

# Nepal National Health Accounts

2003/04-2005/06 and 2012/13-2015/16

(An Analysis)

-Prasiddha

## Introduction

National Health Accounts (NHA) are the reports that account for all the health expenditures and outlays for prevention, promotion, rehabilitation, and care of people from health hazards or calamities. The NHA constitutes a systematic, comprehensive, and consistent monitoring of resource flows in the country's health system. It is a tool specifically designed to inform the health policy process, including policy design and implementation, policy dialogue, and the monitoring and evaluation of health care interventions. There are three basic aggregates of the National Health Accountings: National Health Expenditure (includes just the health expenditures and no any expenditures in health care functions), Total Health Expenditure (NHE+capital formations of all health care providers as well as expenditures on health education and research during the accounting period) and finally the Current Health Expenditure (besides the capital health expenditures such as buildings, machinery, IT and stocks of vaccines for emergency and outbreaks, records everything else THE does). NHA provides evidence to help policymakers, non-governmental stakeholders, and managers to make better decisions in their efforts to improve health system performance. Implemented regularly, the NHA can track health expenditure trends, an essential element in health care monitoring and evaluation. NHA provides the answer to four basic questions:

- Where do the resources come from?
- Where do the resources go?
- What kind of services and goods do they purchase?
- Whom do they benefit?

The NHA helps the government and the private sector to manage national health expenditures more efficiently and effectively, strengthen public trust and confidence in government policies, and builds on the national health system by making programs needs-based and practical. In essence, it helps:

- To evaluate health care expenditures concerning Nepal's Gross Domestic Product
- To provide baseline and trend data for monitoring the effect of health sector reform on resource allocation
- To improve efficiency in the use of scarce resources
- To improve equity in financing and care utilization
- To compare Nepal's experiences with those of other countries
- To identify information gaps and needs

Overall, the main purpose of preparing National Health Accounts is to understand the country's health financing landscape and the mechanism through the evidences based on health spending and find the answers to the key policy questions to inform policy decisions for health financing reforms.

The first round of National Health Account in Nepal took place in December 2006 and was named as Nepal National Health Account(NNHA). It was prepared with the goal to evaluate the then health expenditures in Nepal relative to its Gross Domestic Product(GDP). The first NNHA was based on the framework of the OECD-SHA manual, prepared with the data available from the Financial Management Information System(FMIS) and verified by the Ministry of Health and Population(MoHP). Similarly, the Health Accounts Production Tool (HAPT) and Health Accounts Analysis Tool (HAAT) were used for data mapping, validation, and analysis. The main health expenditure performers in Nepal have always been the private sector, the general government, and the rest of the world. Each of these aspects incorporates many other sub-aspects which will be later on discussed upon.

## NNHA (2003/04 - 2005/06)

2003/04 to 2005/06 was the second round of NNHA which was published in the year 2009. There were several health-related things accounted in this period's NNHA. However, it was not the perfect account. Throughout time, the things to be accounted, and rules for accounting kept advancing as several new categories and criteria added themselves until the latest NNHA 2012/13 to 2015/16. From 2000/01 onwards to 2005/06 the share of private OOP expenditure was always more than 50% of the THE, with the highest share being 62.5% during 2002/03. Although the private OOP expenditure dropped from 62% of the THE in 2002/03 to 50% of the THE until the 2005/06 period, the reason behind this was found to be the decrease in health care fees which ultimately reduced the level of OOP expenditure yet improving the health conditions. Another

thing which is to be noticed is that the THE was 5.6% of the GDP in 2004/05 while it was 5.3% of the GDP in 2005/06. This explains that the reduction in the cost of health care services really had a positive impact on the health and medical condition of the nation overall. The government also played an important role to improve the conditions of the health accounts though. Share contributed by the government increased gradually throughout the period, remaining at 1.3% of the total GDP at the end of 2005/06. Positive changes could be seen in people, as they had increasing concerns regarding their health. This is proven by the increase in Per Capita health expenditure from NPR.1,004 in 2002/03 to NPR.1,355 in 2005/06. According to the Nepal Living Standard Survey(NLSS), health expenditure accounted for 5.7% of the total household expenditure in 2003/04. However, a clear disparity exists between income groups. As a percent of total household expenditure, the richest spend 7%(per capita average of NPR.2,046) on health while the poorest spend around 4%(per capita average of NPR.124). This depicts that the poor are still deprived of the health services they actually require. The government might somehow meet their needs, but in a nation such as Nepal where more than half of the finance for health expenditure comes from households each year, it can be stated that the poor are getting less health-related attention than the richer ones. This might be one of the bold reasons that Nepal stood in 145th position, with a score of 0.689 in the World Health Index of 2005 while neighbors and other South Asian countries such as the Maldives, China, and Sri Lanka hailed at positions such as 103, 91 and 73 respectively(*source: UNDP Human Development Reports*). The lowest share of the Nepalese government was in 2000/01(16% of the THE) and the highest share was in 2005/06(23.7% of the THE). Nevertheless, under no circumstances could the efforts made by the government should go unnoticed. The government increased spending on Human Resource Development from NPR.4,836 million in 2003/04 to NPR.6,145 million in 2005/06. This resulted in a higher number of nurses, paramedical schools, and many medical personnel.

Along time, in Nepal, THE, NHE, SHA, and GDP, all of these aspects kept increasing, both in nominal terms and in real terms. Mainly, the Total Health Expenditure increased from NPR.24,913 million in 2002/03 to NPR.32,960 million in 2004/05(increase by 32%) to NPR.34,796 million in 2005/06(with an average yearly growth of 11.7%) in nominal terms. As per the real terms, the THE was NPR.30,029 million(USD 423 million) by the end of 2005/06, with the average yearly growth of 7.35%. Similarly, per-capita health expenditure grew from USD 12.50 in 2000/01 to USD 19.00 in 2005/06. Increased health expenditure seemed to be directly proportional to the per-capita health expenditure as well. Per-Capita spending on health rose from NPR.932 in 2000/01 to NPR.1,355 in 2005/06, with an average annual growth rate of 9%. A total increase of 45% throughout the whole period. The exchange rate of US dollars to Nepalese Rupees in 2002/03 was NPR.77.83 but fell to NPR.71.06 in 2005/06. This depreciation, as a result, led to an inaccurate picture of the per-capita health expenditure in terms of USD.

Besides the Maldives, Nepal led the rest of the SAARC countries in terms of the Total Health Expenditure with respect to their respective total GDP (Nepal: 5.8% of the GDP, Maldives: 12.4% of the GDP). However, the cases were not too good for per-capita health expenditure. While the Maldives had the per-capita health expenditure at USD 316, Nepal had it at USD 16, slightly higher than Bangladesh and Pakistan.

OOP expenditure accounted for 90% of the total private-sector spending on health care during the review period 2003/04 to 2005/06. NGOs remained the second-largest funders with an average of 7% of the total private financing during the same period. Among donor agencies, INGOs remained the top contributors, accounting for 62% of donor contributions to the THE in 2005/06. Official donor agencies were the second-greatest donor contributors, accounting for 38% of the rest of the world's contribution in 2005/06. In Nepal, out of all the collected health funds, NPR.26,442 million (71%) were used by all health care providers under the National Health Expenditure, and NPR.8,342 million (29%) were used for health-related functions that include the capital formation of health care provider institutions, education and training of health personnel, research and development in health, drinking water and sanitation, administration and provision of social services to those living with disease and impairment, and all other health-related functions. The citizens used private OOP expenditure mostly for allopathic medicine while the general government's funds were of huge significance for capital formation of health care providing institutions, followed by basic medical and diagnostic services, inpatient curative health care, and allopathic inpatient hospital care. Surprisingly, during this period, programs such as tuberculosis and leprosy control and immunization operated only on government and donor funding. The health function for which the most was spent during the 2005/06 period was the production of allopathic medicines with the total cost of NPR.401 million. The least was spent on minor communicable diseases (other communicable diseases), with the total cost of NPR.1 million, totally funded by official donor agencies. The largest expenditure in terms of health care function was medical goods dispensed to out patients (NPR.9,188.56 million), using 26% of THE in 2005/06. Similarly, the lowest expenditure in terms of health care function in the same period were ancillary health care services, constituting a total of NPR.591.27 million. In the 2005/06 period, amongst all the health care providers the highest health expenditure was made by retail sales outlets and other providers of medical goods. It led the charts with an amount of NPR.9,190.04 million (26.4% of the THE). As usual, the central government was the major source of public sector finance (NPR.7,694 million). Likewise, private pharmacies (drug retailers) were the major source of private sector finance (NPR.9,062 million).

There were various actions made during this round in order to improve the state of health and health care around the nation. Total spending on HRD increased markedly during the review period from NPR.4,800 million in 2003/04 to NPR.6,100 million in 2005/06. Private household funding accounted for over 91% of the total funding for HRD. The general government accounted

for 5-7 percent of total spending on HRD, while official donor agencies contributed another 5-7 percent during the review period. Spending on HRD as a percentage of THE grew from 16% in 2003/04 to 18% in 2005/06, indicating an increase in human resource development activities. Capital investment to establish medical and nursing schools increased from NPR.3,330 million in 2003/04 to NPR.3,890 million in 2005/06 due to the increasing number of medical, nursing, and paramedical schools in the private sector. Spending on education and training of health personnel increased from 31% in 2003/04 to 37% in 2005/06. However, the spending on research and development in health remained negligible (less than 1 percent).

A clear gap between rich and poor can be observed in terms of health and fooding as well. Household expenditure is grouped into two categories: food and non-food expenditures. Expenditure on all food and non-food categories varies by location and income group. The percentage of household expenditure spent on food in urban areas was just 29%, whereas in rural areas it was as high as 63%. Urban dwellers give much importance to education while those in rural areas spend much more on health. This illustrates that people in rural areas have to face more health-related problems. This might mostly be due to the lack of skilled health personnel, low-quality sanitation, fewer medical institutions, and less focus on education. One thing that can be noticed from the account is that people spend more at government facilities than at private facilities. However, the richest spend 16 times more than the poor in the same government facilities, while the poorest spend 6 times more at the private facilities. This might be due to travel costs(disparities are mirrored in medical and travel costs as well). Another major problem in the case of Nepal is that women were found to spend less share of their household budget on health-related cases compared to their male counterparts in most cases. This is especially unfortunate in the case of women of childbearing age (aged 16-50) and indicates the inequality and discrimination in the distribution of health care expenditure as well. These kinds of problems should be solved as soon as possible in order to establish Nepal as a healthy country overall.

In males, the maximum per-capita household expenditure on health was over 50 years of age, with the amount of NPR.69.44. Similarly, for females, the maximum spending was during 16-50 years of age(child delivery age group) with per-capita household health expenditure of NPR.59. Maximum per-capita household health expenditure based on geographical was led by Mid-Western with an amount of NPR.104.28. While Terai region seemed to have the highest mean health expenditure(NPR.96.46) which was followed by Hill(NPR.63.88) and finally by Mountains(NPR.19.43). This was mainly due to the lack of health centers in Mountain region and the lower population density in that region.

## NNHA (2012/13 - 2015/16)

The fifth round of Nepal National Health Account covered 4 fiscal years from 2012/13 to 2015/16. During this round, the mapping of each health care expenditure item was done by using the Health Accounts Production Tool (HAPT) based on the System of Health Accounts (SHA) 2011 classification. Unlike to SHA 1.0 (OECD, 2000), SHA 2011 recommends keeping “current healthcare expenditure (CHE)” and “capital formation (HK)” separate and discourages the use of the aggregate total health expenditure as the basis of further classification of healthcare expenditure. This prevents the account from vague records and helps to display an accurate picture. Allocation ratios for the disaggregated values required for the SHA 2011 classification were derived in advance through available health service utilization and costing information, and applied to split the aggregated expenditures. In short, it was a new and improved version of maintaining an accurate image in the NNHA. This was the first-ever round to include the disease accounts in the history of NNHA. At the end of this NNHA period(2015/16), the estimated Current Health Expenditure (CHE) in the current price was NPR.141.46 billion (6.3% of Gross Domestic Product (GDP)) and the capital expenditure was NPR.9.70 billion (0.4% of GDP). Similarly, during the same period, more than half of the total capital investment was made in the residential and non-residential buildings. Total Health Expenditure (THE) was estimated at NPR.151.16 billion (USD 1.43 billion) which was 6.7% of the GDP and the per capita THE was NPR.5,216 (USD 49). These numbers were far higher than those during the 2003/04 to 2005/06 period. This pretty much explains that as years passed by there was increased concern for health amongst the Nepalese people. Furthermore, it was also due to the increased price hike and slight inflation of the Nepalese currency over the years. This reason potentially explains one of the major reasons the amounts in this round are higher than those recorded in the previous accounts. In the context of financing sources and their institutional arrangements, households Out-of-Pocket (OOP) expenditure was at 55.4%(NPR.78,427 million {per capita NPR 2706} ), and of all the current funds for health care services and goods, was the major source of funding the health system of the country in the year 2015/16. OOP in Nepal was very high in the South-East Asian region as compared to the WHO recommended level of 15-20% of the CHE. The expenditure from the government scheme was 21.7% of Current Health Expenditure (CHE), out of which 17.5% was managed by the Ministry of Health and the remaining by local government and other government entities. The external funding for health expenditure (EXT-G) through government accounts sharply declined (from 6.3% in 2012/13 to 3.1% in 2015/16) and this was not a good change as it showed the government's lack of concern for its people. Transfers from the governments of foreign origins declined from 6.4% of CHE in 2012/13 to 3.1% of CHE in 2015/16. This implies that the burden for the central government to cover this decline and provide increased finance rose.

In the same 2015/16 period, voluntary prepayments from NGOs, rest of the world financing schemes and enterprise schemes pooled and managed 12.1%, 8.6%, and 1.9% of CHE respectively. Among the multilateral and bilateral donors, the major funds were from the USAID (2.4%), GAVI (1.9%), DFID (1.5%), UNICEF (1.4%), and WHO (0.9%). During 2015/16 General Government Health Expenditure (GGHE) including each and every source was NPR.40.31 billion (26.7% of THE and 1.8% of GDP), where one third was spent on the curative services then followed by preventive care (24.7%) and then capital formation (24.1%). Per-capita Total Health Expenditure had been increasing substantially in Nepal from the last ten years. It skyrocketed from NPR.3,504(USD 40) to NPR.5,216(USD 49) in 2015/16.

Now, if we discuss where was this enormous amount of money spent, in 2015/16, almost 33.8% of the CHE was made at the pharmacies and providers of medical goods. The rehabilitative care drew minimal(0.2%) current spending of all. Two-thirds of all health care provider expenditures occurred at the public health facilities of which 74.5% occurred at the primary and secondary care level health facilities. Health expenditure exclusively at primary facilities was as high as 12.2% of the CHE. There is relatively lower spending on the total pharmaceuticals' expenditure from prepayment funding schemes such as insurance, government, external and NPISHs funds. Hence, the pharmaceuticals expenditure is largely dependent upon household OOP direct payment, which is as high as two-thirds of total OOP. This implies that pharmaceuticals expenditure is one of the key drivers of escalating health expenditure and a major factor that influences the OOP spending to remain high. The OOP spending on the pharmaceuticals out of total OOP spending was highest among all the economic quintiles. Nationally, it was over three-quarters of total OOP spending on health, which denotes that households spending on pharmaceuticals and medical goods is one of the major drivers for the catastrophic health expenditure and further pushes people to impoverishment. There is an urgent need of addressing high OOP spending on pharmaceuticals and medical goods. Among hospitals now, most of the spending occurred at the private hospitals (8.5% of the CHE), which was then followed by public hospitals (6.6%). Also, the government was the major source of funding for public health facilities. By healthcare functions, more than one-third of CHE was made for the medicines and medical goods (34.5%), while curative care drew 32.0%, where 12.4% and 11.5% of CHE incurred for the outpatient and inpatient cares respectively. A large proportion (18%) of CHE was incurred on the preventive programs. Overall spending on the medical laboratory, imaging, and patient transportation service was around 6.2% of CHE. Overall, the investment in capital formation was NPR.9.7 billion(0.4% of the GDP).

Like in 2005/06, in 2015/16, under the CHE distribution of diseases categories, the majority (26.7% of CHE, NPR.37.73 billion) of spending was incurred for the non-communicable diseases(NCDs) followed by infectious and parasitic diseases (20.5%, NPR.28.93 billion) and then the reproductive health that basically includes maternal and perinatal conditions and family

planning(6.4%, NPR.9.09 billion). Among the NCDs as well, majority expenditure was made for the diseases of the digestive system(12.4%). The burden of NCDs in Nepal has risen in the last two decades. However, the contribution made by the government for the cure of NCDs is not enough. An analysis of household expenditure on diseases revealed that people are paying OOP more for the Non-Communicable Diseases(NCDs), whereas less than one-third is funded from the government schemes and negligible contribution is coming from voluntary payments schemes for the NCDs. Hence, households are getting more vulnerable towards the lower financial protection due to NCDs which could be addressed by the spending more through risk pooling prepayment schemes rather than OOP direct payment. Also investing in preventive care for the NCDs can have a greater impact on curtailing the incidence of the disease. Similarly, spending incurred for the nutritional deficiencies and injuries were 6.3% and 2.5% respectively. In the infectious diseases' category, the majority of spending (26.7%) was made for the respiratory infections followed by diarrheal diseases (11.1%), and HIV/AIDS and other STDs (9.1%). The expenditure made on Vaccine-Preventable Diseases (VPDs) was 7.9% of the CHE followed by Neglected Tropical Diseases (2.5%), Tuberculosis (1.3%), while minimal (0.4%) fund was spent on the Malaria. Day-by-day increasing cases of communicable diseases display the carelessness of infected people who skip incubation periods, strict sanitization methods, and social distancing. Furthermore, pollution, rapid population growth, and climate change might also be the reason for the discovery of new kinds of virus species, new infections, and new diseases.

During this round, the expenditures made on the infectious and parasitic diseases were almost in equal proportion among males and females, while in the case of NCDs, more (57.1%) expenditure was made on females than males. In the case of injuries, more expenditure was made on the males(56.9%). 97.1% of all the expenditure made on reproductive health was predominantly for the females, which was mostly for the maternal and perinatal conditions and family planning. The expenditure made on nutritional deficiencies was also higher (61.4%) among females. Injuries were mostly found due to vehicle accidents; therefore, drunk driving is still a major problem leading to injuries and more expenditure on health care facilities.

Due to the lack of disaggregated disease costing and utilization data, around one-third of CHE could not be classified into the spending related to a disease or health condition which is represented by "diseases/health conditions not elsewhere classified." This was a weakness of this round of accounting, which is expected to be corrected by the next round, and each disease having its separate category. Due to exceptionally high household OOP expenditure on health, 1.7% of people were pushed below the poverty line of \$1.9 Int. \$ PPP (Hui Wang et al 2018). Since Nepal is committed to the Universal Health Coverage(UHC), reducing OOP spending on healthcare is one of the major agenda of the nation. Necessary efforts should be made in the direction to reduce reliance on the direct OOP payment for health care in Nepal.



As mentioned earlier, the contribution from the government's side is not enough in some of the aspects. However, from the last decade, there have been no significant changes in the financing system. Direct OOP payments while seeking health care have been stagnant. Though the overall health spending has increased and OOP spending has fallen, the spending from the major prepayment schemes, primarily the domestic government and external funds, and other voluntary prepayments have not been increased in relative terms. Efforts have been made to cut down the higher direct payment, anticipated results have not been achieved in the current environment of resource constraints. Therefore, until changes are not made, the same problems persist, people keep on suffering on the same problems, and the system remains faulty. In this context, one of the solutions could be, alternative sources for financing through the prepayment schemes being identified and strengthened.

Since over half of the healthcare expenditure was through direct payment for health with no risk pooling mechanism, there was a lower risk pooling in the health system. The smaller the risk pool, the greater will be the financial burden among households while seeking health care services. (Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations. Pooling ensures that the risk related to financing health interventions is borne by all the members of the pool and not by each contributor individually. Its main purpose is to share the financial risk associated with health interventions for which there is an uncertain need. The arguments in favor of risk pooling in health care embody equity and efficiency considerations).

During the period of 2015/16, more than half of all the expenditures made on the infectious and parasitic diseases were at the primary level health facilities which are formed by PHCC and HPs, while one-fourth were at national and central hospitals. Minimal expenditure was made at specialized hospitals. More than two-thirds of the expenditure made on the nutritional deficiencies were at the primary care level and around one-third were at the secondary, national, and central level hospitals, while very few (0.6%) at specialized hospitals. These all point out to a specific conclusion; people still hold back to spend money on specialized health care facilities. There might still be a mentality among the people that spending as less on health expenses as possible is better for them. To end this kind of mentalities, government or other private agencies could organize awareness programs on the importance of health and to what extent could a serious infectious disease destroy people's life. Furthermore, a lack of trained/skilled human resources at PHCCs and HPs is seen in the context of Nepal. This is one of the reasons, patients (especially suffering from serious diseases) who try to find out cure at these centers end up with more serious conditions and often death.

Richer quintiles have been seen to be spending much of their incomes over health issues compared to relatively poor quintiles. Though households facing catastrophic expenditures were

comparatively lower among the poorest two economic quintiles, it ought to be so due to lower affordability and financial barriers that prevent them from accessing health care. Additionally, the incidence of catastrophic expenditure was slightly higher in the urban than the rural areas. The accounts, therefore, mentioned that most of the health facilities related activities take place in urban places of the nation. This indicates that there is much more space for health sector development in rural areas.

## NNHA: Road to Targets

There have been several improvements in the case of Nepal when compared to other South-East Asian countries. CHE as a percentage of GDP is relatively high in Nepal in 2005/06 compared to the SAARC countries, with the exception of Maldives. In this same period, Nepal lagged behind Afghanistan, Bhutan, China, and India, but was ahead of Bangladesh, Sri Lanka, and Pakistan in terms of per-capita health expenditure. In case of 2015/16, in terms of CHE as a percentage of the GDP, Nepal(6.28%) led Bangladesh(2.31%), Pakistan(2.86%), Sri Lanka(3.89%) and India(3.51%) while it lagged behind Afghanistan(10.96%) and the Maldives(10.20%).

As aimed, Total Health Expenditure at nominal prices, continued a trend of growth throughout the review period. CHE at real prices were also rising until 2004/05 but dropped to NRs. 27,355 million in 2005/06 from NRs. 29,465 million in 2004/05.

According to The Abuja Declaration of 2001, it recommends that governments allocate 15% of their budget to the health sector. Nepal is still lagging far behind in this aspect and might be that the years to come will show beams of hope of the nation marching forward to meet the target. However, there have been several "Training on Public Health" programs in various parts of Nepal, with a sole motive to improve the state of health facilities and medical treatments. In order to reduce the infections such as Malaria, Training on Malaria Related Information, Diagnosis, and Management programs for health personnel have been held in the Specific Malaria Prone Districts. Similarly, Lymphatic Filariasis Mapping had been done in a total of 13 districts in Nepal in 2005. These small steps might not seem much, but these are the reasons, the spread of various communicable diseases and casualties caused by serious infections have been reduced to some extent in Nepal since the very first round of Nepal National Health Accounts. In order to meet certain clauses of the Sustainable Development Goals such as the minimization of children's death, the Ministry of Health and Population, Department of Health Services had planned interventions on Japanese Encephalitis mass vaccination campaign in the high endemic districts during the Fiscal Year 2006/07. In addition to this, awareness campaigns, and immunization of children were carried out as usual for the reduction of AES including JE outbreak during the fiscal year 2006/07. These types of majors are taken for other various infections and diseases as well.

Other targets which had been set for the future NNHAs during 2005/06, such as the inclusion of more disaggregated level of information on the household health expenditure, coordination and collaboration with the professional and regulatory bodies experienced to be highly effective in data collection from the respective organizations, and advocacy and close coordination in order to ensure the timely and regular availability of household expenditure data have been updated, improved and fulfilled in the recent NNHA 2015/16. Still, some targets are yet to be fulfilled. Since I/NGOs have increased their contributions markedly in the last ten years, there should be greater oversight of their activities to ensure equitable and efficient distribution of services in the upcoming days. Because there are conflicting opinions on how best to reduce out-of-pocket expenditures, a survey should be conducted with this goal specifically in mind. This one is very important because in the 2015/16 period, people belonging to poor quintiles were seen to downfall below the poverty line as they made increasing health expenditures. This target, therefore, should be met as soon as possible to avoid such incidents and prevent the declination of the GDP and HDI of the nation. In resource-poor settings like Nepal, External Development Partners (EDPs) help reduce the resource gap. Nonetheless, EDP funding is not a sustainable source of financing, and efforts need to be made to increase government funding by boosting the GDP growth rate. This might be difficult but with joint forces of government officials, diplomats, and other parties, this might not be impossible too. Furthermore, the Health Economics and Financing Unit (HEFU) needs to update the NNHA on a regular basis as well (HEFU staffs need to be trained accordingly).

## Conclusion

Even though there have been gradual improvements and development in the health sector within the last ten years, there are still many steps to be taken to drive it further ahead. The government's course of actions could play a major role in the fulfillment of this necessity. The lack of health centers and health care services remains a major problem in Nepal. Although urban areas might have enough medical personnel and resource, the situation is not the same in rural areas. A one-time investment for the development of the health sector, construction of health centers (hospitals, medical colleges, health posts, and clinics) and incentives to medical personnel could prove to be very useful for improving the situation. First and foremost, people in rural areas wouldn't need to rush to the cities in case of emergencies. This would lead to saving in transportation costs and death due to the lack of medical attention when required. This will, furthermore, eradicate the situations we have had in the past where the people from lower-income quintiles have been pushed below the poverty line due to high expenditure in health care services (catastrophic health expenditure). This step of investing in the health sector by the government could lead Nepal towards the upper ranks in terms of health indices and HDI

compared to the neighboring countries as well. The total cost of the government health facility in Nepal is in fact very close to the cost at a private health institution. If this goes on, the targets set for the improvement of the health sector and good records in the health accounts will remain unfulfilled. Government facilities should actually offer health services at very low prices or even for free in some cases of minor health check-ups, injuries, vaccines, and infections. These steps have already been taken by some countries close to Nepal such as Honk Kong, Singapore, Maldives, UAE, and others. Nepalese people make exceptionally high out-of-pocket expenditure on pharmaceuticals and medical goods. Therefore, there is an urgent need of addressing high OOP spending on pharmaceuticals and medical goods. Certain steps could be taken to address this problem. The government subsidizing these kinds of products could be an effective solution. Removal of profit margins could prevent exceptionally high OOP expenditure to some extent. For pharmaceutical goods and medical goods of minor infections and diseases could be made available free of charge in various health posts and health care centers (especially in rural areas, this could prevent catastrophic health expenditure as well). Some minor steps which could be taken are strict supervision of drunk driving in plenty of roads, especially the main roads, awareness programs on the importance of incubation to prevent the spread of serious communicable diseases and ways to protect oneself from infections and diseases can be organized, and training campaigns for medical personnel can be organized by specialized doctors and professionals from time to time (mainly in the rural areas).

There had been objections due to inconsistent data in the earliest versions of the NNHA. However, these objections had been solved efficiently a long time ago. Yet, in order to enhance the maintenance of the NNHAs further, some steps could be taken. The repetition of the same data could be avoided to make the accounts as to the point as possible. In the sampling process of selection of State-Owned Enterprises (SOEs) and autonomous bodies, the categorization of such entities based on the number of employees to determine the sample size yield better estimation than categorization based on the sector of their business. Thus, the sampling based on the employee size of SOEs and autonomous bodies should be continued in the future NNHA to improve the estimation of the health expenditures from such entities. Further coordination and collaboration should be done with the Central Bureau of Statistics (CBS) to include the more disaggregated level of information on the household health expenditures in the Annual Household Survey (AHS) or Living Standard Surveys, especially by providers and diseases. Household health expenditure and utilization surveys on a periodic basis are useful for the OOP expenditure estimation. Advocacy and close coordination should be continued to ensure the timely and regular availability of household expenditure data. The institutionalization of the NNHA production which is the process of regular generation of the NHA data in a cost-effective way and awareness on the utilization of NHA findings and their policy implications should be continued.



## Reviewer's Remarks:

-A unique and independent attempt of the candidate in a pertinent issue.

-Some depth of the analysis.

-Useful for other researchers in the days to come.

-CONGRATULATIONS!! Prasiddha

Name: Ramesh Nath Dawadi



Signature:

A handwritten signature in black ink, enclosed in a rectangular box. The signature appears to read "R. Dawadi" in a cursive style.

12<sup>th</sup> August 2020

