Review Report

Regional Health Accounts for Pakistan — expenditure disparities on provincial and district level

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Abstract

Since May 2009 the first National Health Accounts (NHA) for Pakistan have been finalised and published by Federal Bureau of Statistics (FBS) in cooperation with German Technical Cooperation (GTZ). This paper goes one step ahead of the report and analyses in more detail the regional differences in health expenditure structures in Pakistan.

The further analyses can be divided into four parts: health expenditures in provinces (Provincial Health Accounts, PHA), Punjab provincial and district governments health expenditures and its comparison with ADB figures, all districts of Pakistan and comparison between total district government and provincial government expenditure for each province; the latter calculation is applied as indication for the degree of fiscal autonomy of the districts in each province.

Consequently, first the provincial health expenditures by Financial Agents is analysed and compared between the provinces which leads to very heterogeneous results (section 2); the per capita health expenditures differ from 16 to 23 USD. Secondly, NHA results on Punjab district government are compared with available ADB results and differences in methods as possible reasons for different results are presented (section 3). Third, district data of all district governments in all four Pakistani provinces are analysed on the level of detailed function codes in section 4; the aim is to discover regional differences between districts of the same as well as of different provinces. Fourth, in section 5 the degree of fiscal autonomy on health of the districts in each province is analysed; therefore the ordinance description is reviewed and total district government with total provincial government expenditures are compared per province.

Finally recommendations for future rounds of NHA in Pakistan are given regarding formats and necessities of detailed health expenditure data collection to ensure evidence based decision making not only on federal, but also on provincial and district level.

Keywords: National Health Accounts, health expenditures, regional disparities, Regional Accounts, fiscal autonomy, Pakistan.

Introduction

The first ever National Health Accounts for Pakistan have been published in May 2009 by FBS in collaboration with GTZ. The activities of NHA were started in January 2008 and it took 17 months to complete the first round, which is a very short period considering the experiences of other countries in the region. NHA estimate health expenditures by four dimensions namely financing sources, financing agents, health care providers and health care functions.

In the first round, two dimensions financing sources and financing agents were covered. Health expenditures by financing source give information on some important policy questions such as who pays, who finances under what scheme that can potentially help in devising financing strategies. Health expenditures by financing agents provide information on policy questions such as what is the overall financing structure, what are the pooling arrangements and what are the payment/purchasing arrangements which can give feedback to

health policy decisions related to pooling arrangements and regulation of payers.

NHA also present the regional accounts i.e. the expenditures being allocated to the regions according to the location where the health care is provided. This includes health expenditures by federal government, provincial government, district government, cantonment boards, Employees Social Security Institutions, out-of-pocket expenditures (OOP)[1] and the expenditures by donor organisations. Such regionalisation of expenditures is very important as they are not only potentially helpful at provincial level in taking health related policy decisions but also give a useful information for a national level analysis.

The scope of this paper is broadly to have analysis of the regional accounts, to have comparison of health expenditure figures of NHA with figures from other sources i.e. comparison of Punjab provincial and district government figures with that of ADB figures and may be to come up with reasons for differences if any. Lastly, the paper makes a comparison of district government health expenditures between districts (in each province) and then comparison of provincial and district government health expenditures between provinces. The comparison of provincial and district government expenditures also analyses their share to be used as a proxy to assess the degree of fiscal autonomy of districts in carrying out health related activities.

Our findings can be applied as recommendations for future rounds of NHA in Pakistan regarding formats and necessities of detailed health expenditure data collection to ensure evidence based decision making not only on federal, but also on provincial and district level. Nevertheless, NHA is a pure accounting framework in monetary terms, describing financial flows in health systems comprehensively, but not carrying out productivity analyses or quality assessments of health care.

Regarding data quality it is important to keep in mind when undertaking these analyses that Total Health Expenditures (THE) do include estimations due to a combination of public (PIFRA[2]) and private[3] (household surveys) expenditure data. In contrast to that, the analyses in this article comparing district expenditures do not include estimations, since they are purely based on official PIFRA data, which are taken from AG and AGPR publications.

Provincial Health Accounts:

The NHA 2005-06 report also includes some results of the province wise breakdown of health expenditures. These Provincial Health Accounts are sub-accounts of the NHA and track expenditures on health for a specific regional section of the health system. According to the principle of regionalization expenditures are allocated to the regions according to the location where the health care has been provided; the residency of the patient is not a criterion.

Table-1 shows the relative results of health related expenditures in the regions and gives the percentages of the single Financing Agents for each province. These shares can be compared with the national shares for each Agent. The shares of the Agents on national level include some expenditure which can not be allocated to a single province or are allocated to the Islamabad capital territory. This holds for some federal expenditure as well as for some Zakat and all private insurance expenditures. The basic figures for the calculations shown here are NHA estimations (combination of PIFRA data and published survey results) which became official statistics with their publication by FBS in 2009.

Table-1: Provincial expenditures per Financial Agent in percentage.

Type of health expenditure	In percent of total expenditures (per province or country)				
	Punjab	Sindh	NWFP	Baloch.	Pakistan
Military Health Expenditure	5.8%	1.8%	2.8%	4.0%	4.0%
Provincial/Federal Government	9.6%	16.9%	13.9%	22.5%	20.5%
District Government	8.1%	13.5%	1.1%	18.7%	7.6%
Cantt. Boards	0.1%	0.1%	0.1%	0.1%	0.1%
Social Security Institutions	1.5%	1.4%	0.2%	0.4%	1.1%
Zakat Health Expenditure	0.1%	0.1%	0.1%	0.1%	0.3%
Private Insurance	-	-	-	-	0.2%
OOP Health Expenditure	74.7%	66.0%	76.5%	38.7%	64.3%
Donors Organizations	0.2%	0.1%	5.3%	15.5%	1.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Percentage calculations based on absolute figures per province given in database, Federal Bureau of Statistics, National Health Accounts, 2009, 45.

The shares of military health expenditures are relatively high in Punjab (5.8%) and Balochistan (4%); in Sindh (1.8%) and NWFP (2.8%) they are smaller than at national level (4%). The social security expenditures as percent of the THE are very small in NWFP (0.2%) and Balochistan (0.4%); in Punjab

3. In addition to PHA and District Health Accounts (DHA), we understand Health Accounts on provincial and district level including inter-provincial comparisons as Regional Health Accounts (RHA).

(1.5%) and Sindh (1.4%) social security figures are higher than the national level (1.1%). The OOP are lowest in Balochistan (only 38.7%) compared to the other provinces and the national level; accordingly the provincial/federal (22.5%) as well as the district (18.7%) expenditures are highest in this province. This situation is similar in Sindh which has second lowest OOP (66%) and second highest provincial/federal (16.9%) and district (13.5%) expenditures. The share of donor expenditures within the province varies from less than 1% (0.2% Punjab and 0.1% Sindh) to 5.3% in NWFP and 15.5% in Balochistan.

The total results can also be expressed in USD per capita spent on health by using the total population of each province.[2,4] The results for the provinces differ from 16.21 USD per capita at average exchange rates in Sindh to 16.53 in Balochistan to 18.66 in Punjab to 22.78 in NWFP. The THE per capita are relatively different between the provinces and range from 16 USD in Sindh, 17 USD in Balochistan, 19 USD in Punjab to 23 USD in NWFP; THE per capita for Pakistan is 20 USD with an average of 20.06 for Pakistan.

To sum up it was found that the relative importance of single agents differs strongly between provinces. Additionally the THE spent in each province reaches from 16 to 23 USD.

Comparison NHA results with ADB figures for Punjab:

ADB has published a study called Public Expenditure Review - Health Sector in Punjab. Public sector expenditure on health in Punjab can be divided into two major categories, one is the provincial setup and the other is districts. From here onwards we are just talking about public expenditure by provincial or district governments; total health expenditures including private expenditures are not analyzed here. This means the following analyses are based on officially published PIFRA data and do not include expenditure estimations.

Provincial Government expenditure:

First the results for the provincial health expenditures are compared and possible reasons for differences in the results will be discussed. The expenditures are divided into current expenditure (expenditures on goods and services, such as salaries, rent, maintenance and interest payments) and development expenditure (also called capital expenditure, which refers to the funds spent for the acquisition of long-term assets) and figures are given for budget (which means they are allocated) and actual expenditure (they are already spent). Relevant for the comparison is the sum of the actual current and development expenditure. This ADB figure (7.229 million PKR) has to be compared with the NHA result for the expenditures of the provincial department of health (7,161 million PKR), which is about 1% lower.

District Governments expenditure:

In the ADB study among others the health expenditures of Punjabi districts are published. FBS NHA section also collected data from districts in Punjab which are published in the NHA report 2005/06. Provincial Accountant General (AG) data do not capture all expenditures, because each district is calculating individual expenditures additionally. These are according to an ordinance passed in 2001, which gave more autonomy to districts and gave more power to them compiling own expenditures. Regarding the availability of data they have to be differentiated between appropriation accounts from AG and civil accounts from World bank.

From AG Punjab district data in form of appropriation accounts[5] for 19 out of 35 districts were made available in softcopy format. The missing 16 district data were given in hardcopy, which have been entered by NHA section of FBS. For districts not only the total figures of public district expenditures are available, but also additional information on all entities and objects in the district, including health, education and other expenditures for the 19 softcopy districts. For the hardcopy districts only health relevant expenditures are available with FBS. From World bank district data in civil accounts for Punjab are available, which only show lump sum figures. From ADB the figures on district health expenditure are given in actual figures not in budget figures.[6] The actual expenditure is 6,449 million PKR in ADB results compared to 7,720[7] million PKR, which have been calculated in NHA.

The comparison of Punjab health expenditures has shown that there are only slight differences between ADB and FBS results. For provincial expenditure the ADB figure is less than one percent higher than the FBS figure. For district expenditure the FBS figure is about 20% higher than the ADB figure maybe due to the inclusion of health education as well as some health relevant expenditures from other grants (e.g. hospital construction).

District Governments Health Expenditure — Inter District Comparison:

This chapter compares the health expenditures between different district governments for each province and for whole Pakistan. Therefore we apply the detailed function classifications of the PIFRA codes which are relevant for health expenditure. These codes are 093-

4. PIFRA is the Project to Improve Financial Reporting and Auditing, which was introduced by the Auditor Gen-eral of Pakistan in 1994 in order to improve the financial reporting system and to ensure good governance.
5. They are very similar to PIFRA, but differ to some extent, because some old classifications are used.
6. The figures for the districts are only given in current expenditures, for provinces current and development fig-ures are available.
7. The ADB figure is also without inclusion of cantonments (100 million), therefore the figure 7720 has to be used for further analyses.
8. According to SHA manual, medical education and health-related professional training & research is not in-cluded in the THE, but WHO gives countries the liberty to include categories which are seen as integral part of the health system.

Tertiary Education Affairs & Services,[5,8] 076-Health Administration, 073-Hospital Services (Nursing and Convalescent home care) and 074-Public Health Services. The first can be further disaggregated into general universities (093101) and professional universities (093102); relevant for health education are the professional universities/institutes under code 093102 as they include medical colleges and nursing schools. Tertiary care is generally defined as specialized consultative care, usually on referral from primary or secondary medical care personnel, by specialists working in a center that has personnel and facilities for special investigation and treatment. Public Health Services (code 074) include preventive health programs such as HIV/AIDS control programme, Tuberculosis control programme, maternal and child health programmes. So these are basically the population based programmes primarily aimed at improving and maintaining health of populations as opposed to the curative services which are individual based.

The comparison of the functionally disaggregated expenditure between districts of Punjab shows that in all the districts (except two) the highest expenditure is on hospital services; expenditure on this post are ranging from 22 till 96% of the total public health expenditure. This is followed by expenditure on health administration except in district Attock and district Vehari where the highest expenditures are on health administration and public health services respectively. This variation in two districts may be due to differences in understanding of PIFRA classification and data recording by the regional AG and AGPR offices.[9] The expenditures on health administration in all districts are also relatively heterogeneous and range from 0-74%. Tertiary care is of lower importance in all districts and ranges from 0-9%.

For Sindh the figure shows that expenditures on hospital services are highest for all districts; they range between 66 and 93% with an average of 84.2%. Health administration costs are higher in the districts Matiari (14.5%), Nawab Shah (22.6%) and Kashmore, Kandhkot (24%); the average of all Sindh districts is 7% only. Public health services are higher in Karachi (21%), Larkana (16%) and Jacobabad (13%); the average is 8.4%. Building and structure is only relevant for district Shikarpur with 5%. Medical product appliance is less than 1% in all districts.

For Balochistan hospital services as well are highest for all districts with a range between 60 to 98%. For health administration expenditure is highest in district Lakki with 35% compared to an average of all districts in Balochistan of 9%. In Balochistan the expenditure structure is different to other provinces, because most districts have given their highest expenditure for health administration (range from 0 to 100 with an average of 78%). The second highest expenditure is hospital services, which range from 0 to 100 with an average of 22%. Public health services are only given in one district Khuzdar with less than one percent. Expenditures for medical product appliances are zero in all districts of Balochistan.

Within each province most districts — besides a few exemptions — have a similar expenditure structure. For districts in Punjab, Sindh and NWFP the majority of expenditures are made for hospital services; only most districts in Balochistan report health administration to be their highest expenditure. This difference might occur due to different understanding of the requested disaggregation classifications by the regional AG and AGPR offices. This has to be clarified in the next data request by the two mentioned institutions.

Provincial/district governmental health expenditure — Inter province comparison and degree of fiscal autonomy:

In this section we describe the legal constitution of districts autonomy from the provinces; in this regard we then analyse the impacts on the distribution of health expenditure between districts and provinces.

The fiscal autonomy of the districts is fixed in the devolution of 2001, which deals with subsidiary and the vertical distribution of responsibilities between different governmental bodies. Decentralization can broadly be defined as the transfer of authority and power in public planning, management and decision making from higher to lower levels of government or from national to sub-national levels.[6-8] Different processes and models exist within decentralization such as 1) de-concentration, 2) delegation, and 3) devolution.[9]

1) In deconcentration administrative responsibilities are transferred to locally based offices of a national government ministry and the deconcentrated units remain accountable to the central authority for what they use and the outputs produced.

2) In delegated forms of decentralisation, management responsibilities are transferred to semi-autonomous entities which are outside the regular bureaucratic structure. The aim is to free national government from day-to-day management functions. Again, the entity remains accountable to national government.

3) In a devolved form of decentralisation, political and administrative authority is transferred to an independent local-level statutory agency, for example a municipality or

9. The Auditor General's organization is the prime institution in the country for ensuring public accountability and fiscal transparency in governmental operations. The Accountant General Pakistan Revenues (AGPR) is responsible for the centralised accounting and reporting of federal transactions.

local council. Also, the local level is able to generate revenue due to its statutory status. In this form of decentralisation authority for organizing, providing and partly financing services is given to a local government body or similar agency ultimately responsible to the local population. They are rarely completely autonomous, but are bodies largely independent of the national government in their areas of responsibility as opposed to being subordinate units as in the case of de-concentration.

In 2001, Local Government Ordinance 2001 was passed in Pakistan to introduce devolution based on the realization that devolution would provide a mean for community participation and local self reliance and will also ensure the accountability of government officials to the population. The devolution of powers in public planning, management and decisions related to finances changed the fiscal structure and the recording of the fiscal data as well. Appropriation Accounts were maintained at the district level for expenditures incurred by districts while provincial Appropriation Accounts only included the expenditures at the provincial level. The process of devolution has to be progressive to shift from one system to another and to ensure the capacity building of the district management teams. For this reason, the four provinces were at different levels of devolution and this can be seen using the health expenditures by provinces and districts as a proxy indicator of level of devolution.

For the three provinces (Punjab, Sindh and Balochistan) the total public health expenditure incurred is about equally shared by provincial and district levels i.e. devolution of fiscal powers in health related activities (province shares are between 52 and 54%). Whereas, in the case of NWFP the provincial government spends 92% while districts spend only 8% of the total public health expenditures, which might possibly due to limited devolution of fiscal powers.

Table-2 shows the percentage to which the expenditure are spend on the functions for major, minor and detailed functions and for all provinces.

Comparing the health expenditures by districts between provinces shows that the highest expenditure is done on hospital services in all provinces except Balochistan where highest expenditure is on health administration. So the overall pattern of health expenditures by districts is comparable in three provinces (Punjab, NWFP and Sindh). Also the point worth noticing is that expenditures on health education at district level only appear for Punjab, probably because it was only in Punjab that the districts were encouraged to have their own nursing, Lady Health Visitor and Paramedical Training Institutes.

Per capita comparison:

In addition the per capita PKR spend from provincial and district level in all provinces can be compared. Comparing the per capita expenditures by the civilian territorial governments i.e. provincial and district

Table-2: Public district health expenditures by functions for provinces.

Major Function Code	Major Function	Sindh	Punjab	Balochistan	NWFP	Total PKR
		% of Provincial District Grand Total				
07	Health	99.8	96.4	100.0	100.0	13,796,124,389
04	Building and Structure	0.2	0.0	0.0	0.0	8,844,519
09	Education Affairs & Services	0.0	3.6	0.0	0.0	275,326,474
Total		99.8	96.4	100.0	100.0	
Minor Function Code	**Minor Function**	**% of Provincial District Grand Total**				**PKR**
045	Construction & Transport Total	0.2	0.0	0.0	0.2	8,844,519
071	Medical Products, Appliances & Equipments	0.3	0.0	0.0	0.3	16,170,571
073	Hospital Services	82.2	75.3	21.2	82.2	10,206,086,333
074	Public Health Services	11.5	3.6	0.0	11.5	815,230,436
076	Health Administration	5.8	17.5	78.7	5.8	2,758,637,049
093	Tertiary Education Affairs & Services	0.0	3.6	0.0	0.0	275,326,474
Total		100.0	100.0	100.0	100.0	
Detail Function Code	**Detailed Function**	**% of Provincial District Grand Total**				**PKR**
0457	Construction Total	0.2	0.0	0.0	0.2	8,844,519
0711	Medical Products, Appliances & Equipments Total	0.3	0.0	0.0	0.3	16,170,571
0731	General Hospital Services Total	82.2	74.0	21.2	82.2	10,096,954,214
0733	Medical & Maternity Centre Services	0.0	1.2	0.0	0.0	98,346,958
0734	Nursing and Convalascent Home Services	0.0	0.1	0.0	0.0	10,785,161
0741	Public Health Services	11.5	3.6	0.0	11.5	807,425,724
0761	Administration	5.8	17.5	78.7	5.8	2,744,575,584
0931	Tertiary Education Affairs & Services	0.0	3.6	0.0	0.0	297,192,651
	Grand Total in PKR	4,630,072,134	7,719,837,903	1,414,730,850	315,654,495	14,080,295,382

Source: Extractions of absolute figures from database, Federal Bureau of Statistics, NHA Pakistan 2005/6.

governments, it is highest for Balochistan. Provincial Balochistan government spends 196 PKR per capita compared with 98 PKR, 150 PKR and 178 PKR per capita for Punjab, Sindh and NWFP respectively. District Balochistan government spends PKR 181 per capita compared with PKR 90, PKR 130 and PKR 15 per capita for Punjab, Sindh and NWFP respectively. While the total (provincial and district government) for Balochistan spends 376 PKR per capita as compared to 188 PKR, 280 PKR and 193 PKR per capita for Punjab, Sindh and NWFP respectively. It is suggested that per capita cost of health services in the provinces should be combined with this expenditure data to have more inferential analysis. This suggestion is based on the rationale that the cost of services if vary between provinces, the expenditure on health to have same set of services would be different and so the financial requirements would also vary between provinces.

Conclusion

For this paper we have carried out four analyses: 1) Provincial Health Accounts for Pakistan, 2) analysis of Punjab provincial and district health expenditures, 3) analysis of district expenditures and comparison within all Pakistani provinces and 4) analysis of the importance of provincial and district health expenditures in each province as indicator for the degree of fiscal autonomy in health activities within the state.

1) To sum up Provincial Health Accounts it was found that the relative importance of single agents differs strongly between provinces; this holds especially for provincial and district government expenditure as for OOP. Furthermore the estimations of THE spent per province range from 16 USD in Sindh to 23 USD in NWFP.

2) The comparison of Punjab health expenditures has shown that there are only slight differences between ADB and FBS results. For provincial expenditure the ADB figure is less than one percent higher than the FBS figure and the district expenditure differ probably due to the inclusion of health education as well as some health relevant expenditures from other grants like hospital construction.

3) Within each province most districts — besides a few exemptions - have a similar expenditure structure. For districts in Punjab, Sindh and NWFP the majority of public expenditures are made for hospital services; only most districts in Balochistan report health administration to be their highest expenditure.

4) For the three provinces (Punjab, Sindh and Balochistan) the total public health expenditure are about equally shared by provincial and district levels. In contrast to that in NWFP the provincial government spends 92% while districts spend only 8% of the total public health expenditures, which might be possibly due to limited devolution of fiscal powers.

Overall the analysis of RHA has found some immense differences between single districts and even provinces which raise questions and should be analysed in detail in future research on health expenditure in Pakistan. Therefore it is not sufficient to aim at PHA, but also to include district analyses and develop full RHA.

References

1. Lorenz C. Out-of-pocket household health expenditures and their use in National Health Accounts: Evidence from Pakistan, in: Asia Health Policy Program, No. 9, Stanford University, Walter H Shorenstein Asia-Pacific Research Center, 2009.
2. UN data, A world of information. World statistics pocketbook. (Online) 2010 (Cited 2009 Oct 26). Available from URL: http://data.un.org/CountryProfile.aspx?crName=Pakistan.
3. Lorenz C. (forthcoming), Using households' health expenditure data in NHA - cross check with other survey results and adjustment with National Accounts data.
4. Federal Bureau of Statistics. National Health Accounts Pakistan 2005-06, Islamabad. (Online) 2009 (Cited 2009 Aug 24). Available from URL: http://www.statpak.gov.pk/depts/fbs/publications/publications.html.
5. World Health Organisation. Guide to Producing National Health Accounts: with special application for low income and middle income countries. Geneva: WHO, 2003.
6. Rondinelli DA. Government decentralization in comparative theory and practice in developing countries. Int Review Admin Sci 1981; 47: 133-47.
7. Collins C, Green AT. Decentralisation and primary health care: some negative implications. Int J Health Serv 1994; 72: 58-68.