfers.
- States have depended more heavily on centrally sponsored scheme transfers to augment their social sector expenditure allocated, with little or no benchmarking of allocations against objective criteria. From the states' perspective, these changes have implied greater variability and lesser predictability in fiscal transfers over time, with potentially adverse consequences for state-level planning, budgeting, and expenditure processes.

Three initiatives over the period deserve special attention since they pertain to the different fiscal transfer mechanisms. First, in light of the fiscal constraint with respect to greater spending requirements on health, the 12th Finance Commission awarded nearly US\$1 billion in transfers for 2005–10 to seven of the least developed states in order to (partially) equalize per capita expenditure. Second,

the 13th Finance Commission also allocated a similar amount for 2010–15, which was to be distributed to all states as a reward for improvement in outcome, namely in the infant mortality rate. Third, from 2005 onward the NRHM invested nearly US\$20 billion with the aim of improving health infrastructure, filling human resource gaps, and delivering maternal and child health services.

Taken together, our historical analyses show that fiscal transfers have not been able to reduce the substantial divergence in health expenditure and outcomes across states (table 2.1). Given the degree of fiscal inequality, closing the gap in expenditure would require increased state-level priority to health spending and better and more effective center-to-state transfers that would contribute to improving health outcomes.

The following sections review the data and comment on the strengths and shortcomings of the three initiatives to draw lessons for future reform of fiscal transfers for health in India.

Finance Commission transfers

As noted, the 12th Finance Commission and 13th Finance Commission took different approaches to health-specific transfers; the 12th Finance Commission based its transfers on expenditure needs, and the 13th Finance Commission based its transfers on health outcomes. Analyses by the Accountability Initiative and CGD found several weaknesses and, in some cases, unintended consequences, of these specific-purpose transfers. Key findings from the analysis are summarized below.¹³

12th Finance Commission equalization grants for health

The 12th Finance Commission recommended health-specific transfers known as “equalization grants for health” totaling

Table 2.1 Summary of expenditure and indicators for health in India by state

| SELECTED STATES | AVERAGE PER CAPITA GOVERNMENT HEALTH EXPENDITURE, 2006–10 (RUPEES) | EXPENDITURE FROM STATE BUDGET, 2010 (%) | HEALTH INDICATORS | | | |
|-----------------|--|---|--|--|---|--|
| | | | INFANT MORTALITY RATE (DEATHS PER 1,000 LIVE BIRTHS) | UNDER-FIVE MORTALITY RATE (DEATHS PER 1,000 LIVE BIRTHS) | MATERNAL MORTALITY RATIO (DEATHS PER 100,000 LIVE BIRTHS) | FULL IMMUNIZATION AMONG CHILDREN AGES 12–23 MONTHS (%) |
| Kerala | 478 | 83.71 | 12.3 | 13.8 | 96.4 | 81.5 |
| Tamil Nadu | 410 | 77.82 | 26.4 | 28.8 | 116.7 | 77.3 |
| Andhra Pradesh | 381 | 75.91 | 47.3 | 48.9 | 157.7 | 68.0 |
| Karnataka | 377 | 78.94 | 39.3 | 44.9 | 201.4 | 78.0 |
| Rajasthan | 362 | 65.69 | 56.9 | 68.8 | 370.9 | 53.8 |
| Gujarat | 344 | 73.70 | 45.2 | 55.2 | 158.6 | 56.6 |
| Maharashtra | 335 | 79.23 | 29.1 | 32.8 | 124.3 | 78.6 |
| Punjab | 333 | 76.26 | 35.2 | 41.6 | 174.4 | 83.6 |
| Haryana | 323 | 84.58 | 48.8 | 55.5 | 164.0 | 71.7 |
| Chhattisgarh | 312 | 63.39 | 52.5 | 61.9 | 316.9 | 57.3 |
| Uttar Pradesh | 298 | 72.62 | 61.4 | 78.8 | 418.6 | 40.9 |
| Odisha | 295 | 60.27 | 62.3 | 77.8 | 308.4 | 59.5 |
| West Bengal | 293 | 77.87 | 33.3 | 39.0 | 158.9 | 64.9 |
| Madhya Pradesh | 276 | 59.85 | 64.1 | 82.3 | 316.9 | 42.9 |
| Jharkhand | 254 | 70.06 | 42.7 | 57.7 | 305.2 | 59.7 |
| Bihar | 181 | 61.64 | 49.8 | 64.7 | 305.2 | 49.0 |

Source: Choudhury and Amarnath 2012; Government of India 2013; Gupta, Chowdhury, and Patra 2012.

Table 2.2 Equalization grants for health to states, 2005–10

| STATE | ALLOCATION (CRORE RUPEES) | RELEASES (CRORE RUPEES) | SHARE OF ALLOCATION RELEASED (%) |
|----------------|------------------------------|----------------------------|-------------------------------------|
| Odisha | 196.37 | 131.20 | 67 |
| Jharkhand | 360.98 | 276.85 | 77 |
| Bihar | 1,819.69 | 1,439.35 | 79 |
| Uttar Pradesh | 2,312.38 | 1,829.06 | 79 |
| Uttarakhand | 50.00 | 40.00 | 80 |
| Assam | 966.02 | 870.55 | 90 |
| Madhya Pradesh | 181.64 | 181.64 | 100 |
| Total | 5,887.08 | 4,768.66 | 81 |

Note: 1 crore equals 10 million.

Source: Authors' calculations; Choudhury and Amarnath 2012.

5,887.08 rupees croreⁱ (approximately US\$1 billion) to seven states. The goal was to reduce inequality in per capita expenditure across these states, which had the lowest health indicators. The 12th Finance Commission's report noted that full equalization—that is, providing transfers to bridge the entire gap in per capita expenditure on health across states—was not feasible due to revenue constraints. The grants thus bridged only up to 30 percent of the gap in per capita expenditure after controlling for revenue capacity, tax effort, and health expenditure preference. These specific-purpose equalization grants were limited in their ability to reduce disparities in per capita spending on health among the states due to their very small size—only 1.57 percent of government health expenditure for all states for 2010–15—but were intended to act as a catalyst for greater prioritization of health expenditure by the states themselves.

The main challenge of the 12th Finance Commission approach pertained to the conditions attached to transfers. Each state had to set up a high-level committee to advise and monitor projects undertaken through the grant. The annual grant was divided into two installments. To get the second installment, the 12th Finance Commission mandated that the seven eligible states had to increase their budgetary expenditure on health by 11.5 percent a year from 2005/06 to 2009/10. Likely as a result of these conditions, nearly 20 percent of the funds remained unused (table 2.2).¹⁴ However, there were differences in the amounts able to be released across states.

Odisha received only two-thirds of its allocation, whereas Madhya Pradesh received its entire allocation, suggesting state-level differences in the extent of compliance with 12th Finance Commission conditionalities. In sum, as the recent 14th Finance Commission report noted, “state specific schemes are best identified, prioritized and financed at the level of the state government ... this flexibility is not possible in grants recommended by the Finance Commission.”¹⁵

13th Finance Commission incentive grants for health

The 12th Finance Commission and 13th Finance Commission were similar in the sense that allocations to states were awarded to states that met certain conditions, but the specific conditionality differed. Under the 12th Finance Commission the conditionality was related to spending on health at the state level, while under 13th Finance Commission the conditionality was related to health outcomes. Per its terms of reference, the 13th Finance Commission was tasked with making recommendations that addressed “the need to improve the quality of public expenditure to obtain better output and outcome.” It allocated 5,000 rupees crore (approximately US\$800 million) over three years—2012–15. This amount was to be distributed as a performance incentive to states that reduced their infant mortality rate, which was chosen as an outcome indicator for which consistent data were available every year from the Sample Registration System, a relatively independent source of data from the Registrar General of India. The 13th Finance Commission mandated that

i. 1 crore equals 10 million.

the transfers would be based on Sample Registration System data on infant mortality rate only. The allocation formula took into account the relative improvements from the median and used a weighted average to calculate the share of the funds going to each state. However, it did not consider population or state health expenditure while calculating the weights (see Appendix 4 for details).

Because of the design, the 13th Finance Commission formula led to a situation where a handful of states captured a large share of winnings, with 65 percent of allocations going to states that accounted for less than 10 percent of India's total population (figure 2.3).¹⁶ Our analyses show that one state alone, Manipur, received more than 25 percent of the national allocation in 2012 and more than 25 percent in 2013, despite having just 0.24 percent of the national population and reducing the infant mortality rate by 6 deaths per 1,000 live births over 2009–12.¹⁷ The top three states to gain from this performance incentive were small states from the northeast of the country, which already had better infant mortality rates than other states. In contrast, the formula did not adequately compensate states that achieved substantial declines in infant mortality and had large populations. For example, Uttar Pradesh reduced its infant mortality rate of more than 10 deaths per 1,000 live births over 2009–12 and has 16.8 percent of the national population, but it received only 0.3 percent of national allocations.

Formula aside, the outcome indicator for measuring performance had its own limitations. Infant mortality rate data from the Sample Registration System are not strictly comparable across states. For smaller states the infant mortality rate is an average over three years. Moreover, the Sample Registration System does not publish confidence intervals of estimates, which likely exhibit variation in the upper and lower bounds. This suggests that the distribution of the performance grant may have skewed due to the inherent measurement problems with the indicator itself.

Both the design of the formula and the choice of outcome indicator (and its measurement arrangements) serve as a lesson for any future adjustments to the design of fiscal transfers, which can have adverse and likely unintended distributional consequences.

National Rural Health Mission

In 2005 the central government established the NRHM as a vehicle to increase expenditure on health and address interstate inequalities in infrastructure, human resources, and maternal and child

health services. The NRHM consolidated the funding streams for reproductive and child health, disease control programs (such as malaria, filariasis, and blindness), and vaccinations, while providing additional resources for infrastructure and human resources, including the appointment and training of community health workers, called accredited social health activists.

There were several innovations in transfer design. First, states were grouped into high-focus and non-high-focus categories based on their performance on a set of health indicators and based on infrastructure needs. Second, the additional central funding is channeled through the NRHM flexible pool to enable states to plan and budget according to their own priorities. Third, the NRHM is used as the instrument to provide cash transfers to pregnant women to create incentives for deliveries in health care facilities through the Janani Suraksha Yojana program. Finally, states had to co-finance the NRHM, with mandated state contributions at 15 percent initially and at 25 percent from 2012 onward.

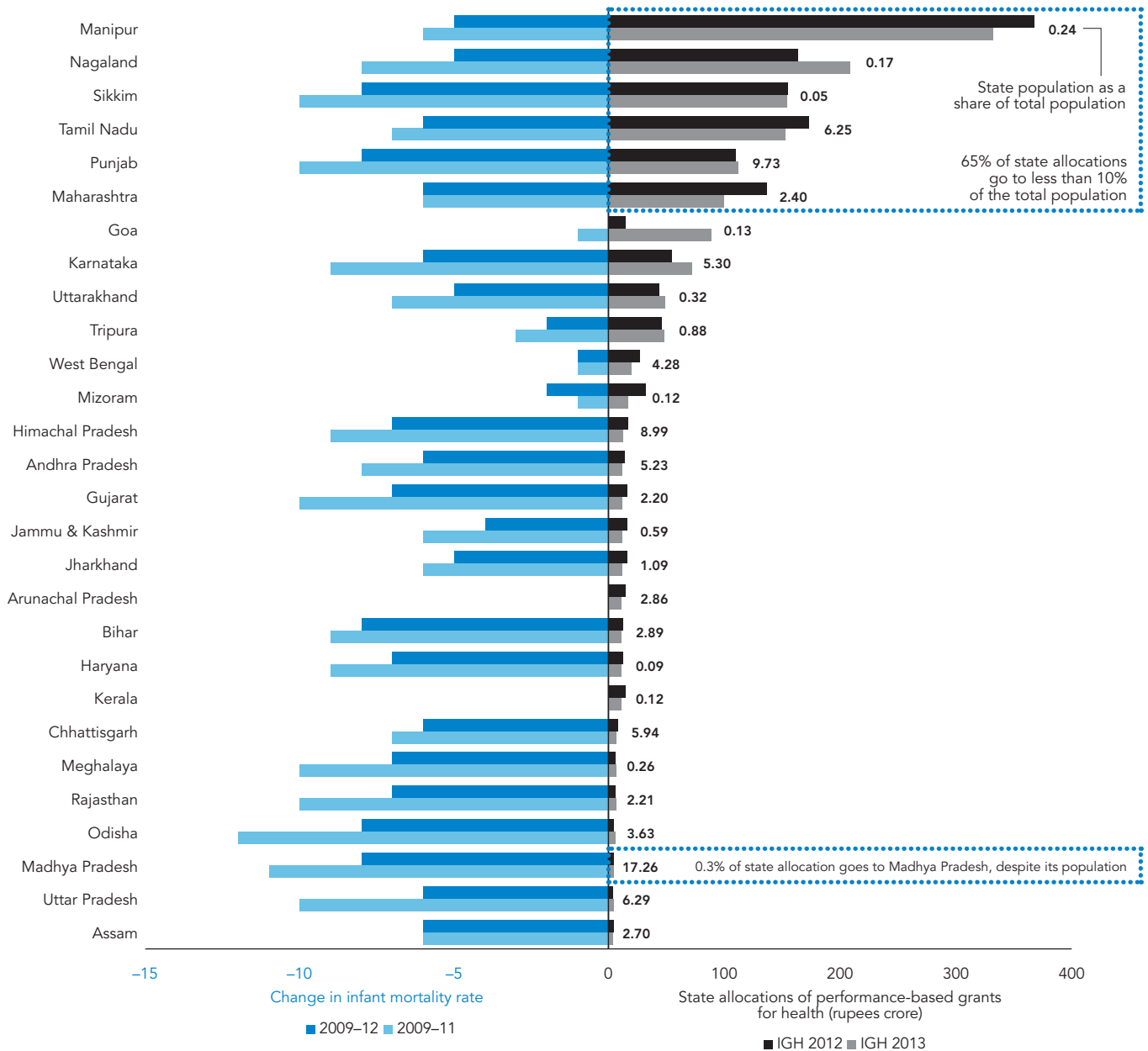
Although the program held much promise, analysis of the data reveals several problems with implementation. Similar views were expressed by working group members during the deliberations, reflecting a broad consensus between research and policy experience. The key points are summarized below.

First, despite the priority on high-focus states in the design of the NRHM, the additional central transfers have not been able to respond adequately to needs. Data collected by the Accountability Initiative in collaboration with CGD found minimal variation in per capita NRHM transfers across states. However, central government transfers to states have varied widely, ranging from 57 rupees per capita in Jharkhand to 167 rupees per capita in Odisha (figure 2.4). Further, there is little correspondence between differences in need and the amount of funding that states mobilize themselves for health, even though infant mortality rates ranged from 12 deaths per 1,000 live births in Kerala to 67 in Madhya Pradesh. While states like Kerala may have enough of their own funds to reduce the infant mortality rate or build infrastructure, states like Uttar Pradesh require much greater levels of central assistance to tackle the problem.

Second, NRHM spending appears closely linked to a state's ability to request and spend NRHM funds rather than to a state's intrinsic need for health services (figure 2.5). Our analysis indicates that most high-priority states have managed to spend infrastructure funds but have been unable to use the other components effectively.

Figure 2.3 The 13th Finance Commission formula led to a handful of states capturing a large share of winnings, with 65 percent of allocations going to states that accounted for less than 10 percent of India's total population

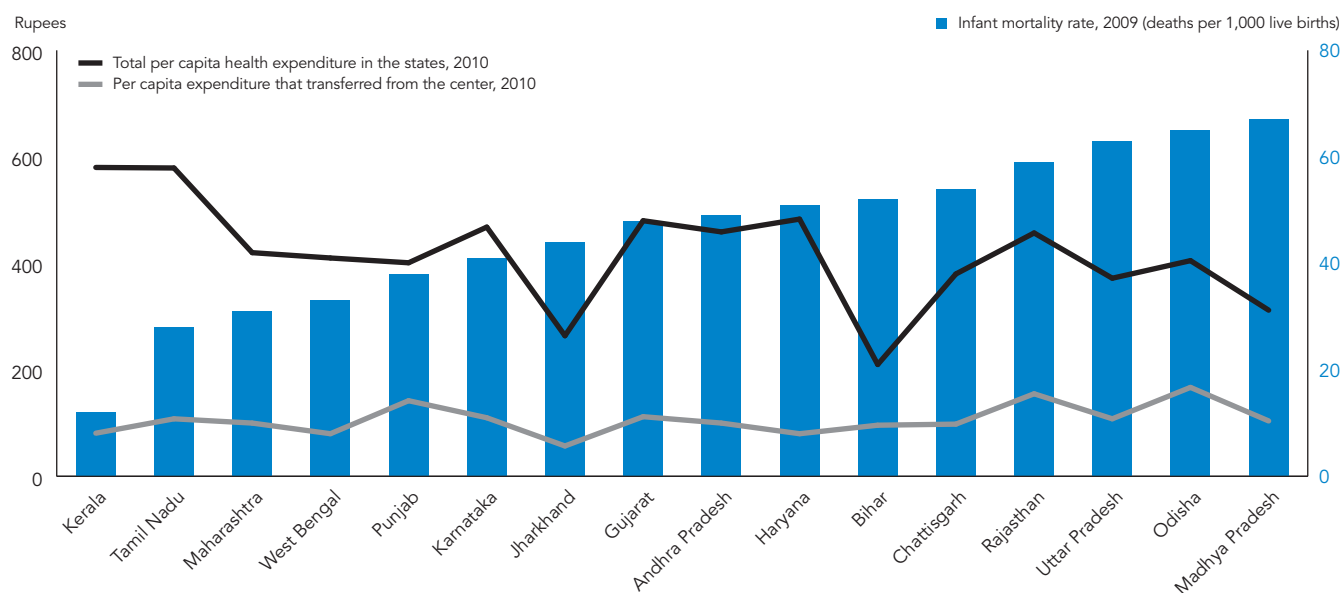
13th Finance Commission incentive grants for health, by state, 2012–13



Note: States are sorted by 2013 performance-based grants for health allocations.

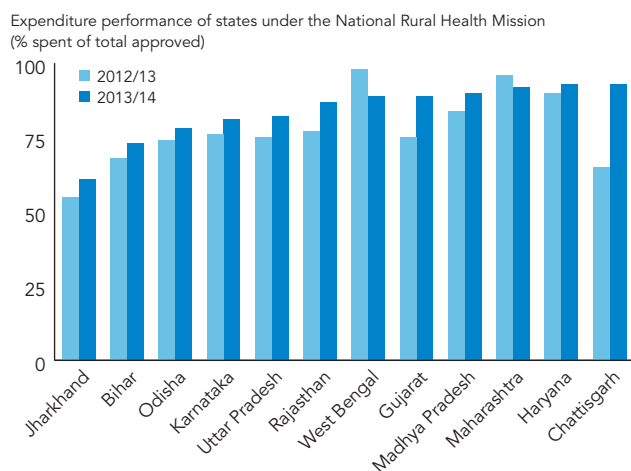
Source: Accountability Initiative–CGD calculations.

Figure 2.4 Central government transfers to states under the National Rural Health Mission have varied widely



Source: Choudhury and Amarnath 2012; Fan and others 2014b.

Figure 2.5 National Rural Health Mission spending appears closely linked to a state's ability to request and spend program funds rather than to a state's intrinsic need for health services



Source: Fan and others 2014a.

Tamil Nadu and Maharashtra show better expenditure performance in their flexible pool expenditure than states such as Uttar Pradesh, Bihar, and Jharkhand.¹⁸ The working group discussions point to two factors: the propensity of states to draw up budgets to maximize transfers from the central government and the limited capacity on the part of both central and state governments to effectively monitor expenditure across a large set of indicators, especially for high-priority states. Indeed, part of the variation observed in per capita NRHM transfers can be explained by the ability of a state to spend what was allocated to it.

Third, although the NRHM has tried to group states according to their health outcomes, the program suffers from the same “one-size-fits-all” approach that fails to account for the diversity of state needs. The same norms exist for all states no matter their underlying financing and service provision capacity, resulting in a lack of flexibility raised repeatedly by several working group members. Norms on how many subcenters, primary health care centers, community health centers, accredited social health activists, and the like should exist based on population are provided in the scheme guidelines. These norms rarely take into account state-specific socioeconomic

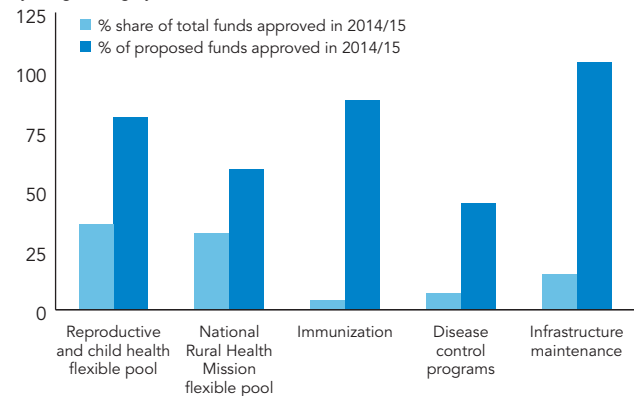
diversity. For instance, if a state does not want to focus on constructing subcenters and instead prefers to focus on providing transportation to an existing subcenter or primary health care center, that state will still be mandated to construct subcenters according to the NRHM norm. Similarly, while Madhya Pradesh, Odisha, and Rajasthan have a much lower population density than the national average, providing health facilities per the national norms underestimates their requirements in terms of health facilities needed within a specified area.¹⁹

Fourth, to provide greater flexibility to states, in theory, monies under the NRHM are grouped into multiple flexible pools, each focusing on a broad set of activities. The idea is that within each flexible pool, states can propose their own action plan based on their needs. However, in practice the central government prescribes formats with clearly defined and detailed line items to which states must adhere, as pointed out by several working group members. In addition, since plans are finalized based on negotiation between the central government and state governments, there are differences between what a state perceives as its greatest need and what is finally approved. For instance, less than 60 percent of proposed funds for the NRHM flexible pool were approved in 2014/15, which is contrary to the spirit of the funding mechanism—that is, state-defined action plans—in the first place. The figure for disease control programs is even lower, again highlighting the prescriptive nature of the NRHM fiscal transfer framework (figure 2.6).

Fifth, the Janani Suraksha Yojana program, the flagship conditional cash transfer that intends to pay women for delivering in an institutional setting and to pay referring health workers, has faced considerable challenges. Although the program appears to have increased the number of institutional deliveries in India, several concerns remain, including whether payments actually reach women (or whether they are siphoned by health workers) and whether the program's singular focus on deliveries has diverted attention from the continuum of reproductive health services, including prenatal and postpartum care and quality of care.²⁰ A key challenge of the program is that payments are based on administrative data rather than third-party or verified data. Accountability Initiative–CGD analyses have found that the number of beneficiaries reported by administrative sources appears to be inflated, with overreporting increasing during 2005–07 and, in the absence of a data audit, possibly persisting since 2007.²¹ However, a few states (Punjab and Tamil Nadu) have not exhibited such overreporting. Quality and

Figure 2.6 Monies under the National Rural Health Mission are grouped into multiple flexible pools so that states can propose their own action plan based on their needs

Componentwise allocation and proposals for the National Rural Health Mission by budget category (%)



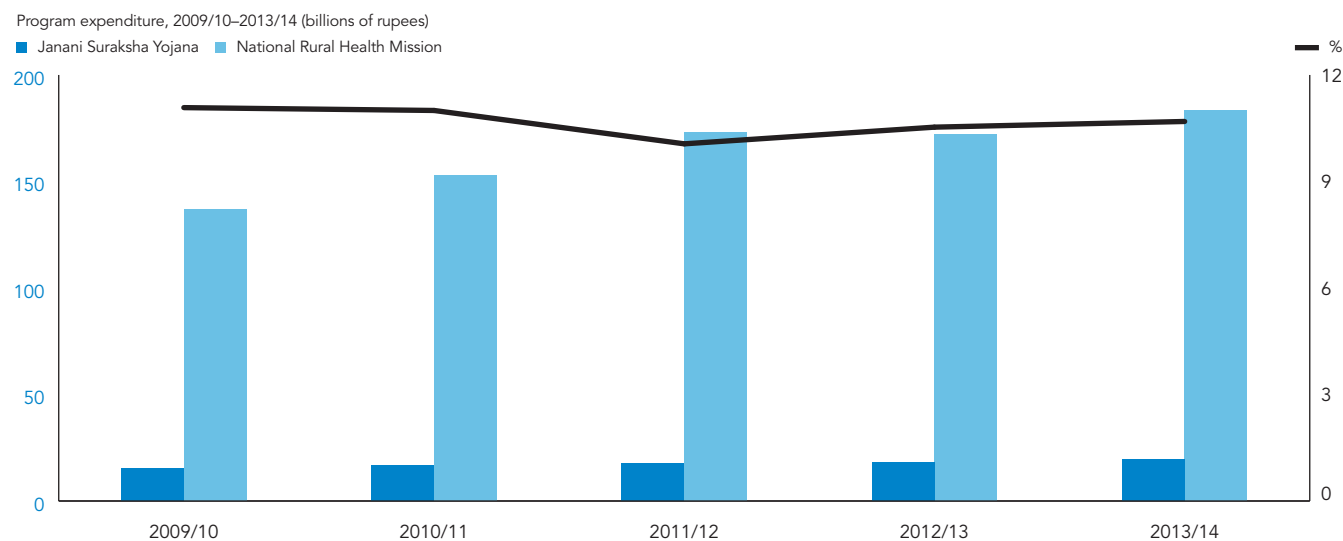
Source: Fan and others 2014a.

reliability of health data, therefore, depend crucially on degree of independence and methodology of collection.

These data challenges observed in the Janani Suraksha Yojana program are not unique in Indian health programs. Collection and analysis of health data are sporadic, and the quality of the administrative data is rarely verified against independent third-party surveys, which are less biased than administrative sources. The relatively new Annual Health Survey is conducted in only high-focus NRHM states, whereas the District-Level Health Survey, previously conducted nationally, is now only conducted in the remaining states. In addition, the last available National Family Health Survey data are from 2006–07. This patchwork of data sources makes it difficult to assess the impact of the NRHM or other state-level health systems initiatives over the last decade. Data need to be sufficiently disaggregated by subnational region (state or district) and repeatedly collected over time for consistent comparisons across regions and over time. None of the strategies outlined above will be effective without high-quality, timely, and relevant data.

Finally, the NRHM largely ignores measurement of outcomes. The Janani Suraksha Yojana program is a classic example. It accounts for nearly 30 percent of the flexible pool for Bihar and Uttar Pradesh and over 10 percent of total NRHM expenditure (figure 2.7). While

Figure 2.7 The Janani Suraksha Yojana program accounts for more than 10 percent of total National Rural Health Mission expenditure



Source: Data obtained by Accountability Initiative through Right to Information request.

the overall objective of the program and the NRHM is to decrease the infant mortality rate and the maternal mortality ratio, the central government's evaluation of the performance has focused on the increase in institutional deliveries. However, recent research suggests that while institutional deliveries may have increased, the impact on the infant mortality rate and the maternal mortality ratio is questionable.²² Some research suggests that the NRHM is associated with a change in the rate of decline in the infant mortality rate,²³ whereas other research has found no impact, including in rural India, the primary focus of the NRHM.²⁴ Overall, there is limited evidence that the NRHM has improved health outcomes.

There are several legacy factors explaining the NRHM's performance despite its relatively large allocation over the last decade. Owing to many years of neglect, lower level public healthcare facilities in India have suffered from a variety of problems, including worker absenteeism, dual public-private practice, shortage of supplies, and low demand for health care in the public sector.²⁵ By and large, Indian households resort to the private sector for healthcare.²⁶

Yet the private sector offers variable quality of care, because it is unregulated, with as many as 57 percent of allopathic doctors lacking a medical qualification or degree in 2001.²⁷ There are few qualified medical doctors in India—about 36 per 100,000 people—or a little more than a quarter of China's 129.²⁸

Moreover, the lack of spending by states under the NRHM should be interpreted within the context of the broader fiscal architecture. Even assuming that states aim to maximize welfare or benefits, if the costs to states of using centrally sponsored scheme funds are greater than the costs of using their own state treasury funds, in general states will prefer using their own funds. Given the incentives of the fragmented fiscal architecture, states would know best when spending is enough. The move away from centrally sponsored schemes toward greater untied fiscal devolution to states may therefore reduce the costs of fragmentation, but whether this leads to better outcomes will likely depend on the design of fiscal transfers in the period following the 14th Finance Commission recommendations (discussed in detail in the next section).

3

Going local: A new era in fiscal transfers for health

The 14th Finance Commission's report marks a new era in fiscal transfers in India. This chapter reviews the report's general implications as well as its major implications for the health sector.

General implications of the 14th Finance Commission

The 14th Finance Commission report recommended a substantial increase in fiscal devolution, reduced fragmentation of fiscal transfers, and enhanced fiscal space at the subnational level, so that states can plan and spend based on their own priorities. These changes are consistent with past analyses showing that tax devolution transfers are more progressive than non-formula-based transfers such as those under the Planning Commission or centrally sponsored schemes. The changes have several significant implications.

First, the 14th Finance Commission recommended that the share of total tax revenue collected by the center and transferred to the states increase from 32 percent over 2010–15 to 42 percent over 2015–20. This unprecedented 10 percentage point increase in tax devolution is rare for any large fiscally decentralized country, where such shifts typically occur incrementally over decades. This means that states will have a much larger fiscal space of 100,000 rupees crore (US\$16 billion) a year to make their own resource allocation decisions, with implications for many sectors, including health. With this large injection of unconditional general purpose funds, states will now bear the onus of increasing expenditure and improving performance.

Second, the 14th Finance Commission relied on an improved formula to determine state-level allocations using updated population weights (see Appendix 1).²⁹ Previous Finance Commissions used population data from the 1971 census in their formula. The inclusion of 2011 census data for state population will help account for demographic changes since 1971 in determining each state's share of total fiscal transfers. The statewise distribution of funds will shift to be more closely aligned to the current distribution of

population in states—a key measure of need for any population-based program, including in the health sector.

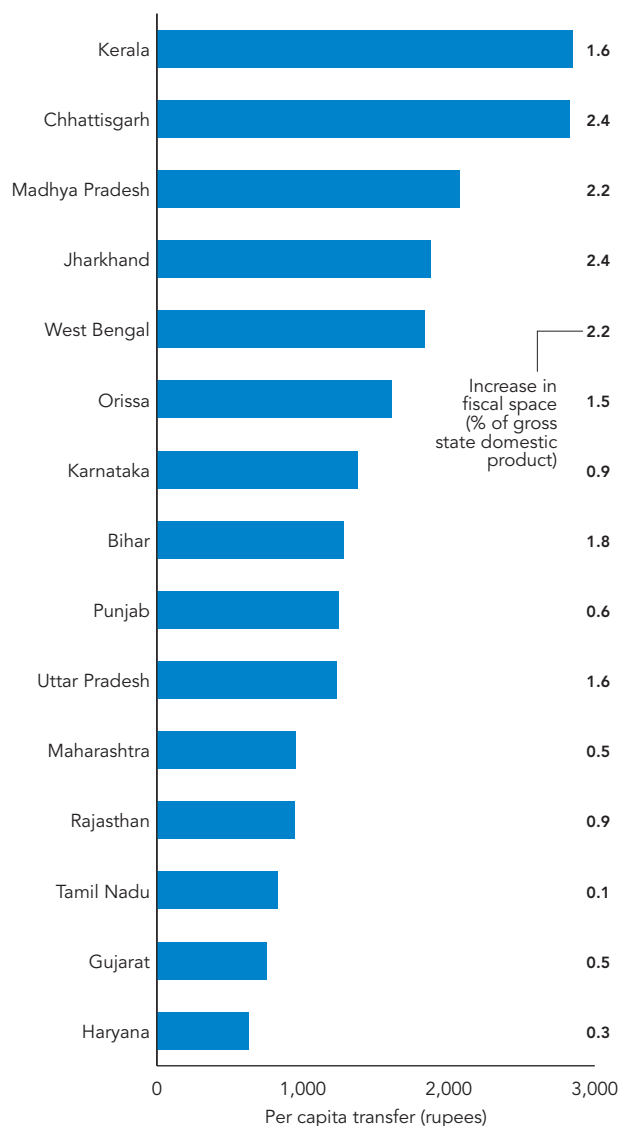
The Accountability Initiative-CGD analysis of budget estimates for 2014/15 and 2015/16 found that lower income states such as Chhattisgarh, Jharkhand, Madhya Pradesh, and Bihar, which have had higher population growth since 1971 than higher income states have, will particularly benefit from this devolution (figure 3.1). In these states the increase in the state share of tax revenues will amount to nearly 3 percent of gross state domestic product, greatly increasing their fiscal space. States are now in a position to allocate resources per their priorities, which fulfills their demand for greater fiscal autonomy. However, the distribution will depend on a combination of public demand and political preferences; hence, an increase in health expenditure is by no means certain. The focus has to be on sustained evidence-based advocacy to keep health in the forefront of budgetary priority setting at the state level.

Implications of the 14th Finance Commission for health and the health sector

With regard to the health sector, the 14th Finance Commission report has two main implications: fewer funds held by the center and less fragmentation of transfers to states. With the increase in funds to states, the center will necessarily have fewer fiscal resources and therefore will have to restructure centrally sponsored schemes, including the NRHM. Allocations for the NRHM for 2014/15 have been reduced for the first time since its inception in 2007.³⁰ The distribution of 14th Finance Commission funding also implies that the center's discretion in determining transfers through centrally sponsored schemes will decrease from nearly one-third of total resources to less than one-sixth—a 50 percent reduction.

There will also be less fragmentation in fiscal transfer channels to states through the elimination of Planning Commission transfers and consolidation of centrally sponsored schemes (figure 3.2).³¹ One option for consolidation in the health sector is

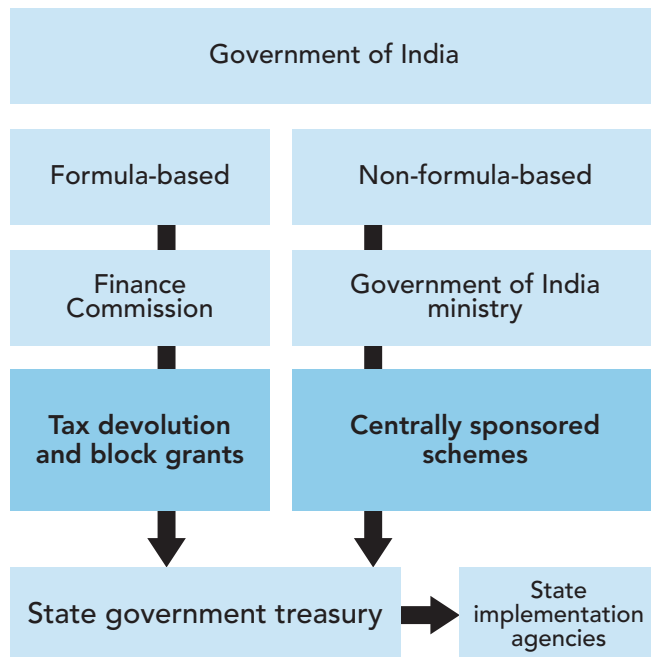
Figure 3.1 Lower income states will directly benefit from increased devolution of tax revenues from the center



Source: Government of India 2015; Accountability Initiative-CGD calculations.

to merge all the health-related transfers into a single entity that will compensate the states for achieving a set of health indicators, either universally or targeted at particular population groups (see chapter 4 on recommendations). By consolidating these schemes, the efficiency of the centrally sponsored scheme should increase if

Figure 3.2 The 14th Finance Commission report implies fewer funds held by the center and less fragmentation of transfers to states



Source: Mukherjee 2014.

the new design is better targeted and focuses on outcomes rather than inputs.

Consolidation also comes from the elimination of specific-purpose transfers by the 14th Finance Commission. Unlike the 12th Finance Commission and 13th Finance Commission, the 14th Finance Commission did not introduce any specific-purpose transfers for health—either equalization or outcome-based transfers—beyond those already permitted under the centrally sponsored scheme. Our analyses of 12th Finance Commission and 13th Finance Commission specific-purpose transfers, described previously, suggested that such transfer channels were one of many channels in a previously fragmented context, and thus such channels were likely to be costly for states to use. The consolidation of the center’s flows to states should create incentives for states to pay attention to any given flow. The overall reduced fragmentation should lower the costs to states for spending and reduce duplication in reporting for separate funding lines, while

encouraging states to develop their own priorities and plans for implementation.

On the whole, these policy changes return toward greater formula-based funding, reducing discretion and fragmentation and increasing predictability and possibly efficiency as well as progressivity of allocations. Nevertheless, as the center's spending on health decreases, and with fewer channels of transfer to states for health, it remains to be seen whether states will spend more of their own funds on health. It also remains to be seen whether health outcomes

will be improved by the current distribution of funds by both center and state treasuries. Therefore, it will be crucial for the central government to rethink its strategy based on the core principles of a better system of fiscal transfers for health. At the same time, health expenditure in the states needs to be aligned to improve outcomes on key indicators. Without analyzing the incentives of current fiscal transfers, the new era of fiscal transfers in India runs the significant risk of the old fiscal problem of money allocated to states without clear results.

4

Recommendations

Recent reforms in the fiscal transfer architecture have created opportunities to work more strategically to prioritize health both at the center and in the states. There is considerable overlap between functions performed by the central and state governments; both are involved in direct service delivery, insurance programs, and free medicine schemes, for example. As our analysis shows, duplication of activities and fragmentation of financing lead to coordination failures and underspending, especially in poorer states. A clear vision of using central transfers as a tool to leverage reform of health financing and delivery is needed, along with a focus on improving outcomes.

The working group envisioned a different role for the central government in the context of declining central funding and greater state power to set priorities and delivery strategies in health. That role would focus more on creating incentives and providing support for states to get the right results than on being a direct funder or provider of health services. Our main recommendation is that the central government use a specific-purpose transfer mechanism to create clearer incentives to improve health. This should be separate from the usual tax devolution grants but could represent a reworking of the mechanisms of centrally sponsored schemes.

Fiscal transfers are a key mechanism available to central policymakers in this new reality. However, to correct for shortcomings in existing mechanisms, such transfers will also require an enabling environment of performance measurement, tracking, and accountability. As a result, our recommendations focus on three areas of our framework comprising allocation, incentives, and accountability. In summary, we recommend that the central government:

- Build on 14th Finance Commission devolution and allocate toward better health in states.
- Move toward better design of performance-based fiscal transfers for health.
- Invest in better data, research, and accountability.

Build on 14th Finance Commission devolution and allocate toward better health in states

The unconditional general purpose transfers of the tax devolution to states basically represent an effort to give more fiscal power to states and address interstate inequities in resource mobilization capacity and expenditure needs. This does not automatically address existing inequalities in health allocations, let alone health outcomes. Improving health is one of several competing development objectives that state policymakers face. In this scenario the central government should continue its central allocations for health to states but use its funds to leverage greater and smarter investments in health by states.

Review international efforts to reform fiscal transfers to improve health

India is behind other federal middle-income countries such as Brazil, China, and Mexico in terms of financing and implementing an effective health system that provides citizens with high coverage of cost-effective health services alongside reasonable quality of care and reduced out-of-pocket expenditure. In most of those countries, policymakers aimed to assure consistency between fiscal transfer arrangements and health system policies, with the aim of leveling the playing field in terms of spending and creating incentives for improved performance on key measures, consistent with the health system insurance or coverage framework in place (as in Brazil). A summary of three such composite indexes is provided in Appendix 2.

These country cases can offer lessons for India as it faces policy choices, especially in the context of the changing roles of the center and the states in allocating resources for health. Given that some states in India are larger than many countries, there is a need for a deeper dive in state-level policy, budgeting, allocation, and expenditure processes to arrive at the best possible strategy to improve outcomes. As states gain greater autonomy through unconditional

transfers, it will be important to look at international best practices to prioritize investments in health.

Make health transfers predictable

There is now considerable uncertainty about the level of fiscal support to the health sector by the central and state governments. In 2013/14 central funds accounted for only a quarter of total public spending on health, and its future trajectory is unknown. To improve predictability and allow for rational planning at both levels of government, we recommend that the central government indicate how central funding for health is expected to increase over time, expressed as a target share of total public spending on health. At the same time, states should draw up a health sector medium-term expenditure framework that would allow benchmarking of budgetary allocations across states over time. This would also help in estimating the resource gap to achieve a state-determined standard for access and quality of health services that needs to be filled through fiscal transfers or through mobilization of alternative sources of revenue at the state level.

Move toward better design of performance-based fiscal transfers for health

One key lesson from our research is that fiscal transfers should be predicated on both need and performance. Increases in unconditional transfers following the 14th Finance Commission recommendations would address resource needs at the state level to a certain extent, and under the current formula, need is benchmarked in part against the 2011 population, which shifts funding to needier states by definition. However, incentives to improve performance still need to be established, and we recommend that additional transfers over and above the tax devolution grants from center to states be based on performance. The performance-based payments should have two criteria. First, they should be linked to achievement of independently verified outcomes such as through the use of household and facility surveys rather than self-reported administrative data. Second, the payments should be made per unit of achievement rather than based on achieving a pre-determined aggregate target that generates all-or-nothing incentives.

The evidence for performance-based grants when designed well is reasonably strong.³² Following a review of the international experience, we find that there are many ways to design a performance-based transfer. Because the amount of available centrally sponsored

scheme funds is expected to be approximately halved, we recommend that the Government of India use its limited funds in three ways:

- *Pay for health outcomes.* The Government of India, in consultation with extensive stakeholders in states, should choose a single and simple metric of health status regardless of the model of service delivery adopted by a state.³³ The focus on a simple outcome helps sharpen policymakers' attention without distracting them with a prefabricated unitary model that may not be relevant to their local context. States would keep their share, and this would add to the untied part of the 14th Finance Commission fiscal devolution. The award simply serves as an incentive for good performance, not as a way to reimburse for costs that will be assumed to be covered by states' own treasuries. For example, the metric could be based on the infant mortality rate, which is already an NRHM indicator and an essential indicator of population health. However, unlike the formula of 13th Finance Commission incentive grants for health, the Government of India could pay for each averted infant death. Averted infant deaths could be calculated based on the accelerated infant mortality rate compared with an expected infant mortality rate under business as usual, and the Office of the Registrar General of India could be responsible for both defining expected infant mortality rates and implementing and calculating infant mortality rates. A methodology proposing this mechanism and alternative indicators of health status to the infant mortality rate are explained in detail in Appendix 4.
- *Pay for performance.* A complementary payment mechanism, separate from payments on each averted infant death, could rely on an index of health indicators. This may be relatively easy for the Government of India to do, given the NRHM's focus on a limited set of interventions for reproductive and child health. Each additional percentage point increase in the mean index, weighted by population, would be associated with a quantum of payment. Many other countries have developed comprehensive family health programs in which funds are transferred (to households) based on use of essential health services and achievement of an index of services, including indicators based on immunization coverage, growth monitoring of children and child stunting, skilled birth attendance, and pre- and postnatal care. For example, conditional cash transfer mechanisms in Brazil and Mexico have used use of healthcare services as conditions. Alternatively, the central government can also pay a subnational

unit such as a state or district. For example, Argentina’s Plan Nacer program used a tracer index of 10 indicators in which an indicator of health outcomes (for example, low birthweight) is used alongside indicators of health service use (for example, immunization coverage) to pay districts (see Appendix 4).³⁴

- *Pay the state, health workers, and women.* The previous two considerations focus on the indicators of payment—that is, the conditions under which payment is made and the choice of indicators. Equally important, however, is the “who” of payment—that is, who should receive the conditional payment. The payment can be provided to different agents, including the state governments themselves, the health workers, and even the individual beneficiaries benefiting from the service. Performance-based payments made to subnational governments are basically a specific-purpose fiscal transfer (for example, 13th Finance Commission incentive grants for health and Argentina’s Plan Nacer). Payments conditional on performance of health workers are often called pay-for-performance or fee-for-service (for example, Janani Suraksha Yojana program payments to health workers and providers or payments to hospitals by an insurer). Payments to individual beneficiaries (often women) are usually called conditional cash transfers (for example, Janani Suraksha Yojana program payments to women and the family health programs in Latin America). These three transfers are all conditional but differ in the type and level of agent receiving the payment. Whereas the evidence is far stronger about payments made to individuals and to health workers, the evidence to state governments is still nascent. Nevertheless, given India’s size and scale, we recommend payments be made at least to the state, and the state in turn can be encouraged to design incentives that cascade to agents within their state, such as healthcare providers, hospitals, or individual beneficiaries according to the state’s particular needs.

Invest in better data, research, and accountability

Given the constraints faced by India’s health policymakers in terms of data availability and reliability, we recommend that India invest

in better data, research, and accountability by strengthening its health information systems:

- *Establish an independent authority to collect, manage, and analyze health data.* In federal systems key responsibilities of the center are to collect, analyze, and feed back data on state performance—through performance-based transfers, state-level benchmarking, and other tools. To consolidate this essential role, we recommend that the Registrar General of India establish an independent national health information authority tasked with collecting, managing, and analyzing health data as its core business. It would have legal status with strict data and privacy protection and dissemination protocols but would facilitate independent research and evaluation of health status trends and use. The authority should work closely with the Ministry of Health, which currently collects numerous types of surveys and data with health applications.
- *Leverage digital platforms to create an electronic health record database.* Digital platforms such as Aadhaar provide India with a unique opportunity to create a population-level health database that can use resources more effectively and improve delivery of health services. We recommend that Aadhaar be used as a basis for electronic health records that would be managed by the proposed national health information authority. The central government should bear the cost of setup and maintenance of the digital infrastructure and frame rules for privacy and use of the data. The Aadhaar-based health records should act as a single repository, integrating existing databases maintained by other central ministries (labor, railways, defense, and the like) and state governments to avoiding duplicating effort.
- *Engage donors to fund technical assistance for the health information system.* Considerable investment will be needed to build capacity for collecting and processing health information along the lines that we recommend and that are proposed in India’s National Health Policy 2015. India should take lessons from international best practices in and seek the help of the development partners to create a modern strategic information system at both the national and state levels.



Appendix 1

Health transfers using composite indexes in England, Brazil, and South Africa

Table A1.1 Health transfers using composite indexes in England, Brazil, and South Africa

| COUNTRY | FACTORS |
|--------------|---|
| England | Age, gender, mortality, unemployment, elderly living alone |
| Brazil | Infant mortality, ages 1–64 mortality, ages 65 and older mortality, mortality rate by infectious and parasitic diseases, mortality rate for neoplasia, mortality rate for cardiovascular conditions, adolescent mother percentage, illiteracy percentage, percentage of homes without sanitation, percentage of homes without running water, percentage of homes without garbage collection |
| South Africa | Percentage female; percentage children under 5; percentage living in rural area; percentage older than 25 without schooling; percentage unemployed; percentage living in traditional dwelling, shack, or tent; percentage without piped water in house or on site; percentage without access to refuse disposal; percentage without access to phone; percentage without access to electricity; percentage living in household headed by a woman |

Source: Shah 2007.

Appendix 2

Fiscal allocation methods for health

This appendix is based on Glassman and Sakuma (2014).

Retrospective (de facto) transfers

- *Actual spending.* Allocations are made based on how much subnational entities actually spend. Although this approach is likely to incentivize greater than necessary levels of spending, it forms a basis for matching transfers, which encourage spending where subnational entities would otherwise spend below efficient levels.³⁵

Prospective (ex-ante) transfers

- *Need-based mathematical formula.* Funding may be determined through a predetermined formula based on subjective or objective mathematical rules and reflecting perceived health needs.³⁶ The rules can be simple and incorporate a few factors—such as in Norway, where the formula includes age, gender, mortality, and low birthweight—or very complex—such as in Brazil and South Africa, where the formulas incorporate 10 or more factors.³⁷
- *Local government bids.* Funding for health can be allocated by bids placed by local governments that reflect national health

priorities and local disease burdens. In some cases the transfers can be partially tied to improvement of health indicators. If successful, this mechanism can ensure that government funds are spent cost-effectively and in line with central or local government goals. Transfers based on local performance require greater scrutiny from the central government and technical capacity by the local entity, which may lead to large geographic inequality.³⁸

- *Historical precedent.* Central governments can allocate health funds based on historical precedent. Subnational governments may receive adjustments based on changes to the overall budget.³⁹ Allocation through historical spending can minimize disruptions to existing systems, but it also leaves local entities reliant on historical funding levels.⁴⁰ In some cases this allocation mechanism could perpetuate inequity and inefficiencies in localities.⁴¹
- *Political patronage.* The allocation of health funding can be influenced by political patronage or factors such as ethnicity, where funds to local entities are allocated based on past support or importance for future government. While governments would be reluctant to admit to this funding mechanism, it has been found in many supposed nonpartisan funding systems.⁴²

Appendix 3

Factor weights for transfers by the Finance and Planning Commissions

Table A3.1 Factor weights for transfers by the Finance and Planning Commissions (%)

| STATE-LEVEL FACTOR | FINANCE COMMISSION | | PLANNING COMMISSION |
|---------------------------------------|--------------------|-----------------|--|
| | 13TH 2010–15 | 14TH 2015–20 | GADGIL–MUKHERJEE FORMULA 1991–2014 |
| Population, 1971 | 25.0 | 17.5 | 60.0 |
| Population, 2011 | .. | 10.0 | .. |
| Land area | 10.0 | 15.0 | .. |
| Fiscal capacity distance ^a | 47.5 | 50.0 | .. |
| Fiscal discipline ^b | 17.5 | .. | .. |
| Per capita income | .. | .. | 25.0 |
| Performance ^c | .. | .. | 7.5 |
| Special problems ^d | .. | .. | 7.5 |
| Forest cover | .. | 7.5 | .. |

.. is not applicable

a. Includes capacity to raise own revenues compared to the benchmark state.

b. Includes adherence to fiscal rules, reduction in revenue, and fiscal deficits.

c. Includes several areas including tax effort, fiscal management, and progress in achieving national objectives.

d. Defined at the discretion of the Planning Commission.

Appendix 4

Payment for performance— Methodological note

Choosing a single indicator of population health status

Given the limited available center-to-state funds over and above funds from tax devolution grants, the Government of India could, in consultation with stakeholders in states, choose a single indicator of population health status against which the performance of the health sector, health system, and health performance is measured. The Government of India should carry out a consultative process by which stakeholders in states can provide inputs to help choose the single indicator of population health status.

The indicator of infant mortality rate has several advantages.

First, it is already an indicator chosen by the National Rural Health Mission (NRHM) and therefore has national consensus.

Second, it is an essential measure of population health status, which is affected both by the functioning of the health care system (that is, reproductive, maternal, neonatal, and child health) and by improvements in health behaviors and socioeconomic status. Hence, states would be incentivized to consider adopting changes in service delivery as well as broader social determinants of health.

Third, the long-run economic benefits of child health are large. A growing body of research has suggested the enormous economic benefits of child health. With healthy children, parents do not need to miss work to look after sick children or take them to the doctor. More broadly, however, healthy children have better school attendance, attend for more years, and learn more when enrolled. Without neurological and cognitive impairments occurring from childhood illnesses, adult productivity and earnings are higher. Children who are well nourished in utero also have lower rates of various kinds of chronic disease. For example, child vaccination—a key intervention for children—has economic benefits ranging from US\$151–US\$231 billion over 10 years for 72 countries and amounts to a return on investment of 12–21 percent.⁴³

Fourth, countries of all income levels, including high-income countries, have been shown to deliver continued percentage reductions in infant mortality. Indeed, high-income countries have demonstrated higher percentage reductions in infant mortality rates than low- and middle-income countries, even though high-income countries have lower infant mortality rates. For these reasons, infant mortality remains a valuable and important indicator of health systems performance in India, even among better performing states.

There are a handful of standard indicators of population health status that could be considered: under-five child mortality rate, maternal mortality ratio, adult mortality rate, cause-specific mortality rate, and life expectancy. However, there are several reasons why infant mortality rate is preferred. Infant mortality is easier to measure than under-five child mortality and is more sensitive to policy changes in service delivery around the time of birth. It is easier to measure because it is more frequent than maternal mortality, which is an especially rare event. It is also easier to measure than adult mortality (that is, the probability that a 15-year-old will die before reaching his or her 60th birthday). Cause-specific mortality, such as mortality due to tuberculosis or cardiovascular disease, is not age-standardized, and states have different distributions in cause of death. Finally, life expectancy at birth summarizes probabilities of death at every age but is also less sensitive to immediate changes and improvements in health and has higher data requirements than infant mortality. In short, infant mortality has fewer data requirements, is adequately sensitive to improvements in health service delivery, and measures the health of key populations with long-run economic consequences.

Proposed methodology

Our proposed methodology for paying against reductions in infant mortality differs significantly from the 13th Finance Commission incentive grants-for-health approach. Our proposed approach makes

payments per averted infant death a population-based benchmark. Averted infant deaths would be calculated based on the accelerated infant mortality rate compared with some expected infant mortality rate under business as usual. The central government would set the price per additional infant death averted, and the state would get to keep the payments for the results.

Averted deaths are calculated as follows. For state i , calculate the expected infant mortality rate reduction (*Expected IMR*) in year $(t + 1)$ under a business-as-usual scenario. To do this, subtract the average infant mortality rate reduction R from the infant mortality rate (*IMR*) in state i in year t :

$$(\text{Expected IMR})_{i,t+1} = \text{IMR}_{i,t} - R. \quad (\text{A4.1})$$

This basically assumes that infant mortality rate is already on a path of decline nationally and in states under a business-as-usual scenario. The R can be set nationally—for example, at 2 fewer infant deaths per 1,000 live births, or set by state, that is, R_i .

Next, subtract the actual infant mortality rate (*Actual IMR*) in the year $(t + 1)$ from the expected infant mortality rate calculated in equation A4.1 to obtain the averted infant mortality rate (*Averted IMR*):

$$(\text{Averted IMR})_{i,t+1} = (\text{Expected IMR})_{i,t+1} - (\text{Actual IMR})_{i,t+1}. \quad (\text{A4.2})$$

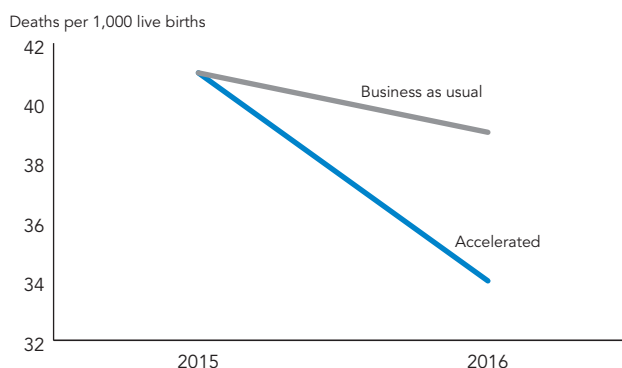
Finally, multiply the averted infant mortality rate by the total number of live births B in the state to obtain the absolute number of averted infant deaths and then payment per averted infant death P :

$$(\text{Averted infant deaths})_{i,t+1} = (B_{i,t+1}) \times (\text{Averted IMR})_{i,t+1} \times P. \quad (\text{A4.3})$$

Numerical example

Figure A4.1 illustrates an example of this methodology. Assume that a state has an infant mortality rate of 41 deaths per 1,000 live births in 2015. Given average national reductions in infant mortality rate of 2 fewer deaths per 1,000 live births, the state's expected infant mortality rate would be 39 per 1,000 live births in 2016 (that is, $41 - 2 = 39$; gray line in figure A4.1). Therefore, if the state achieves only 39 per 1,000 live births in 2016, it is presumed that

Figure A4.1 Example of accelerated infant mortality rate compared to business-as-usual infant mortality rate (deaths per 1,000 live births)



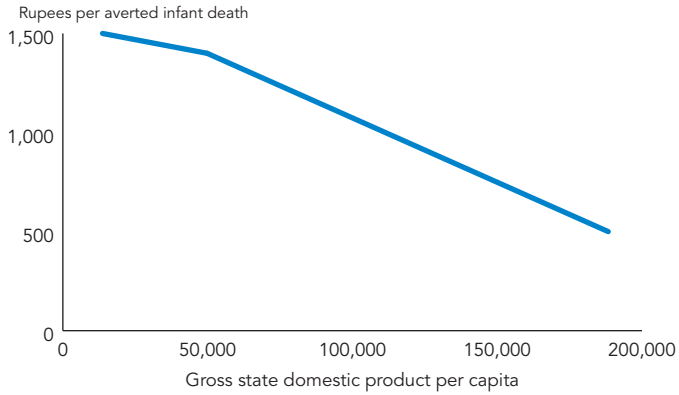
the state has not accelerated its reductions in infant mortality and has continued business as usual.

However, if the state accelerates the reduction in infant mortality rate to 34—that is, 5 fewer deaths per 1,000 live births in 2016 (blue line in figure A4.1) than expected under business as usual—then the state should be paid for the absolute number of infant deaths averted. In this case, the total payment to the state would be equal to 5 fewer deaths per 1,000 live births \times number of live births in thousands in 2016 \times the quantum of money or price per infant death averted.

By setting the quantum per infant death averted, the formula does not predetermine some target level of infant mortality to be achieved in 2016. Rather, it simply rewards proportionately states that go beyond the level of business as usual against the benchmark of averted infant deaths. In contrast, the use of a target would imply, for example, that the state must achieve an infant mortality rate of 34 (or whatever predetermined level) by 2016, and failure to reach that level would lead to zero payments.

To set the quantum of payment per infant death averted, the quantum could be set nationally, or it could be made on a sliding scale, with lower income states given a higher quantum per infant death averted than higher income states (that is, P in equation A4.3 can be set nationally or by state P_i). Figure A4.2 illustrates one example of a sliding scale, in which the states with the lowest gross state product per capita are paid 1,500 rupees for each averted

Figure A4.2 Sliding scale of payments for each averted infant death



infant death (the amount currently paid to each woman under the Janani Suraksha Yojana program in so-called low-performing states), with a sliding scale as the state approaches the mean gross state product per capita to pay 1,400 rupees per averted infant death, followed by a steeper sliding scale as the state approaches the highest gross state product per capita, in which a state is paid 500 rupees per infant death (the amount currently paid to each woman under the Janani Suraksha Yojana program in so-called high-performing states).

Notes

1. Choudhury and Amarnath 2012; Gupta, Chowdhury, and Patra 2012.
2. Choudhury and Amarnath 2012.
3. Gupta, Chowdhury, and Patra 2012.
4. Naqvi, Patidar, and Subramanian 2015.
5. Fan and Glassman 2014.
6. Glassman and Sakuma 2014.
7. Glassman and Sakuma 2014.
8. MoHFW 2014.
9. Economic Times 2015a.
10. Rao and Choudhury 2012.
11. Rao and Choudhury 2012.
12. Mukherjee 2014.
13. Choudhury and Amarnath 2012; Gupta, Chowdhury, and Patra 2012.
14. Choudhury and Amarnath 2012.
15. Economic Times 2015a.
16. Gupta, Chowdhury, and Patra 2012.
17. Gupta, Chowdhury, and Patra 2012.
18. Fan and others 2014a.
19. Government of India 2013.
20. Accountability Initiative 2015; Fan 2011; Lim and others 2010.
21. Nandi and Laxminarayan 2012.
22. Fan and others 2014c.
23. Prasad, Bhatia, and Agrawal 2013.
24. Narwal and Lu 2013.
25. Banerjee and others 2010; Banerjee, Glennerster, and Duflo 2008; Chaudhury and others 2006; Mahal and Fan 2012.
26. Anand and Fan forthcoming; Karan, Selvaraj, and Mahal 2014.
27. Naqvi, Patidar, and Subramanian 2015.
28. Government of India 2015.
29. Economic Times 2015b.
30. Accountability Initiative 2015.
31. Eichler and Levine 2009.
32. Birdsall and Savedoff 2010.
33. Birdsall and Savedoff 2010.
34. Gertler and Giovagnoli 2014.
35. Smith 2008.
36. Pearson 2002; Smith 2008.
37. Rice and Smith 2002; Shah 2007; Smith 2008.
38. Rice and Smith 2002; Smith 2008.
39. Pearson 2002.
40. Smith 2008.
41. Pearson 2002; Rice and Smith 2002.
42. Pearson 2002; Rice and Smith 2002; Smith 2008.
43. Bloom and Fan 2015.

References

- Accountability Initiative. 2015. "Budget brief 2015–16." Accountability Initiative and Center for Policy Research, New Delhi.
- Anand, S., and V. Fan. Forthcoming. *The health workforce in India*. Geneva: World Health Organization.
- Banerjee, A.V., E. Duflo, R. Glennerster, and D. Kothari. 2010. "improving immunisation coverage in rural India: clustered randomised controlled evaluation of immunisation campaigns with and without incentives." *BMJ* 340: c2220.
- Banerjee, A.V., R. Glennerster, and E. Duflo. 2008. "Putting a Band-Aid on a corpse: Incentives for nurses in the Indian public health care system." *J Eur Econ Assoc* 6 (2–3): 487–500.
- Birdsall, N., and W.D. Savedoff. 2010. *Cash on delivery: a new approach to foreign aid*. Washington, D.C.: Center for Global Development.
- Bloom, D.E., and V.Y. Fan. 2015. "The value of vaccination: concepts, measures, evidence, and policy implications." Unpublished working Paper.
- Chaudhury, N., J. Hammer, M. Kremer, K. Muralidharan, and F.H. Rogers. 2006. "Missing in action: teacher and health worker absence in developing countries." *J Econ Perspect J Am Econ Assoc* 20 (1): 91–116.
- Choudhury, M., and H.K. Amarnath. 2012. "An estimate of public expenditure on health in India." New Delhi: National Institute of Public Finance and Policy, May. http://www.nipfp.org.in/media/medialibrary/2013/08/health_estimates_report.pdf.
- Economic Times*. 2015a. "14th Finance Commission: Government accepts recommendations; gives higher share to states in central taxes," February 25. <http://economictimes.indiatimes.com/articleshow/46355198.cms>.
- . 2015b. "Narendra Modi government to discontinue support to eight centrally-sponsored schemes," February 25. <http://economictimes.indiatimes.com/articleshow/46362825.cms>.
- Eichler, R., and R. Levine. 2009. "Group C for GDP-BIW. Performance incentives for global health: Potential and pitfalls." Washington, D.C.: Center for Global Development.
- Fan, V., and A. Glassman. 2014. "Going local." *Finance Dev.* 51 (4) (December): 12–5.
- Fan, V., S. Iyer, A. Kapur, R. Mahbub, and A. Mukherjee. 2014a. "Outcome-based allocations: the curious case of the thirteenth finance commission's incentive grants for health." Background paper. Center for Global Development, Washington, D.C.
- . 2014b. "The twelfth finance commission's equalization grants for health: an analysis." Background paper. Center for Global Development, Washington, D.C.
- . 2014c. "Expenditures and efficiency of national rural health mission: a cross-state analysis." Background paper. Center for Global Development, Washington, D.C.
- Fan, V.Y.-M. 2011. "Essays on health systems and policy in India." Doctoral dissertation. Harvard School of Public Health, Cambridge, Mass.
- Gertler, P.J., and P.I. Giovagnoli. 2014. "Rewarding provider performance to enable a healthy start to life: evidence from Argentina's Plan Nacer." World Bank Policy Research Working Paper 6884, World Bank, Washington, D.C. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2439991.
- Glassman, A., and Y. Sakuma. 2014. "Intergovernmental fiscal transfers for health: Overview framework and lessons learned." Center for Global Development, New Delhi, November.
- Government of India. 2013. "Universal immunization program." Ministry of Health and Family Welfare. http://www.nhp.gov.in/sites/default/files/pdf/immunization_uip.pdf.
- . 2015. "Report of the Fourteenth Finance Commission." Ministry of Finance, New Delhi. <http://finmin.nic.in/14fincomm/14thFinanceCommission.htm>.
- Gupta, I., S. Chowdhury, and N. Patra. 2012. "Essential health package for India: Approach and costing." Institute of Economic Growth, New Delhi. <http://fincomindia.nic.in/ShowContentOne.aspx?id=27&Section=1>.
- Karan, A., S. Selvaraj, and A. Mahal. 2014. "Moving to universal coverage? Trends in the burden of out-of-pocket payments for

- health care across social groups in India, 1999–2000 to 2011–12.” *PLoS ONE* 9 (8) (August 15): e105162.
- Lim, S.S., L. Dandona, J.A. Hoisington, S.L. James, M.C. Hogan, and E. Gakidou. 2010. “India’s Janani Suraksha Yojana, a conditional cash transfer programme to increase births in health facilities: an impact evaluation.” *Lancet* 375 (9730) (June): 2009–23.
- Mahal, A., and V. Fan. 2012. “Expanding health coverage for Indians: An Assessment of the Policy Challenge.” In S. Shah, B. Bosworth, and A. Panagariya, eds. *NCAER-Brookings India Policy Forum 2011/12*. New Delhi: NCAER and Washington, D.C.: Brookings Institution.
- MoHFW (Ministry of Health and Family Welfare), Government of India. 2014. Draft National Health Policy 2015. <http://www.mohfw.nic.in/showfile.php?lid=3014>.
- Mukherjee, A.N. 2014. “Fiscal federalism and intergovernmental transfers for financing health in India.” Center for Global Development, New Delhi. http://www.cgdev.org/sites/default/files/India_IGFTs-for-Health-Background-Paper-v1.pdf.
- Nandi, A., and R. Laxminarayan. 2012. “The unintended effects of a cash incentive for institutional childbirth on demographic transition: Evidence from the Safe Motherhood Scheme in India.” Report No.: ID 2235145, Social Science Research Network; Rochester, NY, December. <http://papers.ssrn.com/abstract=2235145>.
- Naqvi, S.Z., K. Patidar, and A. Subramanian. 2015. “A watershed 14th Finance Commission,” *Business Standard India*, February 24. http://www.business-standard.com/article/opinion/syed-zubair-naqvi-kapil-patidar-arvind-subramanian-a-watershed-14th-finance-commission-115022401423_1.html.
- Narwal, R., and G. Lu. 2013. “Has the rate of reduction in infant mortality increased in India since the launch of national rural health mission? Analysis of Time trends 2000–2009 with projection to 2015.” *Int J MCH AIDS* 2 (1): 139–52.
- Pearson, M. 2002. *Allocating public resources for health: developing pro-poor approaches*. London, UK: DFID Health Systems Resource Centre.
- Prasad, A.M., S. Bhatia, and R. Agrawal. 2013. “The effect of the National Rural Health Mission on health services and outcomes for childbirth in India: a retrospective analysis of survey data.” *Lancet* 382 (October): 11.
- Rao, G., and M. Choudhury. 2012. “Health care financing reform in India’s decentralized health care system.” In *Economics of public health care reform in advanced and emerging economies*, First Edition. Washington, D.C.: International Monetary Fund.
- Rice, N. and P. C. Smith. 2002. “Strategic resource allocation and funding decisions.” In E. Mossialos, A. Dixon, J. Figueras and J. Kutzin, eds., *Funding health care: options for Europe*. Philadelphia, PA: Open University Press.
- Shah, A. 2007. “A practitioner’s guide to intergovernmental fiscal transfers.” In R. Boadway and A. Shah, eds., *Intergovernmental fiscal transfers: Principles and practice*. Washington, D.C.: World Bank.
- Smith, P. C. 2008. Formula funding of health services: learning from experience in some developed countries. Discussion Paper, Department “Health Systems Financing,” Cluster “Health Systems and Services” – World Health Organization. http://apps.who.int/iris/bitstream/10665/85690/1/HSS_HSF_DP.08.1_eng.pdf.



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