

COUNTRY BRIEF

Improving Rehabilitation Expenditure Data in Nepal's National Health Accounts

September 2024



Contents

About the Accelerator	3
Acknowledgements	3
Disclaimer	3
Abbreviations	4
Introduction	5
Objectives	6
Policy imperatives for tracking rehabilitation expenditures in Nepal	7
Developing a rehabilitation expenditure data collection tool	9
Methodology	9
Results	11
Challenges	23
Recommendations	25
Annex 1: Rehabilitation Expenditure Survey Form	27
Annex 2: Contributions to total rehabilitation spending in Nepal	49
References	50



About the Accelerator

The Health Systems Strengthening Accelerator (Accelerator) is a global initiative funded by the United States Agency for International Development (USAID), with co-funding from the Bill & Melinda Gates Foundation. Its goal is to support countries' efforts to create high-performing, sustainable health systems on their journeys to self-reliance. The Accelerator partners with countries to address specific health system issues while institutionalizing country-driven processes for the selection, rapid testing, and purposeful scale-up of health system strengthening interventions. The Accelerator is led by Results for Development (R4D) with support from Health Strategy and Delivery Foundation (HSDF, headquartered in Nigeria) and ICF. Additional global, regional, and local partners will be selected in partnership with USAID/OHS and USAID Missions based on demand.

The Accelerator is working with the World Health Organization (WHO) to support countries to collect higher-quality rehabilitation expenditure data and better utilize resource mapping to inform policymaking.

Acknowledgements

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The Accelerator team is deeply grateful to Nepal's National Health Accounts team for their guidance and dedication throughout implementation of this activity. We also want to thank the WHO country office in Nepal for their continuous support and partnership. Finally, we are grateful to the Ministry of Health and Population's Department of Health Services (DoHS), including the and Policy Planning and Monitoring Division and Epidemiology and Disease Control Division's Leprosy Control Section Leprosy Control and Disability Management Section, and all local stakeholders who shared their input and experiences to support this work.

Disclaimer

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Abbreviations

DoHS Department of Health Services

EDCD Epidemiology and Disease Control Division

HC Health Care

HMIS Health Management Information Systems

LCDMS Leprosy Control and Disability Management Section

MoHP Ministry of Health and Population

NHA National Health Accounts

PPMD Policy Planning and Monitoring Division

R4D Results for Development

SHA System of Health Accounts

WHO World Health Organization



Introduction

Rehabilitation services help address functional difficulties associated with disease, disorders, and injuries. The System of Health Accounts (SHA 2011), an international accounting framework for systematically tracking health spending, provides guidance for tracking expenditures related to rehabilitation. SHA 2011 defines rehabilitation services as those that improve or restore impaired body functions and structures, compensate for the absence or loss of body functions and structures, improves activities and participation, and prevent impairments, medical complications, and risks.ⁱ

Rehabilitative care consists of a range of psychological, assistive technological, environmental cardiopulmonary, geriatric, neurological, orthopedic, and pediatric services. Interventions to improve functioning such as swallowing and speaking after a stroke or modifying a work environment aim to support recovery after a health condition such as disease, disorder, or injury. Rehabilitation can be necessary to promote the health outcomes of people living with different health conditions such as mental health, stroke, heart disease, injury burns, old age, etc.

Globally, about 2.6 billion people are currently living with a health condition that may benefit from rehabilitation. Rehabilitation should be recognized as an investment, with cost benefits for both individuals and society. It can help to avoid costly hospitalization, reduce hospital lengths of stay, optimize surgical outcomes, and prevent complications and re-admissions. As rehabilitation also enables individuals to engage in or return to work and employment, or to remain independent at home, it also minimizes the need for financial or caregiver support.

Figure 1: Quick Facts on Rehabilitation in Nepal

Rehabilitation Needs in Nepal

- According to WHO's Rehabilitation Need Estimator, based on data from 2021, there are about 9 million people in need of rehabilitation in Nepal, meaning 2 out 7 people could benefit from rehabilitation.
- Low back pain, hearing loss, and vision loss are the most prevalent health conditions needing rehabilitation services among the population.
- There has been a 95.5% increase in years lived with disability (YLDs) between 1990 and 2021.
- According to the WHO rapid assistive technology assessment (rATA) in 2022, 27.7% of the population uses assistive products.
- Spectacles, canes/sticks, and spinal orthoses are the commonly used assistive products in Nepal.
- Few tertiary and secondary public hospitals and NGOs are delivering rehabilitation services, and it is absent from primary care.

Policymakers require evidence to inform strategic decisions for rehabilitation. Health accounts can help to quantify the investment in rehabilitation, assess the gap between available financial coverage for rehabilitation and population needs, and guide resource allocation to maximize value-for-money and minimize out-of-pocket expenditure for service users.



However, local stakeholders agree that Nepal's previous National Health Accounts (NHA) have not comprehensively captured spending on rehabilitation due to data-related issues. Particularly at the facility level, rehabilitation expenditures are obscured compared to other forms of care (such as preventive or curative care) during data collection. As a result, Nepal's NHA reports do not provide adequate information on how investments are spent, what gaps remain in funding, and how resource allocation can be optimized to benefit the population. Policymakers are therefore constrained in their ability to monitor implementation of the country's National Rehabilitation Strategic Plan. This indicates a need to better track and interpret rehabilitation spending and equip Ministry of Health and Population's (MOHP) Department of Health Services (DoHS), Epidemiology and Disease Control Division's (EDCD) Leprosy Control Section Leprosy Control and Disability Management Section (LCDMS) to make evidence-based policies for rehabilitation expenditures.

Objectives

In collaboration with the MoHP, the Accelerator sought to investigate available rehabilitation expenditure data and practices and produce guidance for how to improve rehabilitation expenditure tracking moving forward. This involved defining the boundaries of rehabilitation services to be used within Nepal's health accounting framework, developing a data collection tool to capture expenditure on these services at the facility level, and testing this tool among health facilities located in Kathmandu. These efforts aimed to support the DoHS/EDCD/LCDMS and Policy Planning and Monitoring Division (PPMD) of MoHP to strengthen expenditure tracking for rehabilitation with the goal of better monitoring implementation of the National Rehabilitation Strategic Plan and utilizing NHAs as evidence to inform rehabilitation policy decisions in the future.

The objectives of this summary report are to:

- 1) Clarify the policy imperatives for tracking rehabilitation spending in Nepal,
- 2) Provide an overview of the methods and results of developing and testing a data collection tool at health facilities in Kathmandu, and
- 3) Offer recommendations for how rehabilitation expenditure data collection methods can be improved moving forward.



Policy imperatives for tracking rehabilitation expenditures in Nepal

Various policy documents in Nepal emphasize rehabilitation as an important component of Universal Health Coverage (UHC), including the National Health Sector Strategic Plan, National Health Policy (2019), and Department of Health Services (DoHS) annual report (2018/19). The 2018 Public Health Act defined "basic health service" as a "promotional, retributive, diagnostic, remedial, and rehabilitative service easily and freely available from the state for the sake of the fulfilment of the health needs of citizens." Meanwhile, the National Health Financing Strategy (2023-2033) and its associated action plan commit to investing in rehabilitation considering the population, geography and disease burden. Viii

However, a Systematic Assessment of Rehabilitation Situation (STARS) (2020), prepared by the Ministry of Health and Population (MoHP) in collaboration with WHO, revealed that there is a significant un-met and increasing need for rehabilitation in the population. The report stated that there is only one rehabilitation bed for every 87,000 people, reflecting that many citizens do not get the rehabilitation they need. WHO's rapid assessment of assistive technology (rATA) in Nepal showed that the need for assistive technologies is high, but demand is low, and supply is even lower. The prevalence of unmet need was reported to be 19.7%, and 70.9% of those surveyed are unable to do any activities without access to an assistive product.

A 2021 Nepal Health Facility Survey confirms the limited availability of rehabilitation services in Nepal. Physiotherapy services are offered at only 50% of public hospitals (Federal or Provincial levels) and private hospitals, 8% of local hospitals, and less than 2% of primary care-level facilities. Among those providing services, only 27% of provide services for detecting impairments, and only 6% provide either physiotherapy or mobility aid services to assist clients with impairments. *Less than 1% of the facilities reportedly observed guidelines from the priority assistive product list or the strategy and 10-year action plan on disability management. Funding is also limited for assistive product provision, and most of the prosthetic and orthotics services are supported by external development partners.

Nepal has been producing health accounts consistently for more than a decade and can provide insights into trends in rehabilitation spending. Nepal's NHA reports signal that the current investment in rehabilitation is insufficient to meet population needs. For instance, data from 2019-20 showed only 0.01% of health financing is for rehabilitation xi. The government expended approximately \$4 million US dollars in 2016/2017 budget on rehabilitation, but 95% of these funds came from foreign agencies. This is a particularly high proportion compared to other areas, as the total percent of foreign contribution to health expenditure overall is less than 10%. This data highlights legitimate concerns regarding financial sustainability of rehabilitation in Nepal.

However, mechanisms for tracking and utilizing national health account data to evaluate rehabilitation investments need to be optimized. Nepal's NHA reports do not provide insights about out-of-pocket payments for rehabilitation services, despite that the private sector provides most services, with 98% of rehabilitation workforce being in private sector. Further, the rATA report shows more than half of the participants (57.1%) obtained their assistive product through out-of-pocket expenditure followed by friends/family (38.9%) who paid for their assistive products. This indicates a need to better track and interpret rehabilitation spending in the context of population needs and provide the evidence to the LCDMS and EDCD of MOHP to make better policies for rehabilitation.



It is crucial to recognize the importance of accurately reflecting rehabilitation in health accounts data and utilizing this information to maximize financing for rehabilitation and answer other crucial policy questions, as depicted in the table below:

Table 1: Sample policy questions to guide rehabilitation expenditure tracking

Health issue	Policy questions
Equity	 Where is the current investment focused in terms of geography and population groups? To what extent is the current investment addressing unmet rehabilitation needs? What is the extent of out-of-pocket expenditures for rehabilitation and what measures are required to minimize it and provide financial protection for citizens?
Efficiency	 How does current expenditure relate to service utilization patterns at different levels of healthcare? What does the trend between budget allocation and expenditure reveal? Is there a pattern of underutilization of the allocated rehabilitation budget?
Aid dependency	 What is the pattern of government investment in rehabilitation compared to development partner assistance? What are the plans to increase government investment in rehabilitation? Is there fragmentation among external donors supporting rehabilitation, and if yes, how can it be addressed?
Synergy	 How are allocations made to sub-national and municipal governments coordinated and tracked? What is the current level of engagement of the federal government in terms of supporting the decentralized structure to ensure local-level monitoring of rehabilitation budget?
Prioritization	 For which diseases (e.g., ear and eye health) and population-specific programs (e.g., older people, conflict-affected individuals, mine victims, and persons with disabilities) are rehabilitation investments made, and how much? Does current expenditure suggest a focus on highly prevalent health conditions for which rehabilitation is required (e.g., low back pain)? Is current expenditure on assistive products expanding the service accessibility for those products with high unmet needs? What corrective actions can be taken to prioritize this?



Developing a rehabilitation expenditure data collection tool

To support the PPMD to produce more accurate and consistent estimates of rehabilitation spending, the Accelerator developed and pilot-tested a data collection tool at local health facilities providing rehabilitation services that can be used during future NHA production cycles. This section summarizes the methodological approach to implementation and analyzes results from testing the tool.

Methodology

Defining boundaries and distinguishing rehabilitation expenditures

A core team comprised of the Accelerator and its consultants, Nepal's NHA team, and WHO worked with different ministry departments and key stakeholders to define what interventions and activities should constitute rehabilitative health expenditures within Nepal's NHA framework.

Data collection tool

In close collaboration with the NHA team under PPMD, DoHS/EDCD/LCDMS, WHO and R4D, the activity core team co-developed a data collection tool that is compatible with existing health accounts production practices but prompts a deeper dive into rehabilitation expenditure. The data collection tool was designed to facilitate an exploration of spending at the facility level by extracting key information about financing, payment, and reporting practices as they relate to rehabilitation.

The data collection tool is in the form of a facility questionnaire that seeks to better understand rehabilitation services, personnel, equipment and their associated expenditures. It is aligned with WHO's Package of Interventions for Rehabilitation (PIR). It incorporates services, interventions, and assistive products defined in these guidelines.

The questionnaire seeks to extract information about the following categories:

- a. Facility related details including type of facility, size of facility and the type of rehabilitation care it provides
- b. Dedicated rehabilitation infrastructure such as wards/beds/equipment/spaces
- c. Total facility and rehabilitation expenditures based on the System of Health Accounts (SHA) 2011 codes
- d. Human resources employed by the facility for rehabilitation, categorized by their occupation
- e. For the departments that provide rehabilitation services, a department wise count of inpatients, outpatients and those receiving rehabilitation services.
- f. Average duration of rehabilitation services and associated expenditure by disease condition
- g. Assistive products as per Nepal's Priority Assistive Products List procured and issued in the last fiscal year

The complete facility survey tool is presented in Annex 2.

Effort was made to ensure that where possible, questions are close ended to ensure consistency in responses. The data variables were configured in the Semper Curiosity[™] platform – a cloud based electronic data capture (EDC) and analytics software. The platform integrates an EDC layer, server communication layer, and a database layer. The Semper Curiosity[™] platform implements role-based data management and access privileges, website security technologies, and database



access security. Semper Curiosity $^{\text{TM}}$ is accessible from the Chrome Web browser on any device such as desktop, laptop, tablet and mobile phone.

The data collection tool went through multiple iterations that involved consultations with the core team and multiple domain experts, including physiotherapists, program managers, and public health and health economic experts. The tool was then adapted for local use in Nepal by incorporating local healthcare terminologies.

Data sources and sampling approach

Facilities targeted in data collection were purposively selected based on their:

- Location (within Kathmandu)
- History of reporting rehabilitation data using the recently deployed Health Management Information Systems module
- Representation of different types of facilities (i.e., varying levels and focal diseases/conditions)

With leadership from DoHS/EDCD/LCDMS and PPMD and consultation with R4D, and according to strategic guidance from Nepal's NHA team, the core team deployed its data collection tool at six selected facilities. To ensure anonymity of the facilities involved, they will be referred to in this brief as "Facilities 1-6".

Data sources consisted of secondary documents and primary data generated from tool deployment among the six facilities.

Data collection at selected facilities

Data collection at the selected facilities was completed by Kathmandu-based organization, Vision Care International. The Vision Care team visited the selected facilities and presented letters of support from the Ministry to facility management to elicit cooperation and participation during the data collection process, including from facilities' finance departments, administrative departments, dedicated physiotherapy/rehabilitation departments, and others as required. Multiple visits were required to complete data collection from the facilities. This can be attributed in part to limited availability of relevant staff, as well as the level of detail requested from the facilities which necessitated follow-up engagements aimed at clarifying data needs. Private facilities in particular demonstrated hesitation in sharing financial data, particularly related to their revenues.

Completion of the questionnaire took 3-4 days/visits per facility over a period of 12 days from the 6 selected facilities. Throughout this time, the data collection team worked with the designated facility contacts to complete the questionnaire (11 pages) by extracting existing data on rehabilitation related expenditures.

Data management and quality assurance

Data collection was conducted through the Semper Curiosity[™] platform across the selected facilities. The Kathmandu based data collection team was trained on utilizing the tool prior to deployment of the tool at the facilities. The data collection tool was pre-tested at two facilities initially. This helped the team ensure that selected data variables are relevant, complete, and comprehensible. The tool was subsequently piloted across the six selected facilities. Remote monitoring and continuous feedback were an integral part of the process. While data collection was



underway, the team ran daily validity checks to ensure that responses were consistent and covered critical variables. Data was also backed up daily to prevent any data loss.

Analyzing and compiling results

After completion of data collection, the activity team created summary tables and reports of the data. Results were also mapped to the SHA 2011 rehabilitation classifications. The processes undergone and results are documented and socialized with key stakeholders to ensure the tested tool can be fully owned and continually deployed as part of future health accounts production processes.

Ethical considerations

All facility representatives received an explanation of the purpose of the activity and were given the opportunity to ask any clarifying questions. The data collection team explained to facility representatives that participation is voluntary and provided approval letters from MoHP prior to the start of data collection. Participants did not receive any compensation for their participation. All participation was entirely voluntary, and the data collection team did not provide any cash or in-kind incentives. Overall risk of participation was low, as the information solicited through the data collection tool concerned only rehabilitation services delivered and related expenditures.

Limitations

Some of the limitations that were identified during the data collection process are as follows:

- 1. Due to resourcing and timing constraints, data collection under this activity targeted a limited number of Kathmandu-based facilities. The resulting data is therefore not a representative sample and cannot be used to understand national-level spending on rehabilitation. The analytics included in this report serve to illustrate the ways in which the tool can be used to investigate and identify trends in facility-level spending. The final validated tool can be deployed by Nepal's NHA team amongst a broader number and range of facilities (including outside of Kathmandu) during future health accounts cycles to generate more comprehensive findings.
- 2. Responsiveness varied among the sample of facilities. While the majority shared data for all indicators in the tool, others declined to do so for certain indicators based on policies prohibiting data sharing.
- 3. The data collection activities aimed to enhance the estimation of rehabilitation expenditures at the *facility* level. As such, the results did not offer insights into patient-level out-of-pocket spending on rehabilitation from the *patient* perspective. The data did differentiate between out-of-pocket expenditures covered by the patient and those covered by other sources at the facility.

Results

This section provides an overview of key findings from the data collection process. We first describe the facilities engaged, including their locations, types, specialties, and care offered. Next, we present findings about facility revenues and expenditures for rehabilitation during the last fiscal year. We further present the breakdown of revenues and expenditures by the various funding sources, by the SHA (System of Health Account) codes, and by the salaries and wages of human resources at the facility for rehabilitation. In addition, we estimate the out-of-pocket expenditure incurred at these facilities for inpatient and outpatient rehabilitation. Finally, we provide an overview of the



Assistive Products that have been procured by these facilities in the last fiscal year and their prices per unit.

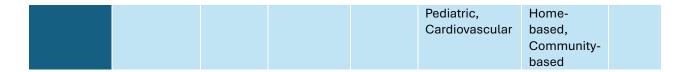
1. Geographical setting and services

The selected facilities are distributed across metropolitan and urban areas, with a significant presence of NGOs providing services. Most facilities offer comprehensive rehabilitation care, including inpatient, outpatient, day, tele-rehab, and home-based care. Dedicated spaces or gyms for rehabilitation are universally available. The specialization for rehabilitation was largely restricted to pediatric, musculoskeletal, neurology and neuro-developmental areas. The sample included for the purposes of this activity cannot be considered representative as it does not cover non-urban areas, rural or peripheral regions that are difficult to access. Hence, it should be noted that the findings may be skewed in their representation of quality and access to rehabilitation services in Nepal. Table 5 below provides an overview of the six selected facilities.

Table 5: Descriptive details of healthcare facilities

Facility	Setting	Type of Facility	Type of Care	Level of Facility	Type of Specialty	Type of Rehab Care	Rehab space
Facility 1	Metropolitan	NGO	Specialised Hospital	Rehab Centre	Musculo- skeletal, Neurology, Urology	Inpatient, Outpatient, Day-rehab, Tele-rehab, Community- based	V
Facility 2	Metropolitan	Public	Specialised Hospital	Rehab Centre	Musculo- skeletal, Neurology, Pediatric, Other	Outpatient, Day-rehab, Tele-rehab, Home- based, Community- based	1
Facility 3	Metropolitan	NGO	Specialised Hospital	Rehab Centre	Neuro- developmental	Day-rehab	1
Facility 4	Urban	NGO	Tertiary	Rehab Centre	Musculo- skeletal, Neurology, Other	Inpatient, Outpatient, Day-rehab, Tele-rehab, Community- based	V
Facility 5	Urban	Private Not for Profit	Tertiary	Medical College	Multi-specialty, General	Inpatient, Outpatient, Day-rehab, Tele-rehab, Home- based, Community- based	V
Facility 6	Metropolitan	Private for Profit	Specialised Hospital	Rehab Centre	Musculo- skeletal, Neurology,	Inpatient, Outpatient, Day-rehab,	1





2. Revenues, expenditures, and funding sources

Table 6 provides the total facility revenue and expenditure, and revenue and expenditure for rehabilitation for the facilities for the last fiscal year in NPR millions. Facility 1, Facility 2 and Facility 3 Care are 100% rehabilitation centers, hence their revenue and expenditure as a total of the facility and from rehabilitation are the same. Facility 4 gets 40% of its revenue from rehabilitation and incurs 70% of its total expenditure on rehabilitation. In the case of Facility 5, the revenue from and the expenditure related to rehabilitation are a very small percentage (less than 2%) of the total. ¹

Table 6: Revenue and expenditure (in NPR Millions) (FY 2079-80)

	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6
Total annual revenues of the facility	42.09	22.32	33.02	207.00	1,482.54	
Total annual revenue from rehabilitation	42.09	22.32	33.02	82.80	24.26	Data Not
Total annual expenditure of the facility	47.40	23.87	24.81	217.00	1,555.49	Provided
Total annual expenditure incurred on rehabilitation	47.40	23.87	24.81	151.90	1.25	

Figure 5 below provides details for how various funding sources have contributed to funding of total rehabilitation recurrent expenses for each of the facilities. A table in the annexure has the sources of funding information for rehabilitation capital expenses for the facilities.

Figure 5: Percentage contribution of sources of funding for each facility

¹ Facility 6 did not share the annual revenue and expenditure data, nor did they share the revenue contributions from different sources of funding. They stated that their organization policy did not allow them to share this data.



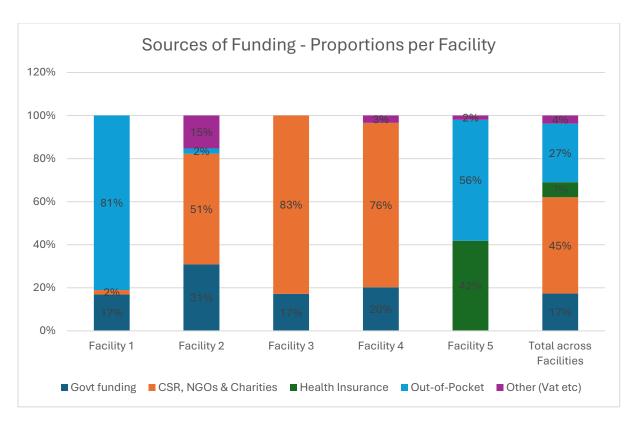


Table 7 provides the funding received (in NPR millions) by the facilities for rehabilitation recurrent expenses in the last fiscal year and for rehabilitation capital expenses in the last 5 fiscal years.

Table 7: Total funding for rehabilitation (in NPR Millions)

	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5
Rehabilitation Recurrent Expenses (last fiscal year)	31.5	20.97	16.3	52.7	24.26
Rehabilitation Capital Expenses (last 5 fiscal years)	5.1	5.0		20.0	

Important observations

- As is evident from Figure 5, the two primary sources of funding for healthcare services are OOP expenses and support from CSR initiatives, NGOs, and charities.
- There was significant variation in funding contributions across different facilities. The Facility 1 centre received the majority of its revenue from OOP expenditures. In contrast, CSR, NGO, and charitable contributions were substantial for the Facility 2, Facility 3 and Facility 4. This information is valuable for government agencies, as it highlights opportunities to redistribute funding to reduce OOP expenses.
- Public health insurance makes a significant contribution only at Facility 5, which provides comprehensive tertiary care services. However, rehabilitation services are a minor



- component of the overall care provided at Facility 5. This suggests that rehabilitation services, when considered in isolation, are generally not covered by health insurance.
- Regarding capital expenditure on rehabilitation, the data indicates a reliance on federal government grants. Only Facility 2 has significant contributions from external development partners and local government. Annex 2 provides the complete details.

3. Total and rehabilitation expenditure by factors of production approach

This section interprets the financial data for the six facilities using the SHA 2011 classification system. The data includes total expenditures, rehabilitation expenditures, and the percentage of rehabilitation costs relative to total costs. Only two of the six facilities (Facility 1 and Facility 4) gave a proper breakdown of the expenditure based on the SHA codes, but all six facilities gave the expenditure on wages and salaries.

Tables provided in Annex 2 present the detailed data for the expenditure by SHA codes per facility. Table 8 below provides the rehabilitation expenses aggregated by the major heads in the SHA codes (in NPR Millions). It also shows the percentage spend on each head.

Table 8: Rehabilitation expenditure with % of total for each head (in NPR Millions) (FY 2079-80)

	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6
FP.1 Compensation of	44.7	11.2	8.3	43.4	18.1	8.8
Employees	(89%)	(47%)	(100%)	(54%)	(94%)	(100%)
FP.3 Materials and services	5.0	12.5		24.5		
used	(9.9%)	(53%)	-	(31%)	-	-
FP3.5 Consumption of fixed	0.5			4.0	0.9	
capital	(.01%)	-	-	(5%)	(5%)	-
FP.5 Other items of				8.9	0.1	
spending on inputs	-	-	1	(11%)	(1%)	-
TOTAL	50.2	23.7	8.3	80.8	19.1	8.8

Facility 1, Facility 6, Facility 2 and Facility 3, being rehabilitation centres, reported rehabilitation expenditure to represent 100% of the total expenditure. Facility 4 spends 40% of its total expenditure on rehabilitation. Facility 5 did not provide data on its total expenditures by SHA codes, hence information on the percentage spent on rehabilitation cannot be determined. However, we can estimate it to be less than 2% of total expenditure based on the data provided in the previous section.

Facility 6 and Facility 3 only provided data under the head of "Compensation of Employees". They did not give any reason for not providing data under other headings. Hence their expenditure on compensation of employees in Figure 6 comes up as 100% of their entire expenditure.



Fig 6: Spending on compensation of employees as a % of the total rehabilitation expense by facility

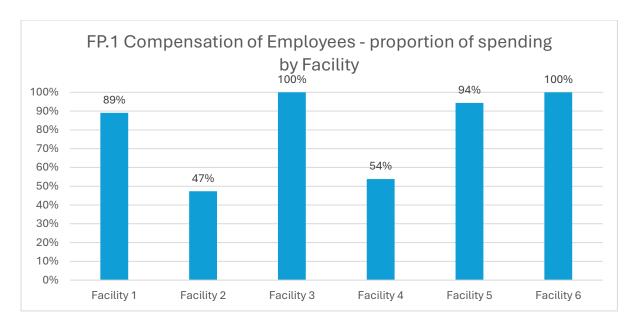
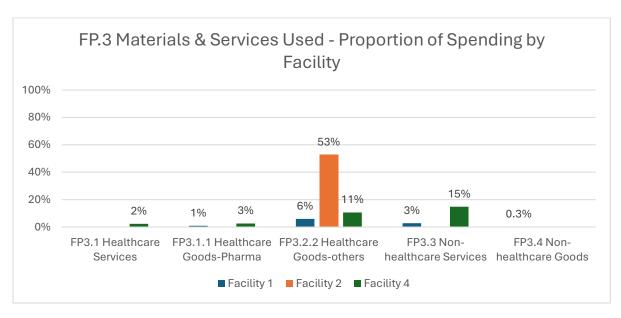


Fig 7: Spending as a % of total rehabilitation expense on Materials & Services used across facilities 2



Important observations

- 'Wages and Salaries' is the largest cost component for all 6 facilities.
- Detailed breakdowns for Facility 6, Facility 3, and Facility 5 are missing in several categories, thereby hindering a comprehensive analysis.
- Consumption of Fixed Capital was notable for Facility 4, indicating investment in infrastructure.

² Facility 6, Facility 3 and Facility 5 did not provide any data on Materials & Services Used.



4. Total out-of-pocket expenditure

This section interprets the OOPE on inpatient and outpatient rehabilitation across the six facilities. The analysis includes expenditures for different types of care (inpatient and outpatient) across various disease categories such as musculoskeletal, neurodevelopmental, neurology and cardiopulmonary.

Table 9 summarizes the OOP by facility and disease condition, split into inpatient and outpatient expenditure (in NPR Millions). ³

Table 9: Summary of rehabilitation OOP for Inpatients (IP) & Outpatients (OP) by facility and disease condition (in NPR Millions) (FY 2079-80)

	Facili	ty 1	Fa	cility 2	Fa	cility 3	Facil	ity 4	Faci	lity 5	Facilit	y 6
	IP	ОР	IP	ОР	IP	OP	IP	ОР	IP	ОР	IP	OP
Musculo- skeletal	_	1.38	-	6.76	-	-	0.44	0.01	11.28	32.19	2.02	37.21
Neuro- developmental	-	0.01	-	1.58	-	12.54	-	-	165.23	0.61	-	-
Neurology	60.86	0.90	-	1.66	-	-	0.72	0.11	93.22	1.81	26.21	2.50
Cardio- pulmonary	-	-	-	-	-	-	-	-	13.28	1.43	-	-
TOTAL OOP Exp (in NPR Millions)	60.9	2.3	-	10.0	-	12.5	1.2	0.1	283.0	36.0	28.2	39.7
Total Num of patients	369	724	-	1,280	-	209	314	567	13,037	13,726	240	5,740
Expenditure Per Patient	1 64 027	2 176		7 800		60,000	2 607	212	24 700	2.625	1 17 625	6,918
	1,64,927	3,176	_	7,809	_	60,000	3,697	212	21,708	2,625		1,17,635

³ Data was requested for Sensory, Mental Health and Other conditions as well, but none of the facilities reported any OOP expenditure on these.

17



Average OOP expenditure per Patient by Facility for Rehabilitation

180,000
164,927

140,000
120,000
100,000
80,000
60,000
40,000
21,708

Facility 3

■ Inpatient ■ Outpatient

Fig 8: Average out-of-pocket rehabilitation expenditure per patient by facility (split by inpatient & outpatient)

Important observations:

3,176

Facility 2

Facility 1

20,000

• The data reveal significant variation in expenditure levels and patient costs across facilities.

3,697₂₁₂

Facility 4

- Facility 1 data shows a high inpatient expenditure per patient. Inpatients at this facility are mostly neurology patients with an average rehab stay of 90 days at NPR1800-2200 per day inpatient rehab fee.
- Facility 6 has a somewhat higher outpatient expenditure per patient. It has a high volume of
 outpatients with 5600 in the last fiscal year. Some of the conditions have outpatient rehab of
 up to 35 days with NPR 500-800 per visit, leading to this high cost.
- At the Facility 2, while the average fee charged per outpatient is comparatively lower at NPR 510 per visit, few conditions prescribe average 20-30 days of rehab, driving up the per patient cost.
- Facility 3 prescribes an average 75 days of rehab per outpatient at a cost per visit of NPR 800, leading to the high rehab expenditure per outpatient.
- Facility 4 has the lowest rehab expenditure per patient, with outpatient costs as low as NPR 100 for the first visit and NPR 35 for subsequent visits, and inpatient rehabilitation at NPR 360 per day.
- At Facility 5, the inpatient rehab expenditure is lowest across the 6 facilities due to low fee charged at NPR 500-750 per day for inpatients.

These insights are crucial for understanding resource distribution and the cost-effectiveness of rehabilitation services across different facilities.

Table 10: Weighted average of inpatient & outpatient rehab expenditure aggregated across facilities

6,918

Facility 6

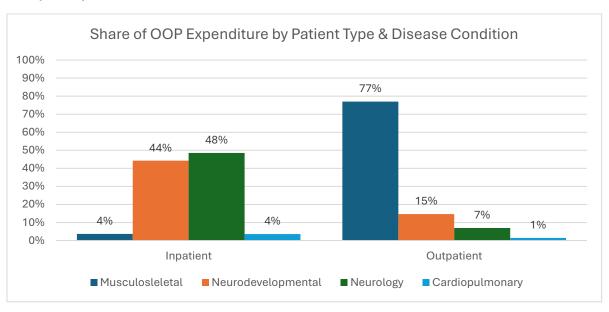
2,625

Facility 5



	Total Expenditure (NPR)	Weights (Sum of patients)	Weighted Average / patient (NPR)
Inpatient	37,32,54,475	13,960	26,737
Outpatient	10,06,97,619	22,246	4,527

Fig 9: Share of OOP rehabilitation expenditure per patient aggregated across facilities (split by inpatient & outpatient)



Important observations:

- Neurology and neurodevelopmental conditions have the highest share of OOP expenditure for inpatient care due to the high number of inpatient days for these conditions.
- Musculoskeletal has the highest share of outpatient expenditure. Many of the musculoskeletal conditions require a high number of days of outpatient rehab.
- There is a lack of data for sensory, mental health, and others, which prevents a comprehensive analysis of these conditions.
- Total inpatient costs generally exceed total outpatient costs for conditions like neurodevelopmental and neurology, while total outpatient costs are higher for musculoskeletal conditions.
- Since specific rehabilitation interventions/therapies are not defined across disease categories, understanding variations in expenditure across different conditions and settings (inpatient and outpatient) is challenging. While it is generally understood that inpatient care is more costly due to the high costs of hospital stays, it is also important to recognize that rehabilitation settings can vary by condition. For instance, musculoskeletal and cardiac rehabilitation may be effectively delivered in an outpatient setting, whereas spinal injury rehabilitation might require more frequent inpatient care.



5. Salaries and wages for rehabilitation human resources

Table 11 summarizes the salaries for various professions across our sample of rehabilitation facilities. All data is in NPR Millions.⁴

Table 11: Salary and wages for rehabilitation human resources (NPR Millions) (FY 2079-80)

	Fac	ility 1	Fac	cility 2	Fac	cility 3	Fac	cility 4	Fac	ility 5
		% of		% of		% of		% of		% of
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Physiotherapists	8.96	43	0.65	10.25	0.42	6.97	6.13	15.17	18.09	79.24
Occupational therapists	0.5	2.41		-	0.83	13.85	-		-	-
Audiologists		-		-	-	-	-		3.60	15.77
Prosthetists and Orthotists		-	2.5	39.43	-	-	6.81	16.85	-	-
Physical and rehabilitation medicine										
doctors	4	19.26		-	-	-			-	-
Clinical Psychologists	0.55	2.65		-	1.40	23.46			1.14	4.99
Audiologist and Speech pathologist		-		-	-	-	-		-	-
Rehabilitation nurses	3.96	19.07		-	-	-	17.33	42.87	-	-
Yoga Instructor		-		1	-	-	1		-	-
Special educators for children with neurological										
disabilities		-		-	3.32	55.72	0.61	1.50	-	-
Any other, specify	2.8	13.48	3.19	50.32	-	-	9.55	23.61	-	-
TOTAL	20.77	100	6.34	100	5.96	100	40.43	100	22.83	100

⁴ Facility 6 provided a count of human resources but not their salaries, as they have hesitant to provide expenditure data.



Rehab Resources - % Proportion of Total Salaries by Profession per Facility 90.0 79.2 80.0 70.0 55.7 50.3 60.0 43.1 42.9 39.4 50.0 40.0 23.6 16.8 19.3 30.0 19.1 15.8 13.8 20.0 10.0 0.0 ■ Facility 1 ■ Facility 2 ■ Facility 3 ■ Facility 4 ■ Facility 5

Fig 10: Rehab resources as a % of total salary by profession for each facility

Important observations:

- 1. Facility 4 has the highest total expenditure on rehabilitation salaries, followed by Facility 5 and Facility 1.
- 2. Understanding that expenditure on salaries depends on the types of services provided by a facility is crucial. The facilities included in this survey focused on musculoskeletal and neuro-developmental conditions, for which physiotherapy is an essential component of treatment. This study did not include other types of rehabilitation services such as addiction rehabilitation centers where requirement of physiotherapy services would be comparatively lower.

6. Assistive products

The survey questionnaire also probes on assistive product provision and pricing among facilities. Table 12 provides the number of products procured and their prices for the categories for each facility⁵. In order to see the detail product list and average price per category, please refer to the Excel file provided with this document.

Table 12: Procurement and price of assistive products

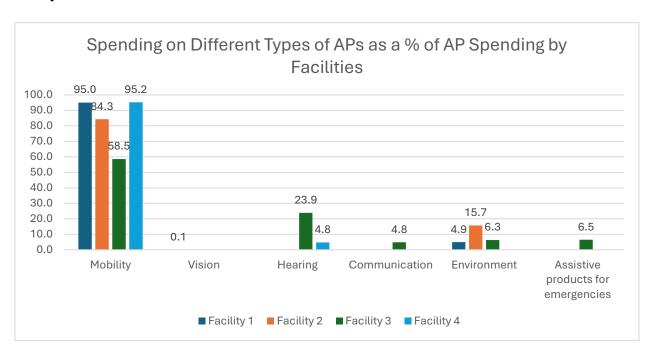
	Facility 1		Facility 6		Facility 2		Facility 3		Facility 4	
Assistive products	Num Products	Total Price	Num Product s	Total Price	Num Products	Total Price	Num Products	Total Price	Num Products	Total Price
Mobility	528	6,99,000	211	-	211	4,82,440	1	95,529	814	25,91,400

⁵ Facility 5 Facility did not provide data on APs. While Facility 6 provided data on the count of APs, thet did not share information on the procurement price. Hence their expenditure on APs could not be computed.



Total spending by the facility		7,35,600		_		5,72,440		1,63,1 85		27,21,400
emergencies	0	-	21		U	-	'	10,363	· ·	_
Assistive products for emergencies	0	_	21		0	_	1	10,583	0	_
Environment	155	36,100	51	-	30	90,000	2	10,271	0	-
Communication	0	-	0	-	0	-	1	7,836	0	-
Hearing	0	-	0	-	0	-	13	38,966	13	1,30,000
Vision	1	500	0	-	0	-	0	-	0	-

Figure 11: Spending on different categories of Assistive Products as a % of the total spending on APs by facility





Proportion of Spending on Different Types of APs by Facility, as a % 95.0 95.2 100.0 84.3 90.0 80.0 70.0 58.5 60.0 50.0 40.0 23.9 30.0 15.7 20.0 4.8 6.3 6.5 4.9 4.8 10.0 0.1 0.0 Facility 2 Facility 1 Facility 4 Facility 3 ■ Mobility ■ Vision ■ Hearing ■ Communication ■ Environment ■ Assistive products for emergencies

Figure 12: % Spending on different categories of Assistive Products by facility

Important observations:

- As a percentage of total expenditure on APs, all facilities spend the most on mobility products.
- Overall, Facility 4 has the highest expenditures on APs and the highest proportion of spending on mobility products.

This summary highlights the varying levels of provision and expenditure on assistive products across different facilities, with a broader focus on mobility and environmental aids and less emphasis on vision and communication products. However, this conclusion may be biased due to the lack of rehabilitation facilities in the sample that focus on other types of care, such as vision, hearing, etc. A direct comparison would provide a more accurate assessment.

Challenges

We observed the following challenges throughout the data collection process that may affect the quality of rehabilitation spending estimations:

1. Respondent participation in data collection

Comprehensive data collection requires participation from multiple health facility departments, such as clinical, finance, procurement, and administration, which often lack coordination. Explaining the objectives of the activity and building trust with healthcare providers, especially in the private sector, requires significant effort. Additionally, the timing of data collection is crucial, as facilities are unable to focus on this activity at the close and start of their financial year cycles (during which time they are overburdened).



2. Incomplete data

Some of the facilities provided partial or no information in some sections of the tool, resulting in skewed or limited data analysis. For example, the questionnaire included a section on expenditure on rehabilitation by disease category, but only one facility provided the data. The other facilities were not able to aggregate the data at the disease category level. Additionally, most facilities left some aspects of the tool unfilled.

3. Reluctance to provide financial data

Private healthcare providers often find it challenging to share financial data. Even when such data is provided, verifying its accuracy can be difficult.

4. Varying interpretations among respondents

Despite a trained data collection team and their multiple interactions with the stakeholders at the facilities, the providers often interpreted rehabilitation differently, leading to inconsistencies in the data collected. The facilities selected for the pilot were very diversified, from a vast teaching hospital to a very specialized Facility 3 centre, whereas the tool was the same for all. There is a lack of consistency in how rehabilitation is understood among healthcare providers, especially at facilities that primarily offer clinical services with only a small component of rehabilitation. For example, interventions like vision screening are often not recognized as part of rehabilitation. It is crucial to orient and educate healthcare providers about the comprehensive scope of rehabilitation services to ensure a more consistent and effective approach.

5. Cost attribution for overlapping interventions

Many interventions and technologies overlap between routine clinical care and rehabilitation care. Assigning costs exclusively to rehabilitation expenditure is difficult, particularly at facilities that do not provide exclusive rehabilitation services. Even rehabilitation centres had difficulty at times attributing costs to an outpatient visit versus outpatient rehab visit.

6. Guideline ambiguities

The WHO provides broad guidelines for defining rehabilitation packages. In contrast, expert bodies such as the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) offer a more technical perspective on cardiac rehabilitation. These resources, defined by academic and technical organizations, provide detailed information on rehabilitation practices. A balanced representation of both general guidelines and technical expertise in decision-making can enhance the development of more effective rehabilitation packages.



Recommendations

Based on experiences throughout implementation, we offer the following recommendations for strengthening data collection methods to improve the quality of rehabilitation expenditure estimations in Nepal's NHAs:

1. Ensure a representative sample during data collection

The sample used for the purposes of this activity did not include facilities from smaller cities, towns, or rural areas, and did not adequately represent facilities specializing in vision care, cancer care, cardiac care, or pulmonary care. Future use of the data collection tool should target a broader sample of facilities representative of different locations, specialties, sectors (government or private, for-profit or non-profit), and levels.

2. Host a workshop to orient facility stakeholders

Before data collection begins, desired respondents should be engaged to ensure a uniform understanding of the data collection tool's objectives, the definition and boundaries of rehabilitation, and the scope of data collection required. We recommend convening stakeholders in a workshop in order get timely, high-quality, comprehensive data. This will help mitigate many of the challenges faced in data collection during the pilot phase, such as varying interpretations of tool indicators, hesitation in sharing data, guideline ambiguities, and cost attribution challenges.

3. Update and adapt the tool

The tool should be updated to better track costs of assistive products, as their cost varies widely depending on need and quality. Comorbidities were not taken into account while collecting the data and only major illness for a patient was considered. Additionally, the tool did not specifically ask for expenditures on tele-rehabilitation, home-based rehabilitation and community-based rehabilitation. Some of the personnel at the facilities, particularly in the physiotherapy department (which is often the rehabilitation department) suggested that they be consulted for tool design in order to ensure fewer ambiguities in the tool.

Furthermore, although the current data collection tool was developed with input from experts across various rehabilitation domains, tool development is an ongoing process. There should be mechanisms for continuous feedback to improve the tool on a continual basis, such as focus group discussions. Important stakeholders to engage to this end include subject matter experts, service providers, and patient groups. This will require allocation of sufficient funds to ensure the continuous development, implementation, and maintenance of the rehabilitation tool – including to align with evolving healthcare needs and technologies.

4. Standardize data collection, quality assurance, and reporting

Establish clear guidelines for data entry to ensure consistency in reporting expenditures such as defining the source of information and frequency of recording information. Ensure that standardized coding systems are adopted for rehabilitation services and expenditure items. This ensures consistency in data reporting and facilitates comparison across different regions and time periods. Quality assurance measures should also be implemented, such as regular audits



to verify the accuracy and completeness of the data collected and developing validation procedures to ensure the data accurately reflects the rehabilitation expenditures. Furthermore, standardized reporting formats for presenting the data will facilitate interpretation and comparison of data across different health account cycles and countries.

5. Attention to regulatory and ethical considerations

Ensure that all future iterations of the data collection tool comply with relevant data protection regulations and ethical standards such as GDPR. Relatedly, it is recommended to develop and adhere to ethical guidelines for the collection, use, and reporting of rehabilitation expenditure data. This will also help to build a culture of trust and data sharing with private healthcare providers.

6. Use provider data and develop allocation keys through facility level data

If used at scale, the data collection tool developed for this activity could be used to derive the allocation keys needed to distribute the facility rehabilitation data by inpatient and outpatient services. Allocations would be made utilizing the HMIS data for services and assistive products.

7. Track spending by disease

If the data collection tool can be adapted over time to better acquire obtain the share of rehabilitation in total treatment for certain diseases, then allocation keys can be developed using HMIS data and proportional costs of rehabilitation services for each disease category. As Nepal already conducts disease specific expenditure information under NHA, these allocation keys can help in extracting the rehabilitation expenditures by diseases.

8. Invest in training and capacity building

Continuous education and training will further enhance the quality of the data collected in during health accounts production. It is therefore recommended to provide training for healthcare administrators, data managers, and other relevant personnel on the importance of tracking expenditure data accurately, and how to use data collection tools effectively. Utilizing virtual trainings and digital tools for direct data collection should be considered to reduce overall costs.

9. Improve practices for recording financial data

Collecting financial data, especially from private healthcare providers, is challenging and may be of poor quality due to recall and self-reporting biases. Reassuring providers, offering training to relevant stakeholders who provide the data, and recording anonymized financial information can improve data quality.



Annex 1: Rehabilitation Expenditure Survey Form

Interviewer Name:
Interview Date:
Interviewee Name(s):
Interviewee Designation(s):
Interviewee Contact(s):



A) Facility Details

Objective: Facility details including rehabilitation services provided by the facility

SN	Questions	Response	Remarks
1	Name of the Healthcare Facility:		
2	Year of Establishment		
3	Address	1. Ward No:	
		2. Municipality/VDC:	
		3. Location:	
		4. District:	
4	Setting	1. Metropolitan	
		2. Urban	
		3. Rural	
5	Type of Facility	1. Public	
		2. Private for Profit	
		3. Private not for Profit	
		4. Others	
6	Level of Facility	Rehabilitation	
		Centres/Hospital 2. National Hospital	
		3. Federal Hospital	
		4. National Academies in Health/Medical College/ Universities	
		5. Provincial hospital	
		6. District hospital	



		7. Municipality Hospital	
		8. Basic Health Centre	
		9. Community Hospital	
		10. Hospital Operated by NGO	
		11. Private Hospital	
		12. Private Clinic	
7	Type of Care	1. Primary	
		2. Secondary	
		3. Tertiary	
		4. Specialized Hospital	
8a	Number of total beds		
8b	Number of dedicated beds for rehabilitation (longer stay specialized wards/centres)		
9	Type of specialty at the facility (Multiple response)	☐ General	
		☐ Cancer	
		☐ Mental Hospital (Psychiatric)	
		☐ Pediatric	
		☐ Obstetric/maternity	
		☐ Infectious disease	
		☐ Cardiovascular	
		☐ Musculoskeletal	
		☐ Neurology	



		Urology	
		Multi-specialty	
		Others (Specify)	
10	Type of Rehabilitation care (Multiple response)	Inpatient rehabilitative care	
		Outpatient rehabilitative care	
		Day rehabilitative care	
		Tele-rehabilitation (Remote)	
		Home-based rehabilitative care	
		Community-based rehab	
		(Community outreach/Mobile clinics etc.)	
		ournes story	
<u>11</u>	Designated purpose-built	Yes	
	space/gym for rehabilitation	No	
<u>12</u>	Specialized rehabilitation	For children with developmental	
	programs	delays and disabilities	
	(Multiple response)	For geriatrics targeting falls and frailty	
		For vision or hearing loss	
		For mental health conditions	



B) Revenue Sources and Budget Allocation:

Objective: Total and share of revenues from different sources for the facility overall and for rehabilitation

S.No.	(In Nepalese Rupees)	2079/80	2078/79	2077/78
		(2022-23)	(2021-22)	(2020-21)
1	Total annual revenues of the facility			
2	Total annual revenue from rehabilitation			
3	Total annual expenditure of the facility			
4	Total annual expenditure incurred on rehabilitation			

B.1 Specify contribution to the revenues from each source under the below headings for last fiscal year (financing source approach):

Funding Source	Yes/ No	Total contribution in last fiscal year to total facility revenues (in NPR)	Total contribution in last fiscal year to rehabilitation recurrent expenses (in NPR)	Total contribution to rehabilitation capital expenses (in NPR)		
				Last Fiscal year	Last years	5
Total						
Federal government conditional grants						
Federal government non-conditional grants						
Provincial government Conditional grants						



Provincial			
government			
Non-Conditional			
grants			
Local government			
Municipal			
government			
Other benefit			
package of			
government			
Hospital			
development			
Committee grant			
External development			
partners (UN			
agencies, bilateral			
donors and			
diplomatic missions)			
International NGO's			
Local donations			
Including CSR			
NGOs (Including			
rotary and lions			
clubs)			
Public Health			
Insurance			
Private health			
insurance			
Out-of-pocket (OOP)			
Any other, specify			

B.2 Specify the expenditures for the last fiscal year for the following line items:

Objective: Total and rehabilitation expenditure using the factors of production approach of System of Health Accounts



	For the facility	For rehabilitation				
FP.1 Compensation of Employees						
Wages and salaries (Gross)*						
Social contributions						
All other costs related to						
employees						
FP.2 Self-employed professiona	l remuneration					
Materials and services used						
Healthcare services (linked to						
treatment of patient)*						
Healthcare goods –						
Pharmaceuticals*						
Healthcare goods –						
consumables*						
Healthcare goods – non-						
consumables*						
Non healthcare services						
(laundry, utilities, food, rent,						
fuel, office supplies)*						
Non healthcare goods						
Consumption of fixed capital						
Other items of spending on inputs						
Taxes						
Other items of spending						

^{*:} these are the important categories



B.3 For disaggregating the expenditure incurred on rehabilitation by disease category Specify rehabilitation expenditure in the last fiscal year on these disease categories (if available):

Disease Conditions	Rehabilitation Expenditure (in NPR)
Musculosleletal	
Neurodevelopmental	
Sensory	
Neurology	
Cardiopulmonary	
Mental Health	
Others	



B.4 For estimating out of pocket expenditures in the last fiscal year by Inpatients:

Disease Condition	Average length of stay at the facility for inpatient s (in days)	Average length of stay at the facility for inpatients undergoing rehabilitation (in days)	Fee charged per day by the facility for inpatients undergoing rehabilitation (in NPR)	Average number of inpatients undergoing rehabilitation that use radiology and diagnostic services during their stay (per month)	Average expenditure on radiology and diagnostic services used by inpatients undergoing rehabilitation (per month) (in NPR)
Musculoskeletal					
Low Back Pain					
Osteoarthritis					
Rheumatoid Arthritis					
Sarcopenia					
Fractures					
Amputations					
Soft Tissue Injuries					
Neurodevelopmental					
Autism Spectrum					
Disorders					
Cerebral palsy					
Sensory					
Vision Loss					



Disease Condition	Average length of stay at the facility for inpatient s (in days)	Average length of stay at the facility for inpatients undergoing rehabilitation (in days)	Fee charged per day by the facility for inpatients undergoing rehabilitation (in NPR)	Average number of inpatients undergoing rehabilitation that use radiology and diagnostic services during their stay (per month)	Average expenditure on radiology and diagnostic services used by inpatients undergoing rehabilitation (per month) (in NPR)
Hearing Loss					
Neurology					
Stroke					
Parkinson's Disease					
Traumatic Brain Injury					
Traumatic Spinal Cord Injury					
Cerebral Palsy					
Dementia					
Cardiopulmonary					
COPD					
Ischemic Heart Disease					
Mental health					
Schizophrenia					
Neoplasm					



	Average	Average	Fee charged	Average	Average
	length of	length of stay	per day by	number of	expenditure on
	stay at	at the facility	the facility	inpatients	radiology and
	the	for inpatients	for inpatients	undergoing	diagnostic
	facility	undergoing	undergoing	rehabilitation	services used
B:	for	rehabilitation	rehabilitation	that use	by inpatients
Disease Condition	inpatient	(in days)	(in NPR)	radiology and	undergoing
	s (in days)			diagnostic	rehabilitation
				services	(per month) (in
				during their	NPR)
				stay (per	
				month)	
				•	
Others					



B.5 For estimating out of pocket expenditures in the last fiscal year by Outpatients:

	Average	Fee charged	Fee charged	Average	Average
	number	for one	for	number of	expenditure
	of days	outpatient	outpatient	outpatients	on radiology
	of	rehabilitatio	rehabilitatio	undergoing	and
	rehabilit	n visit (in	n package	rehabilitatio	diagnostic
	ation	NPR))	of 14 days	n that use	services used
Disease Condition	prescrib		(in NPR)	radiology	by
	ed to			and	outpatients
	outpatie			diagnostic	undergoing
	nts			services	rehabilitation
				during their	(per month)
				stay (per	(in NPR)
				month)	
Musculoskeletal					
Low Back Pain					
Osteoarthritis					
Rheumatoid Arthritis					
Sarcopenia					
Fractures					
Amputations					
Soft Tissue Injuries					
Neurodevelopmental					
Autism Spectrum					
Disorders					
Cerebral palsy					



	Average	Fee charged	Fee charged	Average	Average
	number	for one	for	number of	expenditure
	of days	outpatient	outpatient	outpatients	on radiology
	of	rehabilitatio	rehabilitatio	undergoing	and
	rehabilit	n visit (in	n package	rehabilitatio	diagnostic
	ation	NPR))	of 14 days	n that use	services used
Disease Condition	prescrib		(in NPR)	radiology	by
	ed to			and	outpatients
	outpatie			diagnostic	undergoing
	nts			services	rehabilitation
				during their	(per month)
				stay (per	(in NPR)
				month)	
Sensory					
Vision Loss					
Hearing Loss					
Neurology					
Stroke					
Parkinson's Disease					
Traumatic Brain Injury					
Traumatic Spinal Cord					
Injury					
Cerebral Palsy					
Dementia					
Cardiopulmonary					
COPD					



	Average	Fee charged	Fee charged	Average	Average
	number	for one	for	number of	expenditure
	of days	outpatient	outpatient	outpatients	on radiology
	of	rehabilitatio	rehabilitatio	undergoing	and
	rehabilit	n visit (in	n package	rehabilitatio	diagnostic
	ation	NPR))	of 14 days	n that use	services used
Disease Condition	prescrib		(in NPR)	radiology	by
	ed to			and	outpatients
	outpatie			diagnostic	undergoing
	nts			services	rehabilitation
				during their	(per month)
				stay (per	(in NPR)
				month)	
Ischemic Heart					
Disease					
Mental health					
Schizophrenia					
Neoplasm					
Others					



C) Utilization of services (overall and rehabilitation) by specialty provided in the last fiscal year

Objective: To obtain the percentage of patients that utilize rehabilitation care for different specialties

	Tota	al#of		Rehab			Rem
Disease Condition			Yes/ If yes, # of			arks	
	Inpatients	Outpatients	No	Inpatients	Outpatients	APs	
Musculoskeletal							
Low Back Pain							
Osteoarthritis							
Rheumatoid Arthritis							
Sarcopenia							
Fractures							
Amputations							
Soft Tissue Injuries							
Neurodevelopmental							
Autism Spectrum							
Disorders							
Cerebral palsy							
Sensory							
Vision Loss							
Hearing Loss							
Neurology							
Stroke							



	Tota	al#of	Rehab				Rem
Disease Condition			Yes/	Yes/ If yes, # of			arks
	Inpatients	Outpatients	No	Inpatients	Outpatients	APs	
Parkinson's Disease							
Traumatic Brain Injury							
Traumatic Spinal							
Cord Injury							
Cerebral Palsy							
Dementia							
Cardiopulmonary							
COPD							
Ischemic Heart							
Disease							
Mental health							
Schizophrenia							
Neoplasm							
Others							

D) Human resources for rehabilitation (Available at the facility)

Objective: triangulate the expenditure related to salaries and wages of rehabilitation resources

Rehabilitation professionals	Number	Annual salary and incentives per
		person
Physiotherapists		
Occupational therapists		
Audiologists		



Prosthetists and Orthotists	
Trostrictists and Orthodists	
Physical and rehabilitation	
medicine doctors	
Clinical Psychologists	
Audiologist and Speech	
pathologist	
Rehabilitation nurses	
Yoga Instructor	
Special educators for children	
with neurological disabilities	
Any other, specify	



E) Assistive products (Availability & issuance)

Objective: triangulate the expenditure on healthcare goods utilized for rehabilitation

Area/Type of the product	Name of the product	Procured in the last fiscal year	Price of product** (to hospital)
Mobility		1	1
Crutches	Axillary crutches		
	Elbow crutches		
Walking sticks and canes	Walking sticks/canes		
Walkers	Walking frames		
Wheelchairs	Manual wheelchairs		
	Tricycles (three-wheeled cycles)		
Lower limb orthoses	Footwear for diabetes/neuropathic foot, Orthopedic shoes		
	Foot abduction braces/ Club foot Shoes and braces/splints		
	Ankle Foot Orthoses		
	Knee ankle foot orthoses		
Spinal orthoses	Thoraco-lumbo-sacral orthoses/brace		
Lower limb prostheses	Below knee lower limb prosthesis (artificial leg)		
	Above knee lower limb prosthesis (artificial leg)		
Upper limb prostheses	Trans-humeral (above elbow) upper limb prosthesis (artificial hand)		
	Trans-radial (below elbow) upper limb prosthesis (artificial hand)		
Upper Limb Orthoses	Wrist hand finger Orthosis		
	Elbow Wrist hand Orthosis		
	Shoulder Elbow Orthosis		



Area/Type of the product	Name of the product	Procured in the last fiscal year	Price of product** (to hospital)
Special devices for children with developmental delays	Modular seating systems		
	Assistive products for cognitive therapy, Toys, games, Assistive products for training in communication with pictures and drawings		
Other products	Catheter and Diaper (for Spinal cord injuries) & Hip & elbow support, soft 11 Area/Type Name of Product Explanation cotton elastic bandages, soft ice pack/bandage, light weight tourniquets (for Hemophilia)		
Vision			
Spectacles	Spectacles for low vision, long distance, Short Distance		
Magnifying devices	Magnifying glasses (includes, Handheld magnifying glasses		
Tactile sticks	White canes (folding or non-folding)		
Interactive products	Refreshable braille displays (includes, Braille Displayer)		
	Screen readers (includes, DAISY player, Software, Screen reading software)		
Writing Devices	Portable braille note takers (includes, Braille Memo)		
	Braille writing equipment (includes, Stylus, slate, braille paper)		
Other products	Liquid level indicator (includes, Water indicator , Object indicator)		
Hearing	_1		1



Area/Type of the product	Name of the product	Procured in the last fiscal year	Price of product** (to hospital)
Hearing aids	Behind the ear hearing aids (includes, Audio induction loop system & Frequency modulation system)		
Communication products	Video recording and playing (includes Video communication devices)		
	Devices and software for real-time text communication (includes, Text to Text Communication Device, Communication access real time translation)		
Signaling products	Fire and smoke alarm signalers (includes, Light indicator, signalers with vibration)		
Other products	Decoders for videotext and text television (Includes, Automatic speech recognition (ASR) in captioning systems, Communication access real time translation)		
	Infrared system, Voice/speech machine/instrument		
Communication	I		I
Nonelectronic AAC	Communication boards/books (includes, picture exchange and communication system)		
Electronic AAC	Face-to-face communication software		
	Dialogue units (includes, Augmentative and alternative communication system)		
Cognition		l	1
Multiple uses	Personal Digital Assistants (PDA)		
Memory Aids	Pill organizers		



Area/Type of the product	Name of the product	Procured in the last fiscal year	Price of product** (to hospital)
Time devices	Time management products		
Alarms	Personal emergency alarm systems (Includes, Fall detectors)		
Environment		L	
	Commode chairs (includes Special types of commodes)		
Bed Mattress	Pressure relief mattress (includes Air mattress for patients with spinal cord Injury, stroke,)		
Wheelchair accessories	Pressure relief cushions (includes Air cushion & gel cushion for patients with spinal cord injury, Wheelchair cushion)		
Assistive products for en	nergencies (Equipment and Consumat	oles)	
	Stump boards		
	Patient transfer boards for chair to bed and bed/trolley to bed		
	Leg raisers for wheelchairs		
	Portable commodes (chairs for shower/toilet)		
	Discharge wheelchairs		
	Pressure-relieving cushions for wheelchairs		
	Slide sheets (To remain in the hospital)		
	Inpatient wheelchairs		
	Pairs of crutches		
	Walking frames		
	Pressure relieving mattresses (To remain in the hospital)		



Area/Type of the product	Name of the product	Procured in the last fiscal year	Price of product** (to hospital)
	Pre-fabricated Ankle and Foot Orthoses		
	Rigid adjustable cervical collars		

^{**:} Price of products to be entered if available at the facility as per the government published priority assistive products list or other sources



Annex 2: Contributions to total rehabilitation spending in Nepal

Table 1: Funding Sources (in NPR Millions) (last Fiscal Year) – Contribution to Rehabilitation Recurrent Expenses

	Facility 1		Facility 2		Facility 3		Facility 4		Facility 5	
		% of								
	Amount	Total								
Total	31.5	100	20.9	100	16.3	100	52.7	100	24.3	100
Federal govt										
conditional grants			4	19.1	2.8	17.2				
Provincial govt										
Conditional										
Grants			2.1	9.9			3.6	6.83		
Local govt			0.4	1.9			7.1	13.4		
Other benefit										
package of govt	5.3	16.9								
External dev't										
partners			7.6	36.1						
International										
NGOs	0.6	2.1			13.5	82.8	38.8	73.6		
Local donations										
Including CSR			0.8	3.6						
NGOs			2.5	11.8			1.4	2.7		
Public Health										
Insurance									10.2	41.9
Out-of-pocket	25.5	81.0	0.5	2.5					13.6	56.1
Any other, specify	_		3.2	15.3	_		1.8	3.4	0.5	2.0

Table 2: Contribution to Rehabilitation Capital Expenses (in NPR Millions) (last 5 Fiscal Years)

	Facility 1		Facility 2		Facility 4	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
Total	5.1	100	5	100	20	100
Federal government						
conditional grants					20	100
Federal government non-						
conditional grants	5	98.0				
Local government	0.1	1.96	2	40		
External development						
partners (UN agencies,						
bilateral donors and						
diplomatic missions)			3	60		



References

OECD (2011). A System of Health Accounts, OECD Publishing. OECD, Eurostat, WHO.

WHO (2023). Package of interventions for rehabilitation. Module 1. Introduction. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO.

iii IHME (2024). Rehabilitation Needs Estimator. Accessed online at: https://vizhub.healthdata.org/rehabilitation/

https://drive.google.com/file/d/1Rqtejckm0bKMEedAe9SJiEEoqOvHDykh/view

wiii Ministry of Health and Population. Department of Health Services. Epidemiology and Diseases Control Division. Leprosy Control and Disability Management Section. Situation Assessment of Rehabilitation. 2022. https://edcd.gov.np/uploads/resource/639578fee6fc4.pdf

^{ix} Gynawali P, Paudel KP, Dahal S, Bista B, Baskota R, Aryal UR, Koirala P, Marahatta K, Dhimal M (2022). Measuring access to Assistive Technology in Nepal: A Country Report 2021. Kathmandu: Nepal Health Research Council, Epidemiology and Disease Control Division and World Health Organization, Nepal

iv MOHP (2019). National Health Policy.

^v MOHP (2015). National Health Sector Strategic plan 2015-20.

vi Demographic and Heath Surveys Program (2022). Nepal Health Facility Survey 2021.

vii National Health Financing Strategy. 2023 - 2033.

^x Nepal Health Facility Survey 2021 (2022).

xi MoHP (2023). Nepal National Health Accounts 2018/19 – 2019/20, Ministry of Health and Population, Government of Nepal, Kathmandu, Nepal.