

A Comprehensive Assessment of Uganda's Rehabilitation Workshops

Submitted to:

**National Union of Disabled Persons of Uganda
(NUDIPU)**

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Executive Summary

Uganda has reaffirmed its commitment to disability inclusion and the Rehabilitation 2030 agenda by pledging at the 2022 Global Disability Summit to enhance orthopedic facilities and disability services nationwide. This pledge highlights the urgent need to address persistent gaps in rehabilitation services by strengthening and equipping facilities to meet the growing demand for accessible, high-quality care.

Rehabilitation services are vital for empowering persons with disabilities, supporting individuals with health conditions, aiding injury recovery, assisting older adults, and caring for mothers recovering from cesarean sections. Despite notable progress in healthcare, significant barriers remain in delivering inclusive and comprehensive rehabilitation. This study identifies critical gaps in service provision and presents actionable recommendations to improve accessibility, quality, and impact, emphasizing the transformative role of rehabilitation in fostering independence, participation, and meaningful inclusion for persons with disabilities.

To advance these efforts, the National Union of Disabled Persons of Uganda (NUDIPU) conducted a comprehensive assessment of rehabilitation workshops across the country, comparing government-operated and private facilities. The assessment focused on resource allocation, equipment availability, supply chains, funding, and staffing levels, aiming to strengthen NUDIPU's advocacy for equitable access to quality rehabilitation services and assistive technologies.

Purpose of the Study

Commissioned by the National Union of Disabled Persons of Uganda (NUDIPU), this assessment aimed to support advocacy efforts by evaluating rehabilitation workshops across the country, including government-operated and private facilities. The study focused on critical aspects such as accessibility, service quality, resource allocation, staffing, and service delivery to ensure equitable access to high-quality healthcare for persons with disabilities.

Key Objectives

1. **Assess Operational Effectiveness and Accessibility:** Evaluate the infrastructure, space, equipment, and adherence to universal design principles in government-operated rehabilitation workshops. Identify barriers to access for individuals with diverse disabilities.
2. **Compare Service Provision and Quality:** Analyze the inclusivity, accommodations, and overall quality of services provided in government-operated versus private rehabilitation facilities to highlight differences in effectiveness.
3. **Examine Resource Allocation and Investment:** Review budgetary allocations, operational costs, and procurement processes for assistive devices in government rehabilitation workshops. Assess the adequacy and suitability of resources for various disability categories.

4. **Evaluate Human Resource Capacity:** Assess the availability, qualifications, and training of personnel in orthopedic workshops to determine their ability to meet the diverse needs of persons with disabilities.

Methodology of the Study

This study used a mixed-methods design to evaluate the effectiveness and accessibility of government-operated rehabilitation workshops in Uganda across 12 districts. It combined quantitative data from questionnaires with qualitative data from interviews, focus group discussions, and direct observations. Purposive sampling was adopted to ensure representation of service users and providers. Data analysis involved statistical tools for quantitative data and thematic analysis for qualitative insights, triangulated to enhance reliability. The study identified operational gaps and provided recommendations to improve inclusion, quality, and efficiency of rehabilitation services in Uganda.

Key Findings

- **Space and Accessibility:** Many rehabilitation units face challenges due to inadequate space and inaccessible designs, particularly in restrooms, which limits their usability and functionality.
- **Equipment and Supplies:** A significant number of facilities struggle with outdated, insufficient, or non-functional equipment, as well as a lack of essential supplies. This scarcity limits service provision and hinders the production of necessary assistive devices for persons with disabilities, directly affecting the quality of services.
- **Personnel:** Despite revisions to personnel structures, staffing shortages and high turnover, especially in specialized roles, continue to reduce service capacity and hinder effective service delivery.
- **Financing:** The absence of a dedicated budget for rehabilitation services forces facilities to rely on limited hospital resources, restricting service quality and availability and affecting the production of assistive devices.

Key Recommendations

1. **Enforcement of the Persons with Disabilities Act** to ensure access to essential services, including rehabilitation and assistive technology.
2. **Increase Funding:** Secure inclusion of rehabilitation and assistive technology in national and local budgets, with evidence-based proposals to demonstrate cost-effectiveness.
3. **Infrastructure Development:** Advocate for accessible rehabilitation facilities, including restrooms, and secure support for infrastructural improvements.
4. **Incentives and Tax Exemption:** Advocate for tax reductions on rehabilitation equipment and assistive technologies to reduce costs and increase access.
5. **Development of Disability-Specific Insurance:** Collaborate with insurance companies to create affordable insurance options for persons with disabilities and ensure coverage for rehabilitation services.

6. **Enhance Intersectoral Collaboration:** Establish a task force to integrate rehabilitation goals across sectors and ensure effective coordination and implementation.
7. **Technological Integration:** Promote the use of telemedicine platforms and local technologies for rehabilitation and assistive technology.
8. **Advocacy and Awareness:** Launch media campaigns and community dialogues to raise awareness about disability needs and promote the use of rehabilitation services.
9. **Community Involvement and Support:** Strengthen Community-Based Rehabilitation (CBR) efforts and empower organizations of persons with disabilities for self advocacy.
10. **Research, Data, and Monitoring:** Conduct needs assessments, track service quality, and support research for cost-effective, locally adaptable solutions.
11. **Disability in Disaster Preparedness:** Advocate for the inclusion of rehabilitation services in emergency response plans.
12. **Eco-Friendly Solutions:** Promote sustainable practices in the design and operation of rehabilitation facilities.

NUDIPU's Comprehensive Strategies for Enhancing Access to Rehabilitation and Assistive Technology in Uganda

1. Advocacy for:

- Enforcement of disability laws.
 - Dedicated funding for rehabilitation services.
 - Integration of rehabilitation and assistive technologies into the national health system and emergency response plans.
 - Prioritization of rehabilitation in planning, budgeting, and sustainable improvements.
 - Expand Community-Based Rehabilitation (CBR) programs for improved access to rehabilitation services.
2. **Partnership and Collaboration:** Partner with local government, private sector, NGOs, and international organizations to support infrastructural development and rehabilitation services.
 3. **Capacity Building:** Support capacity development of organizations of persons with disabilities (OPDs) to actively engage in community-based rehabilitation and self-advocacy.
 4. **Awareness Raising and Education:** Raise awareness about the needs of persons with disabilities, the importance of rehabilitation services, and their rights.
 5. **Data Collection and Research:** Collaborate with academic institutions to conduct studies on disability, rehabilitation, and assistive technologies, generating evidence to inform policy and improve service delivery.
 6. **Strengthening Networks and Monitoring:** Strengthen networks with civil society, government, and international partners to amplify advocacy efforts and monitor progress.

Acknowledgements

I would like to express my sincere appreciation to NUDIPU for entrusting me with this important assignment, which has provided a unique opportunity to make a meaningful contribution to the field of rehabilitation and disability inclusion in Uganda.

I am deeply grateful to all those who contributed to the successful completion of this study on rehabilitation and assistive technology in Uganda. First and foremost, I extend my heartfelt thanks to the participants, including persons with disabilities from various regions such as Kampala, Wakiso, Fort Portal, Soroti, Gulu, Lira, Mbale, Mbarara, Masaka, Jinja, Arua, and Kumi. Your willingness to share your experiences has been invaluable and has significantly enriched the insights gained from this research.

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My sincere appreciation goes to the district officials, particularly the Medical and Rehabilitation teams, as well as other key local leaders, for their invaluable contributions and support in ensuring the smooth implementation of this study. Your cooperation has been essential to its success.

Special recognition is due to the dedicated data collection team, Ms. Irene Nabbe and Ms. Kisakye Gloria. Your resilience, commitment, and hard work especially enduring long travels and overcoming numerous challenges were crucial to the successful completion of this research. I deeply appreciate your unwavering efforts.

Finally, I hope that this study serves as a foundation for future collaborations in the areas of rehabilitation, assistive technology, and disability inclusion in Uganda. Together, we can create a more inclusive and accessible society where persons with disabilities are empowered to lead full and active lives.

Thank you all for your invaluable contributions to this study.

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Background

Disability has increasingly emerged as a global concern, significantly affecting individuals' quality of life and their access to essential services. The Persons with Disabilities Act of 2020 in Uganda defines disability as a substantial functional limitation caused by impairments and environmental barriers. This definition is consistent with the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD), which emphasizes the active participation of persons with disabilities in all aspects of life¹. The human rights-based approach promoted by the UN CRPD underscores the need to invest in rehabilitation and assistive technologies to enhance the well-being and inclusion of persons with disabilities.

Globally, approximately 16% of the population lives with a disability, with a significant proportion residing in developing countries where access to essential services remains limited². UNICEF estimates that 10.1% of children aged 0–17 have moderate-to-severe disabilities, while the Global Burden of Diseases (GBD) study indicates a disability prevalence of 11.3% for children under 20 years. Notably, Sub-Saharan Africa and South Asia have the highest prevalence rates but face challenges due to inadequate³.

In Uganda, the prevalence of disability is estimated at 12.5% according to the Uganda Bureau of Statistics (UBOS) in 2016⁴. However, a Functional Difficulty Survey conducted in 2017 reported a higher prevalence rate of 17%. This survey aimed to provide insights into the types and extent of functional difficulties faced by Ugandans, thereby informing more targeted health, educational, and social interventions for persons with disabilities. Furthermore, the Uganda Rapid Assistive Technology Assessment (rATA) revealed that 10.7% of the population experiences functional difficulties, primarily in vision and mobility⁵.

These inconsistencies in disability data highlight the urgent need for standardized data collection and ongoing monitoring. Such measures are crucial for informing effective advocacy, policies, and interventions that support persons with disabilities and ensure their meaningful inclusion in society. By improving data accuracy, Uganda can allocate resources more effectively to address the specific needs of persons with disabilities, thereby reinforcing the country's commitment to inclusive development.

Globally, approximately 2.4 billion people could benefit from rehabilitation services, a number projected to rise with the aging population and the increase in chronic health

¹ United Nations. (2006). Convention on the Rights of Persons with Disabilities and Optional Protocol. United Nations. Retrieved from <https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

² World Health Organization. (2022). Global report on health equity for persons with disabilities. World Health Organization. <https://www.who.int/publications/i/item/9789240064566>

³ Olusanya, B. O., et al. (2022). Global burden of childhood disability. *The Lancet Child & Adolescent Health*, 6(11), 749–759. [https://doi.org/10.1016/S2352-4642\(22\)00189-1](https://doi.org/10.1016/S2352-4642(22)00189-1)

⁴ Uganda Bureau of Statistics (UBOS). (2016). *The National Population and Housing Census 2014 – Main Report*. UBOS.

⁵ Ministry of Health, Uganda (MoH), & USAID/ReLAB-HS. (2023). *Rapid Assistive Technology Assessment (rATA): Report on functional difficulties and assistive product use in Uganda*. Ministry of Health.

conditions⁶. According to the Rapid Assistive Technology Assessment (rATA), among the 10.7% of the population experiencing functional difficulties, only 4.5% utilize assistive products (APs), with higher usage rates noted among older adults and those facing significant self-care challenges. This highlights a substantial unmet need, as 21% of the population reported limited access to necessary APs, particularly among individuals with severe disabilities⁷.

The data highlights the critical need for comprehensive rehabilitation services that address physical, sensory, and cognitive impairments. Although rehabilitation services in Uganda have evolved significantly since the late 20th century, challenges persist. The integration of rehabilitation into Universal Health Coverage (UHC) aligns with Sustainable Development Goal 3; however, Uganda still lacks a finalized national policy or strategic plan specifically targeting these services.

Rehabilitation is a crucial healthcare component focused on restoring functionality and improving the quality of life for persons with disabilities due to injury, illness, or congenital conditions. Orthopedic care, which addresses musculoskeletal disorders affecting bones, joints, muscles, and nerves, plays a vital role in this process. Key services include prosthetics, orthotics, and various rehabilitation therapies that help restore mobility and alleviate pain. Musculoskeletal disorders affect over 1.71 billion people globally, with a higher burden in low and middle income countries, where access to care is limited⁸. Effective rehabilitation services are essential to help individuals manage conditions and regain independence.

In Uganda, the provision of rehabilitation face significant challenges. While there are around 6,000 rehabilitation professionals, most are concentrated in urban areas, and 60-70% of health facilities do not offer rehabilitation services, particularly at lower levels of care. Common issues requiring rehabilitation include musculoskeletal disorders, neurological conditions, and mental health challenges, with children having developmental disorders being particularly vulnerable.

Funding for these services is largely dependent on external donor support, with about 70% coming from outside sources. This reliance results in high out-of-pocket expenses for patients and a shortage of assistive devices. The Ministry of Health is finalizing a "National Strategic Plan for Rehabilitation and Assistive Technology" to increase access to equitable, quality rehabilitation, and assistive technology (AT) services at all levels and across the lifespan. Successful implementation of this plan requires a collective effort from various stakeholders involved in rehabilitation and disability inclusion to ensure comprehensive and sustainable service delivery.

⁶ World Health Organization. (2021). World report on rehabilitation (No. 9789240063491). World Health Organization. <https://www.who.int/publications/i/item/9789240063491>

⁷ Ministry of Health, Uganda (MoH), & USAID/ReLAB-HS. (2023). Rapid Assistive Technology Assessment (rATA): Report on functional difficulties and assistive product use in Uganda. Ministry of Health.

⁸ World Health Organization. (2022). Musculoskeletal conditions. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/musculoskeletal-conditions>

Despite the existence of legal frameworks like the Ugandan Constitution⁹ and Persons with Disabilities Act of 2020¹⁰ among others aimed at upholding the disability rights, substantial challenges remain). Limited resources, inadequate funding, and poor coordination among stakeholders lead to gaps in service delivery, particularly in critical areas such as rehabilitation, assistive devices, inclusive education, and accessible infrastructure.

At the 2022 Global Disability Summit, Uganda pledged to enhance its orthopedic facilities and strengthen disability services nationwide. This commitment reflects the country's dedication to disability inclusion and aligns with the global Rehabilitation 2030 agenda. The pledge underscores the urgent need to assess these facilities, ensuring they meet both national objectives and international standards for universal access to quality rehabilitation services.

Established in 1987, the National Union of Disabled Persons of Uganda (NUDIPU) played a central role in advocating for disability rights and supporting individuals with diverse impairments. In line with its mandate to ensure access to rehabilitation and assistive technologies, NUDIPU commissioned a comprehensive assessment of orthopedic workshops across Uganda. This assessment involved a comparison of government-operated and private facilities, focusing on critical aspects such as resource distribution, equipment availability, supplies, funding, and staffing levels. By doing so, NUDIPU aims to strengthen advocacy efforts, ensure the provision of essential resources, and support the full inclusion and active participation of persons with disabilities in Uganda, thereby affirming their right to quality healthcare and social integration.

Purpose of the Study

The aim of the study was to assess service provision and accessibility of government-operated rehabilitation workshops, identify the challenges they face, explore opportunities for improvement, and provide actionable recommendations to enhance these services.

It specifically sought to:

1. **Assess the operational effectiveness and accessibility of government rehabilitation workshops:** Examining their infrastructure, space, equipment, and adherence to universal design principles, and to identify barriers to access for individuals with diverse disabilities.
2. **Compare service provision and quality across rehabilitation facilities:** Analyze gaps in service provision, reasonable accommodations, and service quality between government-operated and private rehabilitation facilities, focusing on the inclusivity and effectiveness of services.
3. **Examine resource allocation and investment in rehabilitation services:** Review budgetary allocations, operational costs, and procurement processes for assistive

⁹ Republic of Uganda. (1995). The Constitution of the Republic of Uganda. Government of Uganda.

¹⁰ Republic of Uganda. (2020). Persons with Disabilities Act, 2020. Government of Uganda.

devices in government rehabilitation workshops to evaluate the adequacy of investments and the suitability of devices for various disability categories.

4. **Evaluate human resource capacity in the rehabilitation facilities:** Assess the availability, qualifications, and training of personnel in government-operated rehabilitation workshops and their capacity to deliver high-quality services to meet the needs of diverse disability groups.
5. **Formulate recommendations to guide advocacy, resource allocation, and improve service provision:** Develop evidence-based recommendations to support advocacy efforts, optimize resource allocation, and enhance the quality, accessibility, and inclusive service provision by government-operated rehabilitation workshops.

Scope of the Study

This study aimed to assess the availability, quality, and accessibility of rehabilitation services in Uganda by comparing government-operated facilities with private orthopedic centers across multiple regions. It was conducted in various locations, including Kampala, Masaka, Wakiso, Mbale, Jinja, Kumi, Soroti, Arua, Lira, Gulu, Fort Portal, and Mbarara. These locations were strategically chosen to ensure a representative sample of Uganda's regional referral hospitals and key private facilities, providing a comprehensive view of regional disparities and identifying opportunities for improving the country's rehabilitation services.

The study involved a diverse group of respondents, including facility managers, rehabilitation professionals, and persons with disabilities. The goal was to assess the full spectrum of services offered by these facilities, such as prosthetic and orthotic fabrication, physiotherapy, occupational therapy, eye care, and community-based rehabilitation interventions. These services are crucial for improving the quality of life for persons with disabilities, necessitating a detailed analysis of their availability, effectiveness, and quality across different settings.

The study examined several key aspects, including the space and infrastructure available at rehabilitation facilities, the availability and condition of rehabilitation equipment, and the quality and consistency of medical supplies. It also explored the accessibility of these facilities by identifying barriers to access and utilization as well as the capacity of personnel to provide quality care was also assessed. Furthermore, the study reviewed budgetary allocations and resource utilization over the past five years to identify gaps in funding or resources that may affect service delivery.

In addition, it assessed the operational efficiency of workshops, particularly in the production and distribution of assistive devices, identified challenges and gaps in service provision. The overarching aim of the study was to provide actionable insights to enhance rehabilitation service delivery, expand access to services, and support effective advocacy for persons with disabilities.

Methodology

Research Design

The study adopted a mixed-methods research design to comprehensively assess the operational effectiveness and accessibility of government-operated rehabilitation workshops in Uganda. By integrating quantitative and qualitative data collection, the research provided a holistic analysis of the current state of these workshops. Quantitative data on service utilization were complemented by qualitative insights gathered through interviews, focus group discussions (FGDs), and direct observations. This combined approach offered a nuanced understanding of the challenges faced by both service providers and users, while also identifying key operational gaps and areas for improvement.

Area of Study

The study was conducted across 12 strategically selected districts: Jinja, Kumi, Mbale, Soroti, Lira, Gulu, Arua, Fort Portal, Masaka, Mbarara, Wakiso, and Kampala. These districts were chosen based on the diversity of their geographical locations, socioeconomic conditions, and availability of rehabilitation facilities, ensuring that a representative sample of government-operated and private orthopedic workshops was included in the research.

Study Sample

The study employed a purposive sampling approach to select a diverse mix of government-operated and private rehabilitation facilities, with a particular focus on regional referral centers and comparable private institutions. This strategy was designed to facilitate meaningful comparisons between the two types of facilities, ensuring a comprehensive understanding of the rehabilitation services available.

The sample was carefully curated to ensure a balanced representation of both service users and providers across the selected districts. In each study area, an average of 10 persons with disabilities were identified through the network of persons with disabilities and their stakeholders. Efforts were made to ensure fair representation of various disability categories, acknowledging that all individuals, regardless of the type of disability, require rehabilitation services. This inclusive approach helped capture a broad range of experiences and needs within the sample.

Rehabilitation personnel were also identified from the respective facilities visited, providing perspectives from those directly involved in service delivery. By targeting a variety of facilities and including individuals with diverse roles, the study aimed to encompass a wide spectrum of experiences. This sampling approach enabled a nuanced analysis of the accessibility, quality, and challenges associated with rehabilitation services in Uganda. The diversity within the sample provided valuable insights into the dynamics of both public and private

rehabilitation facilities, contributing to a thorough exploration of the factors that influence the effectiveness and inclusivity of rehabilitation services.

Data Collection Methods

This study adopted a mixed-methods approach to thoroughly investigate the accessibility and quality of rehabilitation services in Uganda, spanning both government and private sectors. By combining quantitative and qualitative techniques, the research engaged a diverse range of participants, including persons with disabilities, key informants, and rehabilitation personnel. The primary data collection methods were questionnaires, semi-structured interviews, focus group discussions (FGDs), and direct observations.

- **Questionnaires:** Structured questionnaires were administered to persons with disabilities to explore key issues such as access to services, affordability, quality, and the barriers and enablers affecting service delivery.
- **Semi-Structured Interviews:** Interviews with facility managers and rehabilitation personnel delved into critical topics, including facility conditions, equipment availability, funding, personnel training needs, and service delivery challenges.
- **Focus Group Discussions (FGDs):** FGDs were conducted with persons with disabilities to gain in-depth insights into their experiences with rehabilitation services. The discussions focused on perceptions of service quality, challenges encountered, and suggestions for improvement.
- **Observations:** Direct observations of rehabilitation facilities provided contextual data on service delivery processes, staff-client interactions, and the overall operational environment. These observations served to validate and enrich findings from other methods.

The integration of these diverse methods allowed for a comprehensive understanding of both service user and provider perspectives. This approach yielded detailed insights into the current state of rehabilitation services in Uganda, identifying critical areas for improving service delivery and accessibility.

Data Analysis

The data analysis process integrated both quantitative and qualitative techniques to provide a comprehensive understanding of the findings:

- **Quantitative Analysis:** Data from the questionnaires were analyzed using SPSS statistical software and presented descriptively, aligning with the study objectives.
- **Qualitative Analysis:** Information from interviews and focus group discussions was analyzed using thematic analysis to identify recurring patterns and themes related to challenges, service delivery experiences, and recommendations for improvement. This qualitative analysis complemented the descriptive data from the questionnaires.

- **Triangulation:** The qualitative findings were triangulated with the quantitative results and observational insights. This integrative approach combined data from multiple sources; quantitative data from questionnaires, qualitative insights from interviews and focus group discussions, and observational data to provide a comprehensive and reliable understanding of the study's results. By synthesizing these diverse perspectives, the analysis not only clarified the key findings but also generated practical, evidence-based recommendations to effectively address the identified challenges.

Ethical Considerations

- **Informed Consent:** Participants were fully informed about the study's purpose, their rights, and the voluntary nature of their participation. Informed consent was obtained from all respondents.
- **Confidentiality:** Measures were implemented to protect participants' identities, and all data were securely stored to maintain confidentiality.

This rigorous approach to data analysis and ethical conduct ensured that the study was methodologically sound and ethically responsible.

Presentation of Findings

This section presents the study’s findings, structured to address the research objectives and provide a comprehensive overview of key insights gathered from both quantitative and qualitative data. The findings are drawn from multiple sources, including responses from questionnaires (n=121), semi-structured interviews (n=34), and focus group discussions (n=6). The integration of data through triangulation ensures a well-rounded perspective on the state of rehabilitation services, incorporating feedback from facility managers, rehabilitation professionals, and persons with disabilities. This approach facilitated a thorough understanding of current conditions, barriers to service delivery, and recommendations for enhancing rehabilitation programs, aligning with the broader goals of the Rehabilitation 2030 agenda.

Demographic Profile of Participants

This section outlines the demographic characteristics of the study participants, emphasizing individuals with disabilities to provide context for interpreting the study's findings. The participant profile offers valuable insights into the diverse perspectives on rehabilitation services, aligning with the study’s objectives.

Distribution of Participants

The study engaged 164 participants, which included persons with disabilities, leaders of organizations for persons with disabilities, and rehabilitation personnel. The distribution of participants, as detailed below, was carefully designed to ensure a balanced representation of both service users and providers across the selected districts.

Table 1: Distribution of Respondents by Category

Category of Participants	Frequency (n=164)
Persons with disabilities	121
Facility Managers/Officers in Charge (Orthopedic Workshops)	8
Orthopedic Officers	4
Facility Managers/Officers in Charge (Physiotherapy Units)	8
Occupational Therapists	4
Facility Managers/Officers in Charge (Eye Care Units)	1
Nurses attached to rehabilitation units	3
Rehabilitation personnel from private facilities	7
Leaders of organizations of persons with disabilities	6
Community development officers	2

This diverse representation enabled a comprehensive and nuanced analysis of rehabilitation services, offering a well-rounded understanding of the experiences and perspectives of both service users and providers.

Respondents' Age and Sex Distribution

Understanding the age and sex composition of participants helps to effectively analyse how these factors may influence experiences and perspectives on rehabilitation services, thereby providing a nuanced interpretation of the study's findings. Below is respondents' age and sex distribution:

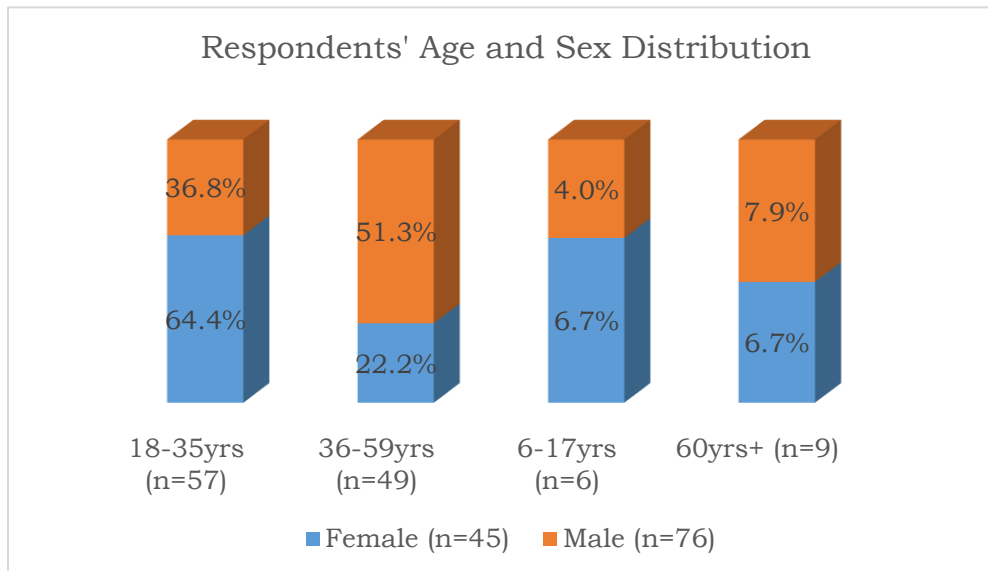


Fig 1: Respondents' Age and Sex Distribution

Majority, 87.6% of respondents were in the productive age range of 18 to 59 years, with 63.2% identifying as male. The 18 to 59 years age group provides valuable insights into their experiences and needs related to rehabilitation and assistive technology.

Their perspectives are crucial for assessing the accessibility and effectiveness of these services, especially given their active roles in economic and social activities. As a cornerstone of economic development, this age group significantly contributes to productivity and community growth. They face unique challenges in employment, education, and social inclusion, making their feedback essential for developing targeted interventions that improve service delivery and outcomes. Understanding their experiences is vital for addressing their specific needs and fostering meaningful inclusion.

Rehabilitation services are essential for everyone, as they play a crucial role in enhancing overall well-being and functionality. While these services are vital for empowering persons with disabilities, they also benefit individuals across diverse life circumstances by addressing a wide range of needs.

Respondents' Disability Categories

Holistic assessment of rehabilitation service provision required interaction with individuals with varying types of disabilities.

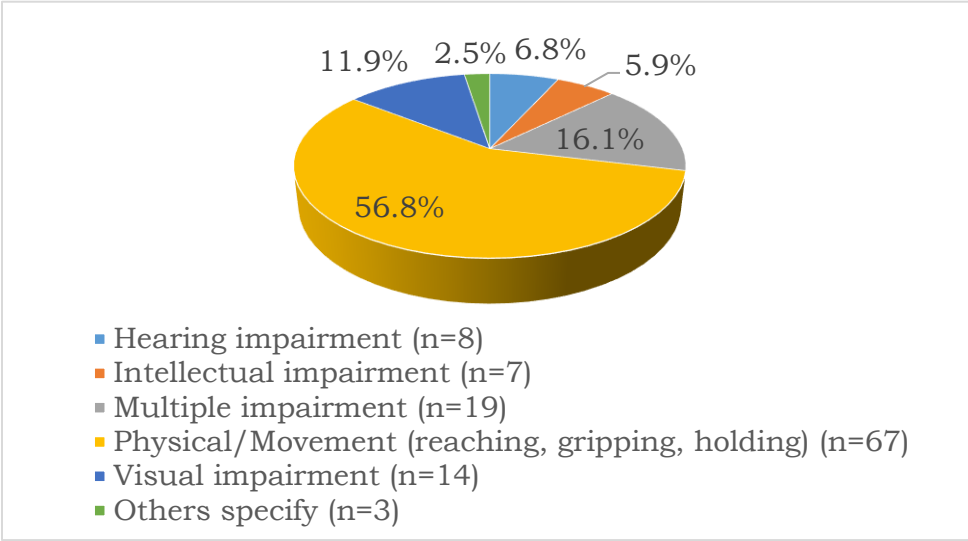


Fig. 2: Respondents' Disability Category

A substantial proportion of respondents (56.8%) reported having physical impairments.

Among these, 65.7% perceived their disability as mild, 19.4% as moderate, and 9% as severe. These findings underscore the importance of

rehabilitation services that address a wide range of physical impairments, with an emphasis on accessibility and adaptability to cater to varying levels of severity.

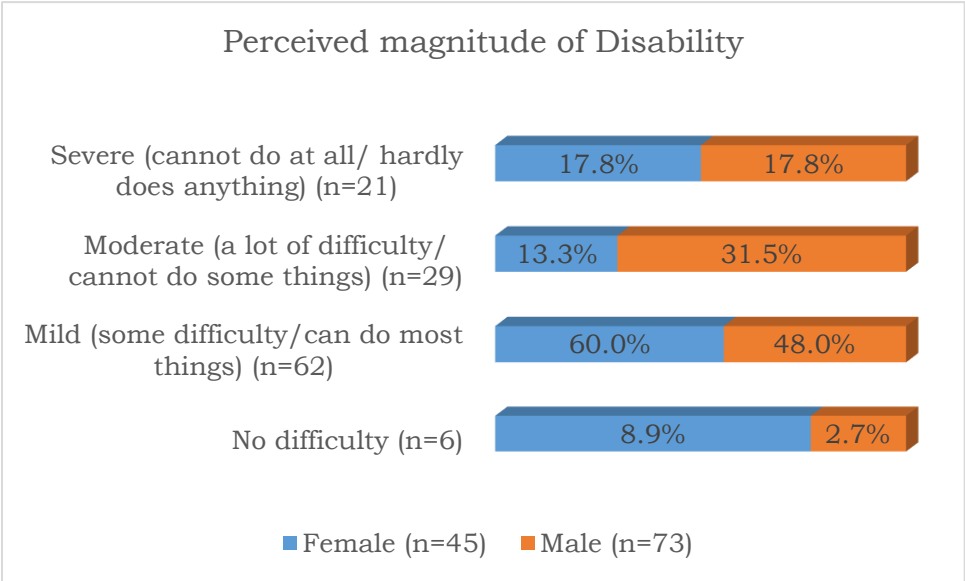


Fig. 3: Individual Rating of Disability by Sex

A significant proportion of respondents with disabilities demonstrated a positive perception of their conditions.

Overall, 52.5% perceived their disabilities as mild, with 60% of female respondents falling into this category. In

contrast, 31.5% of male respondents were among the 24.6% who viewed their disabilities as moderate, suggesting a more optimistic self-assessment among females. This predominance of mild disability perceptions highlights the potential for early interventions and tailored support to significantly enhance functionality and quality of life.

Rehabilitation strategies should prioritize scalable and inclusive solutions that address the diverse needs of individuals across the spectrum of impairment severity. By focusing on both mild and severe disabilities, these strategies can improve functionality, prevent secondary complications, and support overall well-being.

Moreover, this predominantly positive outlook presents a valuable opportunity to promote greater participation and inclusion in societal activities. Enhancing access to rehabilitation services and fostering an enabling environment can empower persons with disabilities, encouraging active engagement and meaningful contributions within their communities.

Use of Assistive Devices

Assistive devices play an essential role in enhancing the mobility, independence, and overall quality of life of persons with disabilities. For individuals with moderate to severe disabilities, these devices are particularly vital, as they help to overcome significant barriers to social, economic, and community participation. By enabling individuals to engage fully in daily activities, assistive devices empower them to contribute meaningfully to their communities. Respondents’ use of assistive devices is presented in table 3:

Table 3: Respondents’ Use of Assistive Devices

	Female (n=40)	Male (n=60)
None (n=40)	21	19
Artificial limb (n=2)		2
Calipers (n=2)		2
Foot wear (n=2)		2
Hearing aids (n=2)		2
Magnifying glasses/lens (n=1)		1
Walking aids (Crutches, walking frame, walking stick) (n=16)	7	9
Wheel chair/tricycle (n=24)	7	17
White cane (n=7)	1	6
Others specify (n=4)	4	

In the study, 41.7% of participants with disabilities reported not using assistive devices. This aligns with findings that 52.5% of respondents perceive their disabilities as mild. Notably, 58.3% of those who do not use assistive devices are female. Although 60% of the females perceive their disability as mild, this finding may point to gender-specific barriers or attitudes that affect access to and the use of assistive devices.

Among the respondents who use assistive devices, 45% reported receiving them from NGOs. These devices included wheelchairs, walking aids, white canes, and protective footwear. In contrast, only 11.6% (7 individuals) obtained their devices from health facilities. Notably, two of these individuals received artificial limbs from Gulu Referral Hospital. This hospital, in partnership with AVSI, implements a project aimed at providing artificial limbs to persons with disabilities, with a primary focus on war amputees. AVSI began collaborating with Gulu Hospital after the war as part of its rehabilitation efforts for war victims. However, with dwindling donor resources, the sustainability of this initiative is now at risk.

Comprehensive Overview of Rehabilitation services in Uganda

Rehabilitation services are a cornerstone of Uganda's healthcare system, offering vital support to individuals with disabilities and those recovering from illnesses or injuries. Delivered by multidisciplinary teams, these services are essential for advancing Universal Health Coverage (UHC), as they complement health promotion, disease prevention, curative care, and palliative interventions. By addressing a wide range of needs including physical, mental, sensory, and communication challenges, rehabilitation empowers individuals to manage their conditions effectively, overcome barriers, and actively participate in all aspects of society.

In Uganda, rehabilitation services are available at Mulago National Referral Hospital and several regional referral hospitals across the country. These regional facilities include Arua Regional Referral Hospital (West Nile Region), Fort Portal Regional Referral Hospital (Western Region), Gulu Regional Referral Hospital (Northern Region), Mbale Regional Referral Hospital (Eastern Region), Mbarara Regional Referral Hospital (Southwestern Region), and Lira Regional Referral Hospital (Northern Region). Although Soroti, Jinja, and Masaka in Eastern and Central Uganda are also regional referral hospitals, Jinja and Masaka only offer physiotherapy and occupational therapy services. Soroti, provides conservative orthopedic care, including non-surgical treatments and interventions for musculoskeletal conditions, in addition to physiotherapy and occupational therapy services. During the study, visits were conducted to all of these regional referral hospitals, except for Hoima.

This section explores Uganda's rehabilitation services, with a focus on government-operated facilities and a comparison to private-sector alternatives. The analysis evaluates the quality, accessibility, and financial sustainability of these services, highlighting strengths and identifying areas for improvement. A comprehensive perspective is achieved by incorporating related services such as physiotherapy, orthopedic care, occupational therapy, and eye care.

Assessing government-operated facilities is crucial for understanding their capacity to address diverse rehabilitation needs. This evaluation considers key aspects such as the functionality of spaces and facilities, the condition and availability of equipment, accessibility measures, and service coverage. These findings will inform targeted interventions to improve equitable access and the overall efficiency of rehabilitative care in Uganda. Furthermore, the evaluation identifies critical areas for development to strengthen the delivery of inclusive and effective rehabilitation services. Addressing these challenges is pivotal to achieving better health outcomes and fostering social inclusion for individuals relying on rehabilitative care.

Space and Facility Assessment

Space and layout are critical elements in providing effective rehabilitation care. A thorough assessment of operational requirements and creation of a conducive environment for inclusive service delivery, is essential. Prioritizing these factors enhances patient experiences and outcomes, ensuring that rehabilitation services are both accessible and supportive.

The design of rehabilitation facilities must consider space, layout, and equipment to optimize therapeutic interventions, especially for physiotherapy and occupational therapy. Well-planned spaces not only promote patient engagement but also facilitate recovery, contributing to better therapeutic outcomes and overall patient well-being.

For instance, in a physiotherapy facility, key spaces must be thoughtfully allocated for various functions, including treatment areas, patient care zones, and administrative spaces. Essential components of the facility include a waiting area, reception, consultation rooms, and specialized therapy treatment zones. Each of these areas should be equipped with appropriate tools and equipment to ensure a functional and comfortable environment for both patients and staff. Key design considerations for a basic facility includes: A dedicated exercise area to accommodate a variety of equipment.

- Electrotherapy Areas: These spaces, ideally should be designed to accommodate equipment like diathermy units and other electrotherapy machines.
- Exercise therapy areas: This area should be spacious enough to accommodate various types of equipment, including parallel bars, gait training tools, and spaces for floor exercises. It should also feature non-slip floors for safety, mirrors for self-correction, and ample room for group therapy sessions if needed¹¹ as shown below:



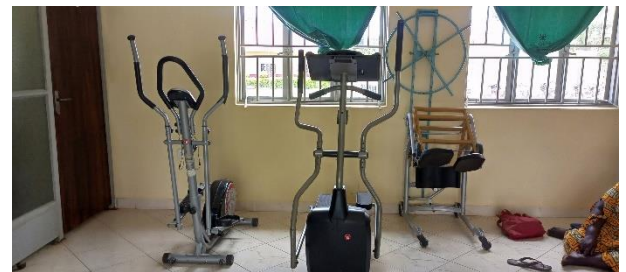
Pic 1 & 2: Ideal spacing of physiotherapy and occupational therapy facilities.

with many facing severe service delivery. Rehabilitation workshops are often deprioritized in many health facilities, resulting in cramped, poorly allocated spaces that are difficult for persons with disabilities to access.

In Uganda, rehabilitation facilities vary significantly in terms of space and effectiveness, limitations that affect



Pic 3: A Occupational therapy room in Gulu Referral Hospital.



Pic 4: The

physiotherapy gym at Soroti Hospital.

Both facilities are well-equipped with a variety of therapeutic tools, and their spacious layouts provide a supportive environment for patients to engage effectively in rehabilitation

¹¹ The Doctorpreneur Academy. (2024, September 7). Designing an effective physiotherapy center: Key considerations and best practices. Retrieved December 3, 2024, from <https://linktr.ee/docpreneur>

exercises. The ample space allows users to comfortably manipulate and utilize the available therapy equipment, enhancing the overall rehabilitation process. For instance, the Mbale physiotherapy unit was found to be spacious, partly because it has relatively less equipment compared to other facilities.



Pic 5: Physiotherapy unit in Mbale.

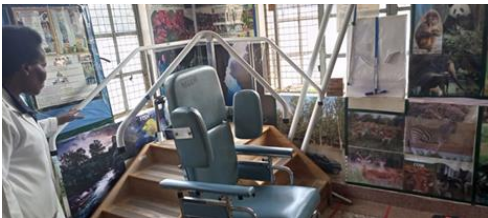
In Mbale, the physiotherapy unit appears to be spacious due to lack of equipment for effective service provision.

Pic 6: Physiotherapy Unit in Lira



Pic 7: Physiotherapy unit in Arua

Pic 8: Physiotherapy unit in Mbarara



The physiotherapy units in Lira, Arua, and Mbarara, as depicted in Pics 5 to 7, face significant challenges due to limited space, which hampers effective service delivery and creates difficulties for both patients and therapists. The constrained environment restricts the proper use of therapeutic tools and limits the ability to provide individualized care, ultimately impacting the quality of

rehabilitation services.

In Lira (Pic 5), physiotherapists and occupational therapists share a common workspace that is inadequate for either profession to operate effectively. This lack of dedicated spaces for each discipline results in frequent disruptions and challenges in conducting focused therapy sessions. Similarly, the physiotherapy units in Arua (Pic 6) and Mbarara (Pic 7) suffer from similar spatial constraints, reducing the efficiency of therapy and making it difficult to address the specific needs of each patient.

In contrast, facilities like Soroti and Gulu benefit from more spacious layouts, which allow therapists to work more efficiently and deliver better-targeted interventions. This comparison underscores the critical importance of adequate space in fostering effective rehabilitation services and highlights the need for targeted interventions to address spatial limitations in facilities such as those in Lira, Arua, and Mbarara.



Pic 9: Typical appearance of the orthopedic workshops in the regional facilities which are fairly operational.

These workshops barely have enough space for effective operation, and there is hardly room for storage of the few items they possess.

Due to the limited space, the oven for the orthopedic workshop at Lira is kept on the veranda, as shown in Pic 10.



Pic 10: The oven at the orthopedic workshop in Lira found kept at the veranda.

Due to limited space, some rehabilitation equipment is stored outdoors, exposing it to weather-related damage and increasing the risk of theft. This situation complicates service delivery at the facility. Many of the pieces of equipment are electrical, posing significant safety hazards for both staff and patients, particularly during the rainy season. Wet surfaces heighten the risk of slips and falls, especially when handling hot items, and using electrical appliances in these conditions increases the danger of electric shock. These challenges highlight the urgent need for better storage solutions and stronger safety protocols to protect the well-being of staff and patients.

In contrast, the rehabilitation unit at CORSU offers a spacious and well-equipped environment, ideal for effective rehabilitation provision. For instance, Pic. 10 highlights a dedicated space designed for mobility training, catering to individuals with muscular dystrophy and similar conditions. This specialized area supports the development of essential skills, enabling patients to regain or enhance their independence in movement.



Pic 11 & 12: Spacious therapy rooms found at CORSU.

CORSU's spacious and well-equipped environment facilitates the use of specialized equipment and group activities. This ample space supports a diverse range of therapeutic activities, enhancing the effectiveness of rehabilitation efforts and encouraging patient engagement. By offering a functional and accommodating setting, CORSU ensures that patients receive personalized and comprehensive care. This commitment to providing adequate space and resources promotes a more inclusive and effective rehabilitation experience for all.

In addition to its general therapy areas, CORSU takes a holistic approach to rehabilitation by incorporating well-designed play spaces tailored to its youngest patients. Pic. 9 and 10 highlight a vibrant, child-friendly space dedicated to supporting children's rehabilitation needs. Equipped with age-appropriate toys and adaptive equipment, this playroom provides a safe and engaging environment where children can participate in therapeutic play, an essential component of their physical, emotional, and social recovery.

Pic 13: One of the children's playrooms at CORSU, a dedicated to providing rehabilitation services for



Pic 14: Children supporting a keeping them



facility children.

while they receive treatment, showcasing the supportive and inclusive atmosphere within the facility.

peer by company

Pic 15: Children's Play room at Cure Hospital

These playrooms, set within a child-friendly environment, help demystify the rehabilitation process, offering a peaceful and welcoming space for young patients.

Thoughtfully designed, these areas reflect CORSU's commitment to child-centered care, ensuring that rehabilitation is both effective and enjoyable. By addressing the unique needs of children, CORSU fosters creativity, movement, and interaction, promoting their holistic development and overall well-being.

Accessibility and Reasonable Accommodations in Rehabilitation Services in Uganda

Rehabilitation services, in line with the UNCRPD and the Persons with Disabilities Act (2020), must be accessible to all individuals, requiring reasonable accommodations to ensure that persons with disabilities can fully access, utilize, and benefit from these services. This involves creating inclusive environments by addressing architectural, environmental, attitudinal, and communication barriers. By adhering to universal design principles, rehabilitation facilities can promote equity, independence, and an improved quality of life for all users.

Key features of accessible rehabilitation facilities include:

- **Ramps:** Ramps should have a maximum slope of 1:20 for general use and 1:12 for wheelchair users. Shorter ramps can have a steeper slope of 1:10. The width should be 1.3–1.5 meters to accommodate both wheelchair users and pedestrians. Flat resting areas of at least 1.3 meters and handrails at dual heights (0.6–0.7 meters for wheelchair users and 0.8–0.9 meters for others) are essential for safety and ease of use¹².
- **Entrances:** Entryways should be 1.2 meters wide and 2.1 meters high to accommodate mobility aids. Doors should open fully against an adjacent wall, with handles positioned between 1.0 and 1.1 meters above the floor for accessibility¹³.
- **Corridors:** Corridors should be at least 1.5 meters wide to allow comfortable navigation for wheelchair users.

¹² UNAPD. (2010). Accessibility standard guidelines. Uganda National Association of Persons with Disabilities.

¹³ International Organization for Standardization (ISO). (2001). The international standard for entryway dimensions (ISO 12345:2001). ISO.

- **Toilets and Bathrooms:** These should be equipped with support rails, raised toilet seats, adjustable or fixed bathing stools, and lowered showers and taps for easy access by individuals with mobility challenges.
- **Sensory Impairments:** Facilities should include tactile pathways (0.6 meters wide) with contrasting colors, particularly at ramp edges, to assist individuals with sensory impairments.

Incorporating appropriate accessibility features into rehabilitation facilities ensures more inclusive services, fostering greater independence and improving the overall quality of life for all users.

However, accessibility provisions and reasonable accommodations are largely absent in most facilities, including Mulago National Referral Hospital.

Below are individuals’ perceptions of accessibility to rehabilitation facilities:

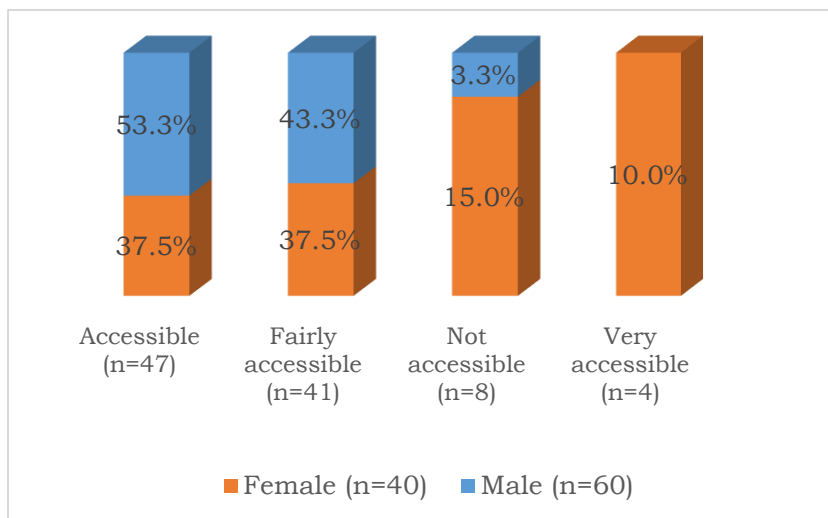


Fig 4: Accessibility to rehabilitation services

A significant portion of respondents (47%) reported finding rehabilitation services easy to access. Among them, only 31.9% of females indicated that rehabilitation facilities are accessible, while 36.6% described them as fairly accessible.

This aligns with the fact that these respondents rated their impairments as mild and were

identified for the survey through their representatives. These individuals are likely to experience a greater sense of empowerment, enabling them to navigate facilities more easily. This empowerment may also influence their perception of their impairments as being less severe.

However, a critical aspect of accessibility that is often overlooked in rehabilitation facilities is the provision of adequate toilet and bathroom facilities.

None of these facilities have accessible toilets. At Mbale Regional Hospital, an old abandoned toilet was found, as shown in Picture 16.



Pic 16: An old fairly modified toilet at Mbale hospital.

A review of these facilities revealed a significant gap, particularly affecting women, who are more vulnerable to infections due to inadequate hygiene standards. Respondents shared their frustrations, in the following remarks:

“The hygiene in these health facilities is terrible,” lamented a woman from Lira District.

“How can I possibly use a toilet that’s so filthy? I’d rather avoid going there entirely,” said a young mother from Mbale.

These testimonies underscore the urgent need to address accessibility and hygiene issues in Uganda’s rehabilitation facilities.

Beyond infrastructural modifications, the absence of accessible communication provisions in healthcare and rehabilitation facilities continues to perpetuate the exclusion of individuals with hearing and visual impairments. This lack of support serves as a significant barrier to accessing essential services, as highlighted by the following account:

“I once took my daughter to Soroti Hospital, but being deaf, I couldn’t communicate with the therapists. They didn’t have anyone who knew sign language, and I felt completely lost. It was like I was invisible.” Shared a deaf gentleman in an FGD, Soroti district.

Persons with disabilities also require accessible communication provisions, such as sign language interpreters, Braille materials, and pictorial messages. While some facilities provide limited pictorial information, there are no provisions for sign language interpreters or Braille in any healthcare or rehabilitation facilities. These gaps highlight the critical need for accessible communication provisions, including sign language interpreters and other accommodations, to ensure that individuals with hearing and visual impairments are not excluded from receiving the care they need.

Despite being located in the capital, Mulago National Referral Hospital, lacks essential infrastructure such as ramps, accessible toilets, communication provisions, and other reasonable accommodations needed for persons with disabilities. This gap highlights the urgent need for reforms to improve accessibility and provide necessary accommodations, ensuring that all individuals, regardless of ability, can access quality healthcare services. As the country’s leading healthcare institution, Mulago should serve as a model for inclusion. The absence of these provisions undermines its ability to set a standard for other facilities. Improving accessibility in Uganda’s rehabilitation services is vital to ensure that all individuals, including those with disabilities, can receive the care and support they need. By fostering inclusion, Uganda can create an environment that promotes equal access, empowerment, and participation for all.

Equipment and Operational Effectiveness

In healthcare and rehabilitation service provision, the effectiveness of equipment and operational processes is critical for quality care delivery to improve patient outcomes. Medical equipment is essential for a variety of diagnostic, therapeutic, and rehabilitative procedures. Its effectiveness, however, depends not only on availability but also on maintenance, staff proficiency, and the implementation of operational protocols that optimize its use.

Efficient use of equipment streamlines workflow, reduces waiting times, and enhance the patient experience. Conversely, deficiencies in equipment availability, maintenance, or staff training can lead to operational inefficiencies, compromising both care quality and patient safety. This section explores the key components of equipment and operational effectiveness in rehabilitation facilities, addressing challenges and opportunities for improvement. By understanding these dynamics, stakeholders can develop strategies to enhance the accessibility and quality of rehabilitation services for persons with disabilities with disabilities and other beneficiaries of rehabilitation.

Assessment of Equipment and Operational Effectiveness

Rehabilitation facilities across Uganda, including national referral hospitals and regional centers such as Mbale, Mbarara, Gulu, Lira, Fort Portal, Arua, Masaka, and Jinja, provide essential services like physiotherapy, orthopedic care, occupational therapy, and eye care. However, these facilities face significant challenges due to inconsistent government investment in rehabilitation equipment over the past decade. Many depend heavily on donations from development partners and civil society organizations to sustain operations.

While most facilities are equipped with a range of workshop tools, particularly for physiotherapy and orthopedic care, the quantity and condition of these items vary widely. Below is an assessment of the availability, condition, and functionality of equipment in rehabilitation facilities across Uganda.

Assessment of Equipment in Government Facilities

Physiotherapy Units

Physiotherapy units were operational in all the facilities visited; however, the availability of equipment and overall capacity varied significantly. Among these, Gulu, Arua and Mbarara stood out as having the most well-equipped physiotherapy units, largely due to substantial support from AVSI and JICA, respectively. This assistance has significantly improved the quality and scope of their service delivery.



Pic. 17: Some of the equipment found in Gulu.

Pic 18: An ultrasound therapy machine found in Gulu and Arua



JICA, significantly enhancing its capacity to deliver services. This initiative aimed at addressing the needs of refugees while enhancing the facility's capacity to serve the entire West Nile region, including refugee settlements.

The physiotherapy unit at Mbarara was found to be well-equipped, thanks to support from various sources. However, some items may not be effectively utilized due to space constraints, as mentioned earlier. Additionally, some equipment is deteriorating because of wear and tear, compounded by insufficient maintenance.



Pic 19: One of the items found in Mbarara

The physiotherapy unit at Lira is supported by the Uganda Society for Disabled Children (USDC), with some equipment still functional. In contrast, the physiotherapy unit in Fort Portal has some equipment, but it is insufficient to meet patient needs, further exacerbated by space constraints.

Masaka and Jinja were found to be in the worst condition, with minimal equipment for rehabilitation services, severely limiting their ability to meet the growing patient demand. In these two facilities, physiotherapy is the primary rehabilitation service available. Its inadequacy places a significant strain on the populations in their respective regions, further exacerbating the challenge of providing effective care.

Orthopedic Workshops

Although orthopedic workshops are expected in all regional referral hospitals, Soroti, Masaka, and Jinja lack these essential facilities. As a result, patients are often referred to distant workshops. In Soroti, only a limited number of hand tools are available for providing conservative orthopedic care.

Across the facilities, orthopedic workshops exhibit significant regional differences in equipment availability and operational effectiveness. Essential equipment, such as molding machines, cutting tools, and ovens, which are necessary for customizing prosthetics and orthotics to individual needs, are often unavailable. This lack of specialized equipment results in minimal production and limited rehabilitation services, further impacting the quality of care provided.

Mulago National Referral Hospital, Gulu, and Mbale were found to be the best equipped, largely due to the support they received from AVSI and the International Committee of the Red Cross (ICRC).



Pic 20: Some of the equipment found in Gulu

Gulu's support is part of AVSI's war recovery program, which primarily targets amputees but offers services to all individuals who come to the facility. However, Gulu is currently struggling with limited resources and is on the verge of halting its support.



Pic 21: Orthopedic equipment found at Mbale

In Mbale, although some equipment is available, much of it is outdated. Some of the equipment was provided by AVSI several years ago, while others were supplied by ICRC in 2010. While most of these items remain functional due to limited usage, others have been surpassed by technological advancements and are no longer in use.

Pic. 22 & 23: Some of the equipment found at Mulago orthopaedic workshop.

The Mulago orthopedic workshop was found to have wide range of equipment, including tools for carpentry and leatherwork. However, much of this equipment is outdated, with most items being over years old and nearing the end of their functional lifespan. There is an urgent need for a replacement to prevent service disruptions. While the workshop possesses the tools necessary to produce most assistive technologies, its operations are frequently hindered by a general lack of supplies.



a
20
plan

In Lira, while some equipment remains functional, much of it is non-operational due to persistent power issues. The unit requires a 3-phase power supply, which is currently unavailable, and poor maintenance has contributed to equipment breakdowns. For instance, the oven shown on the veranda in Pic 10 above is 22 years old.



Pic. 24 & 25: Some of the Faulty equipment found at Lira orthopedic workshop

Some of the equipment, including those shown in the pictures, are not fully functional due to maintenance challenges. Additionally, several items are nearing the end of their operational lifespan. To ensure continued functionality and address potential failures, it is crucial to develop a comprehensive replacement plan.

Like Lira, Arua's orthopedic workshop faces recurring challenges with outdated and malfunctioning equipment, worsened by power inconsistencies. In both locations, broken equipment often remains unrepaired due to limited technical expertise and the unavailability of replacement parts, particularly for older technologies.



Pic. 26: One of the many faulty equipment found in Arua orthopaedic workshop.

In Arua, power inconsistencies have been a major contributing factor to frequent equipment breakdowns. While some items only required minor repairs, others deteriorated further due to neglect and lack of maintenance. Efforts to engage hospital staff in equipment management proved largely unsuccessful, as they lacked the expertise needed to manage the technologies involved. This challenge is further aggravated by reliance on outdated technologies, which are no longer supported or readily available on the market, leaving personnel feeling frustrated and without the resources to address these issues.

In Fort Portal, the orthopedic workshop continues to operate primarily due to support from STAND (formerly known as Legs 4 Africa) and other partners. These organizations have provided basic equipment for the production of assistive technologies and supported construction of an accommodation facility for beneficiaries. This facility supports both the local community and refugee populations in the region. However, the workshop still faces significant resource constraints and remains heavily reliant on donor-funded projects to sustain its operations, particularly to meet the needs of the refugee population it serves.

In Soroti, the orthopedic workshop faces a critical shortage of hand tools, with only a limited number available and many of those being worn out.



Pics. 27 & 28: The orthopedic workshop in Soroti

Despite this challenge, the facility remains overwhelmed with a high

patient load, as evidenced by the long line of patients waiting for assistance during the study period. This shortage of essential equipment contributes to delays and prolonged waiting times for patients, highlighting the urgent need for improvements.

Poorly equipped facilities often face significant challenges due to a lack of technical expertise and the unavailability of replacement parts. While some facilities benefit from donations by civil society organizations and development partners, disparities in equipment availability remain widespread.

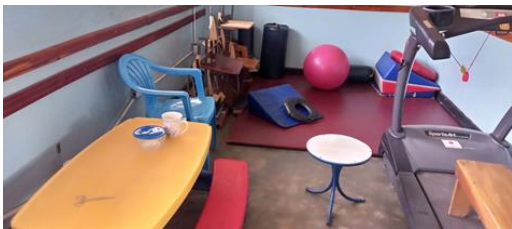
The effectiveness of rehabilitation services is closely tied to the condition and functionality of equipment. Many facilities struggle with shortages of essential hand tools and outdated equipment, which severely hampers the delivery of effective rehabilitation services and the production of assistive technologies.

Occupational Therapy Units

Occupational therapy (OT) is a vital rehabilitation service designed to help individuals improve their ability to perform daily tasks, regain functional abilities, and enhance their quality of life. OT, which includes orientation and mobility services, plays a critical role in supporting persons with disabilities or health conditions, helping them regain independence and improve overall functioning.

In Uganda, OT services are scarce in many regions, with numerous facilities lacking dedicated OT units. While most regional referral facilities offer OT services, they often face significant challenges due to inadequate equipment, limited resources, and a shortage of trained personnel. These gaps in service delivery hinder the effectiveness of OT interventions.

At the time of the study, Gulu was the only facility with a functional OT unit, equipped with resources provided by AVSI although the space was insufficient.



Pic. 29: Occupational Therapy Unit in Gulu

Lira had a few items supplied by the USDC, while Fort Portal benefited from some equipment thanks to donor support. In contrast, Masaka faced significant challenges, lacking both the resources and personnel required for OT service delivery, and was without an occupational therapist at the time of the study. In other regions, OT services are typically available only through the intervention of development partners or civil society organizations.

Eye Care Units

In Uganda, several government referral facilities offer ophthalmology services, including specialized care for conditions such as cataracts, glaucoma, and other eye health issues. Key centers include Mulago National Referral Hospital in Kampala, as well as regional referral hospitals in Mbarara, Mbale, Gulu, Arua, Lira, and Fort Portal, all of which provide diagnostic, surgical, and outreach services to address eye health concerns. However, these facilities were not visited during the study, except for Arua Regional Referral Hospital.

The person in charge of ophthalmology services at Arua reported that while the facility has some equipment, it is lacking several essential tools, including an ophthalmoscope, operating microscope, slit lamp, and a digital tonometer. Although the facility possesses an old model of a digital tonometer, it is no longer effective. This shortage is a significant challenge, especially since most patients are unable to afford the available services.

Audiology and Speech and Language Therapy (SLT) Services

Audiology and speech and language therapy (SLT) services are essential for supporting individuals with hearing impairments, speech and language disorders, and communication challenges. These services are crucial for children with speech delays, developmental disorders, or hearing loss, as well as adults recovering from stroke, brain injuries, or trauma. They are also vital for individuals experiencing swallowing difficulties, cognitive impairments, or speech disorders caused by conditions such as cerebral palsy, autism spectrum disorder, Down syndrome, or other neurological conditions.

Although these services play a crucial role in improving communication abilities, enhancing social integration, education, and employment opportunities, and promoting overall quality of life, they were not included in the study.

Assessment of Equipment in Private Facilities

At both CORSU and Katalemwa Cheshire Home, the orthopedic workshops are well-equipped with functional equipment, enabling effective service provision and production of various rehabilitation products.



Pic. 30: One of therapy gyms found at CORSU

CORSU has a well-established gym facility complemented by additional equipment strategically placed in various therapy rooms. This setup supports a

wide range of rehabilitation services tailored to meet the diverse needs of individuals requiring specialized care.

Pic 31-33: Some of the equipment found in the orthopedic workshop at CORSU.

Like CORSU, both Katalamwa Cheshire Home and CURE Children's Hospital are



equipped with advanced facilities and equipment that enable them to provide effective physiotherapy, occupational therapy, and orthopedic care. CURE is particularly renowned for managing

neurological cases, offering specialized packages and free services to children, especially those with hydrocephalus, spina bifida, and other neural conditions. These well-resourced institutions ensure that individuals receive comprehensive rehabilitation services designed to meet their specific needs. Additionally, these private facilities feature child-friendly therapy rooms equipped with customized tools and resources that address the unique needs of pediatric patients, as illustrated in Pictures 13–15 above.

CORSU has incorporated 3D printing technology into its prosthetics production, significantly enhancing the quality and precision of the devices.



Pic. 34: 3D technology found at CORSU

CORSU has been utilizing 3D printing technology for prosthetics for about a decade, though its application remains at a limited scale. Efforts to expand this innovative technology have been hindered by administrative delays. In addition to prosthetics, the facility produces protective insoles that are highly beneficial for individuals with conditions such as leprosy and diabetes, as well as for those who frequently walk or jog. These insoles play a vital role in preventing injuries and promoting overall health and well-being. Like government facilities, private rehabilitation facilities in Uganda are heavily dependent on donor funding and are increasingly strained by the decline in external support. Over time, this could significantly impact the delivery of rehabilitation services. To address this, a comprehensive approach is needed, including prioritizing rehabilitation resources for essential government purchases and fostering strong public-private partnerships. Sustained commitment from the government, coupled with strategic collaboration with external partners, is crucial for ensuring the sustainability, accessibility, and growth of high-quality rehabilitation services across the country.

Provision of Supplies in the Government Rehabilitation Facilities

Effective rehabilitation service delivery depends on several key components, including adequate space, appropriate equipment, a skilled workforce, and the availability of essential supplies. These supplies, such as medical materials, assistive technologies, and hand tools, play a crucial role in the daily operations and delivery of high-quality care. Hand tools, in particular, are integral to the rehabilitation process and are subject to wear and tear, making regular replenishment necessary to sustain service quality.

Administrative tools, including patient forms, pens, and scheduling software, are equally important in streamlining patient management and supporting the operational workflow. Additionally, each rehabilitation unit requires specialized supplies tailored to the unique needs of its therapeutic area, ensuring that the services provided are both effective and responsive to the specific demands of different rehabilitation disciplines.

In **physiotherapy**, the availability and proper use of essential supplies are crucial for ensuring seamless and efficient care delivery. Consumables such as gloves, disinfectants, and adhesive bandages are indispensable for maintaining hygiene and preventing infections during therapy sessions. Additionally, ointments and therapeutic oils, including analgesic balms, anti-inflammatory creams, and essential oils, are frequently used in massage therapy and pain management to reduce inflammation, improve circulation, and enhance tissue recovery, thereby improving the effectiveness of treatment.

Rehabilitation tools, such as exercise mats, foam rollers, resistance bands, and weights, play an integral role in facilitating therapy routines tailored to individual patient needs. Regular inspections of these tools for wear and tear, damage, and safety concerns are essential for maintaining high-quality care, ensuring that therapy sessions remain effective and safe. However, the current supply system presents challenges. Physiotherapy units rely on hospital supplies, which are provided quarterly and often in insufficient quantities to meet the needs of patients. Given the diverse patient base, ranging from mothers recovering from cesarean sections to individuals with injuries, chronic conditions, and disabilities, the demand for physiotherapy services is both ongoing and varied. As a result, ensuring the consistent availability and appropriate use of essential supplies is crucial.

In **occupational therapy**, the availability of essential supplies, including adaptive tools and assistive technologies, is crucial for delivering effective care. Key supplies include specialized items such as adaptive eating utensils, dressing aids, and tools for fine motor skill development, all of which enable patients to perform routine tasks more effectively and regain independence. Sensory integration tools, such as textured balls, and cognitive rehabilitation aids, like memory aids and voice-activated devices, play a vital role in supporting both physical and cognitive recovery.

Many therapy units face challenges in accessing necessary supplies, particularly hand tools, which, even when available through projects, are often in short supply or prone to damage. In Gulu, as shown in Picture 29, a functional workshop supported by AVSI has helped to provide services to the people in Northern Uganda and any others who walk in services. In response, to the limited supplies in occupational therapy unit, some therapists have turned to locally appropriate technologies, encouraging patients to use these resources within their

communities. This approach not only enhances the delivery of rehabilitation services but also ensures that individuals can continue their rehabilitation with the available resources. By promoting self-sufficiency, it facilitates reintegration into the community. Ultimately, through this community-based model, individuals are empowered to continue their rehabilitation, utilize local resources, and foster greater independence, contributing to successful community reintegration.

Orthopedic workshops play a crucial role in producing prosthetics and orthotics for individuals with limb impairments or spinal injuries. These workshops rely on a variety of materials to ensure the devices are both functional and comfortable. Metals such as steel, aluminum, and titanium provide the necessary structural support, while softer materials like leather and rubber are used to enhance comfort. Additionally, materials like polypropylene sheets, nails, screws, sandpaper, and varnish are essential for the fabrication, assembly, and finishing of these devices.

Despite their critical role in rehabilitation and the production of assistive technology, many orthopedic workshops and rehabilitation facilities face significant challenges due to inconsistent and inadequate supplies. While these facilities report having the necessary equipment and trained personnel to produce assistive devices, they often lack the required materials. As a result, many workshops become non-operational or only partially functional, compromising the effectiveness of rehabilitation services.



Pic. 35-38: Some of the assistive devices found

at Mulago orthopaedic workshop.

In Mulago, some timber is provided to produce crutches and a few assistive devices, but patients often require additional materials to ensure the comfort and effectiveness of the devices. Many workshops, including Mulago National Referral, rely on project funding, and when resources are unavailable, patients are asked to supply their own materials for the production of assistive devices. This situation excludes many individuals with disabilities, as they are often unable to afford these materials due to poverty.

In some regional referral centres, workshops resort to using locally available materials, such as jerrycan cuttings, as substitutes for essential devices like cervical collars and back supports.

“We are forced to use jerrycan cuttings as substitutes for producing essential cervical collars and back support devices for individuals with neck or back injuries. Despite the challenges, our commitment to helping those in need drives us to find creative solutions

and continue supporting our clients on their rehabilitation journey, even in the face of inadequate supplies." An official in an orthopedic workshop.

While this resourcefulness is commendable, it highlights the urgent need for more reliable and sustainable supply chains to ensure the consistent availability of appropriate materials for producing quality assistive devices.

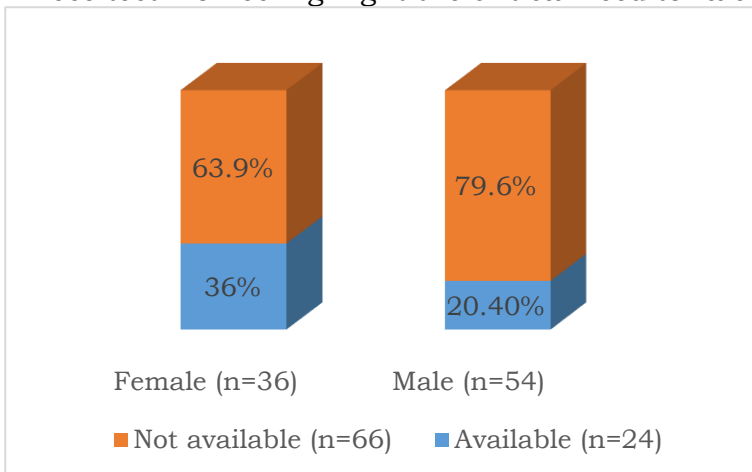
Eye care services require specific diagnostic and treatment supplies to effectively address vision impairments. Essential resources include prescription lenses, magnifiers, low-vision aids, and diagnostic tools and surgical instruments. These supplies are crucial for the detection, management, and treatment of various eye conditions, ultimately enhancing care quality for individuals with visual disabilities. At Arua, the person in charge of ophthalmology services reported that although the facility has some equipment, it is missing several essential tools and faces a significant shortage of diagnostic supplies, spectacles, and other necessary materials. This shortage further hampers the ability to provide comprehensive eye care.

25.6% of the respondents reported that have never visited the rehabilitation facilities because they did not know that they too can benefit from these facilities as testified below:

"I'm shocked to learn about the services available at the rehabilitation facilities. I regularly encounter cases of people who would benefit from these services, but I never even knew they existed," remarked a female disability councilor from rural Soroti District.

"I often meet people who could benefit from rehabilitation services, yet many of them, including myself, are unaware of what is available or how to access it," shared another female disability councilor from Soroti district.

These testimonies highlight the critical need to raise awareness and disseminate information



about rehabilitation services, particularly in rural communities. The lack of knowledge about these services contributes to the exclusion of persons with disabilities, emphasizing the urgency of improving public awareness to ensure equitable access to support and resources. By addressing these challenges, we can foster a more equitable and inclusive society where everyone, regardless of ability, can lead healthier, more independent lives.

Fig. 5: Individual Responses on availability of equipment during visit to government rehabilitation facility

Of those who have utilized the rehabilitation facilities, 73.3% reported that at the time of their respective visits, the necessary equipment and supplies were not available, which forced them to either seek alternatives or spend money to receive services.

The absence of essential tools and resources in rehabilitation facilities creates a significant barrier to delivering effective services and producing high-quality assistive devices, which are crucial for enhancing participation and inclusion. This shortage undermines the empowerment of persons with disabilities, limiting their opportunities for growth and full participation in society. To address these challenges, it is essential to ensure the timely replenishment of resources, establish a comprehensive national assistive product list, and explore more funding opportunities. These measures are critical for enhancing care quality, promoting inclusion, and ensuring equitable access to rehabilitation services for all.

Assessment of Rehabilitation Supplies in Private Facilities

In the private sector, organizations like CORSU and Katalemwa Cheshire Home have been actively producing assistive devices. However, both are heavily reliant on donor support and have expressed concerns about dwindling funds, which impact their production capabilities.

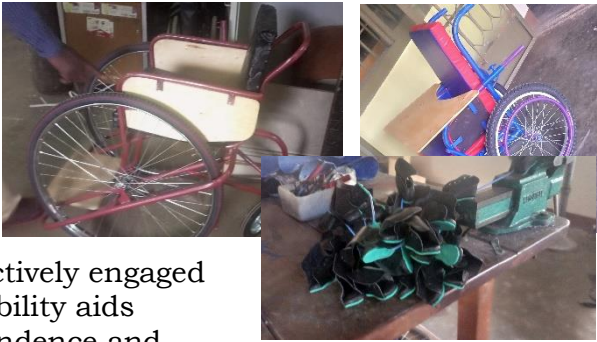
CORSU is particularly recognized for its use of 3D technology in the production of prosthetics, while Katalemwa has a long-standing reputation for creating sitting and mobility appliances.



*Pic 39: The functional leather workshop at CORSU
Pic 40: An artificial limb produced by CORSU.*

The workshop personnel are demonstrating the use of the finished product, which is ready for the client to pick up.

Pic 41-43: Some of the locally made mobility aids at Katalemwa Cheshire Home



Katalemwa Cheshire Home is actively engaged in the production of various mobility aids designed to enhance the independence and quality of life of individuals with disabilities. These include custom-made wheelchairs, crutches, walking frames, and prosthetic devices. By focusing on locally tailored solutions, the home ensures that the mobility aids meet the specific needs of users, promoting functionality and accessibility while fostering greater inclusion in their daily lives. These are supplied to the different rehabilitation facilities in the country.

Collaboration between the government and private rehabilitation facilities is essential to improving the quality and accessibility of rehabilitation services for persons with disabilities. Such partnerships can facilitate the integration of advanced technologies and the production

of innovative assistive devices, resulting in tailored solutions that promote independence and enhance the quality of life. By pooling resources and expertise, both sectors can create a more inclusive environment where assistive technologies are readily available and effectively utilized.

However, the lack of adequate regulation in private sector efforts and civil society initiatives often leads to the proliferation of substandard assistive devices, undermining the quality of care and increasing the challenges faced by individuals with disabilities. This situation not only impacts service delivery but also threatens the autonomy and independence of those who rely on such devices.

Personnel Capacity in the Rehabilitation Facilities

Personnel capacity in rehabilitation facilities is essential for delivering high-quality care, especially as the demand for services continues to rise. An effective personnel structure should include a diverse team of rehabilitation professionals, support staff, specialized roles, and management. Key roles include physiotherapists, occupational therapists, orthopedic technologists, nursing staff, and specialists in ophthalmology, audiology, psychiatry, and speech and language therapy. Additionally, counselors and support staff, such as nurses, aides, and administrative personnel, play vital roles in patient care. Specialized roles, including social workers, dietitians, and psychologists, are also crucial for providing comprehensive services.

The client-to-staff ratio in rehabilitation facilities typically ranges from 1:10 to 1:15, depending on the population's needs and available services. Maintaining an appropriate client-to-staff ratio and adapting personnel structures are essential for optimizing service delivery and improving patient outcomes.

In Uganda, a new personnel structure for therapeutic and rehabilitation services at Mulago National Referral Hospital and regional referral facilities was approved in March 2023. This structure outlines the required staffing levels across various units (see Appendix 1). However, despite these adjustments, many positions at national and regional referral facilities remain unfilled. In some cases, workshops are staffed by only 1 to 3 personnel, with several critical roles vacant. The staffing shortages are primarily due to budget constraints, which force health facilities to prioritize other departments over rehabilitation services. Recruitment for personnel depends on expressions of interest from health facilities, but limited financial resources and low motivation among existing staff often result in unfilled positions. For instance, the position of speech therapist is included in the personnel structure, yet these roles remain largely unfilled.

Despite salary payments, the lack of adequate equipment and supplies hinders the performance of rehabilitation personnel, leading to frustration. Individuals with high achievement motivation, in particular, seek more than just a paycheck—they want to feel valued and make a meaningful impact in their roles. When these needs are unmet, some pursue further studies or transition to other health departments, leaving critical roles vacant.

These staffing shortages are placing immense pressure on the remaining personnel, who are already stretched thin as shared below:

“In this unit we are overwhelmed with the number of people in need of services. This makes it hard for one to attend to the OPD patients in need of services” physiotherapist in one of the regional referral facilities.

At the time of the study, Masaka was without an occupational therapist, further highlighting the shortage of key rehabilitation professionals. In Gulu, a renowned ophthalmology facility experienced a decline in service quality due to staff transfers, while Arua faced a severe shortage of ophthalmologists. Additionally, Arua's rehabilitation facility was coping with the retirement of a physiotherapist, leaving only one physiotherapist, who, at the time of the study, was recovering from a serious traffic accident. To maintain service continuity, this physiotherapist was supported by interns, who were paid out-of-pocket. Similarly, Soroti's facility relied on an intern to meet service demands. These interns worked diligently, hoping that their efforts would eventually lead to permanent positions.

In contrast, private rehabilitation centers such as CORSU, CURE, and Katalemwa Cheshire Services have successfully filled all necessary positions, including rehabilitation counselors, dietitians/nutritionists, and social workers, ensuring the delivery of high-quality rehabilitation services. However, due to limited service provision in government facilities, individuals often seek care from private or unregulated providers, whose regulation is challenging due to gaps in the government system. This highlights the need for a concerted effort between allied health professionals and the Ministry of Health to establish a comprehensive quality management system. Such collaboration is crucial to addressing existing gaps, enhancing service delivery, and ensuring consistent, high-quality rehabilitation services across both public and private sectors.

Financing and Resource Mobilization for Rehabilitation Service Delivery

Effective financing and resource mobilization are critical for strengthening rehabilitation service delivery, especially in low- and middle-income countries like Uganda. Adequate funding is essential for securing necessary equipment, supplies, and trained personnel, as well as for developing the infrastructure needed to deliver quality rehabilitation services. However, Uganda faces significant financial constraints in its rehabilitation sector, limiting both the effectiveness and accessibility of services for persons with disabilities.

One of the primary barriers is the lack of a designated budget for rehabilitation services, which severely hampers the ability to plan and deliver comprehensive care. Currently, these services rely on general health supplies allocated to government facilities on a quarterly basis. While this provides a basic level of support, it does not address the unique needs of rehabilitation, especially in specialized areas like orthopedic workshops. These workshops, crucial for fabricating prosthetics, orthotics, and other assistive devices, often lack the specific materials necessary for production, highlighting the need for targeted financial support to strengthen rehabilitation services across the country.

The financial shortfall in rehabilitation services has broader social and economic implications. Inadequate services limit the participation of persons with disabilities in education, employment, and community activities, reducing their capacity to contribute to their families and society. This exclusion from the workforce represents a loss of human potential, undermining economic growth and development. Moreover, when persons with disabilities lack the necessary rehabilitation support to become active and independent, society faces long-term costs related to dependency and decreased productivity.

Additionally, most of the equipment used in rehabilitation units has been supplied by civil society and development partners, a situation that is increasingly unsustainable due to declining international funding. In some cases, facilities may resort to accepting poor-quality products to meet urgent needs, potentially leading to harmful outcomes.

Private rehabilitation centers such as CORSU, CURE, and Katalemwa Cheshire Services also depend heavily on donor funding, which is becoming more difficult to secure. As these funding sources dwindle, these organizations face significant challenges in maintaining service provision, exacerbating the exclusion of persons with disabilities.

To address these gaps, it is essential for the Ministry of Health, the Health Service Commission, the District Service Commission, and relevant policymakers to prioritize investments in rehabilitation services. Adequate funding and targeted support are critical to improving space, equipping facilities, ensuring adequate supplies, and recruiting qualified personnel. By addressing these key areas, Uganda can close the manpower gap, strengthen its rehabilitation services, and contribute to national development, benefiting both persons with disabilities and the broader economy.

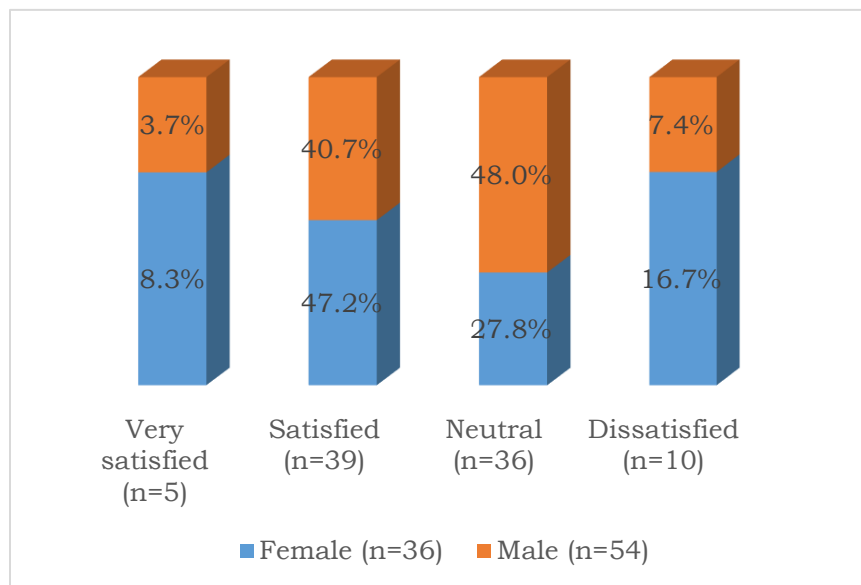
Quality of Services for Persons with Disabilities

The quality of rehabilitation service delivery for persons with disabilities is fundamental to enhancing their independence, improving their quality of life, and enabling their full participation in society. Effective rehabilitation services require tailored interventions that address the unique needs of individuals. However, the lack of a comprehensive and functional rehabilitation system in the country significantly hampers the availability of essential resources, including adequate space, equipment, supplies, and trained personnel. This shortfall directly affects the effectiveness of services and user satisfaction.

Personnel capacity is a cornerstone of effective rehabilitation service delivery. A well-trained and adequately staffed team is essential to address the diverse needs of persons with disabilities. Unfortunately, many rehabilitation facilities face significant challenges, including staffing shortages and inconsistencies in the training and expertise of personnel. These issues often lead to reduced service quality and diminished user satisfaction.

Adding to these challenges is the scattered nature of rehabilitation units within some facilities, often caused by space constraints. This disjointed setup hampers efficient service delivery and disrupts the continuity of care, further impacting the effectiveness of

interventions. The absence of quality management systems compounds these issues, making it difficult to ensure consistent, reliable, and high-quality care.



User satisfaction serves as a critical measure of service quality, reflecting the effectiveness, accessibility, and responsiveness of rehabilitation services.

Fig. 6: Respondents' Satisfaction with rehabilitation services

74.4% reported that they have utilized rehabilitation facilities. Of these, 43.3% reported satisfaction while 40% were neutral.

These responses were substantiated by feedback shared during focus group discussions (FGDs) in Kumi, Soroti, Mbale, and Fortportal:

"My experience with the rehabilitation service has been transformative. The staff genuinely listened to my concerns and tailored their approach to meet my specific needs, making me feel valued and understood." a lady found with a pair of crutches in Mbale.

"I often felt like just another number in the system. The staff try to give the personalized attention but without resources, I still cannot get the necessary assistive device in I need" a lady lamented in Soroti.

These responses highlight the contrasting experiences of individuals accessing rehabilitation services, reflecting both positive outcomes and ongoing challenges. The feedback underscores the importance of personalized care and the critical need for adequate resources to ensure that all individuals receive the necessary support for their rehabilitation journey.

User experiences and attitudes toward rehabilitation services are pivotal in determining the quality and effectiveness of care for individuals with disabilities. Positive interactions, characterized by personalized attention and supportive staff engagement, significantly enhance patient satisfaction and motivation throughout the rehabilitation process. Conversely, negative experiences such as feeling undervalued or facing long wait times—can lead to frustration and hinder progress.

"I believe that rehabilitation services are essential for recovery. The staff's encouragement and positive attitude helped me stay motivated and hopeful throughout my journey" a youth with physical disability in Lira.

Attitude plays a crucial role in determining individuals' perceptions of and engagement with rehabilitation services. Those who maintain a positive outlook and believe in the value of rehabilitation are more likely to actively participate in their recovery. In contrast, skepticism regarding service quality or concerns about staff competence can discourage individuals from seeking the assistance they need.

"I was skeptical about seeking rehabilitation at first. I had heard stories about inadequate care and untrained staff, which made me hesitant to use the services despite needing help." An elderly lady in Mbale.

Unlike other districts, Kumi lacks a government rehabilitation facility, which forces residents to travel long distances to reach the nearest reasonably priced center. The closest option is a private facility, often prohibitively expensive for many seeking care.

"Accessing rehabilitation services in Kumi poses significant challenges, as the only reliable facility is several kilometers out of town, while nearby options cater primarily to those who can afford the costs, leaving many individuals in need with limited choices."

Although Kumi lacks a regional referral health facility, it was included in the study because of its orthopedic hospital. The team also visited Kumi Hospital in Ongino, as it is the primary healthcare facility utilized by the local community. Additionally, the area has a well-organized organization of persons with disabilities, which provided valuable insights into rehabilitation service delivery, particularly in relation to the state of rehabilitation services at Soroti Regional Referral Hospital.

Access to well-equipped and adequately staffed rehabilitation facilities significantly improves outcomes for individuals with disabilities. However, limited access, along with barriers such as insufficient resources, space, and personnel shortages, often prevents full engagement and exacerbates challenges. To enhance rehabilitation practices, it is crucial to address these barriers and prioritize the availability of necessary resources.

Challenges Experienced in Rehabilitation Service Delivery in Uganda

Effective rehabilitation service delivery is critical for empowering persons with disabilities and enabling their active participation in society. However, numerous challenges hinder the accessibility, quality, and efficiency of these services, impacting beneficiaries, rehabilitation facilities, and personnel alike. These challenges encompass physical, financial, and systemic barriers that make rehabilitation care difficult to access and sustain. Addressing these issues is crucial to improving rehabilitation outcomes and ensuring equitable service delivery across Uganda.

Challenges: Beneficiaries' Perspective

Limited Accessibility to Facilities: Many persons with disabilities face significant barriers to accessing rehabilitation services due to the geographic location of rehabilitation centers. Individuals in rural areas often must travel long distances to reach the nearest facility, which incurs high transportation costs and time burdens. These challenges discourage individuals from seeking care, particularly those from economically disadvantaged backgrounds. For instance, in Kumi, a parent of a child with cerebral palsy expressed frustration about the distance and cost of traveling to the only available facility:

“Mnn, do you even know what it means to get to the rehabilitation center? Look at how far it is, and yet this one here is for those with money.” Parent to a child with cerebral palsy in Kumi district.

The lack of accessible facilities in some districts leaves many individuals without the necessary rehabilitation services.

Inadequate Space: Rehabilitation centers are often constrained by limited space, which affects the delivery of comprehensive and personalized care. Overcrowded rooms and cramped conditions make it difficult for beneficiaries to receive the full benefits of therapy and rehabilitation. A woman waiting at a facility in Lira shared:

“You also look at this! Even if you are to try, there is hardly enough space for us to sit, and yet it has rained, as you see, and the ground is all wet.” A lady shared at Lira hospital.

Such limited space impacts the comfort and effectiveness of rehabilitation, further discouraging individuals from attending necessary sessions.

Lack of Appropriate Equipment and Supplies: The unavailability of adequate assistive devices and specialized equipment is a common issue that delays rehabilitation progress. Without the necessary tools, both therapists and patients face challenges in achieving optimal therapeutic outcomes. The shortage of these resources severely restricts the scope and effectiveness of services, preventing beneficiaries from benefiting fully from rehabilitation.

Financial Barriers: The high cost of private rehabilitation services excludes many individuals, especially in districts like Kumi where government-provided services are lacking. These financial barriers make it impossible for individuals from low-income families to access consistent and high-quality rehabilitation services, further marginalizing them and hindering their progress.

Negative User Experiences: Long waiting times, lack of attention from staff, and perceived neglect create negative experiences for beneficiaries. These challenges contribute to feelings of frustration, demotivation, and discouragement, preventing individuals from seeking regular care and ultimately hindering their rehabilitation. For many beneficiaries, the lack of a patient-centered approach discourages ongoing engagement with rehabilitation services.

Challenges: Facility Perspective

Limited Resources: Rehabilitation facilities in Uganda often operate on constrained budgets, which limits their ability to invest in essential equipment, staff training, and facility upgrades. This financial strain impacts the quality of services provided. As one facility manager noted:

“We would like to offer more services, but with the current funding, we’re forced to make difficult choices, often at the expense of patient care.” Medical Director in one of the health facilities.

This lack of funding directly impacts service delivery, as facilities cannot meet the growing demand for quality care.

Inadequate Physical Space: Space limitations in rehabilitation facilities are a significant barrier to effective service delivery. Many centers lack the capacity to provide a variety of rehabilitation activities or personalized care. A therapist in one facility noted:

“Our space is so limited that sometimes we have to turn patients away or conduct sessions in cramped rooms, which affects their experience and safety.” One of the therapists in Western Uganda.

These spatial constraints not only compromise the comfort of beneficiaries but also reduce the effectiveness of rehabilitation efforts.

Outdated Equipment: Many rehabilitation centers continue to rely on outdated or poorly maintained equipment, limiting the range of treatment options available. One staff member shared their frustration:

“We’re still using machines from over a decade ago, and parts are hard to find. Patients deserve better, but we simply don’t have the funds for replacements.” Therapist in one of the rehabilitation units.

This lack of modern equipment hampers the quality of care, resulting in suboptimal outcomes for beneficiaries.

High Operational Costs: Rehabilitation centers incur significant operational costs, including expenses for utilities, supplies, and staffing. These high costs place additional strain on already limited resources. One facility manager remarked:

“We’re often caught between covering our basic operational costs and maintaining adequate care standards, but with current funding, it’s nearly impossible.” Facility manager in one of the referral facilities.

This financial strain forces facilities to reduce services or cut corners, compromising care quality and access.

Challenges: Personnel Perspective

Personnel Shortages: Staff shortages are a major challenge for rehabilitation centers, leading to overworked personnel who struggle to provide adequate care. A physiotherapist shared their frustrations:

“Imagine working with patients at this clinic while also attending to those in the wards, including C-section cases and their complications. On some days, it is as hectic as you see. We’re so short-staffed that we struggle to give each patient the attention they need. It’s frustrating because we know they deserve better care but can we do?”
Physiotherapy in one of the regional facilities.

These shortages create an environment where rehabilitation professionals are unable to dedicate enough time to each patient, affecting the quality of care provided.

Lack of Training and Development: Limited opportunities for professional development hinder the growth of rehabilitation personnel. Many therapists expressed a desire for more training, but financial constraints and a lack of available programs prevent them from accessing opportunities to stay updated on the latest practices. As one therapist explained:

“For one to grow in this career, upgrading matters a lot and I want to learn and grow, but training programs are rare, and when they do happen, they are expensive yet getting a sponsor lack enough funding to attend.” One of the rehabilitation professionals.

The lack of training limits staff knowledge and skills, compromising care quality, patient recovery, and satisfaction, emphasizing the need for accessible and affordable professional development.

Burnout and Job Satisfaction: The overwhelming demands and limited resources contribute to staff burnout, which impacts motivation and care quality. One therapist shared their experience:

“It’s hard to stay motivated when we’re so overwhelmed. We care about our patients, but sometimes it feels like we’re barely managing to get through the day as you can see.” One of the therapists who was found getting a glass of water as the first meal for the day.

Burnout not only affects the well-being of staff but also leads to high turnover rates, which further strains the system. It is not surprising that some are opting out to leave vacancies in the rehabilitation units.

Inadequate Support: Rehabilitation professionals often feel unsupported due to insufficient administrative resources, creating an environment where they are forced to handle multiple responsibilities. This compromises the quality of care they can provide. One therapist highlighted these challenges:

"Without enough support from administration, we're left to juggle too many responsibilities. Without proper supplies, you can't just sit idle—you have to find ways to care for the patients. We even look for opportunities where our services can be utilized." One of the therapists confessed.

This lack of support not only strains staff but also impacts the efficiency and effectiveness of rehabilitation services, underscoring the need for enhanced administrative backing and resource allocation.

Addressing these challenges requires a holistic approach that involves increasing funding, improving infrastructure, enhancing personnel training, and fostering better coordination between stakeholders. Only through these efforts can Uganda hope to create a more accessible, effective, and sustainable rehabilitation service system.

SWOT Analysis for rehabilitation Service provision in Uganda

A SWOT analysis is a vital tool. It helps identify strengths, weaknesses, opportunities, and threats to inform development of appropriate strategies to address the various challenges identified and improve service delivery. By leveraging strengths and opportunities while addressing weaknesses and threats, a resilient system can be built, promoting high-quality care, independence, and inclusion for individuals with disabilities.

Strengths of Uganda's Rehabilitation System

Existing Infrastructure: National and regional referral hospitals, such as Mulago National Referral Hospital, offer specialized rehabilitation services. These facilities benefit from government-funded personnel and dedicated space, providing a strong foundation for expanding service delivery.

Private Sector Innovation: Facilities like CORSU leverage advanced technologies, including 3D printing for prosthetics, to enhance patient outcomes. For example, patients using 3D-printed prosthetics report improved functionality and faster service delivery.

Dedicated Workforce: Approximately 120 rehabilitation professionals graduate annually from local institutions, contributing to a multidisciplinary workforce. These professionals, supported by internships and hands-on experience, passionately advance Uganda's rehabilitation agenda.

Community Support: Local organizations, self-help groups, and community-driven initiatives actively address resource shortages. For instance, grassroots campaigns for disability awareness have increased community participation in rehabilitation programs.

External Support: International partners like AVSI and JICA provide vital resources, equipment, and training. For example, JICA's funding has improved physiotherapy services and enhanced access to assistive technologies.

Weaknesses of Uganda's Rehabilitation System

Resource Limitations: Essential assistive technologies such as hearing aids, sun creams, catheters, medications for individuals with incontinence, and mobility devices are scarce and not yet integrated into the national medical supplies system. Furthermore, much of the existing equipment is outdated or dysfunctional, further hindering service delivery.

Inadequate Facilities: Many rehabilitation centers have aging infrastructure, cramped spaces, and insufficient supplies. For instance, some facilities operate at only 60% of their intended capacity due to space and equipment constraints.

Staff Shortages: There are critical shortages of trained specialists, particularly in speech therapy, audiology, and occupational therapy. This results in caseloads overwhelming available personnel, leading to delayed or limited services.

Fragmented Service Delivery: Rehabilitation services are poorly integrated within the health system, limiting holistic care. For example, patients requiring multidisciplinary interventions often need referrals to multiple facilities, creating logistical and financial burdens.

Awareness Challenges: Awareness of rehabilitation services, especially in rural areas, is low. A survey revealed that 70% of rural residents were unaware of the availability of assistive technologies in nearby districts.

Financial Constraints: Facilities face funding shortages and depend on donor support. High out-of-pocket expenses for services, such as prosthetics, deter many patients from seeking care.

Opportunities for Uganda's Rehabilitation System

Government Commitment: The government's pledge at the Disability Summit 2022 and alignment with the 2030 Agenda for Sustainable Development create a supportive environment for scaling up rehabilitation services.

Public-Private Partnerships (PPP): Collaborations with private facilities, civil society organizations, and corporate entities offer opportunities for innovation and resource mobilization. For example, partnerships with tech firms can accelerate the development of affordable assistive devices.

Training Expansion: Expanded training programs can address staffing shortages.

Technological Advancements: Technologies like telemedicine and 3D printing for prosthetics can be scaled up. Telemedicine has already shown promise in connecting rural patients to urban specialists, improving service reach.

Strategic Frameworks: Global and national initiatives such as Rehabilitation 2030 and the Disability Blueprint offer a roadmap for improving service delivery and ensuring alignment with best practices.

Threats to Uganda's Rehabilitation System

Funding Constraints: Limited government budgets and declining donor support jeopardize service sustainability. For instance, recent funding cuts have delayed essential infrastructure upgrades in regional facilities.

Competing Priorities: Immediate health needs, such as maternal health and infectious disease control, often overshadow rehabilitation services, reducing their funding and accessibility.

Social and Cultural Barriers: Persistent stigma and cultural misconceptions about disabilities deter service uptake. For example, some communities view disabilities as curses, discouraging families from seeking rehabilitation.

Rural Accessibility: Centralized services in urban centers create significant barriers for rural populations. Due to regional distribution, people in some districts travel over 30 km to access basic rehabilitation services and yet they have resource constraints.

Hazards: Emerging risks, such as pandemics and climate change, disrupt service delivery. For instance, floods in northern Uganda have displaced populations, reducing access to rehabilitation centers.

PESTEL Analysis for Rehabilitation Service Provision in Uganda

A PESTEL analysis helps assess external factors—Political, Economic, Social, Technological, Environmental, and Legal—that impact rehabilitation services in Uganda. For NUDIPU, this analysis identifies challenges and opportunities to inform advocacy strategies, influence policies, secure funding, and enhance service quality and accessibility for persons with disabilities.

Political Factors

Government Policies: Uganda has established several policies like the Disability Inclusion Guidelines (2017) and the persons with Disabilities Act 2020 signaling the government's commitment to disability inclusion. However, rehabilitation services are often under-prioritized in the national health system, leading to inadequate resource allocation. There is need for advocacy to enhance resource allocation to rehabilitation service provision at all levels.

Political Stability and Governance: Political stability plays a crucial role in the effectiveness of health service delivery. Unstable periods can disrupt healthcare systems and limit resources, affecting the provision of rehabilitation services. Stable governance is essential for ensuring that disability-related initiatives remain funded and prioritized, particularly in regions where services are limited.

Economic Factors

Funding Availability: Uganda faces economic constraints, limiting government funding for health services. Rehabilitation centers often operate with limited resources, impacting the comprehensiveness of care. Expanding funding sources, such as government allocations, grants, and public-private partnerships, can enhance financial sustainability for the sector.

Cost of Services: Rehabilitation services are often expensive and may be required over an extended period. This challenge is exacerbated when inadequate resources or poor conditions in government facilities force individuals to seek care from private providers, making services

unaffordable for many, particularly in rural areas. Addressing this economic barrier is essential to ensuring equitable access to rehabilitation services for all.

Poverty: Persons with disabilities often face poverty due to limited access to education, employment opportunities, and rehabilitation services. The lack of affordable rehabilitation and assistive technology restricts independence and employment, deepening financial strain on families. Investing in accessible services, livelihood interventions, AT, and inclusive job opportunities can break the cycle of poverty and promote social inclusion.

Social Factors

Stigma and Awareness: Negative societal attitudes towards disabilities often discourage individuals from seeking rehabilitation services. Increasing public awareness and fostering positive attitudes toward disabilities can improve service uptake and accessibility.

Community Engagement: Engaging communities in disability awareness and service delivery fosters an inclusive environment and supports the creation of local networks that promote participation and resource utilization. Community involvement strengthens the support system for persons with disabilities within families and communities.

Technological Factors

Access to Equipment: Many rehabilitation facilities in Uganda face challenges with outdated or inadequate equipment, which limits the quality of care. Investment in advanced technologies, including assistive devices, diagnostic tools, and specialized therapy equipment, can enhance the effectiveness of services.

Advancement in Technology: With the rapid growth of technology, innovative solutions, particularly in ICT, can transform rehabilitation and assistive technology. Leveraging technology can drive cost-effective solutions, increasing access to services for persons with disabilities.

Telehealth Opportunities: Expanding telehealth can significantly improve access to rehabilitation services, particularly in remote areas. Telehealth allows patients to receive virtual consultations, follow-up care, and therapy, helping bridge the accessibility gaps and ensuring continuity of care for individuals in underserved regions.

Environmental Factors

Infrastructure Challenges: Poor infrastructure, including inadequate transportation and road networks, poses significant barriers to accessing rehabilitation services, particularly in rural areas. These deficiencies hinder individuals from reaching care facilities. Makes it hard for them to use some assistive devices and limit the effectiveness of service delivery. Improving physical infrastructure is crucial for expanding the reach and impact of rehabilitation services.

Accessibility Challenges: Accessibility continues to be a critical issue for individuals seeking rehabilitation services. Communication barriers, negative attitudes towards, and the lack of essential architectural modifications, particularly in facilities such as toilets make it difficult for persons with disabilities to access, utilize and benefit from rehabilitation service provision.

Natural Disaster Preparedness: Uganda's vulnerability to natural disasters such as landslides and floods increases the demand for rehabilitation services. Incorporating disaster preparedness plans in rehabilitation services will enable faster response and resource mobilization.

Environmental Health Risks: The prevalence of diseases communicable, non-communicable and neglected tropical diseases among others increases disabilities and the demand for rehabilitation services. Interventions to mitigate them and early intervention programs are vital.

Legal Factors

Disability Rights Legislation: Uganda's ratification of the UN Convention on the Rights of Persons with Disabilities (UNCRPD) and the Persons with Disabilities Act (2020) reinforces the legal framework supporting the rights of persons with disabilities. These laws provide legal protection for accessing rehabilitation services and promote inclusion in public services.

Regulatory Compliance: Rehabilitation facilities must adhere to national and international health standards to maintain service quality. Ensuring regulatory compliance is vital for providing equitable and effective care to individuals with disabilities.

Health and Safety Standards: Upholding health and safety standards in rehabilitation centers ensures safe, accessible environments for both patients and staff. Adherence to hygiene protocols, emergency preparedness, and safeguarding practices builds trust and encourages greater utilization of services.

Accessibility Standards: The Accessibility Standards Guidelines (2010) and Inclusive Development Guidelines (2017) set requirements for accessible infrastructure, but inconsistent implementation has limited their impact. Strengthening compliance with these standards across sectors is essential to improve access to rehabilitation services and empower persons with disabilities.

Combining SWOT and PESTEL analyses provides NUDIPU with a holistic understanding of the rehabilitation landscape in Uganda, integrating both internal strengths and weaknesses with external factors influencing the sector. The SWOT analysis allows NUDIPU to identify the strengths of the rehabilitation system, such as dedicated personnel and community support, while recognizing weaknesses like resource constraints and limited awareness of disability rights. Meanwhile, the PESTEL analysis highlights the external political, economic, social, technological, environmental, and legal factors that shape the rehabilitation environment, such as government policies, funding availability, stigma, and technological advancements.

By synthesizing insights from both analyses, NUDIPU can work with the Ministry of Health and stakeholders to formulate strategies that capitalize on strengths and opportunities, such as leveraging increased public awareness and legal protections for persons with disabilities while addressing identified threats and weaknesses. This integrated approach empowers NUDIPU to make informed decisions, enhance advocacy efforts, and effectively allocate resources to improve rehabilitation services. Ultimately, utilizing both frameworks will enable NUDIPU to advocate for systemic changes, improve service delivery, and foster an inclusive society that promotes the rights and well-being of individuals with disabilities in Uganda.

Recommendations for Improving Rehabilitation Services and Assistive Technology in Uganda

To improve rehabilitation services and access to assistive technologies in Uganda, a multifaceted and integrated approach is crucial. This strategy aims to enhance service delivery, eliminate barriers for disability inclusion and ensure sustainability in the rehabilitation and assistive technology sectors. The following recommendations present a clear and actionable roadmap to achieve these objectives:

Enforcement of the Persons with Disabilities Act

Advocate for the full enforcement of the Persons with Disabilities Act and other related policies to ensure the protection and promotion of the rights of individuals with disabilities. This includes guaranteeing access to essential services including rehabilitation and assistive technology.

Enhance Access to Rehabilitation and Assistive Technology

Increase Funding

- Advocate for the inclusion of rehabilitation services and assistive technology in national and local budgets to improve infrastructure, purchase necessary equipment, and ensure the availability of essential supplies.
- Collaborate with the Ministry of Health to develop evidence-based budget proposals that highlight the cost-effectiveness of rehabilitation services.

Incentives and Tax Exemption for Rehabilitation and Assistive Technology

- Advocate for tax reductions on rehabilitation equipment, supplies, and assistive technologies to reduce costs and improve access to these services for individuals with disabilities.

Support the Development of Disability-Specific Insurance Schemes

- Partner with insurance companies to create affordable insurance options that cater specifically to the needs of individuals with disabilities.
- Advocate for the creation of localized insurance models that include coverage for rehabilitation services for vulnerable populations.
- Collaborate with private sector entities and NGOs to share financial responsibility and improve the sustainability of service provision.

Enhance Intersectoral Collaboration

- Work with the Ministry of Health to establish a cross-sector task force focused on aligning and integrating rehabilitation goals across multiple sectors. This will ensure effective coordination and implementation of rehabilitation strategies.

Infrastructure Development

- Advocate for the development and upgrading of rehabilitation facilities, ensuring that they are fully accessible, with particular attention to the inclusion of accessible restrooms and other essential infrastructure.
- Engage with development partners to secure support for infrastructural development and improvements.
- Conduct accessibility audits of all rehabilitation facilities to ensure they meet accessibility standards.
- Lobby for the inclusion of rehabilitation facilities in national health infrastructure expansion plans to ensure they are well-integrated into the national healthcare system.

Technological Integration

- Advocate for the adoption of technologies that can enhance access to rehabilitation services, such as the development of telemedicine platforms.
- Collaborate with the Ministry of ICT and development partners to create telemedicine platforms for rehabilitation services.
- Partner with private sector manufacturers, academic, and research institutions to promote the development and adoption of local technologies tailored to rehabilitation needs.

Advocacy and Awareness

- Launch mass media campaigns and community dialogues to raise awareness about the needs of persons with disabilities, and the importance of rehabilitation and assistive technology in improving their quality of life.
- Work with local leaders and organizations to promote the utilization of available services and the inclusion of individuals with disabilities in society.

Community Involvement and Support

- Promote Community-Based Rehabilitation (CBR) at the local level to complement rehabilitation service provision and support the use of locally appropriate technology.
- Empower organizations of persons with disabilities to actively engage in community-based rehabilitation, income generation, and self-advocacy to enhance access to rehabilitation services and assistive technologies.
- Involve religious and traditional leaders, organizations, and community influencers in advocacy efforts to promote rehabilitation services and empower individuals with disabilities.

Research, Data, and Monitoring

- Conduct needs assessments on rehabilitation services and assistive technologies to inform effective planning, advocacy, and interventions.

- Establish robust systems to track service quality and impact, ensuring continuous improvement and accountability.
- Promote research aimed at developing locally adaptable, cost-effective rehabilitation solutions suited to Uganda's unique needs.
- Partner with academic institutions and NGOs to explore innovative practices and address challenges in service delivery.

Integrate Disability in Disaster Preparedness

- Advocate for the inclusion of rehabilitation services in emergency response plans to ensure timely support for individuals with disabilities during crises and disasters.

Promote Eco-Friendly Solutions

- Advocate for the incorporation of sustainable practices in the design and operation of rehabilitation facilities, ensuring that they are eco-friendly and contribute to a healthier environment.

Stakeholders and their Respective Roles in Implementing the Recommendations:

Stakeholder	Role
Ministry of Health	<ul style="list-style-type: none"> - Lead coordination and integration of rehabilitation services in the health system. - Develop budget proposals for rehabilitation. - Facilitate intersectoral collaboration. - Include rehabilitation in emergency response plans. - Procure equipment and ensure personnel availability for rehabilitation and AT
Ministry of Finance	<ul style="list-style-type: none"> - Include funding for rehabilitation and assistive technologies in budgets. - Support financial incentives (e.g., tax reductions).
Ministry of ICT	<ul style="list-style-type: none"> - Develop and support telemedicine platforms for rehabilitation. - Promote local technological solutions for rehabilitation.
Ministry of Local Government	<ul style="list-style-type: none"> - Allocate resources for infrastructural development, accessibility standards, equipment, supplies, and personnel in rehabilitation facilities. - Coordinate different partners at the local level for rehabilitation service delivery. - Ensure accessibility of local rehabilitation services.
Ministry of Education	<ul style="list-style-type: none"> - Integrate rehabilitation and assistive technologies in education systems.
Ministry of Labor and Social Development	<ul style="list-style-type: none"> - Promote disability-specific insurance and coverage for rehabilitation needs. - Advocate for economic empowerment and income-generating programs for persons with disabilities. - Support community initiatives for rehabilitation and disability inclusion
Insurance Companies	<ul style="list-style-type: none"> - Develop affordable insurance plans for persons with disabilities. - Ensure rehabilitation services are covered in insurance policies.
Private Sector (Manufacturers/Service Providers)	<ul style="list-style-type: none"> - Collaborate in producing and distributing rehabilitation equipment.

	<ul style="list-style-type: none"> - Invest in affordable assistive technology for rehabilitation services.
Non-Governmental Organizations (NGOs)	<ul style="list-style-type: none"> - Support CBR programs and provide technical, financial, and human resources. - Conduct needs assessments and research. - Advocate for disability inclusion.
Academic and Research Institutions	<ul style="list-style-type: none"> - Promote research and innovation to improve rehabilitation practices and assistive technologies. - Identify and guide the addressing of emerging challenges in disability and rehabilitation. - Assess the impact of rehabilitation program to inform continuous improvement
Organizations of Persons with Disabilities (OPDs)	<ul style="list-style-type: none"> - Lead advocacy and empower individuals with disabilities through education and self-advocacy. - Support CBR initiatives and insurance models.
Community Leaders (Religious, Traditional, and Local Influencers)	<ul style="list-style-type: none"> - Mobilize resources and promote rehabilitation and disability inclusion.
Development Partners (International Donors and Agencies)	<ul style="list-style-type: none"> - Provide funding and technical support for rehabilitation services. - Support innovative technology development for rehabilitation.
Persons with Disabilities (Beneficiaries)	<ul style="list-style-type: none"> - Actively participate in service design and delivery. - Advocate for rights and access to rehabilitation and assistive technology.
Health Service Providers (Rehabilitation Professionals, Clinics, and Hospitals)	<ul style="list-style-type: none"> - Provide accessible and effective rehabilitation services. - Collaborate with other sectors for improved service delivery.
Media and Communication Channels	<ul style="list-style-type: none"> - Promote awareness campaigns on disability inclusion. - Raise public awareness about rehabilitation services and assistive technologies.

NUDIPU's Comprehensive Strategies for Enhancing Access to Rehabilitation and Assistive Technology in Uganda

NUDIPU is committed to improving access to rehabilitation services and assistive technologies for empowerment of persons with disabilities and ensure effective disability inclusion. To achieve this, the organization employs a multifaceted approach that combines engagement with key stakeholders and robust advocacy efforts.

1. Advocacy and Policy Influence: Engage Ministry of health, Ministry of Gender, Labor and Social Development, and the Ministry of Local Government, to advocate for the inclusion of persons with disabilities in development plans at respective levels.

Advocate For:

- Enforcement of existing disability laws.
- Dedicated funding for rehabilitation services.
- The integration of rehabilitation and assistive technology services into Uganda's health system and emergency response frameworks.
- Prioritization of rehabilitation and assistive technology in planning, budgeting, and ensuring sustainable improvements.
- Expansion of CBR programs to improve local access to services.

2. Partnership and Collaboration: Partner with local government bodies, private sector entities, NGOs, and international organizations for infrastructural development and support for rehabilitation and assistive technology.

3. Capacity Building: Support capacity development of organizations of persons with disabilities (OPDs) to actively engage in community based rehabilitation and self-advocacy.

4. Awareness Raising and Education: Raise awareness on the needs of persons with disabilities, the importance of rehabilitation services and the rights of persons with disabilities.

5. Data Collection and Research: Collaborates with academic and research institutions to conduct studies on disability, rehabilitation, and assistive technologies. This will facilitate generation of evidence to inform policy development and enhance service delivery. By collecting data on rehabilitation outcomes and barriers to access, NUDIPU advocates for data-driven decisions that address service gaps and improve the effectiveness of interventions.

6. Strengthening Networks and Monitoring: Strengthens network with civil society organizations, government entities, and international partners to amplify advocacy efforts.

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Appendix 1

Personnel Structure for Mulago National Referral Hospital

(Source: MOH Communication, 9th March 2023)

Rehabilitation Workshop	Approved Structure
Orthopedic	
Senior Principal Orthopedic Technologist	1
Principal Orthopedic Technologist	1
Senior Orthopedic Technologist	3
Orthopedic Technologist	5
Orthopedic Technologist Assistants	9
Leather Craftsman	5
Metal Workers	5
Machine Fitter	1
Prosthetic Attendant	3
Carpenter (Wood Worker)	7
Physiotherapy	
Principal Physiotherapist	1
Senior Physiotherapist	2
Physiotherapist	8
Occupational Therapy	
Principal Occupational Therapist	1
Senior Occupational Therapist	2
Occupational Therapists	4
Chiropractic Therapy	
Principal Chiropractic	1
Senior Chiropractic	2
Chiropractic	2
Orthopedic Technology	
Principal Orthopedic Technologist	
Senior Orthopedic Technologist	3
Orthopedic Technologists	3
Orthopedic Technicians (Leather & Wood)	10
Speech Therapy	
Speech Therapists	2
Clinical Support Services: Division of Nursing	
Assistant Commissioner – Nursing	1
Principal Nursing Officer	8

Personnel Structure for Regional Referral Facilities

(Source: MOH, March 2023)

Rehabilitation Unit/Section	Position	Current Structure	Approved Structure
Orthopedic	Senior Orthopedic Consultant	0	1
	Orthopedic Consultant	1	1
	MoSG Orthopedic	1	2
	Principal Orthopedic Officer	1	1
	Senior Orthopedic Officer	2	2
	Orthopedic Officer	3	4
	Principal Orthopedic Technologist	0	1
	Senior Orthopedic Technologist	1	2
	Orthopedic Technician	0	2
	Orthopedic Technologist	0	2
	Principal Nursing Officer	0	1
	Senior Nursing Officer	0	1
	Nursing Officer	0	5
Assistant Nursing Officer	0	20	
Ophthalmology	Senior Ophthalmology Consultant	0	1
	Ophthalmology Consultant	1	1
	MoSG (Ophthalmology)	1	2
	Principal Ophthalmology Officer	1	2
	Senior Ophthalmic Clinical Officer	2	2
	Senior Nursing Officer (Ophthalmology)	0	2
	Senior Optometrist	0	1
	Optometrist	0	1
	Nursing Officer (Ophthalmology)	0	10
	Assistant Nursing Officer	0	10
	Ophthalmic Clinical Officer	1	1
Physiotherapy	Principal Physiotherapist	1	1
	Senior Physiotherapist	0	1
	Physiotherapist	0	3
Occupational Therapy	Principal Occupational Therapist	1	1
	Senior Occupational Therapist	1	1
	Speech and Language Therapist	0	2
	Occupational Therapist	1	2