
SHA-Based Health Accounts in Asia/Pacific Region
: India

Sarit Kumar Rout

12

**OECD/Korea Policy Centre
Health and Social Policy Programme : TECHNICAL PAPERS NO. 12**

SHA-Based Health Accounts in the Asia/Pacific Region: India

Sarit Kumar Rout

JEL Classification : I10, H51

OECD/KOREA Policy Centre – Health and Social Policy Programme SHA TECHNICAL PAPERS

This series is designed to make available to a wider readership Health and Social Policy studies with a focus on the Asia/Pacific region. The papers are generally available only in English, and principal authors are named.

The opinions expressed and arguments employed here are the responsibility of the author(s) and do not reflect those of the OECD, the Korean authorities, or the OECD/Korea Policy Centre – Health and Social Policy Programme.

**Applications for permission to reproduce or translate
all or part of this material should be made to:**

**Director of the OECD/Korea Policy Centre - Health and Social Policy Programme
87 Hoegiro Dongdaemun Gu, Seoul, 130-868
Korea**

Copyright OECD/Korea Policy Centre - Health and Social Policy Programme 2010

TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF FIGURES	4
LIST OF ANNEXURE TABLES	4
ABBREVIATIONS	5
SECTION I- INTRODUCTION	6
Health Financing System in India.....	7
Indian National Health Accounts	11
SECTION II - METHODOLOGICAL ISSUES	12
SCOPE OF HEALTH EXPENDITURE	12
CLASSIFICATION OF HEALTH EXPENDITURE	12
SECTION III - HEALTH EXPENDITURE IN NATIONAL HEALTH ACCOUNTS FRAMEWORK	15
HEALTH EXPENDITURE IN INDIA: AN OVERVIEW	15
Health Expenditure in NHA Framework for 2004-05	17
SECTION IV- CONCLUSION	27

LIST OF TABLES

- Table 1.1: Health and economy wide Indicators of India
Table 1.2: Hospitals, Beds, Doctors and Nurse in India, 2009
Table 3.1: Total Health Expenditure in India 2004-05 to 2008-09(in Rs Million)
Table 3.2: Growth rate of Health expenditure during 2004-05 to 2008-09
Table 3.3: Health Expenditure by Sources of Funds 2004-05 (in Rs Million)
Table 3.4: Health Expenditure by Financing Agents 2004-05 (in Rs Million)
Table 3.5: Health Expenditure by Provider- 2004-05 (in Rs Million)
Table 3.6: Health Expenditure by ICHA Function -2004-05 (in Rs Million)
Table 3.7: Current Government Health Expenditure by Provider - 2004-05 (in Rs Million)
Table 3.8: Government Health Expenditure by ICHA Function - 2004-05(in Rs Million)

LIST OF FIGURES

- Figure 3.1: Total Health Expenditure in India and its Share of GDP

LIST OF ANNEXURE TABLES

- Table 1.1 A : Health Expenditure by Financing Source and Agent (FSXFA) 2004-05
(in Rs Million)
Table 1.2A: Health expenditure by Financing Agent and Provider (FAXP) 2004-05
(in Rs.Million)
Table 1.3 A: Health expenditure by Financing Agent and Function (FAXF) 2004-05
(in Rs Million)

ABBREVIATIONS

ANM -Auxiliary Nurse mid Wife
CGHS-Central Government Health Scheme
CHC-Community Health Center
ESIC- Employees State Insurance Corporatation
GDP-Gross Domestic Product
GIC-General Insurance Companies
GoI- Government of India
HDI-Human Development Index
ICHA-International Classification of Health Accounts
IMR-Infant Mortality Rate
MoHFW-Ministry of Health and Family Welfare
NGO-Non Government Organization
NRHM-National Rural Health Mission
NSSO-National Sample Survey Organization
OOP-Out of Pocket Expenditure
PHC-Primary Health Center
RGI-Registrar General of India
THE-Total Health Expenditure

SECTION 1

INTRODUCTION

After independence India adopted a welfare approach aimed at promoting the economic and social wellbeing of its citizens. The Indian state assumed responsibility for providing health, basic education, designing social security programmes and creating a favorable atmosphere for a just society. In this context the state's role was to develop the health care system, including determining the priorities in financing and service delivery to its citizens. Over the years the country has designed national health policies and introduced several measures to strengthen the public health care system. These efforts have led to changes in the health conditions of the population. Small pox, malaria and cholera which were rampant and caused severe morbidity have been controlled to a large extent. The maternal and child mortality rates have been reduced. For example infant mortality rate has come down to 53 in 2008 from 80 in 1990 and the maternal mortality rate has fallen from 570 in 1990 to 230 in 2008¹. The life expectancy which was less than 32 years in 1946 has almost doubled to 63.5² years in 2002-2006.

However, the improvement in health performance has been uneven across different states and between different income and caste groups. Significant proportions of the population suffer and die from malnutrition, preventable infections, pregnancy and child related complications and HIV AIDS. Diabetes, heart disease and various lifestyle diseases affect large numbers of people. These are some of the new health threats to the health care system. The public health system faces a number of constraints including inadequate equipment, infrastructure, and shortfalls in manpower. Low public spending is affecting the quality of service delivery. Poor supervision and monitoring are major constraints on the quality of the health system.

In order to address these problems the Government of India launched its National Rural Health Mission in 2005. This is the largest public health intervention in the country's history and aims at strengthening the public health care system with a combination of strategies including introducing changes to the system and processes, increasing the level of public health spending and strengthening the rural health care system with increased staffing levels.

¹ Office of the Registrar General India .2009. Sample Registration System Statistical Report 2008.New Delhi: RGI. WHO (2010), *Trends in Maternal Mortality: 1990 to 2008*, World Health Organization, Geneva

²Office of the Registrar General India .2008.SRS based Abridged life tables 2002-2006. New Delhi : RGI

The public health care system operates through a decentralized health care system. The sub centers operate at the village level and are the initial points of contact between the community and medical system. These are managed by Auxiliary Nurse Midwives (ANMs). There is a PHC above it managed by a qualified doctor. A community health center operates at the administrative block level serving as a referral unit for the PHCs. They provide both in-patient and out-patient care services. Apart from this there are district headquarter hospitals, medical college hospitals and other specialized medical institutions providing health care to the public.

Another important feature of India's health care system which is noteworthy is the significant growth of private sector involvement in the sector. Private provision of health services is growing rapidly and is the major source of inpatient and outpatient care. Its practice ranges from solo clinics and small nursing homes to high quality super specialty hospitals in urban locations. There is no systematic data to show the share of private hospitals bed and doctors in the country. However the available estimates, albeit from 2002 indicates that 93 percent of all hospitals and 64 percent of beds are provided by the private sector³. In terms of utilization these estimates indicate 58 percent of rural and 62 percent of urban inpatient care is treated from private health care institutions⁴. One of the major problems associated with the growth in private sector provision is that the sector is largely unregulated with no effective guidance or control on the services, quality of care and scope of practice.

HEALTH FINANCING SYSTEM IN INDIA

The dominant role in the provision of health services in India is played by the state governments as the constitution defines health as a state responsibility. The central government's role is to design policies of national importance and guide and support the states to deliver health care which meets the national health goals. Health care is financed by three principal sources: public, private and external agencies. The public sector includes the central and state governments and local government institutions. A small proportion of health care is financed through external aid. The central and state governments' resources largely come through tax and non tax revenue. For the state government, a major portion is financed

³ The World Bank.2002. Better Health Systems for India's Poor

⁴ National Sample Survey Organisation.2006. Morbidity, Health Care, and The conditioned of the Aged , NSS 60th Round, January to June 2004, Ministry of Statistics and Programme Implementation, Government of India

from its own revenue with the remainder being grants from the central government. Although there are some instances where some direct transfers to the states occur, external aid for health care is mainly transferred to the central government which in turn makes it available to the states. More than two thirds of total public spending is provided by the states with the remainder being borne by the central government. In the case of local bodies they incur expenditure for health from their own revenue and grants from both state and central governments. Within the private sector, households fund the predominant share of health expenditure, with the remainder funded by private firms and Non-Government Organizations (NGOs) .

SOCIO ECONOMIC PROFILE OF INDIA

India with 1154 million populations is one of the leading developing economies of the world. With second largest populous country in the world it has been confronting with multiple challenges both socio economic and political in nature. Over the years the country has been making sincere efforts to include more and more people in the growth process and spread out the benefits of growth to the lowest strata of society. However around 37 percent of the total population are staying below the official declared poverty line a number that is bothering to policy makers in the country and special efforts are needed to combat it⁵. In terms GDP growth, the country has grown more than 7 percent in 2009-10 in spite of the global slowdown and largely due to effective policy response to deal with the financial crisis. Some of the social indicators like infant mortality rate or under 5 mortality rates are appalling and the Human Development Index (HDI) rank for the country is 134 out of 184 countries of the world. The socio economic deprivation across caste and income groups is severe and this operates in a complex socio political environment. In terms of health care the country spends 4.13 percent of GDP on health out of which private sector has a largest share and only 1.16 percent is from the public sector. Some of the health indicators like infant mortality rate or under 5 mortality have shown improving in recent years with introduction of specific measures as a part of National Rural Health Mission. The country has witnessed varied pattern of progress in health indicators with the states like Tamil Nadu and Kerala making impressive progress while the states like Bihar, Madhya Pradesh, Uttar Pradesh, Rajasthan, and Orissa have lagged behind in many of the indicators. The under 5 mortality stands at 69

⁵ Planning Commission.2009. Report of the Expert Group to review the Methodology for estimation of poverty.GoI

in 2008 where as the IMR is 53 per 1000 live births in the same year. Health and economy wide main indicators of India are presented in table 1.1.

Table 1.1: Health and economy-wide Indicators of India

Indicators	
Total Population in million in 2008-09	1154
Infant Mortality rate ¹ 2008	53
Neo Natal Mortality rate ¹ 2008	35
Under 5 Mortality rate ¹ 2008	69
Crude birth rate ¹ 2008	22.8
Crude Death rate ¹ 2008	7.4
Maternal Mortality Ratio ² (2004-06)	254
HDI Ranking ³ 2009	134
Total GDP ⁴ in current prices 2008-09 (Rs in Million)	55,744,490
Per capita Income ⁴ 2008-09 (Rs)	40,141
GDP Growth ⁴ in 2009-10(%)	7.2
Total Health Expenditure ⁵ in 2008-09 (million)	21,977,65
Per capita Health Expenditure ⁵ in (Rs)	1904
Health expenditure as a share of GDP ⁵ in 2008-09 (%)	4.13

Sources

¹Office of the Registrar General India .2009. Sample Registration System Statistical Report 2008.New Delhi: RGI

² Office of the Registrar General India .2009. Special Bulletin on Maternal Mortality in India 2004-06. New Delhi: RGI

³ UNDP. 2009. Human Development report 2009 Overcoming barriers: Human Mobility and Development .New York

⁴ http://mospi.nic.in/Mospi_New/upload/adv_rel_pressnote_8feb10.pdf accessed on 23rd July 2010

⁵ Ministry of Health & Family Welfare.2009.National Health Accounts India 2004-05 with provisional estimates from 2005-06 to 2008-09. MoHFW, GoI

HEALTH CARE INFRASTRUCTURE

There were around 66 registered allopathic doctors and 139 registered nurses nationally per 100,000 population in 2009. There were 47 beds in government run health care institutions around the country per 100,000 population. As mentioned above the country has a three tier health care structure with 146,036 sub centers, 23,458 primary health centers and 4,276 community health centers functioning in rural areas (Table 1.2). There is no systematic data

in place to record the nature and characteristics of private health care institutions functioning in the country. However an indication of the importance of the private institutions is available from a government survey⁶ which reveals that the utilization of private health care institutions is quite high with 78 percent of rural and 81 percent of urban outpatients being treated by private health care institutions.

Table 1.2: Hospitals, Beds, Doctors and Nurses in India,2009

No of Allopathic doctors ¹	757,377
Total number of registered Nurses ²	1,600,385
Total Number of Pharmacists	655,801
No of Allopathic government Hospitals ³	11,613
Hospital Beds	540,328
No of sub centers	146,036
No of Primary Health Centers	23,458
No of Community Health centers	4,276
Beds per 100,000 Population	47
Registered medical doctors per 100,000 population	66
Registered nurses per 100,000 population	139

Notes

¹Doctors with recognized medical qualification and registered with state medical councils

²Nurses include both Auxiliary Nurse Midwives and General Nursing midwives registered under nursing council of India as on 31/12/2008

³Government hospitals include central, state and local govt.bodies

Sources: Central Bureau of Health Intelligence.2010. National Health Profile 2009. Director General of Health Services, Ministry of Health Family Welfare, Government of India

INDIAN NATIONAL HEALTH ACCOUNTS (NHA)

It was mentioned in the National Health Policy of 2002 to develop a system of health accounts for India and establish an integrated system of surveillance - the National Health

⁶ National Sample Survey Organisation.2006. Morbidity, Health Care, and The conditioned of the Aged , NSS 60th Round, January to June 2004, Ministry of Statistics and Programme Implementation, Government of India

Accounts - by 2005. After this declaration the Ministry of Health and Family Welfare (MOHFW), Government of India, with support from the World Health Organization (WHO) country office, established a unit in the Ministry of Health to produce national health accounts estimates. Currently the NHA cell functions in the Bureau of Planning of the MOHFW and is responsible for preparing the NHA estimates for the country. An expert group comprising officials from the government and independent research agencies was formed to provide technical support for the NHA process. A steering committee with representation from various ministries, agencies such as the Planning Commission and independent research institutes has been formed to oversight the NHA process. So far the country has completed two rounds of NHA. The first NHA was published in 2005 and presented the health accounts for 2001-02 and the second round of NHA was published in 2009 and presented the health accounts for 2004-05. This paper also presents provisional estimates on broad health expenditure for 2005-06 to 2008-09 .

SECTION 11

METHODOLOGICAL ISSUES

SCOPE OF HEALTH EXPENDITURE

Given that health outcomes are influenced by a large number of factors some of which have direct impacts and others indirect impacts, it becomes difficult for the health accountants to know where to draw a line and decide what to include and what to exclude. India has adopted a definition of health expenditure as those expenditures whose primary intention is to improve health. This definition means that programs which have health effects, but whose primary goal is not health are excluded - for example, expenditures on general food subsidies, water supply and sanitation and nutrition programmes are excluded. Thus total health expenditure (THE) as defined in the Indian NHA includes expenditure on inpatient and outpatient care, hospitals, specialty hospitals, rehabilitative care centers, health promotion, capital expenditure on health by the public sector, medical education and research etc.

CLASSIFICATION OF HEALTH EXPENDITURE

The classification of the schemes and programmes is based upon the methodology outlined in the Guide to Producing National Health Accounts published jointly by the World Bank, WHO and USAID. But adoption of the framework outlined in the international classification of health accounts (ICHA) in many cases is difficult due to the non availability of data and/or disaggregated data. The methodological issues associated with estimating health expenditure and difficulties in classifying the schemes and programmes are discussed below.

For government expenditure the state and central government budget documents form the basis for estimating health expenditure and these are available on a regular basis. While classifying health expenditure by sources, the expenditure incurred from own sources has been taken in to account. For instance the central transfers to the states forms a part of central government expenditure not state government expenditure although it is spent by the states. Similarly the receipts of user fees by the health department form a part of household expenditure in the accounting sense.

The international classification of health accounts (ICHA) provides classifications for health care (HC) function and health related function (HCR). The HC.1 to HC.5 categories give

information on personal health care and HC.6 and HC.7 include information about collective care comprising public health interventions. It is not possible to define properly the expenditure on long term nursing care - and rehabilitative care due to the fact that most of the nursing care activities are home based and/or informal in nature. For rehabilitative care, the spending incurred by specialized institutions and organizations are included where - as the expenditure by hospitals for rehabilitative or long term care is included under curative care. A further difficulty is expenditures on day care and out patient care by the same institutions are not separated which make the separate classification of these items difficult.

Even in case of capital expenditure, capital creation - by the private sector is not included in Indian NHA. In the public sector whatever is earmarked under capital expenditure is included without breaking the life span of the project and depreciation cost for each year of the project due to non availability information.

The most important challenge in the production of NHA is the estimation of different components of private sector expenditure and one of the problematic areas has been the out of pocket expenditure which constitutes more than 70 percent of total health expenditure. The NHA estimates for OOP expenditure is based upon survey results from the National Sample Survey Organization (NSSO), Ministry of Statistic and Programme Implementation, Government of India. In the last two NHAs the data from the health surveys known as Morbidity and health care rounds have been used for estimating out of pocket expenditure in the country. Non occurrence of the morbidity and health care rounds on a regular basis poses problems for estimating household expenditure for regular production of NHA. Though the NSSO brings out regular consumption expenditure surveys (CES) which presents health expenditure for institutional and non institutional category, its use in NHA has been restricted due to non availability of more disaggregated expenditure. This is an important area which needs refinement in methodology in future. The provider and functional classification of household expenditure as per ICHA is difficult due to non availability of expenditure incurred on different types of health care institutions and various forms of cost sharing.

The expenditure by household gets reimbursed from central or state governments for social insurance schemes and private insurance companies. Such accounting details require accurate information from financing side and estimation for preparing NHA matrices which has been identified as problematic area and requires production of systematic information.

Another challenge arises due to poor quality data being used to estimate health expenditure by firms, local bodies and NGOs. It is often difficult to identify a source or multiple sources which can be used to provide the regular and reliable data required for the production of health accounts.

In spite of these difficulties NHA India attempts to provide health expenditure in a comprehensive fashion identifying the sources and providing the use or functions of health care provided in the country. In order to produce robust health accounts, it will be necessary to ensure that the health system can produce data in a more disaggregated fashion.

SECTION III

HEALTH EXPENDITURE IN NATIONAL HEALTH ACCOUNTS FRAMEWORK

HEALTH EXPENDITURE IN INDIA: AN OVERVIEW

Total health expenditure India has reached Rs 2,197.8 billion in 2008-09 up from Rs 1,337.8 billion in 2004-05. While health expenditure in absolute terms has gone up over the past four years as a share of GDP health expenditure declined marginally to 4.13 percent in 2008-09 from 4.25 percent in 2004-05. Health expenditure grew by 7 percent on an average compared to average GDP growth of 8.5 percent over the period. The involvement of the government in the health sector in India is relatively low - in 2006 the share of government expenditure in total health expenditure was 33.6 percent in South East Asian region against 25 percent for India⁷. The ratio of public expenditure to GDP in India at just one percent is also one of the lowest in Asia.

Figure 3.1: Total Health Expenditure in India and its Share of GDP

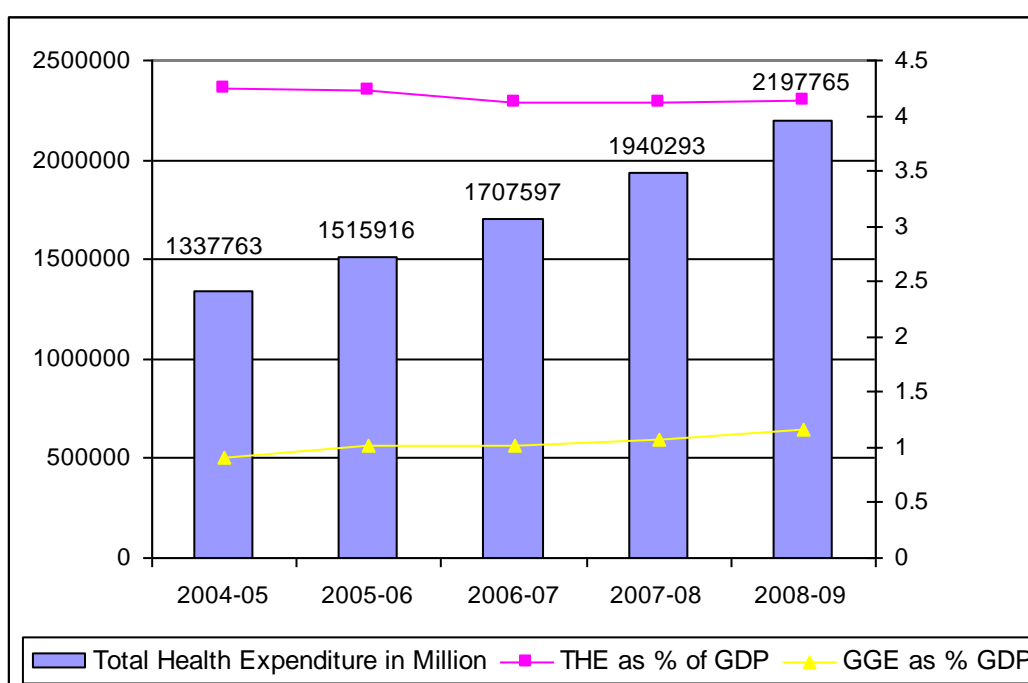


Table 3.1 presents total health expenditure and its sources of finance. Health care is largely privately funded in India as three quarters of total resources are provided by the private sector

⁷ WHO. 2009. World Health Statistics 2009

with the remainder quarter by the government. The ratio between private and general government expenditure stands at 3.7:1 in 2004-05 but has subsequently fallen to be 2.6:1 in 2008-09. Out of pocket expenditure constituted between 86 and 89 percent of total private expenditure over the period. The other sources of funding for health care are NGOs, firms and insurance component which include both social insurance and voluntary insurance part.

Table3.1: Total Health Expenditure 2004-05 to 2008-09(in Rs Million)

	2004-05	2005-06 [#]	2006-07 [#]	2007-08 [#]	2008-09 [#]
MoHFW & Other central Ministries	90668	119345	136344	176677	211753
State Government	160172	209505	250180	283350	338953
Local Bodies	12293	15612	20265	26825	36107
External Flow	24157	16360	14943	19079	29556
General Government Expenditure on Health	287290	360822	421732	505932	616370
Private Expenditure					
OOP	930003	1024280	1128114	1242473	1368426
Firms	76643	87130	100891	114947	120053
Social Insurance	15074	15406	16249	17062	17915
NGOs	7217	6056	8524	8630	8748
Insurance Volunatry	21536	22221	32087	51249	66254
Total Private	1050474	1155094	1285865	1434362	1581395
Total Health Expenditure	1337763	1515916	1707597	1940293	2197765
Total Expenditure on Health as a % of GDP	4.25	4.23	4.12	4.11	4.13
General Government Expenditure on Health as % GDP	0.91	1.01	1.02	1.07	1.16
General Government Expenditure as %of THE	21.48	23.80	24.70	26.08	28.05
Private Expenditure on Health as % of THE	78.52	76.20	75.30	73.92	71.95

Notes

[#] It is important to mention here that the figures presented in 2005-06 to 2008-09 are provisional estimates except for state and central government expenditure and insurance voluntary component. The estimation was made to show the broad trends of health expenditure while for 2004-05 it is actual expenditure data presented adopting a NHA framework.

As observed from Table 3.2 the general government expenditure grows on average 15 percent annually which is highest among all the components of health expenditure. The increase in government expenditure from 2005-06 onwards was due to the introduction of the NRHM

which provides additional resources to improve the health care delivery system in the country. The annual increase in government expenditure is around 20 percent in 2005-06 from 2004-05 and for the rest of the period it ranges between 11 to 15 percent. The private expenditure grows at 5.2 percent annually in constant prices over the years which is significantly lower than the growth of general government expenditure. However it is important to present the share of private health expenditure in the total health expenditure which is a little over 75 percent over the years. This is critical in a country characterized by high incidence of poverty and low health indicators. The private sector has grown in size and operation over the years whereas the public health care has been facing several constraints to provide quality health care to the citizens.

Table 3.2: Growth Rate of Health Expenditure during 2005-06 to 2008-09

Expenditure on health	Growth rate over the previous year (in constant prices ¹)				Compound annual growth rate
	2005-2006	2006-2007	2007-2008	2008-2009	
Total	8.5	7.9	8.2	5.4	7.5
General government	20.3	11.9	14.3	13.4	14.9
Private	5.3	6.6	6.3	2.6	5.2
Per capital total	6.8	6.3	6.7	3.9	5.9
Per capital general government	18.2	10.4	12.7	11.7	13.2
Per capita private	3.7	5.0	4.7	1.2	3.6

Note

¹ World Bank GDP deflator used to convert in constant prices

HEALTH EXPENDITURE BY SOURCES

Among all the sources, households had the largest contribution to health care constituting 71.13 percent of total health expenditure in 2004-05. In the public sector, the contribution by the state government was 11.97 percent and that of central government was 6.78 percent. The local government institutions have a limited role in the provision of health care. Less than 1 percent of total health expenditure was provided by the local bodies. The external agencies

contributed only 2.28 percent of total health expenditure (Table 3.3). In comparison to National Health Accounts India 2001-02, there has not been any major change in the share of public and private sector expenditure. The share of public health care institutions was 20.3 percent and that of private was 77.4 percent in 2001-02⁸ which is largely similar to various ratios of 2004-05. Within a span of three years there is no shift in the composition of health care spending in the country.

Table 3.3: Health Expenditure by Sources of Funds 2004-05 (in Rs Million)

Source of Funds	Expenditure	% Distribution
A-Public Funds		
Central Government	90,668	6.78
State Government	160,172	11.97
Local Bodies	12,293	0.92
Total –A	263,132	19.67
B-Private Funds		
Households	951,539	71.13
Social Insurance Funds	15,074	1.13
Firms	76,643	5.73
NGOs	880	0.07
Total-B	1,044,136	78.05
C-External Flows		
Central Government	20,885	1.56
State Government	3,273	0.24
NGOs	6,338	0.47
Total –C	30,495	2.28
Grand Total	1,337,763	100.00

⁸ Ministry of Health and Family Welfare. 2005. National Health Accounts 2001-02. MoHW: Government of India

HEALTH EXPENDITURE BY FINANCING AGENTS

These are financial intermediaries in the health system who purchases health care or pay for health care services. In large number of cases the financing sources and intermediary are same in the country. In government transactions the difference between two functions is largely noticed when the central government money is transferred to the states who finally manage the funds. As presented in table 69.40 percent of total health expenditure is channelized by the households in the health system. The state governments are the second in the list who manage 10.37 percent of total health expenditure. Within the state governments, the state departments of the health are the major players while other state departments have only minimal role in provision of health care. Similarly the role of NGOs and local bodies are not significant who manage only 0.74 percent and 1.51 percent of the total expenditure respectively. Private firms manage 5.73 percent of total health expenditure. Thus it is concluded that the households and governments are the two major players in the health sector.

Table 3.4: Health Expenditure by Financing Agents 2004-05 (in Rs Million)

Financing Agent	Expenditure	% Distribution
Ministry Of health & Family welfare	71,687	5.36
Other Central Ministries	5,755	0.43
State Department of Health	143,567	10.37
Other State Departments	3,617	0.27
Local Bodies	20,258	1.51
Social Security Funds	892	0.07
CGHS/ Medical Benefits	33,450	2.50
ESIS	15,877	1.19
State Government Employees Benefit Scheme	5,978	0.45
GIC Companies	19,495	1.46
Private Insurance Companies	2,229	0.17
Households	928,388	69.40

NGOs	9,928	0.74
Firms	76,643	5.73
Total	1,337,763	100

HEALTH EXPENDITURE BY PROVIDER

The provider classification presents about the provision of health care by public hospitals, day care centers, dispensaries, NGOs and how much funds they receive in a financial year for undertaking various activities. As per international classification of Health Accounts (ICHA) private providers accounted for highest share (76.74%) of health expenditure in 2004-05. Public hospitals which include medical college hospitals, specialty hospitals like mental hospitals, leprosy hospitals, pediatrics hospitals, district, sub divisional, etc incurred 5.82 percent of total health expenditure, dispensaries 5.21 percent, and family welfare centers 2.5 percent. (Table 3.5)

Table 3.5: Health Expenditure by Provider- 2004-05 (in Rs Million)

Provider	Expenditure	% Distribution
Public Hospitals	77,904	5.82
Dispensaries	69,675	5.21
Family welfare Centers	33,427	2.50
Public Health Labs, Blood banks	1,834	0.14
Provider of Medical Goods	4,617	0.35
Provision of Public Health and RCH Programmes	37,967	2.84
Public Health & RCH training	3,302	0.25
Medical Education Research		1.89

	25,262	
General Health Administration and Insurance	15,110	1.13
NGO Provider	11,465	0.86
Private Provider of Health Services	1,026,567	76.74
Not classified	30,633	2.29
Total	1,337,763	100.00

HEALTH EXPENDITURE BY FUNCTION (ICHA)

The ICHA shows the type of goods and services produced in the health system. These could be inpatient and outpatient curative services, personal preventive services, and population-based public health services. Or they could be for example, expenditures on control of specific diseases (e.g. tuberculosis), groups of diseases (STDs), or health service clusters (maternal and child health, reproductive health and family planning). Such classification address important policy issues today whether the current attention on resource allocation is according to disease burden and cost-effectiveness or goals of shifting expenditure more towards primary health care services. Other useful classifications of uses are line items (salary, equipment, drugs and pharmaceutical, etc.), socio-economic groups, and geographic regions.

As per health expenditure by ICHA function, almost 78 percent of total health expenditure was incurred on curative care, 8.07 percent on RCH and family welfare, and other public health interventions like control of communicable diseases 1.35 percent, non communicable diseases 0.18 percent, and 1.80 percent for medical education and training of health personnel. Capital expenditure accounted for 1.80 percent of total health expenditure (Table 3.6).

Table 3.6: Health Expenditure by ICHA Function -2004-05 (in Rs Million)

ICHA Function	Expenditure	% Distribution
Curative Care	1,042,870	77.96
Rehabilitative or Long term Nursing care	6,584	0.49
Ancillary Services related to medical care	6,866	0.51
Medical goods dispensed to outpatients	2,747	0.21
RCH and Family Welfare	107,971	8.07
Control of Communicable Diseases	18,077	1.35
Control of Non Communicable Diseases	2,422	0.18
Other public Health activities	6,542	0.49
Health Administration & Insurance	43,316	3.24
Nutrition Programme by state Dept of Health	213	0.02
Medical Education and Training of health personnel	24,109	1.8
Research and Development	6,032	0.45
Food Adulteration	775	0.06
Capital Expenditure	14,517	1.09
Functions not specified	54,722	4.09
Total	1,337,763	100

CURRENT GOVERNMENT HEALTH EXPENDITURE BY PROVIDER

The classification of government expenditure is presented in this section. Among the providers expenditure by hospitals was the highest with 32.71 percent of total current health expenditure in 2004-05. Expenditure by outpatient care centers including dispensaries, family welfare centers was 24.56 percent and 18.09 percent for provision of public health and reproductive and child health. For provision of medical education and research 10.69 percent of total health expenditure was incurred (Table 3.7).

Table 3.7: Current Government Health Expenditure by Provider - 2004-05
(in Rs Million)

	Provider	Centre^{\$}	State	Total
HP.1	Public Hospitals	6511 (15.18)	71699 (36.54)	78210 (32.71)
HP.3.4	Outpatient care Centers			
	Dispensaries/ PHC/ Sub Center	3310 (7.72)	40325 (20.55)	43635 (18.25)
	Family Welfare Center	42 (0.10)	15051 (7.67)	15093 (6.31)
HP 3.9	Other providers of ambulatory health services	853 (1.99)	996 (0.51)	1849 (0.77)
HP.4	Retail sale and other Providers of Medical Goods	76 (0.18)	3843 (1.96)	3919 (1.64)
HP.5	Provision of Public Health & RCH Programmes	18672 (43.55)	24582 (12.53)	43254 (18.09)
HP.6	General Health administration and insurance	1846 (4.30)	16246 (8.28)	18092 (7.57)
HP.8	Institutions providing health related services			
	Medical Education & Research	8555 (19.95)	17016 (8.67)	25570 (10.69)
	Public Health & RCH Training	1397 (3.26)	1640 (0.84)	3037 (1.27)
	NGO Provider	1617	2552	4169

	(3.77)	(1.30)	(1.74)
Not Classified	0	2291 (1.17)	2291 (0.96)
Total Expenditure	42879 (100)	196240 (100)	239119 (100)

Note

\$ is related to MoHFW only

Figures in parenthesis indicate percentage to total

GOVERNMENT HEALTH HEALTH EXPENDITURE BY FUNCTION

The classification of health expenditure by ICHA function shows that curative care accounted for 42.67 percent of the expenditure in 2004-05. Rehabilitative and long term nursing care and ancillary services related to medical care (HC 2 and HC3: HC.5) accounted for a further 0.3 percent and 2.3 percent respectively of THE. Public health interventions such as control of communicable and non communicable diseases, RCH and family welfare and other public health activities accounted for around one fifth of health expenditure. Health administration and insurance and medical goods dispensed to outpatients accounted for respectively 9.7 percent and 0.9 percent. Health related functions accounted for 17.31 percent of which the share of medical education and training of health personal was 9.56 percentages, 5.33 percentage points for capital formation and 2 percentage points on research and development. (Table 3.8).

Table 3.8: Government Health Expenditure by ICHA Function - 2004-05(in Rs Million)

ICHA code	Health Care Function	Center ^{\$}	State	Total
HC.1	Curative Care	9607 (22.16)	98165 (46.92)	107772 (42.67)
HC.2&3	Rehabilitative & Long term Nursing care	443 (1.02)	266 (0.13)	709 (0.28)
HC.4	Ancillary Services related to medical care	635 (1.46)	5239 (2.50)	5874 (2.33)

HC.5	Medical goods dispensed to outpatients	871 (2.01)	1445 (0.69)	2316 (0.92)
HC.6	Prevention and public health Services	18101 (41.74)	34409 (16.45)	52510 (20.79)
	RCH and Family Welfare	10508 (24.23)	19988 (9.55)	30496 (12.07)
	Control of Communicable Diseases	6349 (14.64)	10871 (5.20)	17220 (6.82)
	Control of Non Communicable Diseases	708 (1.63)	1600 (0.76)	2308 (0.91)
	Other public Health activities	536 (1.24)	1950 (0.93)	2486 (0.98)
HC.7	Health Administration & Insurance	3121 (7.20)	21246 (10.15)	24367 (9.65)
HCR	Health and related Function	10584 (24.41)	33147 (15.84)	43731 (17.31)
	Medical Education and Training of health personnel	5111 (11.79)	19038 (9.10)	24149 (9.56)
	Research and Development	4607 (10.63)	526 (0.25)	5133 (2.03)
	Capital Formation	482 (1.11)	12990 (6.21)	13472 (5.33)
	Nutrition Programme	-	208 (0.10)	208 (0.08)
	Food Adulteration control	384 (0.88)	385 (0.18)	769 (0.30)
	Functions from Other Sources	-	12593 (6.02)	12593 (4.99)

	Functions not specified	-	2721 (1.3)	2721 (1.1)
	Total	43361 (100)	209231 (100)	252592 (100)

Note

\$ is related to MoHFW only

Figures in parenthesis indicate percentage to total

(- Not Available)

NHA ENTITIES AND MATRICES

One of the important ways of presenting NHA estimations is NHA matrices showing expenditure in a 2 X 2 matrix format. This format enables us to understand the flow of funds from the origin dimension shown in the columns to use dimension shown in rows. These matrices are not only useful for policy purposes but also this breakdowns expenditure for financing sources, financing agents, providers and functions. In India, the health expenditure has been presented using three matrices showing financing source to financing agent (FSXFA), financing agents to providers (FAXP), and financing agent by function and (FAXF) as shown in the Annex.

SECTION IV

CONCLUSION

The NHA presentation provides crucial information on how the health sector is moving, the pattern of resource allocation and the purposes for which resources are used. With a pluralistic health system and a huge population depending upon the public sector for health delivery, health financial analysis using the NHA system has considerable policy relevance for the country and improves the performance of India's health system. Currently the use of NHA information is largely limited to users such as research institutions and parliamentarians who use it to help explain the nature and pattern of country's health expenditure. It is rarely used for policy formulation or decision making at the moment. An improvement in the quality and frequency of the NHA accounts will facilitate better resource allocation decisions and improve the design of schemes and programmes for health.

One of the difficulties in the application of SHA in the current framework is the non availability of regular data especially for the private sector. For example there are data gaps in the extent of cost sharing between the public and private sectors - resulting in difficulties in classifying data on an ICHA basis. In the case of firms the non availability of separate information on firms' expenditure incurred directly on creation of health care facilities for their employees and on insurance creates difficulties in the classification of health expenditure. Similarly for household expenditure the estimation for NHA is based upon the households' surveys. But there are many difficulties in triangulating the information for particular categories of expenditure like doctors' fees, medicine, and other elements. Details of these problems have been presented in a paper "Improving comparability and availability of private health expenditure data in health accounts in the Asia-Pacific region: A case of India"⁹. In the case of government expenditure the adoption of the ICHA classification presents difficulties for some of the expenditure items. For example it is difficult to classify expenditure for day care, outpatient care, rehabilitative care etc.

With the increasing contribution of government to basic health services, NHA information is crucial in presenting health expenditure to provide information how funding is utilized and what goods and services are produced in the health system. So steps are made to strengthen

⁹ Rout, Sarit Kumar. (2010), Improving comparability and availability of private health expenditure data in health accounts in the Asia-Pacific region: A case of India" paper presented in the 6th Joint OECD Korea Policy Centre-APNHAN Meeting of Regional Health Accounts Experts held at Seoul, South Korea, July 2010

the process in the country. As health is a responsibility in India strengthening the NHA process will require, streamlining state processes and ensuring states have adequate capacity to play their role. This involves the creation of an institutional mechanism at the state level to provide data support to the national process as well as institutionalizing the data collection process for most of the items under private sector.

To conclude the current health accounts in spite of data inadequacies provide useful information on financial flows in the health sector. The information is essential for designing strategies for health sector financing. It is hoped that regular production of NHA accounts will address some of the data gaps and refine the methodology to estimate various components of private sector health expenditure. This will help in improving the methodology for classification of health expenditure as per the ICHA.

Annex

Table 1.1A : Health Expenditure by Financing Source and Agent (FSXFA) 2004-05 (in Rs Million)

Agents	Financing Sources										
	Central Government		State Government		Local Bodies	Households	NGOs	Employer Fund for social Insurance ^s	Firms	External Flows	Grand Total
	MoHFW	Other Central Ministries	State Department of Health	Other State Departments							
MoHFW	49716					1086				20885	71687
Other Central Ministries	2210	3546									5755
State Department of Health	3433	87	136163	83		529				3273	143567
Other State Departments			50	3567							3617
Local Bodies		6	7944	15	12293						20258
Social Security Funds	23		869								892
CGHS/Medical benefits	2647	28310						2492			33450
ESIS			2401	894				12582			15877
State Government employees benefit scheme			22	5956							5978
GIC Companies	68		120			19307					19495
Private Insurance Companies						2229					2229
Households						928388					928388
NGOs	622		2089				880			6338	9928
Firms			0						76643		76643
Total	58719	31949	149657	10515	12293	951539	880	15074	76643	30495	1337763

Table 1.2A: Health expenditure by Financing Agent and Provider (FAXP) 2004-05 (in Rs.Million)

Provider	Financing Agent													Grand Total
	MOHFW	Other Central Ministries	State Department of health	Other State Dept	Local Bodies	Social Security Funds	CGHS/ Medical Benefits Central Government	ESI	State Government Medical benefits	NGOs	Insurance companies	Households	Firms	
Public Hospitals	7223	516	57113	2456	1779	5		3295	5518					77904
Dispensaries	2107	671	29676	257	4942	884	30958		180					69675
Family welfare Centers	27683	36	5356		97				254					33427
Public Health Labs,Blood banks	837	21	959		0				17					1834
Medical Stores/Drug Manufacturers	613	890	2944	29	141									4617
Public Health and RCH Programmes	20104	2246	15277	134	202	3			1					37967
Public Health & RCH training	1821	3	1469	1	3				5					3302
Medical Education Research	6356	1099	17778	27	1									25262
Health Administration	3921	253	10484	222	226				3					15110
NGO	1021		1395							9049				11465
Private Provider of Health Services											21536	928388	76643	1026567
Others not specified		19	1115	492	12866		2492	12582		880	188			30633
Total	71687	5755	143567	3617	20258	892	33450	15877	5978	9928	21723	928388	76643	1337763

Table 1.3 A: Health expenditure by Financing Agent and Function (FAXF) 2004-05 (in Rs Million)

ICHA Functions	MoHFW	Other Central Ministries	State Department of health	Other State Dept	Local Bodies	Social Security Funds	CGHS/ Medical Benefits Central Government	ESI	State Government Medical benefits	NGOs	Insurance companies	Households	Firms	Grand Total
Curative Care	26056	1132	75177	2346	1768	126	19614	1871	5654	870	120	831493	76643	1042870
Rehabilitative or Long term Nursing care	383	0	273	37	0	0	5225	0	0	668	0	0	0	6584
Ancillary Services related to medical care	1085	912	4404	54	107	0	0	190	5	109	0	0	0	6866
Medical goods dispensed to outpatients	871	1	1445	0	0	0	0	0	0	430	0	0	0	2747
RCH and Family Welfare	19796	2015	7191	1	745	0	0	1	13	1611	0	76597	0	107971
Control of Communicable Diseases	8086	113	7457	66	53	0	0	0	155	2147	0	0	0	18077
Control of Non Communicable Diseases	1111	10	1287	12	0	2	0	0	0	0	0	0	0	2422
Other public Health activities	171	4	1361	1	9	0	23	0	3	51	68	4851	0	6542
Health Administration & Insurance	5729	264	7719	431	754	751	5928	144	23	38	21536	0	0	43316
Nutrition Programme by state Dept of Health	0	5	208	0	0	0	0	0	0	0	0	0	0	213
Medical Education and Training of health personnel	3635	426	19798	21	1	0	0	0	0	228	0	0	0	24109
Research and Development	4329	664	372	26	2	0	0	0	0	638	0	0	0	6032
Food Adulteration	384	7	385	0	0	0	0	0	0	0	0	0	0	775
Capital Expenditure	51	165	11648	594	14	0	0	0	0	2046	0	0	0	14517
Functions not specified	0	37	4844	28	16804	13	2661	13670	124	1093	0	15447	0	54722
Total	71687	5755	143567	3617	20258	892	33450	15877	5978	9928	21723	928388	76643	1337763

Sources of Data

Government Expenditure

- Demand for Grants of Ministry of Health & Family Welfare & Other Central Ministries (2006-07 to 2009-10), Government of India
- Demand for Grants of Railways, Posts, Telecommunications, Labor & Defence (2006-07 to 2008-09), Government of India
- Demand for Grants of Department of Health and Family Welfare and other Departments (2006-07 to 2008-09), State Governments
- Annual Financial Statements,(2006-07 to 2008-09), State Governments
- Estimates of Revenue & Receipts, (2006-07 to 2008-09), State Governments
- Finance Accounts (2006-07), Government of India

Local Bodies

- Department of Economic Analysis and Policy, Reserve bank of India, (2007),
Municipal Finance In India -An Assessment, RBI

External Flows

- Demand for Grants of Ministry of Health and Family Welfare, (2006-07), Government of India
- State Departments of Health and Family Welfare, (2006-07), State Governments
- Ministry of Home Affairs, Annual Report of FCRA, (2004-05), Government of India
- Controller of Aid Accounts and Audit, Department of Economic Affairs, Ministry of Finance

Insurance Funds

- Employees' State Insurance corporatation, (ESIC), Annual Report, 2004-05
- CGHS: Demand for Grants of Ministry of Health and Family Welfare,2006-07 & Data from the Ministry of Finance, Government of India
- NHA Cell, MoHFW, Study on health insurance by public & private companies (2007-08), Government of India

Households:

- National Sample Survey Organization (2006), Morbidity, Health Care And the Condition of the Aged, NSSO 60th Round, January to June 2004, Ministry of Statistic and Programme implementation, Government of India
- Receipt budgets of Central and State Governments

Firms

- Ministry of Health and Family welfare (2005), Report of National Commission on Macro Economics and Health, Government of India

NGOs

- FCRA Division Ministry of Home Affairs

Declaration

The author is working as a research coordinator with Save the Children India. Earlier he worked as a national consultant health care financing in the National Health Account Cell, MohFW, GoI. The views expressed in this paper are personal and do not represent the official position of the organization that he currently represents or earlier represented.

saritrou@rediffmail.com