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Department of Global Health
and Population

STRENGTHENING SPENDING FOR PRIMARY CARE DELIVERY IN INDIA

A Rapid Assessment Report on Resource Tracking and Management

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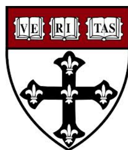

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Forward

This report presents the results from a rapid assessment of how resources for primary care delivery are mobilized, allocated and used in India. A similar rapid assessment was conducted for Ethiopia, and a separate report on the findings from that assessment was produced. The goal of this assessment was to help identify activities that would strengthen the continuum of primary care financing from resource mobilization, budgeting, and resource allocation though the flow of funds from government systems at the national to local levels. This work was done in consultation with the Ministry of Health and Family Welfare in India and The Bill & Melinda Gates Foundation (BMGF) India Country Office. The work was financed by a planning grant that BMGF awarded to Harvard School of Public Health (HSPH) to "Strengthen Health Resource Management for Improved Delivery of Primary Care in India and Ethiopia". Professor Peter Berman is the principal investigator for this project. A three-year project to take forward this work has now received support from BMGF.

It is important to emphasize that this rapid assessment is an exploratory study. It was not intended to be representative of the situation in India as a whole. Its findings are indicative and provided direction for the larger program of work developed by HSPH.

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Acronyms

ANM	Auxiliary Nurse Midwives
APHC	Additional Primary Health Centers
ASHA	Accredited Social Health Activists
BMGF	Bill & Melinda Gates Foundation
BPL	Below Poverty Line
CHC	Community Health Centers
DFID	Department for International Development
DHS	District Health Society
DLHS	District Level Household & Facility Survey
GDP	Gross Domestic Product
GoI	Government of India
HSPH	Harvard School of Public Health
IFC	International Finance Corporation
JSY	Janani Suraksha Yojana
NGO	Non-Governmental Organizations
NRHM	National Rural Health Mission
MCH	Maternal and Child Health
MOHFW	Ministry of Health and Family Welfare
PC	Primary Care
RTM	Resource Tracking and Management
RCH	Reproductive and Child Health
RKS	Rogi Kalyan Samitis
SC	Sub-centers
SHS	State Health Society
PHC	Primary Health Centers
UNICEF	United Nations Children’s Fund
UP	Uttar Pradesh
VHSNC	Village Health, Sanitation, and Nutrition Committees

Executive Summary

Securing greater resources for primary care and ensuring the efficient use of those resources are both essential for improving primary care delivery in low and middle-income countries. The Harvard School of Public Health (HSPH) undertook a rapid assessment of the current landscape of expenditure on primary care in India to facilitate the development of a program of work to strengthen health resource tracking and management for government spending on primary care in India. A similar assessment was also done in Ethiopia. This rapid assessment was conducted in consultation with the Bill & Melinda Gates Foundation (BMGF), the Government of India (GoI), and the governments of various states including Bihar. This document presents the findings from the assessment.

Overall, the assessment found very significant impediments affecting India's ability to mobilize and effectively use finances to improve priority health outcomes through primary care. In the mid-2000s, India had both political will and fiscal space to rapidly accelerate spending on health. With the launch in 2005 of the National Rural Health Mission (NRHM), a national flagship program with a focus on primary care, GoI made a commitment to increase government health spending from less than 1% of GDP in 2004 to 2-3% of GDP by 2012 (MOHFW 2010). Government health spending did increase in subsequent years and much was accomplished, but not nearly as much as promised or intended. Moreover, the rate of growth in health spending has leveled out in recent years due to the slowing down of the national economy. The new reality of fixed – and potentially decreasing – NRHM funding therefore shifts attention to the other stages in the resource flow continuum. Namely, the allocation of public resources for primary care activities in alignment with need, adequate utilization of allocated funds, the efficiency of primary care spending in terms of purchasing the right inputs and to deliver maximum output, and better targeting of primary care resources to benefit the poor. The resource tracking approach we developed for the assessment can be used to identify specific constraints impeding effective financing and measures to address them. This approach needs to be further developed and applied at scale in India in order to develop evidence-based strategies for strengthening the contribution of financing measures to improve outcomes.

Second, comprehensive and timely analysis of public spending on primary care can be implemented and used at both national and state levels to inform discussions in all these areas. In India, state governments are responsible for nearly two-thirds of public health spending, while the central government, including NRHM accounts, covers the remaining one-third (HLEG 2011). There is presently no systematic effort to analyze primary care spending from both sources in a comprehensive way at the national- and state-levels. While utilization rates for NRHM and state budgets are tracked, little systematic analysis into the varying rates of execution under different budget heads exists. Though states collect routine data on budget execution and program outputs under NRHM, they are not jointly analyzed to shed light on whether NRHM funds are being used efficiently. Nor is the distribution of the benefit of public spending on primary care across different population groups assessed on a frequent basis. Governments in India, and states in particular where governance responsibility is located for these issues, should have capacity to monitor and act on evidence on financing and resource tracking in planning and managing public programs.

Comprehensive resource tracking that measures the total resource envelope for primary care from different sources and assesses the distribution of those funds across program areas, geographical areas, cost categories, administrative levels, beneficiary groups etc., is needed for strategic planning, program implementation, and performance review. Such analysis will also shed light on the issue of sustainability, which is critical given that NRHM is a time-bound initiative that will eventually have to be transferred from the central government to states. Therefore, working with government actors at the national- and state-levels and, in turn, building their capacity to undertake and use a range of resource tracking and management methods is an area that the proposed project will pursue.

Third, the team's discussions in Bihar reinforced the need for system strengthening at the district-level focused on improving the efficacy of bottom-up planning, financial management systems, and accountability mechanisms. NRHM has set up a parallel structure for channeling financial resources for primary care and engaged contractual workers, who work alongside salaried health workers hired by the state. Integrating and rationalizing the use of primary care resources (financial, human, and physical) through both channels of funding is critical to maximize efficiency and ensure long-term sustainability of the program. While some partners are providing technical assistance in some of these areas, a comprehensive analysis of the institutional structures and processes can pinpoint exact bottlenecks and highlight best practices. By assessing the current institutional context in which resources are allocated, channeled to different implementers, utilized and accounted for the new evidence that could inform capacity building and technical assistance activities being implemented by the Government of Bihar and other field-based partners.

Fourth, the team found that the generation and proper management of the health workforce is a major element in the efficiency in public spending on primary care in Bihar. While NRHM has increased the envelope of funds for primary care, the shortage and inefficient use of health workers poses a critical challenge to productivity. It is widely recognized that further investments are needed in building more primary care facilities, but this investment will not bear fruit unless the issue of human resources for health is addressed. Financing is a necessary but not sufficient condition for reducing this bottleneck. Consequently, an in-depth and comprehensive analysis of the health workforce situation in Bihar is critical as a complement of resource tracking work.

Finally, the extent of innovation that is happening across Indian states within the framework of NRHM is very encouraging. Indeed, India's decentralized system of government creates significant opportunities for state and district administrators to experiment with different policies and approaches. Documenting the successes of and lessons learned from key innovations that are being attempted by different sub-national actors in the areas of resource flows, resource management, and public expenditure analysis could facilitate greater diffusion of policy and practice in primary care delivery.

1. Introduction

The Harvard School of Public Health (HSPH) undertook a rapid assessment in India to learn about the current constraints to more effective use of public funds for delivery of primary care (PC) services and to develop a program of work to alleviate such constraints. This report summarizes the key findings from the rapid assessment in India, which was conducted by the HSPH team in collaboration with Bill & Melinda Gates Foundation (BMGF), Government of India (GoI) and various state governments in April and May 2013.

Goals of the Rapid Assessment

The assessment in India sought to do the following:

- Identify constraints to the mobilization, allocation, and use of government funds for primary care in India, with a focus on the National Rural Health Mission (NRHM), a large-scale GoI initiative launched in 2005.
- Propose potential policy and operational measures in a resource tracking and management framework that could improve the efficient and effective use of funds and ultimately services and health outcomes.

Conceptual Framework for the Rapid Assessment

Careful development of feasible and policy-relevant definitions for primary care activities and expenditures is needed. This should draw on recent efforts to strengthen standardized expenditure definitions internationally such as those related to the System of Health Accounts 2011. For purposes of the rapid assessment, we treated primary care as all health service related activities (prevention, promotion, and treatment) that do not require inpatient treatment in a hospital. An exception to this would be institution-based deliveries, which are financed through maternal and child health programs but may include support for lower level hospital-based deliveries. Specific technical definitions would be developed as part of the larger grant activities.

The rapid assessment explored the following 5 topics related to the financing of primary care services:

1. *Resource Mobilization*: how the resource envelope for health is determined and achieved at the central and state government levels.
2. *Resource Allocation*: the ways in which funds are allocated to primary care rather than other activities in the health sector and how primary care funds are allocated to different regions and functions through the budgeting process.
3. *Resource Utilization*: how budgeted resources flow through the system and what factors explain the degree to which they are utilized.
4. *Resource Productivity*: to what extent is government health spending, including externally contributed funds and in-kind contributions, purchasing the right inputs and the right mixes of inputs and do these inputs reach the service delivery level in a timely way to deliver value for money.
5. *Resource Targeting*: are the benefits from primary care funding reaching the intended beneficiaries in terms of health need and socio-economic focus.

Within each of the 5 core areas, the team sought to do the following:

1. Develop a precise description of the key processes and actors.
2. Identify the critical challenges, with a special focus on accountability.
3. Analyze the challenges using the following four “filters” or questions:
    a. Is this a critical challenge?
    b. Are there major investments by the government or other players in addressing the challenge?
    c. Are there other plausible technical solutions that are worth supporting?
    d. What is the level of support from country counterparts for the solution? Is there policy and implementation potential for the proposed solution including political will, political opportunity (does the political environment encourage or suppress interest in change), technical capacity, as well as sufficient perceived need and priority?
4. Apply a “resource tracking” lens to identify challenges and potential technical solutions strengthening resource tracking and management for primary care delivery in India.

Assessment Methodology

The team first undertook a desk review of the existing literature to develop an overview of how primary care services are organized and financed, and to learn about key constraints and recommended solutions documented by existing studies. Next, the team undertook key informant interviews with stakeholders at the national-, state-, district-, and facility-levels (see table in Annex A for a list of actors interviewed). At the national-level, the team interviewed senior government officials at the Ministry of Health and Family Welfare (MOHFW) who are involved in the implementation of NRHM, as well as technical experts from research institutions, donor agencies, and civil society organizations. Bihar, one of the two focus states for BMGF, was selected for the study. Here the team interviewed NRHM officers and non-state actors at the state-level, as well as district- and facility-level staff in 2 districts. With guidance from GoI, the team also engaged with senior health officials in the states of Maharashtra, Haryana, Punjab, and Tamil Nadu.

It is important to emphasize that the rapid assessment is an exploratory study. It was not intended to be representative of the situation in India as a whole or even in specific states. Its findings are indicative and provide direction for the larger project that was developed.

Section 2 provides an overview of the primary care delivery system and how it is financed, with a focus on NRHM. Section 3 summarizes the key findings from the desk review and key informant interviews regarding key successes and outstanding challenges in each of the 5 focus areas for the assessment, while Section 4 summarizes key insights from Bihar. Section 5 analyzes the critical gaps observed in the course of the assessment to identify feasible technical solutions that have the support of national stakeholders.

2. The Primary Care Landscape in India

Primary Care Delivery System

As per the Indian Constitution, state governments bear the responsibility for delivering health services, which they do through a three-tier health care delivery system with primary, secondary and tertiary facilities (Rao and Chaoudry, 2012). India's primary health care system consists of sub-centers (SCs), primary health centers (PHCs) and community health centers (CHCs). These facilities are required to handle preventative health care, institutionalized deliveries, treat minor diseases, and provide referrals when needed. SCs, which operate at the village level, are staffed by nurse practitioners called Auxiliary Nurse Mid-wives (ANM), who are assisted by community-based outreach volunteers called Accredited Social Health Activists (ASHA). One level above, the PHCs are intended to be staffed by doctors. Next come CHCs with up to 30 beds, which serve as the first point of contact with specialists. This network of public health facilities is based on national norms that require a SC for a population of 3,000 to 5000, a PHC for every 20,000 to 30,000 people, and a CHC for a population of 80,000 to 100,000. States vary in terms of the exact structure of the primary care delivery system and the application of the national norm. For example, instead of CHCs Bihar has PHCs and Additional Primary Health Centers (APHCs). Sometimes planners refer to the primary care level as facilities up to CHCs, with the higher tiers consisting of the sub-divisional, sub-district and district-level hospitals, which should treat major ailments as referral hospitals. But this terminology can confuse functions for provider organizations. CHCs are in fact small hospitals. And, in practice, almost all hospitals also provide primary care (Rao and Chaoudry, 2012).

Structure of Public Financing for Health Services

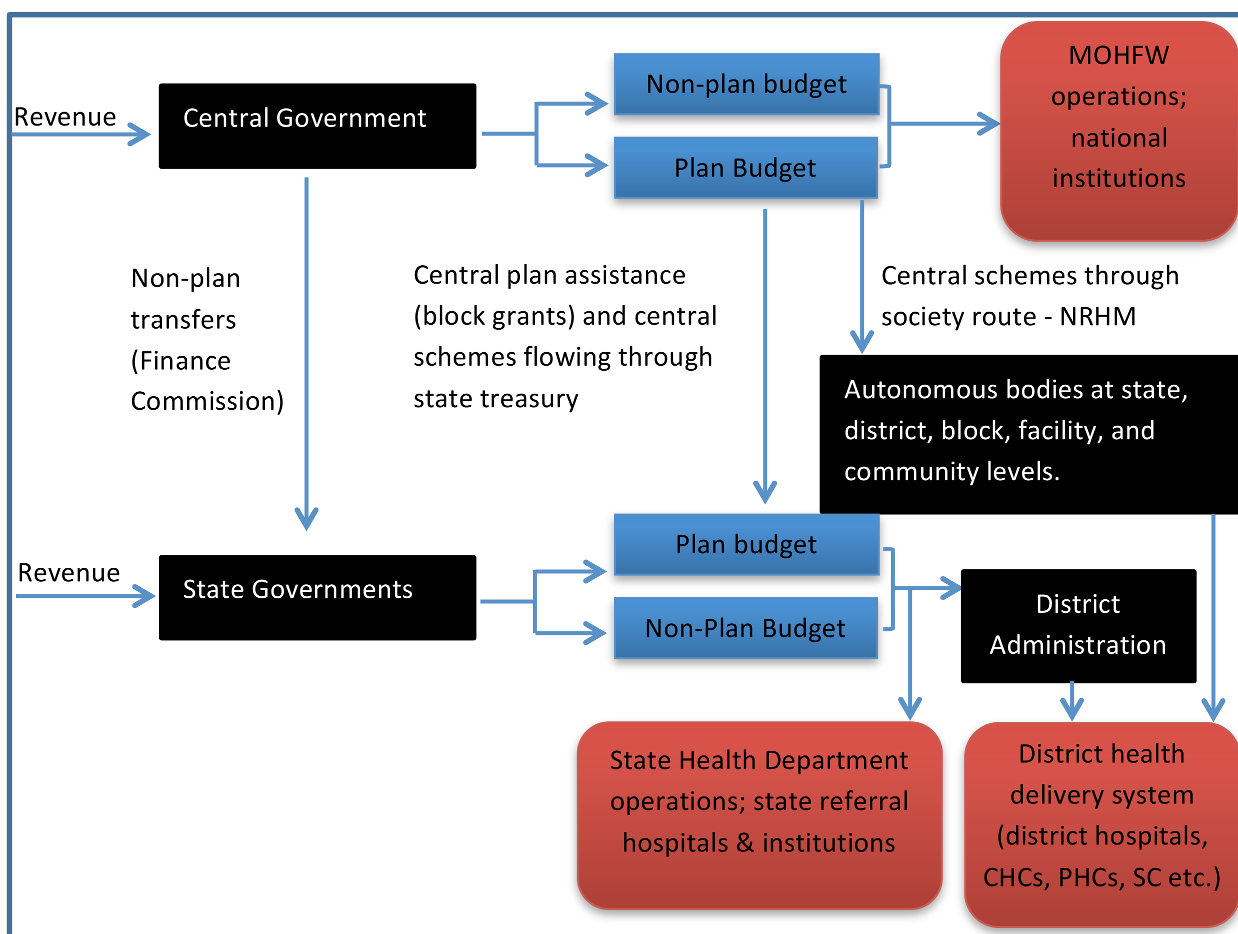
Total government health spending was approximately 1% of GDP in 2011-12 (Planning Commission 2012), which translates to roughly $11 per person per annum. This is amongst the lowest in the world (HLEG 2011). In contrast, total health spending in India is much higher at approximately 5% of GDP. This reflects the high share of private health spending in the country. In 2009, private out-of-pocket expenditure in India accounted for 64% of the total expenditure on health (HLEG 2011).

Government health spending in India can be disaggregated into central government spending and state government spending. As defined in the Indian Constitution, health is a state function. Therefore, states are expected to finance health care from their own budgets, while the central government can provide supplementary resources. Historically, state spending has accounted for two-thirds of total government health spending, while central spending is responsible for the remaining one third (HLEG 2011).

Government budgets in India, both at the central and state levels, have two components: the plan budget that includes development spending and the non-plan budget that reflects recurrent costs (see Figure 1), though the distinction between the plan (development) and non-plan (recurrent) budgets is not adhered to very strictly. (For example, family welfare spending is almost all recurrent but has remained in the plan budget for decades.) The bulk of what state governments spend on health comes from their non-plan budgets, which typically covers staff salaries, drugs and the operating costs of health facilities. This non-plan spending is financed from the state's own tax collections as well as

statutory transfers the state receives from the central government as part of revenue sharing arrangements. These transfers are required to correct for the vertical imbalance caused by the fact that a majority of taxes are collected by the central government while the assignment of functional responsibilities is such that a larger share of public spending is incurred by the states. The Finance Commission of India, a constitutionally mandated body, meets every five years to make recommendations regarding the distribution of non-plan funds between the central government and states. State governments also spend a small portion of their plan or development budget on health, typically for capital investments. States plans are financed through their revenue, which includes both taxes they collected as well as their share of national revenue as determined by the Finance Commission, and additional transfers for planned spending from the central government.

Figure 1: Flow of public resources for health



The central government's plan transfers to the states, which are part of the central plan budget developed by the Planning Commission, can take two forms. First, there is central plan assistance to the states whereby the national government gives untied block grants to state governments to support their plan spending. Second, the central government has various centrally sponsored schemes initiated by different national line ministries for which earmarked resources flow to the states. While historically resources under national schemes flowed to state government treasuries, many of these schemes now

channel resources through autonomous, quasi-governmental bodies called societies at the state and district levels that by-pass the state governments financial systems. The non-plan transfers from the national treasury, central plan assistance for states through block grants, and centrally-sponsored scheme funds that are channeled through state governments are all reflected in the state government's budget, a channel of funding that is referred to as the treasury route. However, the alternative society route involving quasi-governmental bodies has gained prominence in recent years, especially in the health sector where it is the preferred channel of funding under the National Rural Health Mission (NRHM), the flagship centrally-sponsored scheme for health.

National Rural Health Mission

Recognizing that public spending on health was inadequate and that there had been little growth in health spending by states, the central government launched NRHM, the largest central government program for health to date, in April 2005. The scheme's stated aims are to provide effective healthcare to rural populations with a focus on 18 lagging states, increase total public spending on health to 2-3% of GDP, introduce "architectural corrections" in the health system to increase its efficiency, and decentralize management of service delivery at the district level with greater involvement of local government institutions and communities (NHSRC 2012).

NRHM consolidated several existing central schemes for reproductive and child health (RCH), immunization, and disease control programs, and committed new funds or "additionalities" aimed at health system strengthening. NRHM funds are sanctioned to the states under 5 components or heads: Part A for RCH, Part B for NRHM additional funds exclusively for strengthening health systems, Part C for immunization services, Part D for the disease control programs and Part E for activities involving the social determinants of health and other health-related sectors such as nutrition and sanitation (NHSRC 2012).

The NRHM implementation structure starts with the NRHM Directorate within the MOHFW at the national-level. Within each state, NRHM programs are overseen by the State Health Society (SHS), an autonomous, quasi-governmental body headed by the state NRHM Mission Director, who is typically an Indian civil service officer. Below the SHS is the District Health Society (DHS), where the District Program Manager spearheads NRHM program activities. Then come the blocks, which is where a majority of NRHM programs are implemented since all primary care facilities including CHCs, PHCs, and SCs fall within the jurisdiction of the block.

In addition to this basic structure, NRHM introduced several new mechanisms for community participation in the planning process as well as community monitoring of program performance. This includes the Rogi Kalyan Samitis (RKS) or patient welfare committees that are meant to play a role in facility management at PHCs, CHCs, and district hospitals. The RKS includes members from local government bodies, health officials, and community representatives. NRHM also mandates the establishment of Village Health, Sanitation, and Nutrition Committees (VHSNC) at the local level, which similarly includes members from local government bodies, frontline health workers, and community representatives. They receive untied funds under NRHM, which are to address local multi-sectoral needs. NRHM mainstreamed the ASHA program involving community outreach health workers in all the

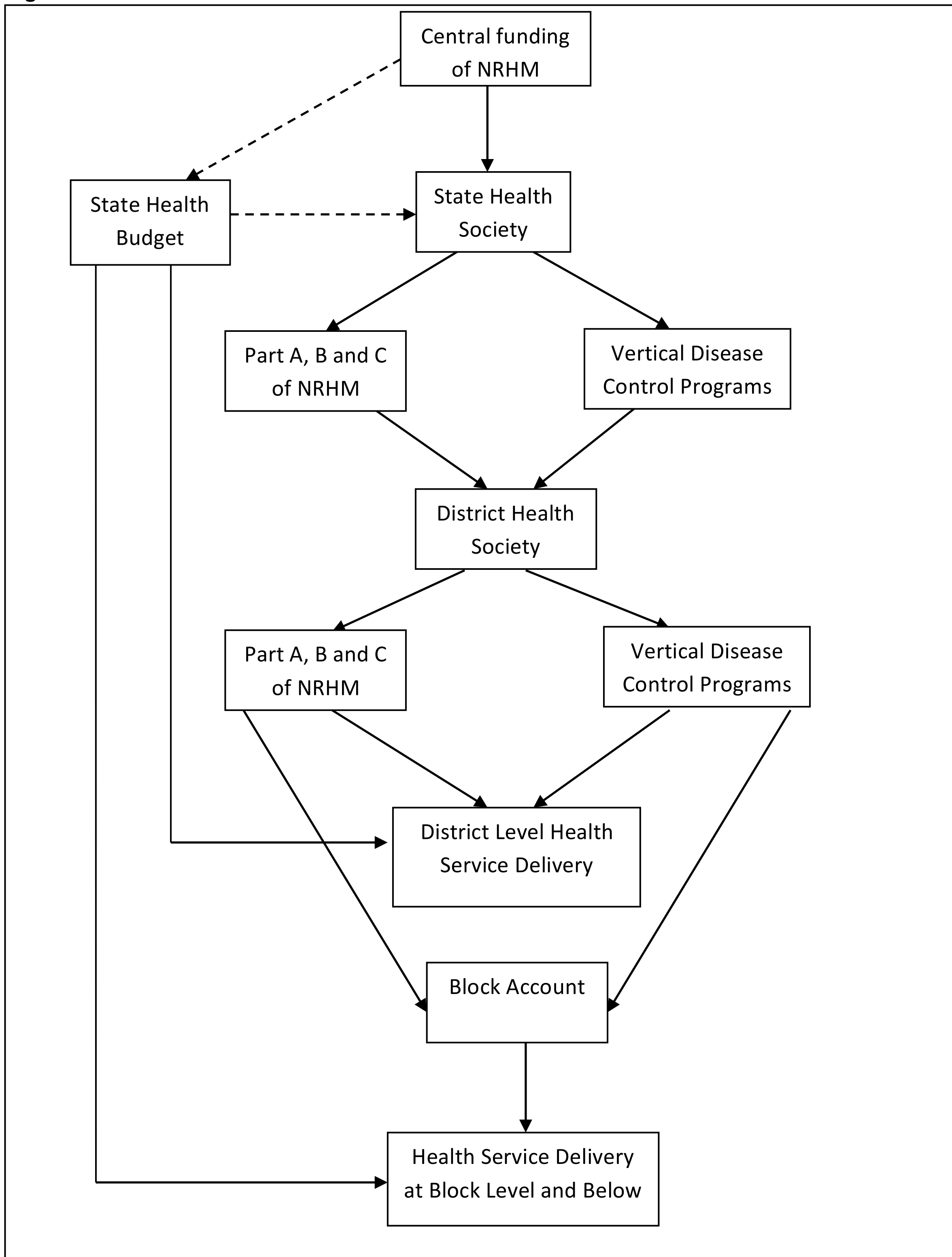
NRHM focus states. Finally, the program emphasized the role of non-governmental organizations (NGOs) in monitoring the implementation of programs.

A bottom-up planning system links the activities of these various societies, committees, and facilities functioning at different levels. The process is meant to start at the block level, where a Block Health Action Plan is drafted with inputs from all implementing units (CHCs, PHCs, SC, etc.) within it. The District Health Mission aggregates the plans, into a District Health Action Plan, which is then sent to the SHS. The state NRHM officers prepare the State Program Implementation Plan, which then goes to the NRHM Directorate for approval.

Once approval is granted, NRHM funds are made available to finance the implementation of the plan. Most of the NRHM funding is channeled through the society route from the central government to the SHS, from SHS to the DHS and from DHS to the block, which then channels funds to various implementing units under its jurisdiction (as shown in Figure 3). This funding channel runs parallel to the traditional channel through which funds from the state budget flows. However, a small part of NRHM funding flows to the state health budget for some specific maternal and child health (MCH) activities. Funds for those MCH activities were historically routed through the state health budget from the central government and that continues to be the case under NRHM (this is represented by the first dotted line at the top of the flow diagram). Moreover, NRHM is partly financed by states themselves (currently 25% of approved NRHM allocations are for a state) and these funds flow from the state budget to the SHS, represented by the second dotted line in the flow diagram. Central funds for NRHM flow to SHSs that maintain different bank accounts for different budget components or heads, and then onto DHSs that maintain a similar structure for receiving the funds under different heads. Next the funds flow to blocks, where they are typically consolidated into a fewer number of accounts, and then disbursed to different implementing units as per the block’s plans.

In terms of its programmatic content, NRHM is a blend of new innovations as well as traditional mechanisms for financing and organizing primary care delivery. Examples of innovative mechanisms include block grants to local implementers including facilities and village level committees, which give them flexible funding to address local needs, and these of financial incentives to promote institutional deliveries, immunization, etc. The more traditional mechanisms include hiring more staff to work at health facilities (albeit on a contract basis), increased procurement of pharmaceutical commodities and supplies, improved information management systems, and capacity building for health managers and health workers (Berman, Ahuja, Tandon, Sparkes, & Gottret, 2010).

Figure 2: Flow of NRHM Funds

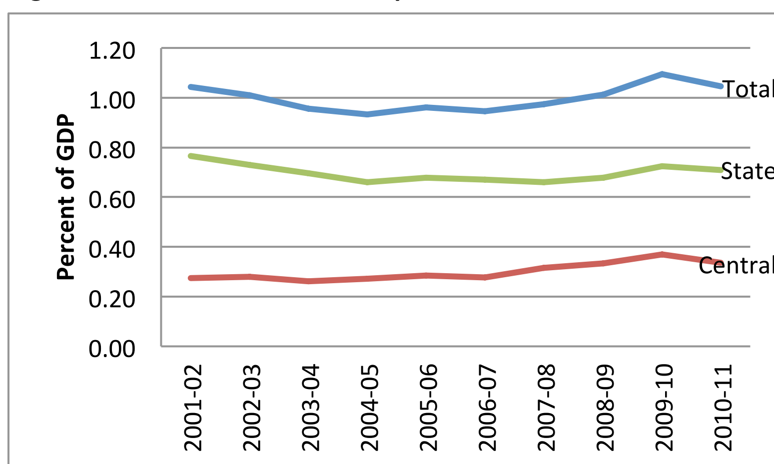


3. Key Findings from the Assessment

Resource Mobilization

- Since mid-2000s, there has been high-level political commitment for increasing government spending on health. Total government health spending increased from 0.93% of GDP in 2004-05 to 1.05% in 2010-11(see Figure 3). This was mostly due to an increase in central government spending, which rose from 0.27% of GDP to 0.34% of GDP over the same time period. However, these achievements fell short of the government's stated goal of raising total government health spending to 2-3% of GDP. Moreover, the slowing down of the national economy since 2009 has reversed the rate of growth of government health spending as a whole.

Figure 3: Government health expenditure as a share of GDP



Sources: GDP figures from MOF (2013a); state health spending figures from RBI (2013); central health spending figures from MOF (2013b)

- NRHM constitutes about 60% of health spending by the central government. At the state level, NRHM constitutes a significant source of funding, contributing 15% to 50% of total health spending by states (RBI 2013, NRHM statistics). Table 1 below, which contains per capita health spending from state budgets as well as NRHM in 2010-11 in the 20 largest states of India[1], shows that non-focus states generally have higher per capita health spending from their own budget than the focus states, while per capita NRHM spending in focus states was significantly higher than in non-focus states. The table also shows that among all the states, Bihar has the lowest per capita health spending from its own budget. However, this does not imply that Bihar attaches lower priority to health relative to other sectors. State expenditure on health, as a share of total state expenditure, in Bihar is similar to what one observes in many middle income states such as Haryana, Punjab, and Maharashtra (RBI's2013). Hence, the problem appears to stem from the relatively small size of the total pie of government expenditure compared to other states.

[1] To the extent that some percentage of NRHM funds flow through the treasury route and about 15% of NRHM funding from state budget flow to the NRHM account, there is some degree of double counting if the two types of spending were to be added to obtain per capita total government health spending in the state. However, this limitation is not a serious barrier to understanding state level differences in the two types of spending.

Table 1: Per capita health spending in 2010-11 in Indian Rupees*

	State Budget	NRHM			State Budget	NRHM
NRHM Focus (Non-NE) States[a]				**NRHM Non-Focus (Large) States**		
Bihar	160.6	140.2		Andhra P	490.4	82.0
Chhattisgarh	331.6	120.8		Goa	2383.0	126.0
Himachal P	1209.4	240.3		Gujarat	498.6	119.6
J&K	1046.6	168.0		Haryana	428.7	113.5
Jharkhand	327.1	115.6		Karnataka	457.5	114.6
MP	296.7	137.3		Kerala	618.1	115.6
Rajasthan	373.3	170.8		Maharashtra	414.4	113.2
Orissa	303.3	158.4		Punjab	444.0	122.5
UP	324.5	134.9		Tamil Nadu	610.1	114.4
Uttarakhand	680.0	203.9		West Bengal	383.4	91.6
Sub-total	**328.7**	**143.6**		**Sub-total**	**464.4**	**103.7**
All States (India)	**426.7**	**133.0**				

Sources: Census (2011) from the Office of the Registrar; State health spending figures from RBI (2013)
*Refer to footnote 1 for explanation about why these figures are not additive.
[a] The NRHM distinguishes the High Focus states between Northeast (NE) and non-Northeast (Non-NE), while the Non-Focus states are distinguished between large and small.

- Several key informants noted that in recent years, the fiscal space available for health has shrunk due to lower rates of economic growth, which has a negative impact on government revenues available to finance social sector spending. The current fiscal year of 2013-14 has seen almost no growth in real terms in the central resource envelope under NRHM. Moreover, central government allocations to some states have not grown even in nominal terms at a time when states' demand for such resources has increased (GoI Budget for 2013-14, Record of proceedings of Punjab, Haryana and Bihar).
- External donor assistance forms only a small share in total government health spending in the country. According to the last National Health Accounts from 2004-05, external flows accounted for 2.28% of total health spending in the country. However, donor investments could be a significant share and play an important role in primary care services in states that have been the focus of major donors, such as Bihar.
- Some civil society organizations and think tanks like the Accountability Initiative are monitoring high-level spending trends under NRHM, but systematic analysis of the complete public spending envelope for health (from central and state budgets) is currently lacking.
- Given the current macroeconomic climate and fiscal constraints it places on government spending, analysis and/or action to increase resource mobilization for primary care at the national level may be limited but still worthy of some effort. However, analytical work on strategies for increasing

state-level investments for health may be an important complementary area to explore for the proposed project. There also may be opportunities for strengthening broader public awareness of the potential benefits of greater health spending.

Resource Allocation

- GoI considers all of NRHM spending to be for primary care (though some NRHM funds flow to hospitals as well as inpatient services at CHCs). In addition, states also spend significant amounts from their own state budgets for primary care. However, the HSPH team found that there is no systematic and comprehensive resource tracking and management at either the national or state level of total government spending going to primary care, both in absolute terms and as a share of total health spending.
- Some states like Andhra Pradesh have stepped up spending from their own budget on secondary and tertiary care. Additionally, both central and state governments are allocating funds to schemes that provide financial protection against expensive hospitalization costs, i.e. insurance schemes such as the Rashtriya Swasthya Bima Yojana (RSBY) and others initiated by state governments. This raises a question as to whether increased spending on secondary and tertiary care as well as the expansion of RSBY and other insurance schemes are crowding out spending for primary care, which is a commonly expressed concern. An expenditure analysis that measures total resource envelope for health in the state regardless of its source, analyzes its composition by program area, cost categories etc., and tracks time trends could shed more light on such questions.
- Central resource allocation to states under NRHM is on the basis of their population, with poorer states as well as special category states (e.g. Northern states and states confronting special challenges) receiving higher weights than others. Through additional allocations to focused states, NRHM funding has sought to reduce disparities in public health spending across states, particularly between higher income and lower income states.
- Population norms are used by states to allocate financial resources to districts, as well as for sanctioning infrastructure and human resource allocations. A sub-component of NRHM called NRHM additionality or NRHM flexi-pool, which gives discretionary funds to health institutions and accounts for nearly 30% of all NRHM allocations, similarly uses a norm-based approach. The norm-based approach is well recognized among health planners to not sufficiently capture health need or address inequality across districts and/or blocks in access to services or health outcomes (NHSRC 2012). But a search for an acceptable alternative is challenging given the politics of instituting such a reform.
- While the experience of bottom-up planning adopted by NRHM varies considerably across states, existing documentation and feedback received during the interviews suggests that the process needs to be strengthened across the board. The general sense is that capacity for planning remains weak at district, block, and facility level despite efforts to develop it. Even the high performing states continue to struggle to implement genuine bottom-up planning. For example, the team learned of a relatively well functioning process of bottom-up planning in Maharashtra. Not only are plans aggregated up from the block level as they are meant to be, elected representatives play an important role in reviewing the plans. However, capacity for planning and financial management at

the block level and below needs to be strengthened even in a high-capacity, high-performance state like Maharashtra.

- States feel reluctant to create posts for regular staff and many existing posts remain unfilled, even with central support, because they fear the future fiscal burden of additional workers on their payroll. They favor spending on physical infrastructure, equipment, consumables, and less on health personnel and maintenance.

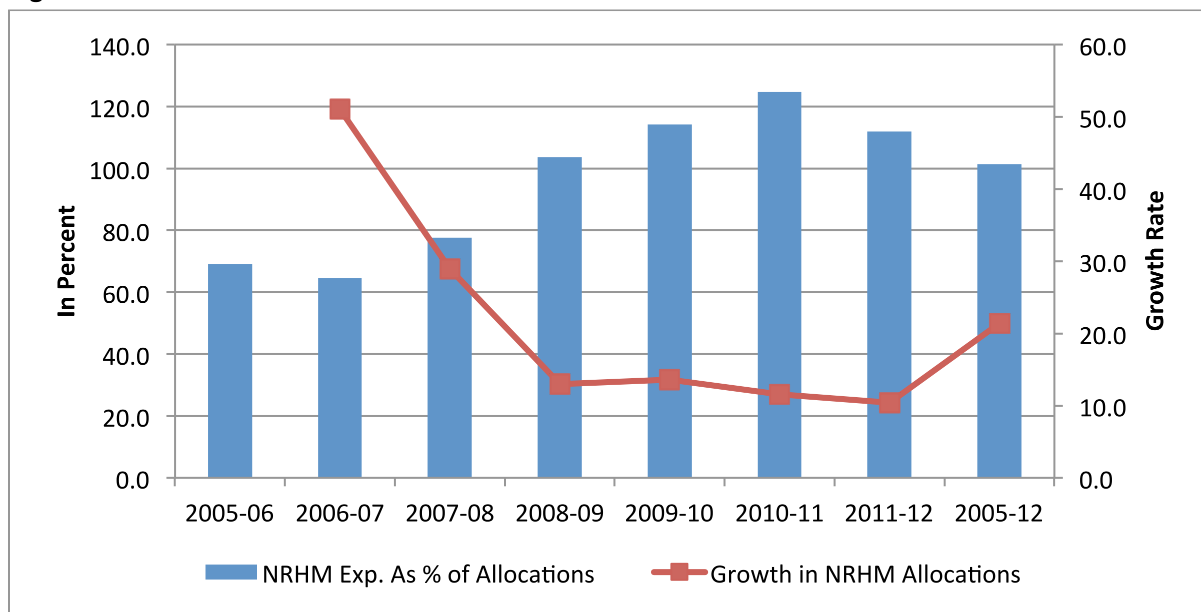
Resource Utilization

- Early documentation on NRHM performance highlighted considerable delays in funding flows. For example, under the Janani Suraksha Yojana (JSY) scheme, the Planning Commission documented delays with cash incentives to mothers and ASHAs (HLEG 2011). From all accounts, some of the most critical bottlenecks have been addressed.
- While utilization rates were low in early years of NRHM, they have picked up steadily in recent years. This improvement in utilization rates could in part be related to NRHM allocations slowing down after the initial years. The bar graph in Figure 4 below shows the utilization rate of NRHM allocations while the red line shows the growth of those allocations. Figure 5 shows the same for the two BMGF-focus states of Bihar and Uttar Pradesh.
- Despite the improvements in execution rates for NRHM funds, slow absorption of funds remains an issue in many states including Bihar. There are several contributing factors:
    - Norm-based financing, where financial resources, infrastructure allocations, and human resources are allocated based on population criteria rather than health need, current case loads, absorptive capacity, etc., which leads to some facilities receiving more funds than they can spend (NHSRC 2012).
    - Low financial management and accounting capacity at the facility level, which leads to delays in the submission of expenditure certificates as well as problems related to the reconciliation of accounts between the state and district levels. Additionally, there have been concerns that funds are often "booked" as expenditure when they are transferred to an implementing entity, regardless of whether they have actually been spent.
    - The process of approving NRHM plans at the national and state levels continues into the first quarter of the current fiscal year, thereby delaying the flow of funds until the second quarter. This reduces the time implementers have to execute their annual budgets. The use of cash-based accounting poses additional challenges.
    - The fund release and accounting procedures are the same for different kinds of expenditures, which slows the expenditure under one line and therefore delay the release of funds for other budget lines (NHSRC 2012).
    - Funds for facilities in a district are grouped together, which means all facilities need to spend resources from a given installment and submit the corresponding utilization certificates in order for the next tranche of funds for the district to be released. Therefore the poor performers set the pace of expenditure (NHSRC 2012).
    - Poor external accountability structures at the district level and below.
- Greater flexibility in the way funds for facilities are allocated, managed, and accounted for could address many of these issues. There is an ongoing discussion around how the system could move

towards differential financing, a method of financial allocation to health facilities that distinguishes among health facilities on the basis of various factors such as readiness of health facility in providing care, patient load, etc., as opposed to norm-based financial allocation that treats all facilities of any given type as the same irrespective of their needs or capacity to use funds. The Bihar State Health Society is encouraging district health societies to use a hybrid form of accrual-based accounting wherein "committed liabilities" are considered in budgeting for the next year. There are areas where the project could contribute through additional conceptual and/or analytical work, as well as assessments of existing capacity and the effect of reforms.

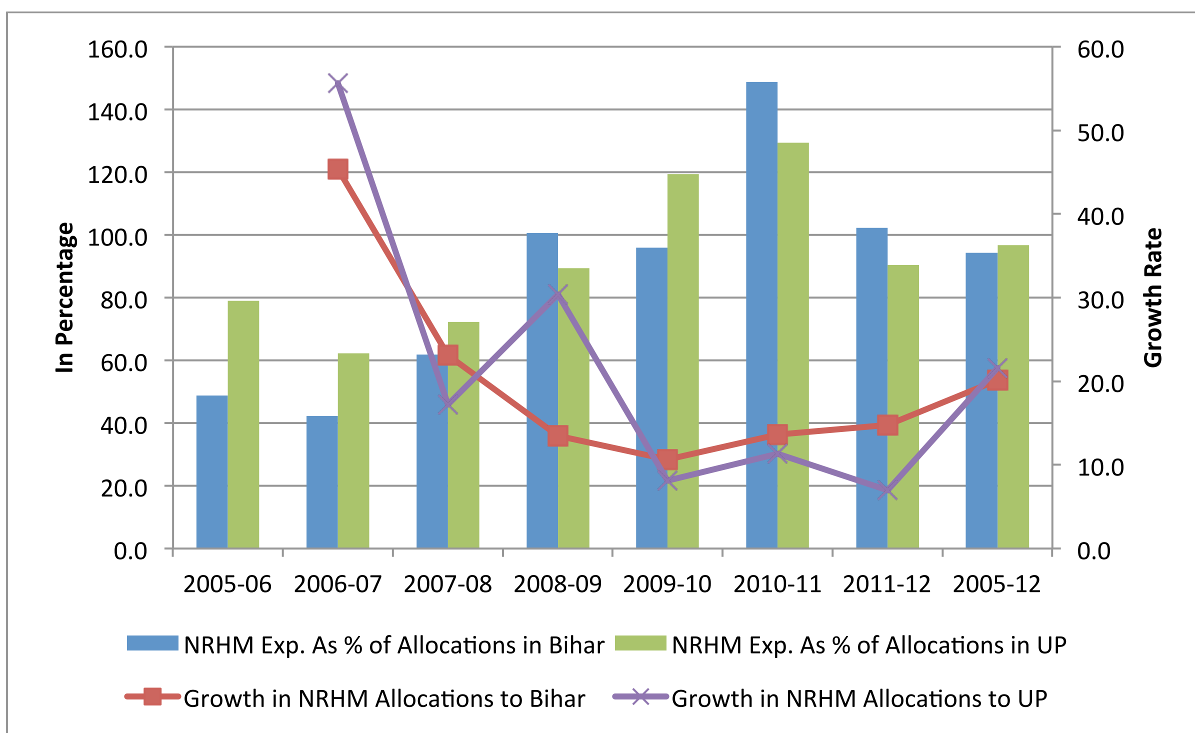
- Leakage of NRHM funds remains a concern in several states. While a comprehensive analysis on corruption within the program is not available, there have been some high profile scandals (for example, in Uttar Pradesh). This suggests that this is an important issue at least in some states.
- States are implementing a range of innovations to address delays in the flow of funds and slow execution of programs. For example, NRHM funds in Maharashtra are managed electronically through an integrated e-banking system developed specifically for the Mission by ICICI bank. The system allows SHS officers to monitor the flow of funds and expenditure rates at all levels down to the sub-center level. In Bihar, the ongoing HOPE project funded by International Finance Corporation (IFC) and BMGF as well as another project by UNICEF are introducing systems to transition all incentive payments to health workers and beneficiaries to electronic platforms. The project could contribute to documenting best practices in this area that could benefit states that are still struggling with such issues.

Figure 4: Growth in total NRHM allocations and its utilization



Source: Figures from NRHM (2013)

Figure 4: Growth in total NRHM allocations and its utilization in Bihar and Uttar Pradesh



Source: Figures from NRHM (2013)

Resource Productivity

- Mobilizing additional resources for the primary health alone cannot guarantee results. They need to be used to purchase the right inputs, assuming those inputs are available. Next, those inputs have to be used effectively to deliver services, a result that depends on a range of factors including proper planning and well-functioning internal and external accountability mechanisms. As discussed earlier, the bottom-up planning requires strengthening, especially at the lowest levels of the delivery chain. While NRHM recognizes the importance of accountability as a key part of good governance, and proposes an elaborate structure for operationalizing these principles, the community bodies and NGOs that are meant to provide external accountability to the program remain weak and poorly institutionalized.
- In terms of the availability of key inputs into the health system, the shortage of skilled health personnel remains a critical issue in many states including Bihar. This has resulted in many sanctioned positions remaining unfilled because of cumbersome hiring procedures, low supply of skilled personnel to fill them, and unattractive service conditions (Raha et al 2009). There are additional challenges around human resource management that NRHM, given its use of contractual workers, has introduced.
- While NRHM outputs are tracked through routine health information collection, the financial data and physical output data are not analyzed jointly. The general approach is to focus separately on spending targets and output targets. If one reaches both, it is assumed that the system is performing efficiently. However, in reality, the inputs purchased with the resources may not be well distributed or distributed in a coordinated way, which might be keeping the system from reaching its full potential. This is an area where the project could contribute a lot by demonstrating how routine

information that NRHM is already collecting can be analyzed to assess efficiency and aid in strategic planning.

- Several states including Bihar are starting systems to benchmark the performance of facilities. This is an area where the proposed project could assist by documenting methods and best practices from other countries as well as states within India.
- There is a significant difference between the treasury route and the society route in terms of how funds are accounted for. The perception is that internal accountability is stronger in the case of the treasury route than with NRHM funds. NRHM made a deliberate attempt to build in external accountability mechanisms through the involvement of community organizations. However, considerable variation exists across states on how this has been operationalized as well as in how impactful it has been in terms of introducing bottom-up accountability.

Resource Targeting

- Mahal et al. (2001) found that publicly financed and delivered curative health care services in India are more likely to service the richer segments of the population than the poor. This "pro-rich" benefit incidence result was more pronounced for hospital-based services than for non-hospital based services and did not provide breakdowns by types of service. This study is dated and there has been no systematic assessments of benefit incidence that have been done recently to capture the extent to which the poor have benefitted from the government health subsidies going to the health sector. Whether public spending is benefiting the poor is easiest to evaluate in the case of programs that specifically target "poor" families. It is relatively hard to answer this question for other program areas. This is again an area where the project could make a significant contribution by showing how this question can be answered in a systematic way on an ongoing basis.
- Household survey data, such as the Demographic Health Survey, District Level Household & Facility Survey (DLHS), and district health surveys do provide evidence on service use and coverage by wealth quintiles, based on household asset indices. There has been little effort to link service use equity with financing. Also, these surveys have not been employed much for improving district level service delivery, even though the DLHS provides estimates valid at the district level.
- Programs, which target the poor, typically use the "BPL" (below poverty line) registration system for eligibility. This system is known to be inaccurate, with significant errors of both inclusion and exclusion. This means that one should not naively conclude that even targeted programs are mainly benefitting the poor if more objective criteria were used.

4. Key Messages from Bihar

- An early evaluation of service delivery under NRHM by Gill (2009) found significant infrastructure and drug shortages in Bihar. The study documented the lack of physical capacity like emergency vehicles, toilets, waste disposal, drinking water, and electricity in many primary care centers and sub-centers (this was also the case in UP). During random spot checks, only 11% of CHCs and 0% of PHCs had full stock of essential drugs. Sixty-one percent of patients interviewed reported negative experiences in PHC facilities due to (in descending order) lack of medicines, staff absenteeism, and long wait (average of 138 minutes before seen by someone). This information is dated at this point,

and a re-evaluation of NRHM using similar methods and indicators could be used to benchmark improvements and pin-point areas that require further strengthening.

- A report on the financial management of public health resources in Bihar by Grant Thornton (2010) documented several bottlenecks in the flow of resources including the late submission of expenditure statements delaying the release of funds as well as low expenditure by one block resulting in funding for the whole district being delayed. Furthermore, requiring combined reports for capital and recurrent expenditures causes delays in the release of funds from the recurrent budget because capital projects are slow to take off due to the nature of procurement procedures.
- During the rapid assessment, the team identified several critical constraints related to how resources for the health sector are mobilized, managed and used:

  - *Health resource tracking*: There are two key sources of public funding for primary care services in Bihar, namely the state government's budgetary allocation that flows using the treasury route and NRHM funds flowing through the society route. Other departments finance additional programs that also have a link with primary care such as nutrition, child development and rural development. There is at present no system or process for analyzing the total resource envelope for primary care, comparing primary care spending with that for secondary and tertiary care, and disaggregating spending on primary care by program or cost categories. Such information is invaluable for high-level strategic planning, assessing the productivity of the system as well as gauging the extent to which public spending is benefiting the poor, and informing discussions about future investments for primary care and the transition of NRHM spending to the state government. This is an area where the proposed project could make the greatest contribution by working with government counterparts to undertake a comprehensive analysis of primary care expenditure, thereby building their capacity to undertake similar exercises on a routine basis in the future.

  - *Health sector planning*: Compared to other states, Bihar was relatively late to adopt bottom-up planning for NRHM; districts and PHCs started developing their plans in 2009/10 and 2012/13, respectively, despite the program having been in effect since 2006. There are many points of weakness in the current planning process at the district level and below, such as PHC and district level staff lacking the capacity and/or the motivation to develop plans that truly reflect the needs of the population they serve. Additionally, there is little communication of key decisions made by the state government and GoI regarding the plan to the district and PHCs that can guide their planning in subsequent rounds. Many partners are already actively providing support to districts and PHCs in this area. However, there is presently no systematic assessment of institutional strengths and weaknesses in the bottom-up planning process, especially at the district level and below. Such an assessment would document how planning is currently being done, the critical weaknesses in the process, and best practices from districts/blocks/facilities in Bihar as well as important lessons learned from other states. An independent assessment of this kind could yield recommendations that the Government of Bihar and development partners that are active in this area could use to improve the planning process in the future.

- *Financial Management*: The key message, from the key informant interviews, was that the state of the financial management process around NRHM funds has improved tremendously in the past few years. This includes smoother flow of funds down to implementers and beneficiaries, improved capacity for accounting of health spending at the lower levels, and the increased use of electronic systems for managing funds, making payments, and tracking resources. Despite these improvements, significant gaps remain in the system which manifests itself in poor reconciliation between state, district and facility accounts (this issue was observed in Vaishali district), delay in payments to frontline workers (ANMs, ASHAs, and support staff interviewed in Begusarai attested to the vast improvements that have occurred in the timeliness of their payments but reported that some delays in payments do still happen), and poor understanding of the flow of untied funds (ANMs reported receiving less than the mandated 10,000 rupees per sub-center per year, but could not explain whether this was due to poor budget execution in the previous year, bank charges or other factors). While this is an area where other partners like DFID, UNICEF, the World Bank, and IFC are already playing a role, there is additional need for technical assistance to strengthen financial management systems and capacity at the local levels (this is not something that the proposed HSPH project would be well-positioned to provide. Documenting the best financial management practices in Bihar as well as other Indian states could lead to greater learning and policy diffusion both within Bihar and across Indian states.

  Greater accountability: The NRHM framework calls for both internal and external accountability mechanisms. Internal accountability is ensured though the frequent reporting of financial and program achievements by program implementers to district-, state- and national-level authorities. External accountability is meant to flow from the workings of various committees at health facilities and in local government institutions, where representation by non-state actors is mandated (e.g. RKS, VHSNC). There is room for improvement in both areas. In the area of internal accountability, the main focus is on ensuring budget execution – and even that needs further strengthening. NRHM systems do not seem geared to assessing whether the funds are being spent effectively. In terms of external accountability, some of the aforementioned committees are both new and weak. In comparison to other states, where non-state actors receive a budget through NRHM to perform a watchdog role (e.g. Maharashtra), there is no such institutionalized accountability mechanisms in Bihar. Just as there is a need for a systematic assessment of how the bottom-up planning process is manifesting itself in different districts, there is equally a need for investigating the performance of accountability mechanisms at the district level and below.

- Ensuring human and physical resources for health: It is widely recognized that NRHM has increased the amount of funds flowing to states for primary care. However, several respondents noted that these resources could not be easily translated into better primary care outputs and outcomes in the face of a severe human resource shortage. While physical infrastructure also needs strengthening (Table 2, below, shows that the number of CHCs, PHCs and SCs in Bihar are far short of what is required as per national population norms), building new facilities cannot improve accessibility in the absence of health workers to staff them. Respondents in Bihar repeatedly emphasized the need for more health workers and the better management of the

existing work force. Issues related to the use of contractual staff by NRHM, the allocation and re-assignment of health workers to different posts, the use of doctors for management roles, etc. came up repeatedly in the field visits. There is a need for a situational analysis of human resources for health that documents the current landscape and proposes short- and long-term solutions for addressing existing gaps.

Table 2: Gap between available and needed physical infrastructure and human resources in the health sector in Bihar

Particulars	Required	In position	Shortfall
Sub-center	18533	9696	8837
Primary Health Center	3083	1863	1220
Community Health Center	770	70	700
Health worker (Female)/ANM at Sub Centers & PHCs	11559	16943	*
Health Worker (Male) at Sub Centers	9696	1074	8622
Health Assistant (Female)/LHV at PHCs	1863	358	1505
Health Assistant (Male) at PHCs	1863	556	1307
Doctor at PHCs	1863	3532	*
Total specialists at CHCs	280	151	129
Pharmacist at PHCs & CHCs	1933	439	1494
Laboratory Technicians at PHCs & CHCs	1933	498	1435
Nursing Staff at PHCs & CHCs	2353	1736	617

Source: MOHFW (2012)

5. Review of Potential Solutions for Priority Challenges

The table below applies the four filters (what are the critical challenges; what efforts are ongoing to address these challenges; are there other viable solutions worth exploring; and is there political support for those solutions) to each of the five focus areas for the assessment. While the previous section discussed a range of issues, the critical challenges in each of the five focus areas at the national, state, district and facility levels are summarized in columns 2-5. Ongoing efforts by government and partners to implement any of the identified solutions are listed in the penultimate column. The last column shows additional solutions or support needed to overcome the identified critical challenges. The level of support for these ideas from the government is indicated using the following colors: green represents a high level of government support, orange corresponds with medium government interest, and red shows little to no enthusiasm from government. Those not without highlighted cells and with a (?) symbol are potential solutions where government support is unknown at the time of this assessment.

Assessment Focus Area	Critical Challenges				Ongoing Efforts by Others State	Additional Solutions/Support Needed District
	National	State	District	Facility & Outreach Workers		
Resource Mobilization	• Poor macro-economic environment is limiting additional spending on health at the national and state levels.				• Monitoring of NRHM allocation trends at the aggregate level	• Greater analytical work on strategies for strengthening resource mobilization at national and state level, including center-state transfers and the resource allocation formulae as well as states' own resource mobilization (?)
Allocation	• No systematic analysis of the total envelope of primary care spending from treasury and NRHM, as well how primary care spending is faring relative to total health spending					• Initiate resource tracking activities to measure and analyze primary care spending at the national-level (?) and in Bihar
		• Norm-based budgeting does not reflect health need.			• Discussions around differential financing ongoing	• Document best practices from different states and global norms in budgeting and differential resource allocation (?)

Assessment Focus Area	Critical Challenges				Ongoing Efforts by Others	Additional Solutions/Support Needed
	National	State	District	Facility & Outreach Workers	State	District
			• Poor bottom-up planning		• Existing partners in Bihar are providing technical assistance	• Undertake a systematic institutional assessment of bottom-up planning in Bihar to guide future technical assistance efforts • Provide more technical assistance to strengthen planning capacity at the district-level and below
Utilization			• Low utilization rates resulting from - Norm-based allocations - Low financial management capacity - Internal and external accountability mechanisms being weak Weak financial management systems		• Capacity building • ICT solutions	• Propose results-based financing options at the state-level and below • Undertake a systematic institutional assessment of financial management systems and accountability mechanisms in Bihar • Test solutions to strengthen internal accountability in Bihar • Strengthen external accountability through community monitoring in Bihar
Productivity	• No analysis done combining programmatic and financial data to explore whether funds are being spent efficiently					• Demonstration project to show how routinely collected information can be used to explore efficiency questions both at the national level (?) and in Bihar

Assessment Focus Area	Critical Challenges				Ongoing Efforts by Others	Additional Solutions/Support Needed
	National	State	District	Facility & Outreach Workers	State	District
	• Poor human resource management in Bihar				• Partners providing TA in this area	• Undertake situational analysis of human resources for health to suggest actionable short- and long-term solutions
Targeting		• Little use of methods such as benefit incidence analysis				• Demonstration project to show how program implementers at the state and district levels could assess whether funds are reaching their intended beneficiaries in Bihar
		• Poor external accountability				• Strengthen external accountability mechanisms in Bihar (+)

6. Suggested Activities for Future Work

Strengthening financial resource tracking and management (RTM) through greater analytical work and knowledge generation is one of the potential areas of work. In proposing this, which draws from the findings from the assessment, we distinguish between:

- Core financial resource tracking activities, which includes measurement and analysis of resource flows, enhancement of systems and tools for collecting resource tracking information, and capacity-building that specifically targets government institutions and their ability to undertake resource tracking; and
- Other activities related to financial resource tracking, which could include institutional and/or process analysis of the budget and expenditure cycle, building financial management systems, broader capacity building for planning, budgeting, accounting, etc., as well as analyzing non-financial resources, such as health workers.[2]

Specific Core Focus Areas for Future Work

Based on the assessment findings, a program of work that will include core financial resource tracking and management activities in three focus areas is described below.

1. **Strengthening resource management for primary care in Bihar (and UP[3]):** Based on the assessment findings from Bihar as well as discussions with key health officials in the state, work closely with the Government of Bihar and local partners to undertake a range of financial resource tracking activities in Bihar, and in the process build their capacity to implement such analytical work in the future. This includes a comprehensive budget and expenditure analysis of primary care resources from different sources at the state level; public expenditure tracking to track the flow of resources from the state (treasury and health society) down to districts, blocks, and health facilities; analysis of resource productivity by analyzing routinely collected financial and performance data; and benefit incidence analysis to analyze whether NRHM spending is benefiting the poor.

2. **Strengthening financial resource tracking at the national-level and state-level:** Under this area of work, collaborate with MOHFW and nodal public agencies for the health sector such as the National Health Systems Research Center to undertake systematic budget and expenditure analysis and build information systems and capacity for collecting resource-tracking information. Such analyses will shed light on important policy issues such as trends in public investment in primary care vis-à-vis spending on secondary and tertiary services, the effect of national spending on primary care on state spending levels, sustainable public financing for primary care delivery, and successful strategies that states have used to increase the fiscal space for health. Support for analytical work to strengthen resource mobilization at national and state level could

[2] For purposes of developing a feasible proposed program of work, a distinction was made between "core" and "related" RTM activities.

[3] While we believe that many of the activities proposed for Bihar will likely be of use in UP, we recognize that this rapid assessment did not collect first-hand information about the key constraints in UP. Further work in UP is needed to develop specific work plans for that state.

also be developed, including center-state transfers and the resource allocation formulae as well as states' own resource mobilization. The team will also propose and test ideas for better measurement of private health spending.

3. **Enabling state-to-state diffusion of best practices in financial resource tracking**: Different Indian states are currently implementing innovations to streamline the flow of resources, to track the utilization of resources, analyze resource productivity, and leverage civil society groups to strengthen accountability. In order to facilitate greater diffusion of best practices and innovations between states in these areas, work with local partners is proposed to undertake case studies showcasing resource tracking and management innovations by different states, and organize regular forums where the case studies will be presented. The goal of this activity is to provide states opportunities to learn and adapt from the innovations of others, all with an eye to increase financial efficiency and equity. Special effort would be made to disseminate these findings in Bihar and UP, the two BMGF focus states.

Table 3 below maps each of the aforementioned areas of work to the 5 topics of mobilization, allocation, utilization, productive and targeting that were the focus of this rapid assessment.

Table 3: Mapping proposed activities to the 5 rapid assessment topics

	Strengthening resource management for primary care in Bihar (and UP)	Strengthening financial resource tracking at the national- and state-levels	Enabling state-to-state diffusion of best practices in financial resource tracking
Resource Mobilization	X	X	X
Resource Allocation	X	X	X
Resource Utilization	X	X	X
Resource Productivity	X		X
Resource Targeting	X		X

Potential Resource Tracking Related Activities for Future Work

Beyond the three focus areas listed above, all of which are core financial resource tracking activities, the proposed work could also explore activities that are not strictly speaking financial resource tracking and management but are related to it.

1. **Institutional Assessment of District-Level Planning, Financial Management, and Accountability:** There have been considerable improvements in the flow of funds from the center to the state, and from the state to the district. However, systems at the district levels both for bottom-up planning and to manage the onward flows from the district to various implementing units remains weak. Several partners are providing technical assistance in this area. Design and implementation of an institutional assessment at the district and sub-district levels would shed light on how well the continuum of functions from planning, budgeting, budget execution; to performance review and accounting are working. Such a systematic

assessment of district-level resource management and internal accountability systems would reveal both existing bottlenecks and best practices, which can guide technical assistance and capacity building efforts of field-based partners in the future.

2. **Situational Analysis on Human Resources for Health:** Recognizing that the shortage and poor management of health workers emerged as the single biggest constraint to boosting the productivity of the public primary care delivery system, the proposed project could design and implement a situation analysis on human resources for health in Bihar unless such analysis is being undertaken by other partners providing technical support in Bihar.

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Annex A: List of Institutions/People Interviewed for Assessment

Level	State	Institutions/People Interviewed
National-level		- NRHM team at MOHFW - Economic Advisor, MOHFW (via telecon) - Joint Secretary, Ministry of Rural Development (via telecon) - The World Bank (Financial Management Specialist) - National Health Systems Resource Center - Center for Budget and Governance Accountability - Center for Health and Social Justice - Population Foundation of India - National Institute of Public Finance and Policy - Accountability Initiative at the Center for Policy Research - International Finance Corporation (HOPE project in Bihar)
State-level	Bihar	- Bihar NRHM Executive Director - Principal Secretary, Department of Planning & Development - State-level NRHM officers - Partners: CARE, Save the Children, UNICEF, and NIPI - District-level NRHM staff, managers, health workers, ANMs and ASHAs in Vaishali and Begusarai
	Maharashtra	- Maharashtra NRHM Director - State-level NRHM officers - NRHM district program management team and civil surgeon in Raigad district
	Haryana	- Director (Finance & Accounts) - Accounts Officer - Consultant (Finance) - Medical Officer in-charge of Planning - Medical Officer in-charge of Referral Transport - State NGO coordinator
	Punjab	- Assistant Director (MCH and Immunization) - Manager (Finance & Accounts) - State Epidemiologist, Vector Borne Disease Control Program
	Tamil Nadu	- Chief Financial Officer (via telecon)