

Annexure 1

National Health Accounts for India

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UR ESTIMATES OF HEALTH SPENDING IN INDIA ARE BASED ON THE EXHAUSTIVE study commissioned by the National Commission on Macroeconomics and Health (NCMH). These estimates are constructed using a National Health Accounts (NHA) approach which is explained below.

The NHA methodology views financial flows as occurring across primarily three sets of agents and/or categories—ultimate sources of funds, financial intermediaries, and the uses to which funds can be put. These uses can be classified in a number of ways—by type of provider (e.g. government, private, non-profit); or by functional classification (e.g. inpatient care, outpatient care, collective goods, direction and administration, training and research).

As our goal is to estimate aggregate spending and its major components, and the way such expenditures are financed, while avoiding any double counting, we limit ourselves to describing financial flows of only three types: (i) from sources of funds to financial intermediaries; (ii) from financial intermediaries to providers of care; and (iii) from financial intermediaries to a functional classification for the purpose of care. Given that there are several sources of funds, multiple financial intermediaries and different providers/functions in a country, these flows are best presented in the form of three matrices (here we provide only the first two matrices in **Tables 1 and 2**), each corresponding to a different part of financial flows related to health. The three sets of matrices relate to the following financial flows:

- From ultimate sources of funds to financial intermediaries
- From financial intermediaries to functional categories
- From financial intermediaries to care providers

The Meaning of Health Expenditure

A key step in trying to estimate financial flows linked to health is to specify the meaning of expenditure on health. For the purposes of this note, health expenditure is defined to include spending on care and treatment associated with illnesses, on administrative expenses associated with such treatment, spending on public health programmes (such as tuberculosis, malaria, blindness and HIV/AIDS), on medical research and training, rehabilitation, immunization programmes and selected components of programmes associated with maternal and child health. Both recurrent and capital expenditures are included.

We have followed the convention of the literature on national health accounts and have not included in our analysis expenditures for nutrition, education, clean water and sanitation programmes, referred to as 'health-related services' in George and Pattnaik (2004). It can be argued that the omitted categories of expenditure have implications for health, and some studies of health spending have, in fact, included such expenditure flows. This note presents information on health expenditure for 2001-02, the latest fiscal year for which data were available under many NHA categories.

The entities that spend money on health in India

Given the above working definition of health expenditure, who are the players (or agents) that spend money on health? From the perspective of the ultimate sources of funds, this group includes primarily the government, households (their out-of-

AJAY MAHAL
HARVARD SCHOOL
OF PUBLIC HEALTH
DEPARTMENT OF POPULATION
AND INTERNATIONAL HEALTH
BOSTON MA 02115, USA
E-MAIL:
amahal@hsph.harvard.edu

S. SAKTHIVEL
INSTITUTE OF ECONOMIC
GROWTH,
UNIVERSITY OF DELHI ENCLAVE,
NORTH CAMPUS, DELHI 110007
E-MAIL:
sakthivel327@hotmail.com

SOMIL NAGPAL
somilnagpal@yahoo.com

pocket spending and contributions to insurance premiums, whether in the public or private sectors), non-governmental cum non-profit entities (NGOs), firms (whether in the public or private sectors), and international institutions. This set of ultimate sources of funds may also include banks that finance health sector investments, although the George and Pattanaik (2004) study does not consider this possibility. This study considered the following categories as the ultimate sources of funds:

- The Government (State, Central, local)
- Households
- Firms (public and private enterprises)
- Quasi-government organizations other than public sector enterprises
- Non-governmental organizations
- International agencies/rest of the world
- Others (such as surpluses of certain organizations that fall outside the above categories)

Besides being ultimate sources of funds, many of the above agencies also serve as 'financial intermediaries' as funds move from ultimate sources to ultimate uses. In particular, the following are the major financial intermediaries in the Indian setting:

- Department of Health, Medical and Family Welfare (DOHMFV)
- Other State government departments that spend money on health
- Central government ministries that spend money at the State level
- Local governments
- Societies/autonomous bodies
- Public and private enterprises (especially in their role as payers of health services for their employees)
- Social insurance [Employees' State Insurance Scheme (ESIS), Central Government Health Scheme (CGHS)]
- Voluntary insurance (individual and group)
- Households (when they directly pay for services received by them)-sometimes they may be reimbursed for such expenditures.

Financial intermediaries allocate funds to the ultimate providers of health and health-related services. Of the several categories, two types of 'ultimate uses' were considered for this report: provider-based classification and functional classification. These are discussed further below.

What are the uses and/or functions on which health expenditure is incurred?

The two major classifications are provider-based and function-based.

Provider-based classification

- Public providers
- Non-profit providers
- Private providers
- Other providers
- Rest of the world

Public providers of health services

Public providers include (i) hospitals of the State government (separately, if needed for Indian systems of medicine and non-Indian systems of medicine); (ii) dispensaries of the State government; (iii) sub-centres; (iv) rural and urban family welfare centres of the State government; (v) facilities of various Central ministries (such as Defence, Railways and Posts and Telegraphs); (vi) facilities of public enterprises; (vii) facilities and services of local governments; (viii) facilities of CGHS; (ix) facilities of ESIS; (x) facilities of autonomous institutions and societies (xi) facilities of 'other' State government providers not captured above; (xii) collective health services (of DOHMFV and other government entities); (xiii) administrators (DOHMFV); (xiv) administrators (ESIS, CGHS and other social insurance); (xv) providers of training, education and research in the public sector, such as State Institute of Health and Family Welfare (SIHFW), medical colleges, OSM colleges, nursing colleges, auxiliary nurse midwife (ANM) training colleges, etc.; (xvi) providers of training, education and research in the private sector.

It should be noted that 'Collective health services' include expenditures on prevention of disease; family welfare and prevention of food adulteration. The categories include collection of statistics and statistical analyses, information/advocacy efforts in health, testing of water and food quality, family planning, antenatal care, etc.

Private Providers of Health Services

These include (i) private hospitals; (ii) private doctors; (iii) facilities of private firms/enterprises (iv) traditional health providers; (v) traditional birth attendants; (vi) ancillary care providers; (vii) administrators for private insurance; and (viii) medical education/research and training in the private sector.

It should be noted that 'ancillary services' include expenditure on drug purchases, clinical laboratories, diagnostic imaging, and ambulance services. This classification is difficult to undertake in the public or the private sector, although some estimates can be made based on the NSS data.

Non-profit institutions

- (i) NGOs (charitable hospitals and dispensaries) and others that provide clinical services; (ii) NGOs that provide disease control and health promotion services; and (iii) medical education/training/research provided by non-profit institutions;

'Other' providers

- (i) Rest of the world-this may include international NGOs and health services obtained abroad; (ii) self-care. Typically, data on (i) is difficult to find.

Function based classification

- Personal health services
- Collective health services
- Direction and Administration
- Health-related services

Personal health services

These include (i) outpatient care; (ii) inpatient care; (iii) self-care; and (iv) treatment by unqualified practitioners. One can, if needed and data were available, consider a further sub-classification into public and private providers.

Collective health services

These consist of (i) disease prevention (expenditures on government programmes for control of communicable diseases and non-communicable diseases, surveillance of diseases, surveys and statistics, vaccinations other than primary vaccinations for children); (ii) health promotion-(a) family planning and welfare: expenditures on family welfare programmes undertaken by the government and all expenditure pertaining to childbirth, abortion (except spontaneous abortion, medical attention for which is considered a curative service), antenatal care, postnatal care, family planning and primary immunization to children; (b) Control of food adulteration and drugs-Includes expenditure on prevention of food adulteration and drug control administration

Direction and administration

In general, this information is not readily available for private providers. Thus, the standard approach has been to take account of all Direction and Administration expenditures in DOHMF, in CGHS and ESIS, in private insurance and, if possible, in other government health services expenditures.

Health-related services

Here again, we have medical education, training and research and ICDS spending by public, private, or non-profit providers.

Methodology and Sources of Data for Estimating Health Expenditure in India

Matrix 1 summarizes information on the major ultimate sources of finances for health expenditure for which data were collected for India, the major recipients of such funds and the sources from which data were obtained on the magnitude of the various financial flows.

Matrix 1 shows that the Central Government contributes to State health expenditure in several ways by supporting (i) State health departments, other State departments and societies by means of 'centrally sponsored' schemes. Many (but by no means all) of the Centrally sponsored schemes in question are funded, at least partially, by international agencies;

(ii) health expenditure of its current and retired employees (and their dependants) based in different States: via the Central Government Health Scheme (CGHS), dispensaries of the Department of Posts and Telegraphs and Department of Telecommunications, and the Central Services (Medical Assistance) scheme; (iii) expenditure by Ministries such Railways and Defence on their current and retired employees (and their dependants); and (iv) grants to non-governmental organizations.

Similarly, State governments contribute to health spending by supporting (i) the State department of health and family welfare, known as the Department of Health, Medical and Family Welfare (DOHMF) and the various directorates that come under its responsibility; (ii) contributions to the social insurance scheme known as the Employees' State Insurance Scheme (ESIS) established for employees earning less than a pre-specified amount in firms, public, or private organized sector. (iii) supporting health expenditures by their current and retired employees (and their dependants); (iv) supporting 'hospital societies' in the form of 'stoppage' charges; (v) contributions in the form of expenditures incurred by 'other' State departments, such as Tribal Welfare, Governor and the Council of Ministers and the Department of Women and Child Welfare and Disabled Welfare; and (g) grants given to local governments for specific purposes.

Matrix 1 also highlights the role of local governments in financing health expenditures. Local governments belong to two categories, depending on whether they relate to urban settings (Municipal Council, or Corporation), or rural areas (Panchayati Raj institutions [PRIs]). In principle, both sets of governments can raise funds on their own, in addition to benefiting from transfers from the State Government. Expenditures financed by own resources highlight the role of local governments as an ultimate source of funds. Most of the health-related activities of municipalities and municipal corporations are confined to that of public health (registration of births and deaths, antimalaria programmes, etc.), sometimes in conjunction with the operation of a small set of primary care centres. In this study, only urban municipalities/councils were considered as resources flowing into PRIs on health sector are insignificant.

Households are a major ultimate source of health spending. These include contributions to insurance schemes (CGHS, ESIS, Armed Forces Group Insurance, Medisave) and user fees paid for health care at both public and private health care facilities. As some health care expenses of households are reimbursed by insurers, the government and private employers, the net out-of-pocket expenses incurred by households are less than that suggested by household surveys. Our study took this problem into account and the health expenditure estimates reflect adjustments for reimbursements.

How did we arrive at households spending on health? Using data from the 52nd Round of NSS, we estimated the mean expenditure for 1995-96, while the number of treated inpatient and outpatient cases were anchored to the 2001-02 population. The mean expenditure obtained for 1995-96 was then projected forward to 2001-02 by adjusting it for both

Matrix 1

National Health Accounts for India (2001–02)

From Financial Sources to Financial Intermediaries

(Rs in crore)

Financial Intermediaries	Government			Public Enterprises	Foreign Agencies	NGOs	Private Sector			TOTAL	% Share	
	Centre	State	Local				Private Firms	Households	PubSecBanks			Other
Central Government												
Medical and Public Health	1898.7										1898.7	1.75
Family Welfare	1299.1										1299.1	1.19
Indian systems of medicine	113.4										113.4	0.10
State Government	1603.2	15048.6			1770.9						18422.7	16.94
Local Government			2339.0								2339.0	2.15
Other Central Ministries	2629.8										2629.8	2.42
Firms												0.00
Public				1149.8						6.0	1155.8	1.06
Private							807.4			1929*	807.4	0.74
Social Insurance												0.00
CGHS	315.4										315.4	0.33
ESIS		603.3									603.3	0.57
Private Insurance												0.00
Community Insurance												0.00
Other Voluntary Insurance				99.9						0.2	756.9	0.70
NGOs					439.0					366.0	1768.0	1.63
Households											74977.0	68.96
TOTAL	7859.6	15651.9	2339.0	2043.2	2209.9	366.0	3257.8	74760.1	245.0	0.0	108732.5	100
Percent Share (%)	7.2	14.4	2.2	1.9	2.0	0.3	3.0	68.8	0.2	0.0	100	

DoHMFV: Department of Health, Medical & Family Welfare, CGHS; Central Government Health Scheme; ESS: Employees State Insurance Scheme
Note: i) Household expenditure figures based on Health Round figures of 1995-96, extrapolated to 2001-02 in the ratio of the growth in Consumer Expenditure, which incorporates price change, growth in demand for health services, etc.
ii) PSU reimbursements and PSU Medical Allowance have been treated as transfers to households
iii) Figures for flows from Foreign Agencies to State Govts are from CAAA data, and this also accounts for negative figures, and funding of NHPs through Central Government Budget has also been added.
iv) Central Department figures exclude CGHS, transfers to states, external funding
v) Foreign Agencies to States includes the sum of external funding of NHPs given to Central Government
vi) Breakup of ESS Contribution assumed in the ratio of 4.75:1.75, which slightly overestimates households because people earning low wages are exempted from their share
vii) *Disbursements by Banks in 2001-02 has been shown in the table but not included in the calculations for the flows. The figure also includes interest accrued on the amount outstanding (6127 crores) on 31-3-01 for the year 2001-02 at an assumed rate of 10%
viii) Figures for Local Government spending based on AP-NHA, actual data from Maharashtra, Statistical Abstract of India 2003, NIPFP study on Municipal Sector for XII FC. Does not include PRI. Average of actual data from major states applied to states for which sample data from corporations/municipalities was not available.
ix) PSU figures only include projections based on data pertaining to 255 Central PSUs, and do not include state PSUs
x) Defence expenses on employees are from IHS APNHA and pertain to 2002-03
xi) Figures for Private firm reimbursements projected from AP-NHA
xii) Foreign Agencies to NGOs based on 2000-01 Annual report of FCRA, MHA, indicating total funds received for health and RW activities (quoted in AP-NHA)

Table 1**Health care spending in India, by source of funds, 2001-02**

Ultimate source	Total resources (Rupees in crore)	Share in total expenses (%)	As proportion to GDP (%)
Government	25850.5	23.8	1.14
Central	7859.6	7.2	0.35
State	15651.9	14.4	0.69
Local	2339.0	2.2	0.10
Households	74760	68.8	3.30
External Funding	2209.9	2.0	0.10
Firms	5301.0	5.1	0.23
Public enterprises	2043.2	1.9	0.09
Public sector banks	245.0	0.2	0.01
Private enterprises	3257.8	3.0	0.14
Others/NGOs	366.0	0.3	0.02
Total	108732.5	100.00	4.79

Source: Based on Matrix 1: Financial sources to financial intermediaries

Table 2**Health care spending in India, by financial intermediary, 2001-02**

Ultimate source	Total expenditures (Rupees in crore)	Share in total expenses (%)
Government	26702.7	24.55
Central	3311.2	3.04
Other Central Ministries	2629.8	2.42
State: DOHMFV	18422.7	16.94
Local	2339.0	2.15
Firms	1963.2	1.80
Public enterprises	1155.8	1.06
Private enterprises	807.4	0.74
Social insurance	2564.6	2.36
Private insurance	756.9	0.70
NGOs	1768.0	1.63
Households	74977.0	68.96
Reimbursements	2218.3	2.04
Total	108732.5	100.00

Source: NHA Matrix 2, from financial source to financial intermediaries

price changes and growth in real terms, based on information from the 50th (1993-94) and 55th (1999-2000) rounds of consumer expenditure surveys. Calculations were also undertaken separately for inpatient spending and outpatient spending, for reproductive and child health, and expenditures incurred on self-care for the rural and urban populations in each state and union territory of India. Finally, households estimates for the year 2001-02 was obtained for different categories: rural-urban, outpatient-inpatient, reproductive and child health, self-care and by all States and union territories.

A third set of major contributors for health expenses are firms, in the public and private sectors who support their

current employees and their dependants and, in some cases, retired employees (and their dependants). These contributions mainly take the form of (i) direct provision of health services by some firms; (ii) contributions by firms to insurance schemes such as ESIS and Group Medclaim; (iii) Reimbursements of health expenditures; and (iv) lump sum allowances as part of salary. Whether the last category ought to be included in health expenditure estimates is debatable as, it need not correspond to any health spending.

International agencies also support State-level health spending in a number of ways: (i) By providing grants/loans to the Ministry of Health and Family Welfare and other Ministries in the Government of India that, in turn, support 'centrally sponsored' schemes at the State level; (ii) support to State Governments (health and other departments), and funding State-level societies; (iii) direct support to NGOs in the State for care, training and research. The funding agencies include bilateral and multilateral institutions, international NGOs, and individuals. Data on direct NGO support by individuals are particularly difficult to obtain.

Findings

• What is the total spending on health and as a share of GDP in India?

India spent approximately Rs 108,732 crore on health and health-related expenditures during the fiscal year 2001-02. This amounted to about 4.8 percent of the estimated Gross Domestic Product (GDP) at market prices in 2001-02. National health expenditures, when taken as a proportion of GDP at factor cost, were 5.2 percent.

As a proportion of GDP, our estimates of national health expenditures are on the lower end of previous estimates for India. [5.2 percent (Peters et al. 2001), 6.0 percent (Peter Berman, as cited in World Bank 1995)].

• Who are the major financiers of health care spending in India?

Table 1 shows that households ultimately financed about 69% of all health spending in India, with the different branches of the government (Central, State and local) contributing about 24%. If one were to add the contribution of public sector enterprises and quasi-government institutions, the government's share increases to a little more than 26% of all health spending.

International funds support about 2 percent of national health spending, with private-for-profit enterprises contributing another 3%." Although not large as a proportion

of total health spending, international support could potentially be quite substantial for state governments' health spending, amounting to roughly 10% of the latter.

- **How important is 'Insurance' as a source of financing?**

Note first that insurance is a form of financial intermediation, whose ultimate contributors could be households, the government, firms, and other groups. Insurance could both be social (such as ESIS and CGHS) as well as voluntary (in the form of group and/or individual Mediciam policies, AGIF and other packages offered by insurance companies in India). Viewed in this narrow sense, about 3.1% of health expenditures in India were insurance-supported spending (Table 2). Of course, government health facilities that offer subsidized services can also be considered a form of health insurance, albeit financed by the state.

Irrespective of the method used for arriving at health expenditures covered by insurance, it is clear that a substantial

amount of health expenditures (presumably curative care) in India is not covered by insurance schemes, and thus have the potential of leaving people who incur such expenditures worse off. Moreover, it may be the relatively economically worse-off households who bear the brunt of these expenditures for at least two reasons. First, most private and social insurance schemes do not cover them. Second, they may not be as able to access subsidized public health facilities as the better-off groups corner them the most, as a study using NSS data suggests (Mahal et. al.). In addition to the financial risk borne by people on account of the relative lack of access to health insurance, excessive reliance on out-of-pocket spending is economically inefficient because individuals are much less effective in bargaining for better prices and services than groups. Indeed, mechanisms such as reimbursement for health expenses incurred by individual households are also likely to be inefficient for the same reason.

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