Hospital-Based Rehabilitation in Cambodia: A Model for Sustainable Service Delivery

Phase Two of the Australia-Cambodia Cooperation for Equitable Sustainable Services (ACCESS 2)

May 2026

Acknowledgement and Disclaimer

This publication is funded by the Australian Government through the Department of Foreign Affairs and Trade (DFAT). The views expressed in this publication are the author's alone and are not necessary the views of the Australian Government.

Cover Photo: Service user being fitted with an orthotic device at Kratie Provincial Referral Hospital's rehabilitation unit

Acronyms and Abbreviations

ACCESS 2	Australia-Cambodia Cooperation for Equitable Sustainable Services Phase 2
ACC	Accreditation Council of Cambodia
AUD	Australian Dollars
ADB	Asian Development Bank
ATscale	ATscale Global Partnership for Assistive Technology
AUD	Australian Dollars
CAAPO	Cambodian Association of Prosthetists and Orthotists
CFU	Central Fabrication Unit
CHAI	Clinton Health Access Initiative
CPA	Complementary Package of Activities
CPD	Continuing Professional Development
CPG	Clinical Practice Guidelines
CSPO	Cambodian School of Prosthetics and Orthotics (also known as DPO under NISA)
DFAT	Australia's Department of Foreign Affairs and Trade
DHIS2	Digital Health Information System 2
DMIS	Disability Management Information System
DSPP	Digital Social Protection Platform
EML	Essential Medicines List
EMR	Electronic Medical Record
Exceed	Exceed Worldwide
GS-NSPC	General Secretariat of the National Social Protection Council
H-EQIP	Health Equity and Quality Improvement Project
HBRU	Hospital-Based Rehabilitation Unit
HEF	Health Equity Fund
HEFO	Health Equity Fund Operator
HI	Humanity & Inclusion (also known as Handicap International)
HMIS	Health Management Information System
HSPIS	Health Social Protection Information System
ICRC	International Committee of the Red Cross
INGO	International Non-Governmental Organisation
ISPH II	Improving Social Protection and Health II Program
ISPO	International Society for Prosthetics and Orthotics
KOFIH	Korean Foundation for International Healthcare

LDC	Least Developed Country
MEF	Ministry of Economy and Finance
MEL	Monitoring, Evaluation and Learning
MoH	Ministry of Health
MoSVY	Ministry of Social Affairs, Veterans and Youth Rehabilitation
MoU	Memorandum of Understanding
MPA	Minimum Package of Activities
NCD	Non-Communicable Disease
NGO	Non-Governmental Organisation
NPCA	National Payment Certification Agency
NPH	National Paediatric Hospital
NSSF	National Social Security Fund
OCF	Orthopaedic Component Factory
ODA	Official Development Assistance
OIC	Org. to Improve Communication and Swallowing Therapy Services in Cambodia
OpenMRS	OpenMRS electronic medical record platform
P&O	Prosthetics and Orthotics
PIR	Package of Interventions for Rehabilitation
PMD	Preventive Medicine Department
PMRS	Patient Management and Registration System
PRC	Physical Rehabilitation Centre
PWDF	Persons with Disabilities Foundation
QMS	Quality Management System
RCDS	Rehabilitation Centre Data System
SLA	Service Level Agreement
SPID	Social Protection ID
SPR	Social Protection Registry
TWG-HPD	Technical Working Group on Health of Persons with Disabilities
UHC	Universal Health Coverage
USD	US Dollars
WHO	World Health Organization

Contents

Executive Summary

Cambodia's rehabilitation sector faces a major structural shift. Decades of INGO-led service delivery are concluding, domestic financing frameworks are more receptive to rehabilitation than at any previous point and policy momentum for health system integration is strong. The window for securing a sustainable model is open but time limited.

This report documents the performance and strategic significance of the Hospital-Based Rehabilitation Unit (HBRU) network established by Exceed Worldwide under Phase 2 of the Australia-Cambodia Cooperation for Equitable Sustainable Services (ACCESS 2) program and sets out the actions required to anchor it within Cambodia's public financing architecture.

HBRUs are small, dedicated prosthetic and orthotic (P&O) service units embedded within public hospitals, providing clinical assessment, device fitting, and rehabilitation services as part of routine care. Device fabrication is centralised through a single Central Fabrication Unit (CFU) in Phnom Penh, enabling hospital-based delivery without on-site workshops and achieving economies of scale across the network. Together the HBRU network and CFU constitute a low-cost, scalable, and quality-assured system aligned with Cambodia's emerging health financing architecture.

The results documented in this report would not have been possible without the commitment of the Ministry of Health, which has championed the integration of rehabilitation within Cambodia's health system, and the hospital directors who have allocated space, supported clinical integration, and embedded this model within their institutions. Equal thanks are due to the clinical staff across each hospital who have embraced a new way of working, referred patients with confidence, and collaborated with rehabilitation professionals as genuine partners in care. Their openness and commitment have been foundational to everything that follows.

Two-Year Performance (April 2024 to March 2026)

Across four active sites, the HBRU network registered 1,480 service users, delivered 2,263 assistive devices, and completed 163 device repairs. Registrations grew more than seven-fold between the first and final six months of operation. With no public awareness campaigns conducted, demand has come entirely through clinical referral pathways: across the network, 84.6% of service users were referred by doctors or hospital staff. This confirms that the model is functioning as a genuinely integrated health service rather than an outreach-dependent programme.

The HBRU caseload reflects Cambodia's contemporary rehabilitation burden: non-communicable disease complications, trauma, and congenital and developmental conditions. Female representation among service users is 37.5%, approximately 11 percentage points higher than the physical rehabilitation centre (PRC) sector average, demonstrating the model's reach into historically underserved populations. Additionally, a user fee (cost recovery) mechanism, active at two sites, has generated USD 44,422 in revenue, demonstrating willingness to pay and establishing the financial management foundations

required for cross-subsidisation (revenue from those able to pay directly offsets the cost of serving HEF and NSSF services users).

Strategic Significance

The HBRU model has emerged during a critical period in Cambodia's rehabilitation sector. National PRC service user numbers fell 29.9% between 2012 and 2022 and are projected to decline by 70% (from 2012 levels) by 2028. ICRC, which currently accounts for approximately 45% of national PRC service volume, will conclude its physical rehabilitation programme by the end of 2027. HI has signalled it will complete its handover by 2030. As these programmes conclude, the HBRU network is projected to account for 21 to 27% of total national rehabilitation registrations by 2028, rising to between 30 and 41% by 2030.

The policy environment for rehabilitation in health has become substantially more receptive. Council of Ministers Directive 1218 (2024) established MoH's mandate for medical rehabilitation within the health system. Article 17 of the Council of Ministers Sub-decree 238 (2025) on the Organisation and Functioning of the Ministry of Health, states MoH's Preventive Medicine Department (PMD) is responsible for managing the "health of persons with disabilities related to medical rehabilitation". The UHC Roadmap (2024-2035), Health Strategic Plan (2025-2034), and National Social Protection Policy Framework (2024-2035) each identify rehabilitation as an essential service to be progressively financed. A draft design roadmap for a prosthetics and orthotics benefits package under HEF and NSSF is under active consideration.

The economic case for investment is equally strong. Global evidence on assistive technology indicates a return of approximately USD 9 for every USD 1 invested, through increased workforce participation, reduced healthcare costs, and improved social participation. With 24.4% of Cambodia's population aged five and above reporting some degree of functional difficulty (CDHS, 2021-22), the human and economic costs of failing to address rehabilitation needs are substantial, and growing.

Sustainability Outlook

Whilst the HBRU network has demonstrated operational viability, sustainable financing remains a primary constraint. Exceed's funding under ACCESS 2, which includes implementation of the HBRU network, will conclude in February 2027, creating a near-term financing gap before domestic funding through the Health Equity Fund (HEF) and National Social Security Fund (NSSF) can be mobilised. International partners will need to be strategically engaged to provide targeted, time-bound support during this period

This report explains that a cross-subsidisation model provides the most viable pathway. Time-bound international donor assistance enables its establishment while domestic financing matures. HEF reimbursement covers IDPoor cardholders, NSSF covers formally employed workers, and user fees generate cost recovery from those able to pay. Surplus from fee-paying service users offsets the cost of free services, making equitable access financially viable within a single delivery model. Each of these financing streams, alongside the operational foundations that must accompany them, is examined in Chapters 4 and 5.

A guiding principle across this report is that international development assistance should be deployed to build the conditions for its own redundancy. Open-ended donor support,

however well-intentioned, delays the institutional ownership and domestic investment the sector requires. Every dollar of ODA spent during this transition period should be explicitly tied to a milestone in Cambodia's domestic financing pathway.

Recommendations

Full recommendations are set out in Chapter 6. Two tracks must advance simultaneously. The financial track requires immediate commitment to the prosthetics and orthotics benefits package design process, securing transitional bridge financing before February 2027, standardising the user fee mechanism across all HBRU sites, and advancing provider and data system readiness as a contracting prerequisite.

The operational track requires dissemination of the rehabilitation CPA chapter with accompanying implementation guidance, formalisation of referral pathways and quality assurance standards across the network, and sustained investment in the P&O workforce pipeline and professional accreditation. Without the operational foundations in place, a benefits package will have no reliable delivery system to finance. Both tracks are urgent and neither can wait for the other to complete first.

Financial Sustainability Recommendations

1. Commit to a structured benefits package design process with early agreement on key design directions
2. Secure transitional bridge financing to enable continued network operation and expansion
3. Standardise and optimise the user-fee (cost recovery) mechanism
4. Advance provider readiness and confirm data system compatibility as a contracting prerequisite
5. Advance the inclusion of assistive products in national regulatory and procurement frameworks

Operational Sustainability Recommendations

6. Disseminate the rehabilitation CPA chapter and initiate the development of Clinical Practice Guidelines
7. Formalise referral pathways and establish quality assurance standards across the network
8. Sustain and expand the P&O workforce pipeline and advance professional accreditation

Chapter 1: Strategic Context

1.1 Historical Development of Rehabilitation Services in Cambodia

Rehabilitation services in Cambodia were established in the post-conflict period as part of the humanitarian response to widespread conflict-related injuries, particularly landmines and unexploded ordnance. Early service delivery was led by international organisations, including the International Committee of the Red Cross (ICRC), Humanity & Inclusion (HI), Veterans International and Exceed Worldwide (formerly known as Cambodia Trust), with a focus on expanding access to prosthetic and orthotic (P&O) services through a network of Physical Rehabilitation Centres (PRCs).

This model was mostly effective in addressing immediate needs. It enabled the scale-up of prosthetic and orthotic service delivery across multiple provinces and at its peak saw a network of 16 PRCs across the country. Today this network has reduced to 11 centres with varying degrees of service availability.

In addition to the PRCs, this period also saw the development of a P&O workforce, including internationally accredited training pathways and the establishment of national assistive device production and provision.

As international partners began to reduce direct service delivery, a gradual transition of responsibility took place with Humanity & Inclusion and Veterans International handing over management of several PRCs to MoSVY. In 2011, MoSVY established the Persons with Disabilities Foundation (PWDF) under the Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSVY), which assumed responsibility for the management of the PRCs, as well as the Orthopaedic Component Factory (OCF) and the Cambodian School of Prosthetics and Orthotics (CSPO).

While this transition has shifted ownership to national systems, it did not fundamentally change the underlying service delivery model and financial sustainability challenges. Following handover, without sustained technical and financial support, several centres experienced gradual declines in service quality, availability, and workforce capacity.

The PRC-based model emerged from a different set of rehabilitation priorities and service delivery conditions. As rehabilitation need has shifted toward non-communicable diseases, trauma, and conditions requiring ongoing medical management, the case for locating rehabilitation services within the hospital setting has grown. Early intervention at the point of acute care and continuous engagement across multi-disciplinary clinical pathways are most effectively supported when rehabilitation professionals are present within the hospital itself. Integration within the health system also enables rehabilitation services to be embedded in routine planning and budgeting processes, and to connect service users to domestic financing mechanisms such as the Health Equity Fund and NSSF. Sustaining the PRC network through this period of transition has required ongoing external financing and technical support, reflecting the structural distance between the standalone facility model and the health system architecture within which domestic financing operates.

Cambodia's health system is moving toward integrated, efficient, and domestically financed service delivery, and rehabilitation services are expected to follow that trajectory. Against this backdrop, national PRC service user numbers have been in long-term decline, reflecting both shifts in rehabilitation demand and the structural challenges facing the standalone facility model. National PRC service user numbers fell 29.9% between 2012 and 2022 and based on current trends are projected to decline by 70% from 2012 levels by 2028.

As the sector evolves, hospital-based rehabilitation units are projected to account for 21 to 27% of national rehabilitation service user registrations by 2028, reflecting both the growth of the HBRU network and broader shifts in where rehabilitation services are accessed. Further detail is provided in Section 2.7.6.

1.2 Changing Rehabilitation Needs and Implications for Service Delivery

Cambodia's rehabilitation needs have evolved significantly. While conflict-related injuries remain relevant, they now represent a declining and small share of new service users. The dominant drivers of rehabilitation need are shifting toward non-communicable diseases (NCDs), trauma, and age-related conditions.

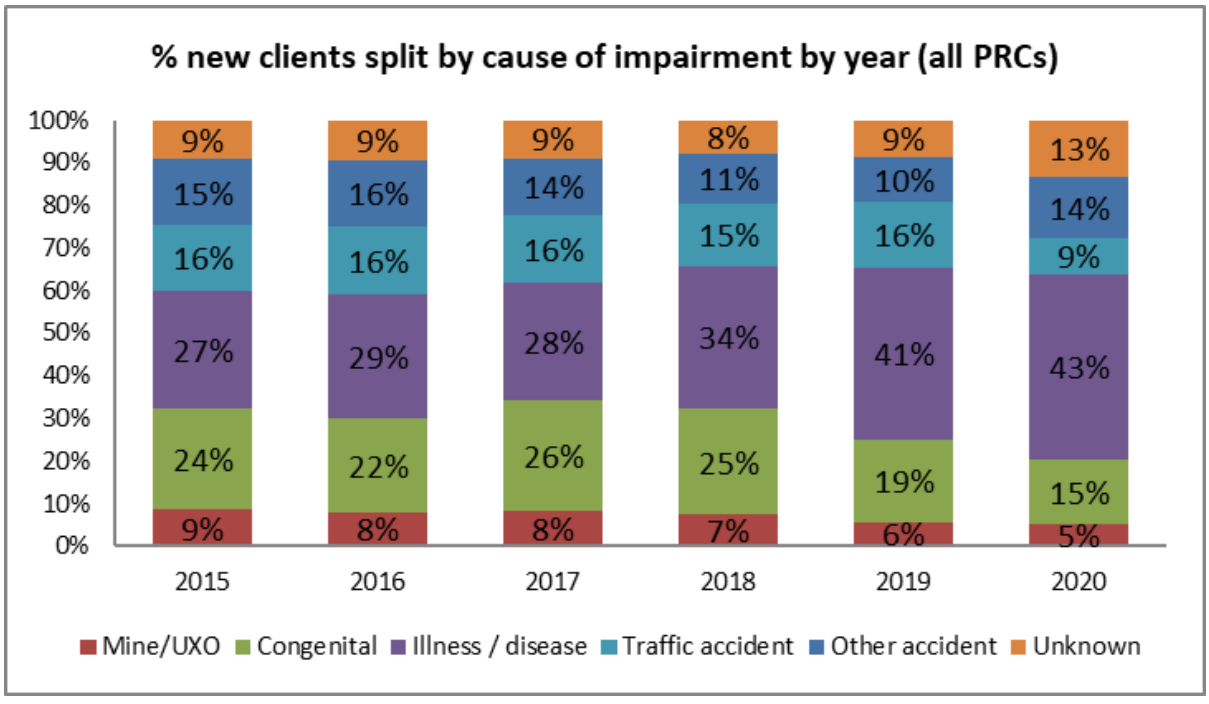


Figure 1: Data from PWDF's annual PRC reporting

Key trends include:

- Increasing prevalence of diabetes-related complications, including diabetic foot conditions requiring orthotic management to prevent deterioration, as well as advanced cases leading to amputation and subsequent need for prosthetic services
- Rising incidence of stroke and other cardiovascular conditions, leading to long-term functional impairments and requiring a combination of physiotherapy interventions

(such as mobility training, strength and balance rehabilitation, and functional recovery) alongside prosthetic and orthotic support (including orthoses for limb support and positioning, and mobility aids to enable independence)

- Continued high rates of road traffic injuries and occupational accidents, resulting in complex trauma cases that require integrated physiotherapy (acute and post-surgical rehabilitation, mobility retraining) and prosthetic and orthotic services (including limb prostheses, fracture bracing, spinal orthoses, and mobility aids)
- Congenital and developmental conditions (such as clubfoot and cerebral palsy), requiring early intervention including orthotic management and long-term physiotherapy support
- Musculoskeletal conditions (including scoliosis, kyphosis, and joint malalignment), requiring orthotic devices for correction and support, alongside rehabilitation to maintain function
- Neurological and degenerative conditions (such as Parkinson's disease, multiple sclerosis, muscular dystrophy, and arthritis), requiring ongoing rehabilitation, mobility aids, and supportive orthoses
- Spinal cord injuries requiring long-term rehabilitation, including mobility aids, seating systems, orthotic support, and ongoing physiotherapy integrated with pressure sore, bowel and bladder management.
- An ageing population with growing demand for mobility support, assistive devices, and ongoing rehabilitation services

These trends are difficult to accommodate within a centre-based, episodic service model and require closer alignment with clinical care pathways. Responding to these changing needs requires:

- Early identification within clinical pathways, particularly at hospital level
- Timely intervention to prevent deterioration and reduce long-term impairment
- Ongoing management and follow-up, including repair and device replacement
- Integration with broader health services

The existing PRC-based model is not well positioned to meet these requirements. Limitations include:

- Delays between acute care and rehabilitation
- Limited engagement at the point of first contact with the health system
- Reduced relevance for conditions requiring continuous and multi-disciplinary care

As a result, a considerable proportion of P&O rehabilitation need remains unmet or is addressed too late. This reflects a broader mismatch between current service delivery models and evolving rehabilitation needs and highlights the importance of closer integration within clinical care pathways.

1.3 Current Status of Rehabilitation in Cambodia's Health System

In March 2026, the Ministry of Health, in collaboration with WHO and with financial support from DFAT's ACCESS 2 program and the ATscale initiative, undertook a comprehensive situation assessment of rehabilitation within the health sector.[1]

The assessment provides a system-wide analysis across governance, service delivery, workforce, financing, assistive products, and information systems. It is currently informing the development of MoH's Rehabilitation in the Health Sector Strategic Plan.

The assessment highlights:

- Strong policy momentum and government commitment to integrating rehabilitation within health services
- Significant gaps in service availability, particularly within hospitals and at sub-national levels
- Limited integration of rehabilitation within clinical pathways, resulting in delayed access and missed opportunities for early intervention
- Workforce constraints, including insufficient numbers, (ad hoc contract-based employment) and uneven distribution of rehabilitation professionals
- Weak coordination between various parts of the system, including between hospitals and existing rehabilitation services
- Limited availability and accessibility of assistive products, alongside supply chain and quality challenges
- Gaps in data systems and monitoring, limiting visibility of rehabilitation needs, service utilisation, and outcomes

The assessment reinforces that while the policy environment is increasingly supportive, implementation remains uneven. It identifies the need for practical service delivery models that can operationalise policy commitments, within hospital settings where early identification and intervention can be achieved.

1.3.1 Role of Hospitals as Entry Points, Including Existing Physiotherapy Services

Hospitals represent the primary entry point for a substantial proportion of rehabilitation needs, particularly for conditions requiring early intervention following acute events such as trauma, stroke, or complications from chronic disease.

[1] Ministry of Health and World Health Organization. *Rehabilitation in the Health Sector: Situation Assessment (March 2026).*

Many hospitals already provide physiotherapy services, which play a critical role in early recovery. However, the absence of integrated P&O services is limiting the effectiveness of rehabilitation within hospital settings.

In addition to establishing hospital-based rehabilitation units, collaboration with existing physiotherapy departments provides a practical entry point for building interdisciplinary rehabilitation care. Physiotherapy outcomes can be significantly enhanced through access to orthotic devices, prosthetic services, and mobility aids, particularly for service users with complex or long-term functional impairments.

Integrating P&O services within hospitals enables:

- Early identification of rehabilitation needs during acute care
- Timely provision of orthoses, prostheses, and mobility aids to support recovery
- Improved coordination between clinical, physiotherapy, and P&O teams
- More effective referral pathways and continuity of care
- Efficient ongoing management, including follow-up, repair, and device replacement

Hospitals provide a critical platform for interdisciplinary collaboration. Co-location of services supports regular communication between clinicians, physiotherapists, and P&O professionals, increasing awareness of available interventions and improving referral practices.

Positioning rehabilitation services within hospitals aligns with broader health system priorities, including integrated service delivery, improved efficiency, and better service user outcomes. It also creates a pathway for linking rehabilitation services to health financing mechanisms, including HEF and NSSF, which are structured around health service delivery.

1.4 Policy Context

1.4.1 Role of Ministry of Health Leadership

The Ministry of Health (MoH) has demonstrated increasing leadership and commitment to strengthening rehabilitation within the health system. This reflects a broader shift toward integrated, person-centred care and alignment with universal health coverage (UHC) priorities.

This commitment is reflected in:

- Growing policy recognition of rehabilitation as an essential component of health service delivery
- Increased engagement with development partners to strengthen rehabilitation within clinical settings
- Emerging efforts to define rehabilitation service packages across levels of care
- Continued collaboration with implementing partners to pilot integrated service delivery models within hospitals

MoH's leadership signals a clear direction toward embedding rehabilitation within core health system functions, moving away from reliance on a historically parallel and clinically disconnected service delivery models. This has created an enabling environment for piloting new service delivery approaches and system reform through policy, planning, and financing mechanisms.

1.4.2 Inclusion of 'Medical' Rehabilitation within National Policy Frameworks

Rehabilitation is increasingly embedded within Cambodia's national health and social protection policy architecture, providing a solid foundation for integration within the health system.

Key policy and legal instruments include:

Council of Ministers Directive 1218, which mandates strengthening and expanding rehabilitation within health services

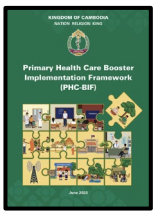
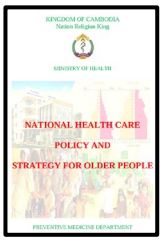
***Sub-decree 238 on the Organisation and Functioning of the Ministry of Health* (2025)**, which assigns responsibility for medical rehabilitation to the Ministry of Health, including oversight through the Preventive Medicine Department

The ***Roadmap Towards Universal Health Coverage* (2024–2035)**, which identifies rehabilitation as an essential service to be progressively integrated and financed within the health system

The ***National Social Protection Policy Framework* (2024–2035)**, which commits to extending health-focused social protection coverage to rehabilitation services

The ***Health Strategic Plan* (2025–2034)**, which promotes integrated, person-centred care with rehabilitation embedded in hospital services

The ***Health Workforce Development Plan* (2025–2034)**, which prioritises scaling rehabilitation professions including prosthetists and orthotists (P&O)

	The ***Complementary Package of Activities*** **(CPA)** and ***Minimum Package of Activities*** **(MPA)**, which define rehabilitation functions across levels of care
	The ***Primary Health Care Booster Implementation Framework*** **(2023)**, which includes rehabilitation across the continuum of care
	The ***National Healthcare Policy and Strategy for Older People*** **(2016)** which recognises rehabilitation and assistive technology as essential services to support healthy ageing
	The ***National Disability Strategic Plan*** **(2024–2028)**, which calls for increased access to quality rehabilitation services at health facilities and PRCs
	***Ministry of Labour Prakas No. 477*** **(October 2018)** which provides coverage for medical rehabilitation, including prosthetic and orthotic devices, under the National Social Security Fund (NSSF).

Together, these policy developments demonstrate a clear and consistent direction: rehabilitation is no longer positioned as a standalone or parallel service, but as an integral component of the health system, with defined roles across service delivery, workforce, and financing.

1.4.3 Alignment with International Best Practice

Integrating prosthetic and orthotic (P&O) and other rehabilitation services within health systems is consistent with international best practice, particularly WHO guidance:

- *WHO's Rehabilitation in Health Systems: Guide for Action (2019)*: Calls for rehabilitation to be integrated across all levels of care, embedded within health service delivery, and supported by appropriate workforce, financing, and information systems.
- *WHO's Rehabilitation in Health Financing: Opportunities on the Way to Universal Health Coverage (2024)*: Emphasises inclusion of rehabilitation within publicly financed health benefit packages to ensure equitable access.

- *WHO's Framework on the Provision of Rehabilitation Services within the WHO South-East Asia Region (2025)*: Highlights the need for hospital-based rehabilitation services, interdisciplinary care models, and strong referral pathways across the continuum of care.
- *WHO's Package of Interventions for Rehabilitation (PIR)***:** Provides a structured approach to defining rehabilitation services across health system levels, including priority interventions aligned to disease burden.
- *The WHO–UNICEF Global Report on Assistive Technology (2022)*: Highlights assistive products, including prosthetic and orthotic devices, as essential components of health systems and universal health coverage.
- *WHO Standards for Prosthetics and Orthotics* (2017): Sets out 60 global standards across four domains, covering policy, products, personnel, and provision of services, to guide Member States in developing high-quality, affordable prosthetic and orthotic services as a component of universal health coverage.

Aligning with this international consensus, Cambodia was a signatory to *World Health Assembly Resolution 76.6 (2023)*, which commits member states to strengthening rehabilitation in health systems. This resolution was unanimously adopted by all 194 member states.

Together, these global frameworks emphasise three consistent principles:

1. Integration of rehabilitation within health systems
2. Early and continuous access across the clinical care pathway
3. The provision of assistive technology and P&O services as essential health services

Cambodia's approach to hospital-based prosthetic and orthotic service delivery is directly aligned with these frameworks. It also meets the specific standards set out by the WHO for the organisation and delivery of prosthetic and orthotic services globally, including the positioning of service units within or closely linked to hospital facilities, the use of internationally accredited professionals and quality-assured products, and the progressive integration of services within national health financing mechanisms.

1.4.4 Increasing Role of Results-Based Public Financing

Cambodia’s health and social protection systems have undergone a shift towards publicly financed results-based service delivery. Implementation of large-scale system strengthening initiatives such as the *Health Equity and Quality Improvement Project Phase 2* (H-EQIP 2) and the Improving Social Protection and Health II (ISPH II) program, have been improving quality of care, strengthening health systems, and increasing service utilisation, particularly for poor populations. This shift reflects broader efforts to improve efficiency, accountability, and service quality across the health sector.

Key trends include:

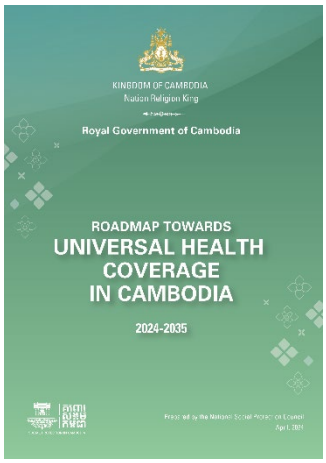
- Growing emphasis on defining service packages, outputs, and unit costs and strengthening of purchasing functions within government-led financing schemes

- Strengthened institutional arrangements for health financing, including the establishment and expansion of the National Payment Certification Agency (NPCA), which improves the efficiency, transparency, and timeliness of provider payments
- Increasing use of verification and certification systems (e.g. PMRS) to ensure quality and accountability in service delivery and claims processing
- Expansion of output-based and performance-based financing mechanisms, including HEF reimbursements and Service Delivery Grants (SDGs) to reward improvements in quality of care

For rehabilitation services, this shift creates the conditions for services to be defined, costed, and purchased within the health system, rather than relying on international donor funding. However, most rehabilitation services, including P&O, are not yet integrated into these financing mechanisms.

1.4.5 UHC Roadmap Priorities

The Roadmap Towards Universal Health Coverage (2024–2035) provides a clear policy direction for strengthening Cambodia's health system, with a focus on expanding access to essential services without financial hardship.



Relevant priorities include:

- Progressive expansion of essential health service packages
- Strengthening service delivery at hospital and sub-national levels
- Improving financial protection through public financing mechanisms
- Enhancing quality and continuity of care across the service user pathway

Rehabilitation is explicitly recognised as an essential health service within the UHC roadmap. This creates a strong policy foundation for integrating rehabilitation, including P&O services, within routine health service delivery and financing arrangements. Financing systems are being designed around health service and hospital-based delivery. Models that sit outside this architecture will face increasing difficulty securing this sustainable funding.

1.4.6 Health Equity Fund (HEF) Coverage and Expansion

The Health Equity Fund (HEF) is Cambodia's primary mechanism for financing health coverage to poor and vulnerable populations. It covers defined packages of health services at public health facilities.

HEF is expanding in both coverage and scope, with increasing emphasis on:

- Broadening the range of services included within the benefits package
- Strengthening verification and claims systems
- Improving targeting and identification of eligible beneficiaries

- Enhancing provider payment mechanisms to support service delivery

While HEF presents a major opportunity for financing rehabilitation services, P&O services are currently not included in any of the benefits packages. Inclusion of these services within the HEF would enable increased access for low-income populations and provide a more sustainable funding pathway for service delivery. Options for P&O inclusion under HEF is explored extensively in Section 4.3.

1.4.7 National Social Security Fund (NSSF) Coverage and Expansion

The National Social Security Fund (NSSF) operates employment injury, health insurance, and pension schemes, providing coverage to eligible members (primarily formal sector workers). It is playing an increasingly key role as a strategic purchaser of health services.

Key developments include:

- Increasing focus on contracting and purchasing services from accredited providers
- Development of service packages, pricing mechanisms, and claims processes
- Early inclusion of rehabilitation within policy and scheme design, though implementation remains at an early stage (processing of one off rather than systematic claims)

NSSF has significant potential to drive demand for rehabilitation services, particularly in urban and peri-urban areas where formal employment is concentrated. As a purchasing agency, NSSF can help establish pricing benchmarks, service standards, and predictable service volumes for rehabilitation, including P&O services. NSSF is currently engaging with Exceed Worldwide on pricing and service arrangements. Potential future pathways for rehabilitation services under NSSF are discussed in detail in Section 4.3 and Section 4.4 of this document.

1.5 Role of ACCESS 2 Program and Exceed Worldwide

1.5.1 Role of ACCESS 2 Program

ACCESS 2 (Australia–Cambodia Cooperation on Equitable Sustainable Services Phase 2) is a AUD 30 million program (2023–2028) that strengthens the capacity of the Cambodian Government, and civil society to sustainably improve services for persons with disabilities and women affected by gender-based violence.

ACCESS 2 has played a leading role in strengthening rehabilitation within Cambodia's health system. The program has supported both policy development and practical service delivery pilots, creating alignment between national priorities and implementation on the ground.

The MoH is a core partner of the program and co-leads the rehabilitation workstream, ensuring alignment with government priorities and strengthening ownership of policy and service delivery reforms. The program's implementing partners, including Exceed Worldwide, Humanity & Inclusion (HI), the International Committee of the Red Cross (ICRC), the World Health Organization (WHO), and the Organisation to Improve Communication and Swallowing Therapy Services in Cambodia (OIC) have also contributed collaboratively, bringing complementary technical expertise, service delivery experience, and policy engagement to strengthen rehabilitation across the health system.

Key contributions include:

- Supporting policy dialogue and technical inputs to integrate rehabilitation within national health strategies
- Financing and technical support for piloting hospital-based rehabilitation models, including prosthetic and orthotic services and speech therapy services
- Strengthening coordination between the MoH and implementing organisations
- Generating evidence on service delivery models to inform scale-up decisions

Importantly, ACCESS 2 has effectively reduced the gap between policy intent and implementation by enabling real-world testing of integrated rehabilitation approaches within hospitals. The program is increasingly collaborating with the Korean Foundation for International Healthcare (KOFIH), which is also establishing rehabilitation units within hospitals, creating opportunities for alignment and shared learning.

In the social protection space ACCESS 2 has recently strengthened collaboration with the Improving Social Protection and Health II (ISPH II) program, supported by Australia and Germany (through GIZ). This collaboration is expected to play a significant role in advancing the inclusion of rehabilitation within Cambodia's social protection schemes, including HEF and NSSF.

1.5.2 Role of Exceed Worldwide

Exceed Worldwide has functioned as a primary implementing partner under ACCESS 2, operationalising the hospital-based rehabilitation service delivery model through the establishment of a network of hospital-based rehabilitation units (HBRUs). HBRUs and their enabling ecosystem, including the Central Fabrication Unit (CFU), are explored in detail in Chapter 2 of this paper.

Through this work, Exceed has demonstrated a practical model for integrating rehabilitation within hospital settings. This includes showing how interdisciplinary collaboration, early intervention, and co-location of services can improve clinical outcomes and service efficiency.

In addition to establishing, operating, and scaling this HBRU network, Exceed has worked to strengthen hospital staff awareness of P&O services, provided technical input to policy development, and strengthened the supply chain for assistive devices and P&O components.

From a sustainability perspective, Exceed is uniquely positioned to implement this work as it aspires to become a contracted service provider under Cambodia's HEF and NSSF. As international development assistance continues to decline, Exceed is working to blend financing sources to support its continued coverage of rehabilitation services. This financing approach is discussed further in Section 4.1 of this paper.

Additionally, Exceed's co-management of the Cambodian School of Prosthetics and Orthotics (CSPO), existing supply and distribution infrastructure, and international P&O research network support a system-level approach to both technical input and service implementation.

In addition to assisting service users, Exceed's work under ACCESS 2 has also generated critical evidence on demand, service utilisation, costs, and operational requirements. This evidence base is essential for informing government decision-making, particularly in relation to service definitions, pricing, and inclusion within the HEF and NSSF.

1.6 Emerging Challenges and Opportunities

1.6.1 Declining Grant Funding and Cambodia's LDC Graduation

Cambodia's rehabilitation sector has historically relied heavily on international donor funding, particularly for post-conflict initiatives such as mine victim and veteran assistance. As these post-conflict focused programs progressively concluded, the sector did not capture significant levels of international investment in health system strengthening.

International funding for rehabilitation, as a standalone service outside of Cambodia's health system, is expected to continue declining as Cambodia approaches graduation from Least Developed Country (LDC) status, reducing access to concessional and grant-based financing.

International support is also shifting in its expectations. Donors will increasingly require burden sharing through domestic co-funding or user contributions, alongside greater use of results-based financing and evidence of sustainability through integration within national systems.

As international donor resources diminish, the PRC service delivery model is facing increasing pressure, exposing underlying sustainability constraints, and reinforcing the need for new financing and delivery approaches that prioritise efficiency, quality, and clinical integration.

1.6.2 Conclusion of ICRC's Physical Rehabilitation Programme

The planned conclusion of the International Committee of the Red Cross (ICRC) physical rehabilitation programme in Cambodia by the end of 2027 represents the most significant immediate shock to the rehabilitation sector. Over more than three decades, ICRC has been a cornerstone of service delivery, supporting clinical operations, workforce development, supply chains, and quality assurance across the PRC network. ICRC's Battambang and Kampong Speu PRCs alone account for approximately 45% of national service volume and serve 11,000–13,000 service users annually.

ICRC has already begun reducing support, including financing for components and consumables. Without adequate replacement, this is expected to lead to stock shortages, longer waiting times, and declining service quality. The withdrawal also exposes gaps in workforce incentives, technical oversight, and supply chain reliability, all of which have been underpinned by ICRC's support.

While transition planning is underway, including Mine-ex funding for Exceed to jointly manage Battambang and Kampong Speu PRCs alongside PWDF through to full handover in 2030, the accelerated transfer of responsibilities places additional strain on the PRC service delivery approach. This further underscores the need to scale the hospital-based rehabilitation unit network to help absorb demand and maintain continuity of service delivery as capacity within the PRC network becomes increasingly constrained.

1.6.3 Conclusion of HI's Rehabilitation Programme

Humanity & Inclusion (HI) has progressively reduced its operational role in Cambodia's PRC network through the handover of several centres to PWDF. Recently HI confirmed it will complete the handover of its last remaining PRC in Kampong Cham by 2030. This decision reinforces the broader trend of declining international NGO operational involvement in the sector.

As with ICRC, HI's exit reduces access to technical support, funding, and institutional capacity that have historically supported service delivery and system development. The cumulative effect of both ICRC and HI withdrawals is a rapid shift of responsibility onto PWDF, which currently faces constraints in financing, workforce capacity, and systems required to fully absorb these functions. This further reinforces the need to scale the hospital-based rehabilitation unit network to absorb demand, strengthen clinical integration, and help offset declining service delivery capacity.

1.6.4 Conclusion of ACCESS 2 Funding for HBRU Network

The ACCESS 2 program has played a leading role in establishing and scaling hospital-based rehabilitation units (HBRUs), alongside broader system strengthening efforts. The HBRU model aligns well with national health priorities, with stronger referral pathways and more consistent multidisciplinary care. Progress toward establishing co-funding under domestic financing mechanisms has, to date, been limited.

The conclusion of ACCESS 2 funding to Exceed in February 2027 will mark a critical transition point for the hospital-based rehabilitation network. Without continued external support, and in the absence of domestic financing, HBRUs are likely to face constraints in staffing, operations, and continuity of service delivery.

However, there is increasing potential to position rehabilitation services, including P&O, within government financing mechanisms including the HEF and NSSF. Successful mobilisation of funding through Cambodia's social protection schemes would further strengthen the HBRU network's viability and make it a more credible proposition for future donor and investor engagement. This reinforces the importance of the financial sustainability measures outlined in Chapter 4.

Chapter 2: Hospital Based Rehabilitation Explained

Through the ACCESS 2 program, Exceed Worldwide has established a network of seven hospital-based rehabilitation units, as well as visiting services to an additional seven hospitals. The HBRU network is supported by a CFU which fabricates prosthetic and orthotic devices for delivery to HBRUs. HBRUs and the CFU work as one system. Together they represent a low-cost, sustainable, and scalable service delivery model. This chapter explains how this model works.

2.1 Hospital-Based Rehabilitation Units (HBRU)

2.1.1 Location Within Hospitals

Hospital-based rehabilitation units (HBRUs) are small, dedicated service spaces located within national and provincial hospitals that provide prosthetic and orthotic (P&O) services within a clinical setting.

Ideally, they are positioned near high-referral departments such as orthopaedics, paediatrics, and non-communicable disease services, where demand for rehabilitation is most concentrated. Proximity to these departments supports efficient service user flow and reduces the need for complex internal referrals.

Proximity to physiotherapy departments is a further site selection consideration. The compact footprint of an HBRU is optimised for assessment, casting, and fitting, rather than for the movement exercises and gait training that follow device provision. Positioning HBRUs adjacent to or near physiotherapy facilities allows P&O clinicians and physiotherapists to share clinical space for alignment checks and early walking exercises, avoiding the need to duplicate infrastructure and enabling collaborative care to develop naturally from shared day-to-day practice.

HBRUs are designed to operate within existing hospital infrastructure, using modest space and equipment. Size varies by facility, but units are typically around 30 square metres (see right figure 2). This space is sufficient to accommodate consultation, assessment, casting, and basic rehabilitation activities within a single footprint.

The infrastructure required to establish an HBRU is minimal. In most cases, existing hospital rooms can be repurposed with limited modification. The estimated cost of establishing a unit is approximately USD 2,000 to 4,000, depending on site conditions and equipment requirements.

HBRUs do not include on-site workshops for producing prosthetic and orthotic (P&O) devices. Instead, device manufacturing is centralised in a CFU with completed devices returned to the hospital for fitting and follow-up (see Section 2.5).

Figure 2: HBRU at National Paediatric Hospital

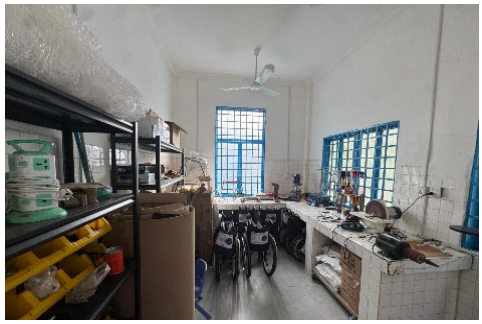


Figure 3: Storeroom at Kratie Provincial HBRU

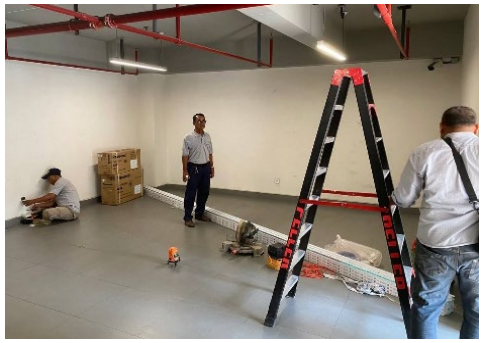


Figure 4: Construction of a HBRU at Preah Kossamak Hospital

Each HBRU is equipped with light equipment to support fitting adjustments and minor modifications at the point of care. This includes the capacity for cast rectification and positive model preparation, enabling clinicians to make real-time corrections during the fitting process without returning devices to the CFU. While HBRUs are not equipped for full device fabrication, this on-site technical capability is essential for delivering well-fitted, functional devices and maintaining service quality at each site.

To support efficient operations, provincial HBRUs require an additional small storage area for pre-positioning of materials and components (see figure 3 above). This enables timely service delivery and reduces delays associated with transport from centralised production facilities.

This model is directly consistent with WHO's global standards for prosthetics and orthotics, which state that prosthetic and orthotic service units should be established within or closely linked to health and rehabilitation service facilities, including district and referral hospitals (WHO Standards for Prosthetics and Orthotics, 2017, Standard 45). The WHO notes that units operating in isolation from mainstream health care tend to face sustained difficulties in developing and remaining efficient, and that hospital integration strengthens contacts with health professionals, facilitates multidisciplinary care, improves referral, and speeds up treatment. The HBRU model operationalises this standard within Cambodia's public hospital network.

2.1.2 Types of Services Delivered

HBRUs deliver a defined package of prosthetic and orthotic (P&O) services. These services are provided by trained prosthetists and orthotists and are delivered as part of routine hospital care. They are typically staffed by two prosthetists and orthotists, with one acting as the clinic manager. All HBRU services are governed by Exceed's Quality Management System (QMS), which is aligned with ISO 9001:2015 standards. Exceed is ISO 9001:2015 certified and subject to regular external audits to ensure compliance.

Figure 5: Casting of an amputee at Preah Ang Duong Hospital HBRU

The core HBRU service package includes:

- Screening, consultation, and clinical assessment of service users
- Measurement and casting
- Fitting and alignment of prosthetic and orthotic devices
- Rehabilitation and gait training
- Follow-up care, including device adjustment and repair
- Clinical case review with other hospital departments
- Referral to other medical and appropriate services (as required)

These services are delivered within the hospital and are coordinated with ongoing clinical care (see section 2.2 below). This allows prosthetic and orthotic interventions to be introduced alongside diagnosis and treatment, rather than as a separate service accessed after discharge.

It bears emphasis that HBRUs focus on clinical service delivery. They do not produce prosthetic and orthotic devices on-site. Instead, device fabrication is conducted by the CFU, with completed devices returned to the hospital for fitting and follow-up (see Section 2.5). This separation of clinical and fabrication functions is the structural feature that makes small-footprint, hospital-integrated service delivery viable.

2.1.3 Role of Service Level Agreements

Service level agreements (SLAs) between Exceed and hospital management formalise the integration of rehabilitation services within hospital systems. SLAs provide a structured basis for day-to-day service delivery within hospitals, ensuring that rehabilitation services are clearly defined, consistently delivered, and integrated into hospital operations.

Figure 6: Signing of SLA with Chey Chumneas Referral Hospital

Exceed holds SLAs, signed by hospital management, in each hospital where it operates a HBRU.

SLAs typically define:

- Roles and responsibilities of HBRU staff and hospital departments, including clinical coordination and supervision arrangements
- Allocation and use of hospital space, utilities, and basic infrastructure support provided by the hospital
- Referral pathways and coordination mechanisms across departments, including expectations for timely identification and referral of service users
- Data sharing and reporting arrangements, including service user records, service statistics, and reporting to hospital management and relevant authorities
- Responsibilities for equipment, materials, and maintenance
- Provisions related to service user management, including prioritisation of poor and vulnerable service users in line with public hospital mandates
- Duration, review, and amendment procedures for the agreement, including mechanisms for resolving operational issues
- Provisions governing user fee (cost recovery) mechanisms, including pricing, billing processes, revenue management, and alignment with hospital policies

These agreements complement Exceed's Memorandum of Understanding (MoU) with the MoH.

2.2 Benefits of Hospital Integration

2.2.1 Referral Pathways and Identification of Unmet Need within Hospitals

HBRUs are integrated into hospital referral systems, enabling service users to be identified through routine clinical pathways. Service users are referred from departments such as surgery, orthopaedics, emergency and trauma, paediatrics, internal medicine (including non-communicable disease clinics), and physiotherapy. A table documenting referral rates for each HBRU is below.

In addition to referrals, HBRU staff collaborate directly with clinicians to identify service users who may not otherwise be recognised as requiring prosthetic and orthotic services, including through awareness raising and training activities with clinical staff, as well as participation in regular ward rounds. This includes service users whose rehabilitation needs are secondary to primary medical treatment, or who are not aware of or would not independently seek rehabilitation services.

Referral pathways are internal to the hospital, reducing reliance on complex external referral mechanisms and minimising delays between diagnosis and rehabilitation.

HBRUs are not yet integrated with Cambodia's Patient Management and Registration System (PMRS). Exceed is currently establishing an electronic medical records system (using OpenMRS – see Section 5.4.1) to enable future integration with national systems and support consistent service user data capture and reporting (see Section 4.3.7 on Provider Readiness).

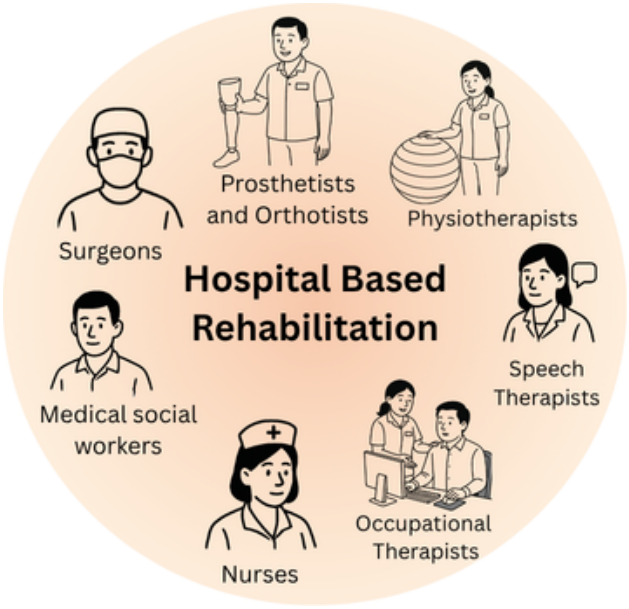
Why do referrals within hospitals matter?

> **Increased case detection:** Service users are identified within routine care rather than relying on self-referral or outreach
>
> **Reduced leakage:** Fewer service users are lost between diagnosis and access to rehabilitation services
>
> **Demand aggregation:** Hospitals function as central points where service user demand is concentrated and visible, enabling more predictable service volumes and efficient service delivery
>
> **Stronger basis for financing:** Integrated service user flow supports service definition, costing, and inclusion within HEF and NSSF purchasing arrangements

The WHO's global standards for prosthetics and orthotics specifically call for service providers to identify and train partners in recognising and referring potential users, creating structured referral pathways rather than relying on self-presentation or community outreach (WHO Standards for Prosthetics and Orthotics, 2017, Standard 50). The HBRU network's referral data, with 84.6 per cent of screened service users referred by doctors or hospital

staff across the four sites, demonstrates that this standard is being met in practice. Formalising these pathways through service level agreements and clinical protocols is the next step toward making them durable and contractually anchored.

2.2.2 Interdisciplinary Care and Integration with Clinical Departments



HBRUs operate as part of multidisciplinary rehabilitative care within hospitals. Prosthetists and orthotists collaborate with doctors, surgeons, nurses, physiotherapists, occupational therapists, speech therapists, medical social workers, and other clinical staff to support service user management. This includes participation in clinical discussions, case reviews, and coordinated care planning.

This integration supports more appropriate prescription of assistive devices, ensuring that interventions are aligned with diagnosis, treatment plans, and service user-specific clinical needs. It also increases awareness and understanding about rehabilitation among clinical staff, leading to more timely and appropriate referrals, and contributing to improved clinical outcomes.

It also enables rehabilitation to be introduced at the appropriate point in the care pathway, including during inpatient care or shortly after a clinical intervention such as surgery.

The proximity of HBRUs to hospital physiotherapy departments is a practical enabler of this integrated care model. HBRU spaces are intentionally modest in size, optimised for assessment, casting, and fitting rather than for the extended movement exercises that post-fitting rehabilitation requires. By utilising adjacent physiotherapy facilities for alignment checks and early walking exercises, P&O clinicians and physiotherapists work side by side in the course of routine service delivery. This day-to-day collaboration, grounded in shared clinical work rather than formal coordination mechanisms alone, builds the working relationships and mutual understanding that underpin effective interdisciplinary care.

Why does multidisciplinary rehabilitative care matter?

> **Improved clinical appropriateness:** P&O device prescription is informed by direct clinical input rather than delayed or incomplete referrals
>
> **Efficiency gains:** Reduced duplication of assessments and shorter time from diagnosis to device provision
>
> **Continuity of care:** Rehabilitation becomes part of a coordinated treatment pathway rather than a separate service
>
> **System alignment:** Integration with hospital workflows and data systems supports future inclusion in national health information and financing systems

2.2.3 Early P&O Integrated Intervention

Locating rehabilitation services within hospitals enables earlier intervention in patient care pathways. Service users can be assessed and prepared for P&O care during or shortly after medical treatment, reducing delays which are commonly associated with poorer functional outcomes.

By addressing rehabilitation needs early, HBRUs help prevent avoidable secondary conditions, reduce the severity of long-term impairment, and lower the overall burden on the health system.

Early engagement also allows for better clinical planning, including pre-operative involvement of prosthetists and orthotists to support surgical planning and optimise limb shape. This improves prosthetic fitting, shortens recovery time, and supports better long-term mobility.

Importantly, early intervention assists with the prevention of disease progression. For example, early identification and orthotic management of diabetic foot conditions can reduce pressure on affected areas, support wound healing, and prevent ulcer deterioration, significantly lowering the risk of amputation. The below comparison of interventions for diabetic foot, highlights the importance of including P&O care, including in early intervention.

Why does early P&O integrated intervention matter?

> **Improved functional outcomes:** Earlier intervention supports recovery and reduces long-term impairment
>
> **Prevention of complications:** Early management, such as orthotic intervention for diabetic foot, can prevent amputations
>
> **Reduced downstream costs:** Timely provision of assistive devices reduces complications, readmissions, and prolonged care needs, aligning with cost-containment objectives
>
> **Increased Productivity:** Earlier rehabilitation contributes to wider productivity gains by supporting faster return to work and reduced caregiver burden.

Early Intervention Example: Diabetic Foot Management

Without P&O Integrated in Clinical Services	A service user with diabetes presents late with a foot ulcer and has limited access to offloading, pressure management, and follow-up. Opportunities for early intervention are missed, and the service user requires amputation without P&O input, resulting in amputation not optimally aligned with prosthetic fitting and prolonged recovery. This leads to reduced ability to work and increased long-term costs to households, health, and social protection schemes, with broader productivity losses across the economy.
P&O Integrated in Clinical Services	The service user receives coordinated care with P&O input, including offloading (such as custom insoles and footwear), pressure management, and regular follow-up. If amputation becomes necessary, pre-operative P&O involvement supports surgical planning to optimise limb shape. This improves prosthetic fitting, shortens recovery time, and leads to better long-term mobility. This supports participation in work, reduces long-term care and social protection needs, and generates broader productivity gains across the economy. Early intervention helps prevent the need for costly surgical interventions, including amputations.

2.3 Conditions Requiring Prosthetic and Orthotic Care

Rehabilitation is a core health service across the life course and is required for a wide range of acute and chronic health conditions. The WHO's Package of Interventions for Rehabilitation (PIR) provides an evidence-based framework to support the integration of rehabilitation interventions, including prosthetics and orthotics (P&O) across all levels of health service delivery.

The PIR defines rehabilitation as an essential component of universal health coverage and provides guidance on which interventions should be prioritised, where they should be

delivered, and what resources are required. Within this WHO's PIR framework, prosthetic and orthotic (P&O) services are required across multiple clinical pathways. These include:

- Trauma and fracture management
- Diabetic foot care and amputation
- Stroke rehabilitation
- Post-amputation rehabilitation
- Congenital and developmental conditions (including clubfoot and cerebral palsy)
- Musculoskeletal conditions (including scoliosis, kyphosis, and joint malalignment)
- Neurological and degenerative diseases (including Parkinson's disease, multiple sclerosis, muscular dystrophy, arthritis, and osteoarthritis)
- Spinal cord injury management

Figure 7: Example: One of the eight modules in WHO's PIR

The diverse range of conditions requiring P&O support highlights that demand is not limited to a single service user group or clinical pathway, reinforcing the need for rehabilitation services to be integrated within hospitals. For example, the below comparison of interventions for stroke management, highlights the importance of integrating P&O care.

Intervention Example: Stroke Rehabilitation

Without P&O Integrated in Clinical Services	A service user receives physiotherapy after stroke but without integrated P&O support opportunities to enhance limb positioning, gait, and use of mobility aids through orthotic input are limited. This contributes to complications such as joint stiffness and poor movement patterns, slowing recovery. This leads to reduced ability to work and increased long-term costs to households, health, and social protection schemes, with broader productivity losses across the economy.
P&O Integrated in Clinical Services	The service user receives early physiotherapy combined with P&O input. Timely provision of orthoses and mobility aids supports improves functional recovery, reduces long-term impairment, and supports earlier return to independent living. This improves workforce participation, reduces caregiver burden, and limits long-term economic costs to households, with broader productivity gains across the economy. Early, integrated support also reduces hospital waiting times and repeat visits driven by preventable complications.

A critical characteristic of P&O care is that it is longitudinal, not episodic. Across most of the conditions listed above, a single device provision is not the endpoint of care. Children and young people require ongoing adjustment and device replacement as they grow, with clinical needs continuing across their lifetime. Adults presenting with NCD-related conditions, such

as diabetes-related limb loss, stroke, or progressive musculoskeletal disease, typically require device maintenance, repair, and eventual replacement across a period of years. This has direct implications for how P&O services are planned, financed, and delivered. A model that captures only new service users understates long-term demand; a financing mechanism that funds only initial device provision leaves return service users without coverage. The HBRU model is designed to support continuity of care, not only first access.

2.4 Paediatric P&O Services

HBRUs also deliver specialised paediatric P&O services. This is particularly relevant in hospitals such as the National Paediatric Hospital (NPH).

Paediatric P&O services differ from adult services in several ways:

- *Growth-related needs* - Devices require more frequent adjustment and replacement
- *Developmental considerations* - Interventions must support a children's unique physical, cognitive, and social development
- *Family engagement* - Care pathways require close involvement of parents and caregivers
- *Clinical complexity* - Conditions are often long-term and require ongoing management rather than one-off intervention

Paediatric rehabilitation, including gait training, must be delivered in a child-friendly manner. This involves adapting clinical approaches to ensure engagement, comfort, and participation. Techniques may include the use of play-based activities and peer-to-peer training where children learn alongside other children. Service delivery environments are adjusted accordingly to support positive interactions and reduce anxiety. Caregivers are often actively involved to reinforce learning and support continuity of care at home.

Recent research[2] on Exceed's paediatric service delivery highlights the importance of early intervention, continuity of care, iterative device adaptation, and device choice to support functional outcomes over time. This underscores the need for coordinated care between prosthetists, orthotists, and broader paediatric clinical teams.

Within HBRUs, particularly those focused on paediatric care, additional safeguarding measures are required when delivering services to children including staff training on child protection and safeguarding protocols; and appropriate consent processes involving caregivers.

[2] Ghidini, C. *et al.* (2026) 'Children in Cambodia provide key design priorities for below-knee prostheses: Independence, functionality, comfort and cosmetic appearance', *Assistive Technology*, pp. 1–10. DOI: 10.1080/10400435.2026.2643688. Full article: Children in Cambodia provide key design priorities for below-knee prostheses: Independence, functionality, comfort and cosmetic appearance

Paediatric Case Study 1

A 14-year-old boy from Svay Reang Province underwent a right knee amputation following a road traffic accident. While recovering and waiting for his prosthetic limb to be fabricated, the wound was slow to heal. During this period, the P&O unit at National Paediatric Hospital provided axillary crutches to maintain his mobility and independence. Timely access to interim support and specialist P&O care enabled him to remain active during recovery and reduced the risk of secondary complications.

Paediatric Case Study 2

A 16-year-old girl from Kampong Chhnang Province underwent a right transfemoral amputation following a diagnosis of osteosarcoma (bone cancer). Recovery was complicated by delayed wound healing, and her overall health required stabilisation before prosthetic fitting could proceed. The P&O unit at National Paediatric Hospital provided axillary crutches to support her mobility in the interim. Limb loss following cancer treatment presents distinct emotional as well as physical challenges, and the P&O and clinical team provided ongoing support throughout her recovery.

Paediatric Case Study 3

A 13-year-old girl from Tbong Khmom Province underwent a left hip disarticulation following a road traffic accident two years prior. Wound healing was prolonged and her overall condition required careful management before prosthetic fitting could be considered. The P&O unit provided axillary crutches to maintain her mobility during this period. Hip disarticulation is among the most complex amputation levels and presents significant functional and emotional challenges, particularly for a child. Early access to specialist support and consistent clinical engagement provided the foundation for her recovery.

Paediatric Case Study 4

A three-year-old girl from Phnom Penh presented with progressive lower limb malalignment, including bilateral genu varum and an inward-turning gait. Her mother had sought care from an early age and she had received physiotherapy at the National Paediatric Hospital, but her condition continued to worsen. Referral to the P&O unit enabled specialist assessment and the fitting of bilateral knee-ankle-foot orthoses designed to reduce medial knee loading and support gradual correction of limb alignment. Within a short period, her parents observed clear improvement in the shape of her legs. Early orthotic intervention in young children with lower limb malalignment is critical: the window for conservative correction narrows as skeletal maturity progresses.

2.5 Central Fabrication Unit (CFU)

The Central Fabrication Unit (CFU) is a dedicated prosthetic and orthotic (P&O) fabrication facility responsible for fabricating P&O devices at scale, supplying all HBRUs and ensuring consistent quality and cost control across the network. It also manages the HBRU network's procurement and stock management. The CFU is in Phnom Penh and is staffed by trained prosthetic and orthotic technicians.

Figure 8: Technicians fabricating a device in the CFU

Key features include:

- Centralised fabrication - Devices are fabricated in a single facility rather than within facility-based workshops
- Centralised supply system - Materials and components are centrally managed
- Centralised quality management of procurement and device fabrication - Standardised oversight and quality assurance processes to ensure component and device quality.
- Division of labour- P&O technicians specialise in fabrication while prosthetists and orthotists focus on clinical care

2.5.1 Quality Management System

Fabrication processes within the CFU are governed by Exceed's Quality Management System (QMS), which is aligned with ISO 9001:2015 standards. Exceed is ISO 9001:2015 certified and subject to regular external audits to ensure compliance. The QMS establishes a structured quality-controlled approach to fabrication and procurement including:

- Standardised procedures for product fabrication and service provision
- Defined requirements for procurement and supplier management to ensure quality and reliability of components
- Identification and traceability of materials and finished devices
- Inspection and verification processes at multiple stages
- Control of non-conforming outputs and corrective action procedures
- Ongoing monitoring, internal audit, and continuous improvement processes

These systems ensure devices produced at the CFU meet consistent quality standards and comply with clinical requirements.

2.5.2 Staffing Profile

The CFU has a defined management and technical structure to ensure operational efficiency and quality, including:

- A CFU Manager oversees all aspects of facility operations, including production planning, staffing, and performance
- A Technician Team Leader is responsible for supervising fabrication processes and ensuring consistency in device quality

Figure 9: CFU staff with Exceed Board Members

- A Logistics and Stores Manager oversees inventory, storage, and distribution of materials and finished devices
- A Cost Accountant supports procurement, costing, and financial management to ensure value for money

2.5.3 Logistics, Delivery, and Traceability

The CFU operates a structured logistics system to ensure the timely transfer of castings from HBRUs to the CFU and the return of finished devices to HBRUs.

For Phnom Penh-based HBRUs:

- Castings and completed devices are transported using on-demand delivery services (e.g. Grab), enabling rapid turnaround between the CFU and hospital-based units
- In many cases, same-day casting, fabrication, and fitting is possible (depending on appointment timing)

For Provincial HBRUs:

- Deliveries are managed through courier services (e.g. VET), with provincial fabrication prioritised to minimise delays.
- Depending on appointment timing and delivery schedules, casting, fabrication, and fitting is typically completed within 2 to 3 days

To support accountability and quality control:

- Each device is assigned a unique serial number, enabling full traceability from fabrication through to fitting and follow-up
- All delivery transactions are recorded within Exceed's accounting system
- Delivery records are used to track costs, support financial reporting, and ensure transparency in operations, including accurate costing for financing mechanisms.

2.5.4 International Component Supply and Technology

The CFU operates within Exceed's established international supply and distribution network for P&O components and materials. Exceed maintains supply relationships with multiple international providers, covering both:

- **ICRC's polypropylene system**, which provides cost-effective and robust solutions and is the preferred technology platform in many low- and middle-income countries (see right figure 10)
- **Modern components**, which are typically more expensive than polypropylene systems, provide a wider range of mobility options and are lighter. Exceed uses these components for fee-paying service users and for more complex clinical needs, including paediatric cases (see right figure 11)

Figure 10: Example of the polypropylene devices produced by Exceed

Figure 11: Example of Exceed's modern devices with transfer paper designs for

Procurement processes are structured to ensure quality, reliability, and cost-effectiveness, in line with QMS requirements.

In parallel, Exceed leverages its research network, clinical services, and CFU operations to continuously review and assess emerging P&O technologies. New components, materials, and fabrication methods are regularly evaluated for clinical effectiveness and cost. Viable innovations can be introduced through the CFU at scale, ensuring consistency across the network. This allows a balance between affordability and access to appropriate technology for different service user needs.

Figure 12: Exceed's Central Fabrication Unit (CFU)

2.5.5 Implications for Service Delivery and System Performance

Centralised fabrication provides several unique advantages that would not be achievable through decentralised workshops

Enables hospital-based service delivery: Centralised fabrication removes the need for workshop facilities to be attached to service delivery sites, which are often not feasible within hospital settings. This has unlocked the ability to provide P&O services directly within hospitals through HBRUs.

Enables small-footprint service delivery: HBRUs can be established with minimal staffing (typically 1 to 2 staff), making it feasible to deliver services in hospitals where demand would not justify a full clinic and workshop setup.

Scalable infrastructure: The CFU allows for the flexible expansion of equipment and staffing as demand increases. This model also removes the need to establish and maintain workshop infrastructure in each hospital, reducing capital requirements and operational complexity.

Consistent quality: Standardised fabrication and quality management processes reduce variability in device quality

Bulk procurement and price benchmarking: Central purchasing of materials and components, combined with regular comparison of supplier price lists, reduces unit costs and ensures competitive pricing and value for money

Inventory management: Consolidated stock reduces wastage, duplication, and emergency procurement, and removes the need to employ dedicated stock management roles at each HBRU

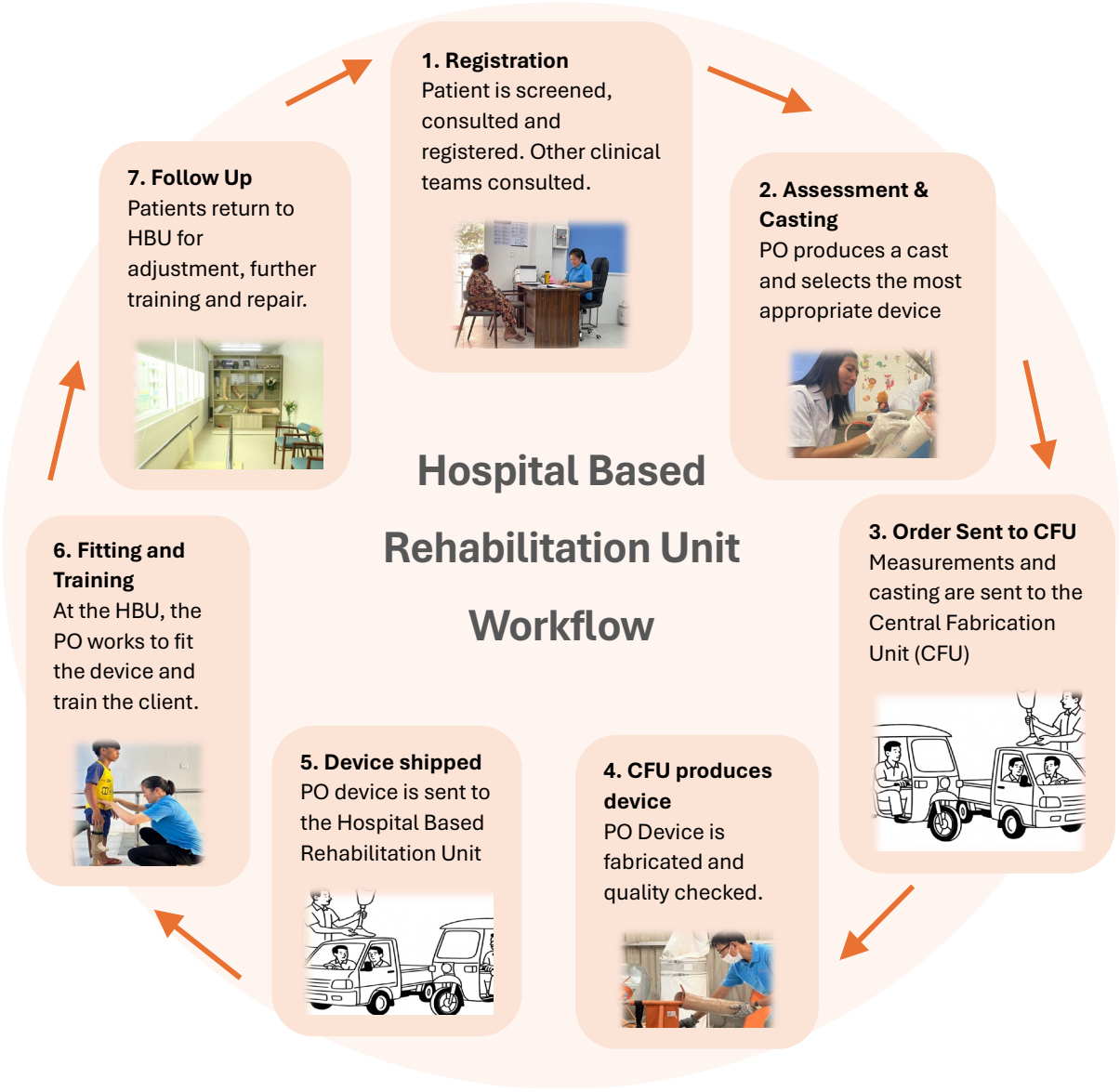
Labour efficiency: Specialised technicians achieve higher productivity through focused fabrication roles. Clinicians have more time to focus on service users.

Collectively, these efficiencies strengthen quality, lower the cost per device, and improve the financial viability of P&O services within Cambodia's health systems. Central fabrication is central to transitioning from fragmented, facility-based production to a coordinated system that is aligned with national health service delivery and financing structures.

Figure 13: ACCESS 2's Rehabilitation and Disability Lead Dr Vivath Chou inspects a prosthetic device at Ang Doung HBRU

2.6 End-to-End Service Delivery Workflow

The HBRU service delivery model delivers prosthetic and orthotic (P&O) services through an integrated, end-to-end pathway that links service user identification, clinical care, fabrication, and follow-up within a coordinated workflow (see below workflow).



A detailed description of the complete workflow is below:

1. **Identification**
    - Service users are identified through routine hospital workflows (surgical wards, paediatrics, NCD clinics etc.)
    - Clinical teams refer directly to the HBRU or P&O clinicians identify service users through weekly ward rounds
2. **Clinical Assessment and Screening**
    - Prosthetists and orthotists conduct a clinical assessment
    - As part of this assessment, in line with hospital procedures, service users are screened for IDPoor card (HEF eligibility) or NSSF membership
    - Those deemed able to pay are provided the option to access modern devices. This is done in strict accordance with Exceed's cost recovery (user fee) procedure (see section 4.2 for further details)
    - If required, further consultation with multidisciplinary teams (surgeons, physiotherapists etc.) informs care decisions
    - All relevant details are recorded into Exceed's service user management records which are made available to the hospital. The cost of all assistive devices and products (including those provided free of charge) are recorded in Exceed's accounting software
3. **Casting and Transfer to CFU**
    - If required, detailed measurements and castings are undertaken at the HBRU
    - Casts are filled to produce a positive model, which is then rectified at the HBRU to ensure accurate shaping prior to fabrication
    - The positive model and measurements are transferred to the CFU
4. **Centralised Fabrication Process**
    - The CFU manufactures devices at scale, with fabrication procedures varying by assistive device type but following standardised protocols across all devices
    - Each component used in the fabrication process is recorded in Exceed's inventory management system. This allows for individual components to be associated to finalised devices, improving QMS traceability
    - Fabrication of devices is only conducted by internationally (ISPO) accredited P&O technicians
    - Quality control is centrally managed, ensuring consistency and reducing variation across sites
    - Every incoming casting and outgoing fabricated device is recorded in Exceed's stock management systems.
5. **Initial Device Fitting**

- Devices are fitted at the HBRU using temporary fixings, with adjustments made as required
- The clinician confirms fit and function before the device is returned to the CFU for finishing
- Where alignment checks and early walking exercises are required, these are conducted in collaboration with hospital physiotherapy staff, utilising physiotherapy department facilities where HBRU space is not sufficient for extended movement and gait training.

6. **Final Finishing at CFU**
    - Following successful fitting, devices are returned to the CFU for final finishing. This includes cosmetic finishing, replacement of temporary bolts with rivets, welding of polypropylene components, and torquing and thread locking of imported components
    - Finished devices are returned to the originating HBRU for final handover.
7. **Device Training**
    - HBRU clinicians record receipt of the finished device and inform the service user
    - The device is provided to the service user, who receives training on use, mobility, and care
8. **Social Inclusion**
    - Where relevant, service users are referred to social inclusion programmes, including Exceed's own programmes and those delivered by partner organisations (e.g. education support, vocational training, and livelihood initiatives), to support longer-term outcomes beyond clinical care
9. **Ongoing Follow-Up**
    - Service users return to the HBRU for review, adjustment, and repair

2.7 HBRU Network Footprint and Expansion

2.7.1 Current Footprint

The HBRU network is currently concentrated across a mix of national and provincial hospitals, including:

- Three public national hospitals in Phnom Penh: National Paediatric Hospital; Preah Ang Duong Hospital; and Preah Kossamak Hospital
    - A fourth HBRU is currently being prepared for operation at Chey Chumneas Referral Hospital in Kandal Province
        - Additionally, a HBRU at Calmette Hospital is under active consideration

Figure 14: Preparation of a below knee prosthetic leg at Kratie HBRU

    - These HBRUs are supplemented by visiting services to Khmer Soviet and Kantha Bopha Hospitals
- Two provincial hospitals: Kratie Provincial Referral Hospital and Preah Sihanouk Provincial Hospital
    - These provincial HBRUs are supplemented by visiting services to Ratanakiri Provincial Hospital and Koh Kong, Kampot and Kep Provincial Referral Hospitals
    - Establishment of a third provincial HBRU at Kampong Chhnang Provincial Hospital is under active consideration
- Additionally, to pilot collaboration with Cambodia's private hospital network, a HBRU was established in Phnom Penh at Central Hospital

This footprint reflects a deliberate and strategic balance between maximising utilisation, expanding access, and managing risk in network expansion. High-volume national hospitals in Phnom Penh provide a strong demand base, enabling efficient use of clinical staff, higher throughput of service users, and more consistent exposure to complex cases. This concentration supports quality and operational efficiency.

At the same time, the inclusion of provincial hospitals ensures that services are not limited to urban centres, extending access to underserved populations where rehabilitation services have historically been limited or declining. These sites are selected based on a combination of population need, hospital capacity, and potential for integration within existing clinical services.

Flexible delivery models, particularly visiting services, are used to evaluate and build demand in new locations without committing to permanent infrastructure. This allows Exceed to assess referral pathways, service uptake, and hospital engagement before establishing a full HBRU. In practice, this reduces expansion risk, avoids underutilised investments, and creates a clear pathway from pilot to scale where demand is demonstrated.

2.7.2 Role of the CFU in Enabling Network Expansion

The CFU is a critical enabler of network scale.

By centralising fabrication:

- HBRUs can operate without workshops, significantly reducing space and capital requirements
- Units can be established with small teams (1–2 staff), lowering operational costs
- New sites can be deployed rapidly within existing hospital infrastructure
- Quality and consistency are maintained across all locations

This model removes a key constraint of traditional service delivery, where workshops dictated where services could exist.

This enables HBRUs to be established in hospitals where service user numbers would not be high enough to justify the establishment of a full workshop. A HBRU can still be established at low cost but instead of being staffed full time, it can be operational for a few

set days a week. This is an approach Exceed will be piloting at Chey Chumneas Referral Hospital.

2.7.3 Approach to Scaling

Future scaling of the HBRU network should follow a phased and demand-driven approach:

1. Hospital Selection
    - Prioritise hospitals with sufficient service user volume and clinical alignment (e.g. surgery, NCDs, paediatrics)
    - Assess leadership support and willingness to integrate rehabilitation into hospital workflows
2. Light-Touch Entry Models
    - Use visiting services or pilot arrangements to validate demand
    - Transition to permanent HBRUs where utilisation justifies investment
3. Incremental Scale-Up
    - Expand staffing and service scope within existing HBRUs as demand grows
    - Introduce additional rehabilitation disciplines (e.g. physiotherapy, occupational therapy) where feasible
4. Integration with Financing Systems
    - Prioritise sites where HEF and NSSF pathways can be operationalised
    - Align expansion with progress on service definitions, pricing, and reimbursement mechanisms

2.7.4 Network Growth Trajectory and Projected Sector Share

The growth trajectory of the HBRU network points to a significant and accelerating shift in the composition of national rehabilitation service delivery through to 2030. This section presents a projection of registered client volumes drawing on HBRU registration data and PRC statistics covering 2012 to 2022.

HBRU Growth Trajectory to Date

HBRU registration data documents rapid and sustained growth. In the nine months from the network's launch in April 2024 through December 2024, the four active sites registered 244 service users, annualising to approximately 325 per year. In 2025, the network registered 955 service users. In the first quarter of 2026 alone, the network registered 281 service users, annualising to approximately 1,120. This trajectory reflects both network expansion to new sites and the deepening of clinical integration at established sites as referral pathways mature.

It is worth noting current growth projections are based on new service user registrations, which is the appropriate measure for a network in its first two years of operation. As the network matures, a second layer of demand from return service users will emerge and compound alongside new intake. The current data captures only the leading edge of this return caseload so it is not accounted for in forecasting.

Over time, return service users will constitute a growing share of total demand at established sites, adding to new registrations rather than replacing them. Growth projections, workforce planning, CFU capacity modelling, and financing forecasts should account for this compounding effect as the network moves from early expansion toward operational maturity.

HBRU forecasting assumptions and scenarios

- **HBRU Scenario 1 (Moderate Growth):** Existing sites mature at observed trajectory rates. Preah Kossamak Hospital, Chey Chumneas Referral Hospital, and the Kampong Som HBRU open in 2026. Battambang and Kampong Speu HBRUs open alongside the ICRC handover in late 2027 and 2028. No Calmette Hospital or Kampong Chhnang Provincial Hospital sites assumed.
- **HBRU Scenario 2 (High Growth):** All of the above, plus Calmette Hospital HBRU opening mid-2027 and Kampong Chhnang Provincial Hospital in 2028. Existing sites achieve 15 to 20% higher registration rates than the conservative scenario as referral pathways deepen.
- Per-site registration rate assumptions are grounded in observed data: national hospital HBRUs maturing to approximately 60 registrations per month; provincial hospital HBRUs to approximately 35 to 40 per month; and smaller/part-time sites to approximately 15 to 20 per month.

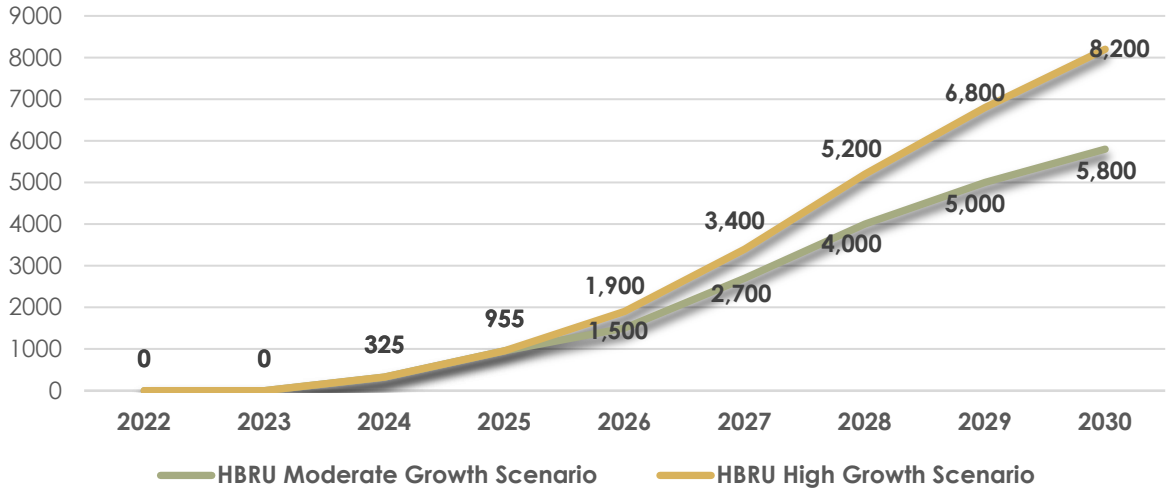
  HBRU share of total network is calculated as HBRU registrations as a proportion of combined HBRU and PRC registrations.

Table 1: Projected HBRU registered clients

Year	Total HBRU Registered Clients		% of National Client Registrations	
	HBRU Moderate Growth Scenario	HBRU High Growth Scenario	Low Estimate	High Estimate
2024	325	325	2%	2%
2025	955	955	5%	5%
2026	1,500	1,900	8%	11%
2027	2,700	3,400	14%	18%
2028	4,000	5,200	21%	27%
2029	5,000	6,800	26%	35%
2030	5,800	8,200	30%	41%

Note: HBRU data excludes the Kampong Som PRC collaboration.

Chart 1: Project HBRU Client Registration Growth



Key Forecasting Observations

The HBRU network's share of total national rehabilitation registrations is projected to reach 21 to 27% by 2028 and 30 to 41% by 2030. The range reflects uncertainty in both the pace of HBRU expansion and broader PRC service availability. Broadly speaking, based off current trends, by 2030 approximately one in three registered rehabilitation service users nationally will be accessing services through hospital-based units.

The period from 2027 to 2028 is when HBRU demand is expected to accelerate, driven by the establishment of new sites alongside the ICRC handover process. A functional HEF and NSSF reimbursement pathway operational by that point would have its greatest strategic value both in sustaining HBRU operations and in preventing a gap in national service coverage. Without that financing pathway, the period of greatest HBRU demand growth coincides directly with the period of greatest pressure on national service coverage, creating conditions in which the network most needs to expand but is least able to sustain the cost of doing so.

2.7.5 Strategic Rationale

The expansion of the HBRU network is driven by three core objectives:

1. **Increase Coverage:** Extend rehabilitation services to populations currently underserved
2. **Increase Integration:** Embed rehabilitation within the health system, enabling early intervention and continuity of care
3. **Increase Sustainability:** Position services within domestic financing mechanisms, reducing reliance on external funding

2.7.6 Key Risks and Opportunities

Expansion of the HBRU network presents a clear pathway to scale rehabilitation services but is subject to several system-level constraints that need to be actively managed. Delays in integrating rehabilitation into HEF and NSSF will continue to limit scalability and financial

sustainability, while variation across hospitals in leadership, available space, and operational workflows will affect the performance and consistency of individual sites. Workforce availability, particularly trained P&O professionals, remains a binding constraint on the pace of expansion.

At the same time, there are immediate opportunities to strengthen and extend the network. A key near-term opportunity is to complement ICRC's Battambang and Kampong Speu Physical Rehabilitation Centres (PRCs) with HBRUs as part of Exceed's planned transition to joint management from December 2027. This would allow these high-volume PRC catchments to benefit from integrated hospital-based entry points, earlier clinical intervention, and stronger referral pathways, while maintaining the outreach and social support functions of these PRCs. In practice, this creates a more coherent, dual-platform model, where hospital-based services drive clinical care and case identification, and PRCs continue to support outreach, follow-up, and social inclusion.

A further opportunity lies in the progressive integration of Exceed's clinical workforce into hospital employment structures. As HBRUs become established within hospital operations, there is a pathway for P&O professionals currently contracted through Exceed to transition into MoH employment or to remain as contracted staff under longer-term service arrangements. Either model, if formalised, would reduce dependence on donor-funded salary support, strengthen workforce retention, and embed rehabilitation capacity more durably within the public health system. The pace of this transition will depend on MoH's willingness to create and fill rehabilitation-specific civil service positions, but the HBRU model, by locating staff within hospital governance structures, creates the institutional platform from which that transition can occur.

More broadly, the HBRU network represents a scalable, low-cost model for expanding rehabilitation within the health system. Anchored by centralised fabrication and integrated hospital delivery, it enables rapid expansion while maintaining quality and consistency. Continued growth will depend on disciplined site selection, phased rollout, proactive management of system constraints, and alignment with emerging health financing mechanisms.

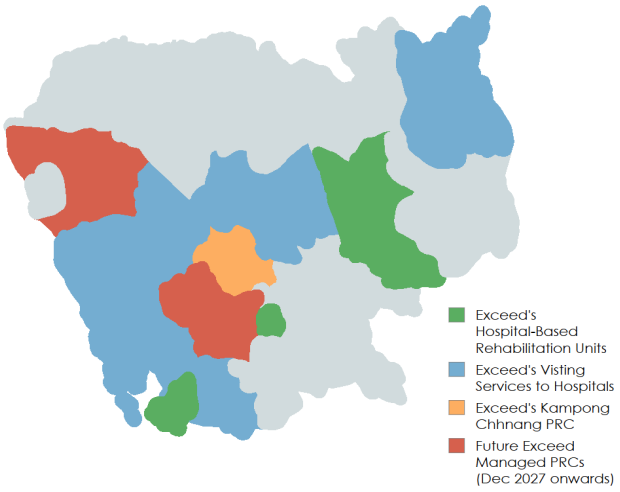


Figure 15: Map showing Exceed's current and future national coverage

Chapter 3: Impact

Hospital Based Rehabilitation Impact Summary *(April 2024 to March 2026)*

1,480
service users registered

5 +
hospital-based rehabilitation units (HBRUs)

8%
of service users paid fees (burden sharing)

84.6%
of service users referred by clinical staff

2,263 +
assistive devices delivered across 5 HBRUs

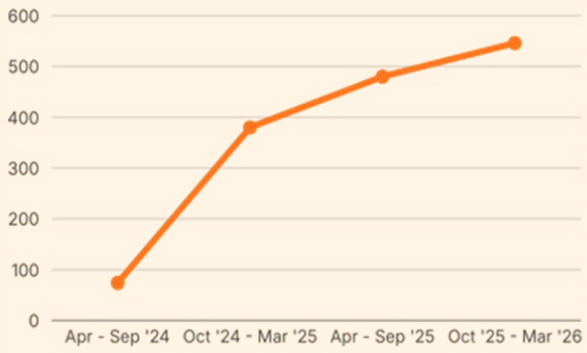
Economic Return (USD)

$192,138 in AT provided — total value of devices provided

$1 to $9 Return — ATscale (2022) ROI rate

$1,729,242 * in economic returns for Cambodia

Registered Service User Growth



*Estimated economic benefit calculated by applying the ATscale (2022) ratio of USD 9 return per USD 1 invested in assistive technology, based on the total value of devices delivered through the HBRU network (April 2024 to March 2026), excluding Kampong Som. Device costs only — clinical staffing and broader rehabilitation inputs are excluded. The ATscale ratio is derived from global evidence and should be understood as indicative rather than a precise projection for the Cambodian context.

3.1 Service Delivery and Coverage

The following section presents service delivery data for the HBRU network for the period April 2024 to March 2026, the first two years of operation. Data is drawn from four HBRU sites:

- National Paediatric Hospital (NPH) in Phnom Penh
- Central Hospital in Phnom Penh
- Preah Ang Duong Hospital in Phnom Penh
- Kratie Provincial Referral Hospital

Preah Kossamak Hospital joined the HBRU network in March 2026 and does not yet have substantive service delivery data for this reporting period.

Unless otherwise noted, figures exclude the Kampong Som PRC collaboration site, which operates under a distinct model through a partnership with an existing PRC managed by the PWDF. Kampong Som data is addressed separately in Section 3.1.6.

3.1.1 Number of Service Users Served

Between April 2024 and March 2026, the HBRU network **registered 1,480 service users** across the four active sites. A further **1,730 individuals were screened or consulted** during the same period, reflecting a **registration conversion rate of 85.5%**.

This high conversion rate indicates that the clinical referral process is functioning effectively as most service users who encounter an HBRU are assessed as requiring services and proceed to registration.

Growth of the network has been substantial. In the first six months of operation (April to September 2024), the network registered 74 service users. In the final six months (October 2025 to March 2026), this rose to 546, a **more than seven-fold increase**. This trajectory reflects both the expansion of the network and deepening clinical integration at established sites as referral pathways mature.

Table 2: HBRU network service user volumes (April 2024 to March 2026)

Indicator	Total (Apr 2024 – Mar 2026)	Monthly Average
Service users screened or consulted	1,730	82.4
Service users registered for services	1,480	70.5
Screening-to-registration conversion rate	85.5%	–
Service users referred by doctors or hospital staff	1,464	69.7
Doctor referral rate (% of screened)	84.6%	–

The most significant indicator in this dataset is the doctor referral rate. Across the four HBRU sites, 84.6% of all screened service users were referred by doctors or hospital staff, providing direct evidence of clinical integration. The referral rate at NPH (96.8%) and Kratie (72.5%) is particularly notable, indicating strong clinical integration at both national and provincial level.

Site-level data illustrates both the maturation of established sites and the growth potential of newer ones. Each HBRU operates with two clinical prosthetist and orthotist (P&O) staff. The table below shows average monthly registrations per two-person team and the peak month achieved at each site.

Table 3: HBRU-level service user volumes and staffing capacity (April 2024 to March 2026)

HBRU Site	Months Operating	Total Registered	Avg. Registrations Per Month	Peak Month	Peak per P&O (2 P&O per HBRU)
National Paediatric Hospital (NPH)	24	841	35	73 (Dec 2025)	36.5
Kratie Provincial Referral Hospital	18	461	26	41 (Mar 2025)	20.5
Preah Ang Duong Hospital	15	132	9	18 (Sep 2025)	9.0
Central Hospital	21	46	2	6 (Jul 2025)	3.0

Chart 2: Monthly Service User Registrations by HBRU Site (April 2024 to March 2026)

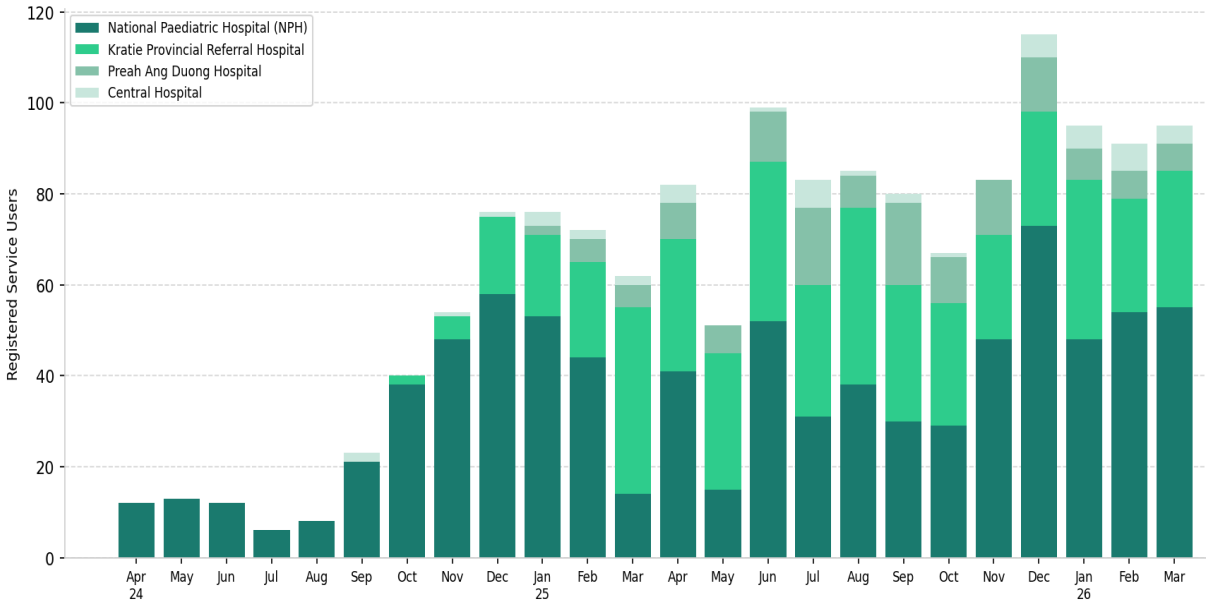


Chart 2 Note: Network growth reflects both new site openings and deepening referral integration at established sites. The upward trajectory levels off toward the end of the reporting period as existing sites approach their supply/demand equilibrium point. This underscores that continued growth depends on the opening of new sites and the financing required to sustain them.

Chart 3: Average Monthly Registrations vs Peak Month by HBRU Site (April 2024 to March 2026)

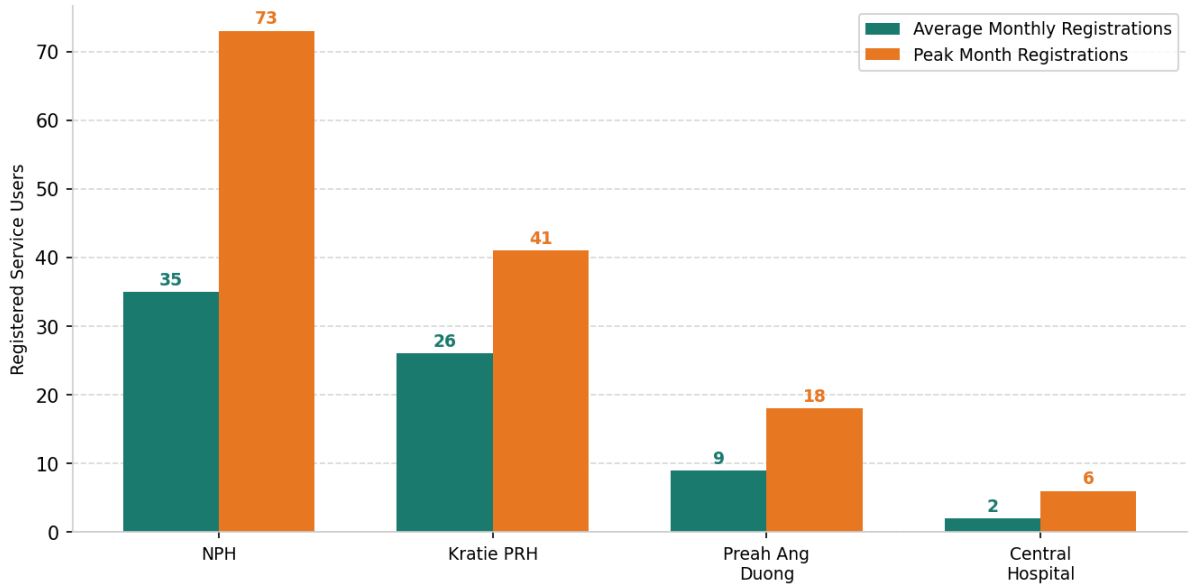


Chart 3 Note: The gap between the two bars at each site represents spare absorptive capacity that can be filled as referral pathways mature and financing is secured. In December 2025, the two-person NPH team registered 73 service users in a single month, confirming the model's capacity to manage significantly higher volumes than current averages reflect.

In terms of the effect of seasonality, with only two years of data across a rapidly expanding network, it is too early to draw firm conclusions about seasonal patterns. There is a tentative signal of higher volumes in November and December at the National Paediatric Hospital (NPH) but this could equally reflect referral pathway growth rather than seasonality. It is expected a clearer picture on seasonality will emerge after a third year of data.

3.1.2 Types of Services Delivered and Case Mix

The HBRU network delivered 2,426 total interventions across the reporting period, comprising 2,263 assistive device deliveries and 163 device repairs. The device mix reflects a service model responding to the contemporary profile of rehabilitation need in Cambodia.

Table 4: Service delivery and device mix, April 2024 to March 2026

Indicator	Total (Apr 2024 – Mar 2026)	Monthly Average
Total interventions (device delivery and repairs)	2,426	115.5
Assistive devices delivered	2,263	107.8
Prostheses	78 (3.4% of devices)	–
Orthoses	522 (23.1% of devices)	–
Wheelchairs	75 (3.3% of devices)	–
Other assistive devices (walking frames, crutches, etc.)	1,588 (70.2% of devices)	–
Device repairs	163 (6.7% of total interventions)	7.8
CFU device fabrications	2,218	90.0

The case mix of HBRU service users reflects Cambodia's changing rehabilitation burden. By 2019, landmine and UXO injuries accounted for just 5.6% of new service users at PRC-based services across Cambodia, down from 8.6% in 2015, while illness and disease-related conditions rose from 27% to more than 40% of new service users over the same period.

Cerebral palsy has overtaken polio as the leading diagnosis for orthotic services, and stroke-related demand is growing steadily. Hospital-based settings expose rehabilitation teams directly to this contemporary caseload.

Note on Prosthetic Device Statistics (Table 4):

Prosthetic devices represent 3.4% of total HBRU device deliveries, which is lower than the PRC network's prosthetic share. This reflects the different service user profiles of the two models, not a gap in HBRU service availability as all four HBRU sites offer prosthetic services.

The HBRU service user base is drawn primarily from hospital inpatient and outpatient populations, whose rehabilitation needs are concentrated in orthotic and other assistive device categories rather than prosthetics. This is consistent with epidemiological patterns: prosthetic demand in Cambodia has been contracting for over a decade, as the post-conflict cohort ages and production volumes decline. Across the PRC network, prosthetic and orthotic device production fell from 8,039 to 5,777 between 2012 and 2019, with repairs outpacing new device production by more than 2:1.

By 2019, approximately 90% of PRC service users were existing clients. The PRCs are sustaining access for an established cohort; the HBRUs are generating new access for a different population with different needs. The low prosthetic share at HBRUs is a feature of this complementarity.

Case Study: Mr. Chak Chan Udam, Kratie Provincial Referral Hospital

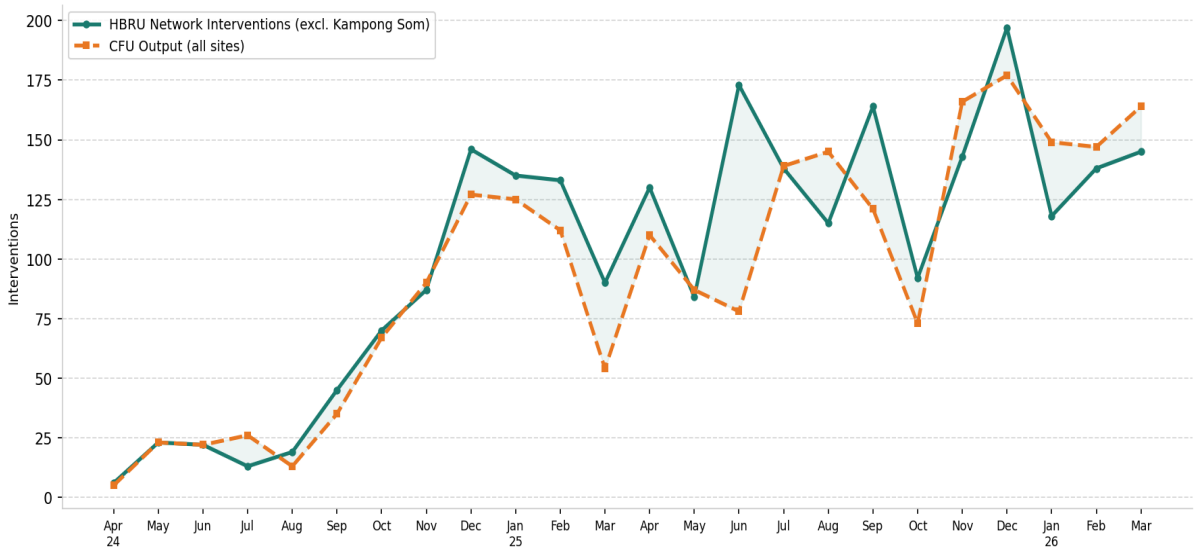
Mr. Chak Chan Udam is a 41-year-old former teacher from Kratie Province. Following emergency heart surgery in Thailand, he suffered a stroke requiring urgent neurosurgery. He survived both procedures but was discharged with right-sided hemiplegia and no access to formal rehabilitation. Nearly a year passed before his family brought him to Kratie Provincial Referral Hospital for a routine check-up, at which point the treating clinical team referred him to the HBRU clinic.

Multidisciplinary assessment identified three concurrent needs: foot drop and spasticity requiring a rigid ankle-foot orthosis, wrist and finger contracture risk requiring a wrist-hand orthosis, and balance impairment requiring a cane. All three devices were prescribed and fabricated as part of a single rehabilitation plan. With the devices fitted, Mr. Udam was able to stand with improved stability and walk short distances for the first time since his stroke.

His case illustrates the complexity of the contemporary rehabilitation caseload: a single service user requiring multiple device types across neurological and musculoskeletal presentations, identified through a clinical referral pathway rather than community outreach.

The CFU is the production backbone of the HBRU service delivery model. Operated by eight specialist staff, the CFU supplied 2,160 devices and completed 95 repairs over the reporting period (April 2024 to March 2026). Critically, CFU output grew in step with HBRU demand, as shown in the chart below.

Chart 4: Monthly HBRU Interventions vs CFU Output (April 2024 to March 2026)



The CFU grew from an average of 21 interventions per month in the first six months to 146 per month in the final six months, a growth rate of 606% compared with 551% for HBRU-side demand over the same period. The close tracking between the two outputs reflects the responsiveness of the network. CFU production is driven directly by HBRU clinical demand with minimal lag. Extended divergence between the two lines would indicate logistics or supply chain delays; the tight correlation confirms this is not occurring at a statistically significant level. This responsiveness demonstrates the ability of centralised fabrication to scale alongside HBRU growth.

3.1.3 Financing Profile

The financing profile of HBRU service users reveals both the equity dimension of the model and the structural gap that public financing mechanisms need to address. Across the four HBRU sites, most service users receive assistive devices at no cost, supported by Exceed through the ACCESS 2 program. User fee-based cost recovery was operational at NPH and Central Hospital only during the reporting period.

Table 5: Financing profile of HBRU service users (April 2024 to March 2026)

Indicator	Total (Apr 2024 – Mar 2026)	Monthly Average
Service users paying user fees (NPH and Central only)	118 (8.0% of registered)	5.6
Total user fee revenue (USD)	$44,422	$2,115
Service users identified as IDPoor cardholders (HEF eligible)	228 (15.4% of registered)	–
Service users identified as NSSF members	143 (9.7% of registered)	–
Total value of devices provided free of charge (USD)	$147,716	$7,034

Note on Table 5 Data: IDPoor and NSSF data is significantly under-captured at NPH and not collected at Central Hospital (private facility). The network-wide figures of 15.4% IDPoor and 9.7% NSSF are minimums, not representative rates.

Site-level data reveals a more analytically useful picture. The two sites with consistent financing data capture (Kratie Provincial Referral Hospital and Preah Ang Duong Hospital), show the complementary financing profiles that motivate the blended HEF-NSSF approach (see Chart 5).

Chart 5: Financing Profile by HBRU Site (% of Registered Service Users) – Cost Recovery, IDPoor (HEF) and NSSF

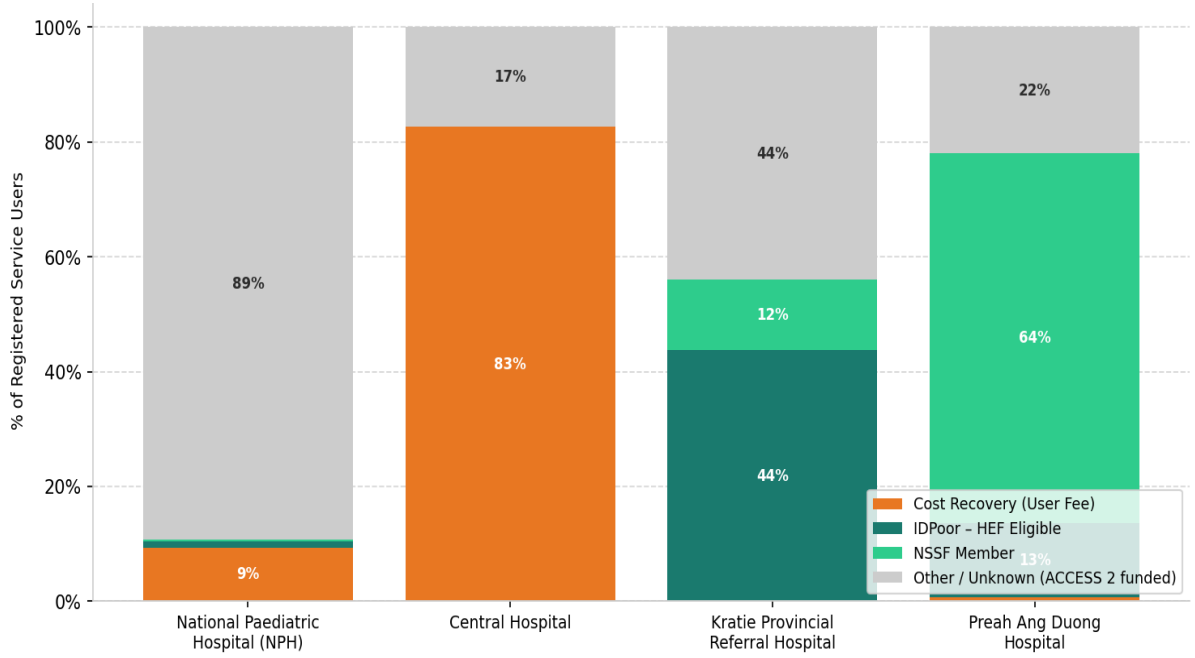


Chart 5 Note: Financing profile by HBRU site as a percentage of registered service users. 'Other / Unknown' (grey) represents service users whose financing status was not captured and who are currently covered by ACCESS 2 program funding. Cost recovery (user fees) was operational at NPH and Central Hospital only during the reporting period; Kratie and Preah Ang Duong show zero user fee uptake accordingly.

The low rates at NPH (1.1% IDPoor, 0.2% NSSF) reflect data capture failure, not the actual composition of service users. NPH serves patients referred from across Cambodia; the poverty rate and formal employment rate among its service users will be higher than these figures suggest. More systematic screening is being implemented.

Even with IDPoor and NSSF data fully captured and both mechanisms formally operationalised; a share of service users is likely to fall outside eligibility criteria. This financing gap underscores that a development partner will need to accompany the model for the near future to ensure full coverage. The scale of that gap and how it narrows as HEF and NSSF are activated is the central financing question addressed in Chapter 4 and should be thoroughly explored in the design of a comprehensive rehabilitation benefits package.

At Kratie, 43.8% of registered service users hold an IDPoor card and 12.1% hold NSSF membership, reflecting a rural population with high HEF eligibility. At Preah Ang Duong, 64.4% hold NSSF membership and only 12.9% hold IDPoor cards, reflecting an urban, formally employed population for whom NSSF is the appropriate mechanism. This demonstrates the need for inclusion under both schemes to grow coverage across Cambodia. This is the data-driven case for a blended approach, combining HEF coverage for poor and vulnerable households with NSSF coverage for formally employed workers.

Table 6: Financing profile by HBRU

Site	Total Registered	Cost Recovery	ID Poor (HEF)	NSSF	Other / Unknown
National Paediatric Hospital (NPH)	841	79 (9.4%)	9 (1.1%) *	2 (0.2%) *	751 (89.3%)
Central Hospital	46	38 (82.6%)	0 (0.0%)	0 (0.0%)	8 (17.4%)
Kratie Provincial Referral Hospital	461	0 (0.0%)	202 (43.8%)	56 (12.1%)	203 (44.0%)
Preah Ang Duong Hospital	132	1 (0.8%)	17 (12.9%)	85 (64.4%)	29 (22.0%)

Note on Table 6 Data: The low rates at NPH (1.1% IDPoor, 0.2% NSSF) reflect data capture failure, not the actual composition of service users. Real rates will be higher than these figures suggest. More systematic screening is being implemented.

Case Study: Mr. Ly Lim, Preah Ang Duong Hospital, Phnom Penh

Mr. Ly Lim is a 30-year-old farmer who lost both legs to bone cancer. Following treatment at Preah Ang Duong Hospital, his treating doctor referred him to the hospital's P&O clinic to be assessed for prosthetic fitting. It was the first time he had encountered prosthetic services.

Mr. Ly Lim was assessed, fitted, and provided with his first prosthesis at no cost. The device was comfortable and stable from the initial fitting, and he was able to stand and walk with confidence. He left the clinic with practical guidance on device use and maintenance and a scheduled follow-up appointment.

His case sits within the majority financing profile of the HBRU network: a service user reached through a clinical referral pathway and served at no cost under the current ACCESS 2 grant. As that grant concludes in February 2027, the sustainability of this financing model depends on domestic mechanisms being in place to cover service users in his situation. That is the central challenge chapter 4 addresses.

3.1.4 Geographic Reach and Equity of Access

The HBRU network spans national hospitals in Phnom Penh and provincial hospitals, addressing the persistent concentration of specialist rehabilitation services in urban centres. The establishment of a permanent HBRU at Kratie Provincial Referral Hospital in October 2024 is the clearest demonstration of this commitment.

Figure 1: DFAT, ACCESS 2 and Exceed Teams with Hospital Staff outside of Kratie HBRU

Kratie is a remote province where rehabilitation access had historically depended on a single PRC that was, until recent years, located within the provincial hospital compound. In October 2024, at the request of the hospital, a HBRU was established to ensure the continuation of P&O services following the temporary closure (for eight months) and relocation of the PRC to a location outside the hospital compound. The HBRU registered 461 service users in its first 18 months.

Beyond permanent sites, Exceed delivers visiting rehabilitation services to a further seven hospitals, including Ratanakiri Provincial Hospital and Koh Kong, Kampot, and Kep Provincial Referral Hospitals. Each new permanent HBRU also extends this visiting service reach into its surrounding region, scaling referrals, awareness, and clinical relationships across a broader catchment. This graduated approach allows Exceed to evaluate and build demand before committing to full site establishment.

Case Study: Mr. Som Ka, Ratanakiri Province

Mr. Som Ka is a 41-year-old farmer from the Tumpoun ethnic minority community in Banlung District, Ratanakiri Province. Ten years ago, a road traffic accident resulted in an above-knee amputation. With no knowledge of prosthetic services, he constructed a crutch from wood and steel and continued farming on it for a decade.

Mr. Som Ka's path to care began at an open day held at Ratanakiri Provincial Hospital, organised by Exceed's Kratie P&O Unit in collaboration with a local partner. It was the first time he had encountered prosthetic and orthotic services. An assessment was conducted on-site, a cast of his residual limb was taken, and fabrication was completed at the Kratie unit. He travelled to Kratie for fitting and gait training. Within six days, he was walking independently without assistive devices, navigating stairs and uneven ground with confidence.

Mr. Som Ka has since shared information about the services available at Kratie Provincial Referral Hospital with others in his community, extending the reach of the intervention beyond his own recovery.

Case Study: Rochom Dva, Kratie Provincial Referral Hospital
Rochom Dva is a 43-year-old man from the Charay ethnic minority community in Ratanakiri Province. In December 2023, a snake bite resulted in a severe infection that, due to delayed access to care caused by financial constraints and limited health information, could not be treated in time to save his leg. He underwent amputation in June 2024. With no knowledge of prosthetic services, he relied on a bamboo crutch and had no pathway into the rehabilitation system.

His referral came through Exceed's outreach to Ratanakiri Provincial Hospital, where staff identified him as a candidate for prosthetic care. He travelled to the P&O clinic at Kratie Provincial Referral Hospital for assessment in December 2024. Following fitting and gait training, he was walking with minimal crutch support within days. His prosthesis was formally handed over in January 2025.

Rochom Dva's case illustrates a compounding access problem: geographic remoteness, financial barriers to timely medical care, and absence of rehabilitation information each played a role in the trajectory from a treatable injury to permanent limb loss. Proactive outreach to provincial hospitals is one mechanism for identifying people in this situation before they are lost to the system entirely.

3.1.5 Gender and Age Profile of Service Users

The gender profile of HBRU service users reflects the contemporary caseload that hospital-based rehabilitation is designed to reach and differs markedly from the profile of the wider PRC network.


Figure 2: Service user during consultation at Kratie

Across the four active HBRU sites, 37.5% of registered service users were female (555 of 1,480 total registrations). At the site level, female representation ranged from 32.6% at Central Hospital to 39.7% at NPH. These figures are notably higher than the female share of the PRC network, which has remained consistently between 25% and 27% across the decade 2012 to 2022, reaching 26.8% in 2022. The HBRU network's female share is approximately 11 percentage points higher than the PRC sector average.

The PRC network's low female proportion reflects its historical caseload: amputation and conflict and mine-related injuries are heavily male-dominated, and these continue to account for a significant share of PRC service users. Across ICRC's two PRCs, female service users represented only 21.8% of registrations in 2022; across PWDF's centres, the figure was 26.2. The HBRU caseload, by contrast, is driven by NCD-related conditions, congenital

impairments, developmental conditions, and orthopaedic presentations conditions whose burden is distributed more evenly across sexes. The hospital clinical pathway also reaches women who present for other conditions and are identified through clinical referral, rather than requiring them to proactively seek out a standalone rehabilitation centre.

Age profile is equally significant. Across the network, 994 of 1,480 registered service users were under 18 years of age (67.2% of the total caseload). This proportion is overwhelmingly driven by NPH, where 839 of 841 registered service users were children, consistent with the hospital's mandate as Cambodia's national paediatric referral facility. At Kratie, 29.1% of registered service users were under 18; at PAD, 6.1%. The high paediatric caseload at NPH also helps explain the network's overall gender balance: conditions affecting children (cerebral palsy, clubfoot, congenital orthopaedic conditions) have a more balanced sex distribution than the adult amputation caseload that has historically dominated the PRC network.

Together, these findings suggest that the HBRU model is reaching populations that have been systematically underrepresented in Cambodia's rehabilitation sector: women with NCD and developmental conditions, and children with congenital and orthopaedic impairments. Both groups are more likely to be identified through hospital clinical pathways than through outreach-based models, which further underscores the equity argument for hospital-based rehabilitation integration.

Case Study: Mhor Eng, Preah Ang Duong Hospital, Phnom Penh

Mhor Eng is a 68-year-old farmer from Kandal Province. In January 2025, complications from diabetes resulted in the amputation of his right leg at Preah Ang Duong Hospital. Following surgery, his treating doctor referred him to the hospital's P&O clinic. Before that referral, he had no awareness that prosthetic services were available within the facility where he had undergone surgery.

Prior to receiving a prosthesis, Mr. Eng relied entirely on a wheelchair. Following assessment and fitting with a transfemoral prosthesis, he was able to walk and resume daily activities independently. The service was provided at no cost.

Mr. Eng's case is representative of the older adult cohort within the HBRU caseload: a patient in his late sixties, living with a non-communicable disease, whose rehabilitation need was identified and acted upon by a treating clinician at the point of care. Without the HBRU's presence in the hospital, that identification would not have occurred.

3.1.6 HBRUs as a Complement to Physical Rehabilitation Centres

The HBRU model is designed to function alongside, not in place of, Cambodia's existing PRCs. PRCs provide established outreach networks, long-term follow-up, and social inclusion functions that hospital-based services are not structured to replicate. HBRUs, in turn, offer clinical integration, hospital-based case identification, and access to financing mechanisms that PRCs cannot readily access independently.

The Kampong Som PRC collaboration illustrates both the potential and the operational conditions required to realise complementary services. At Kampong Som, Exceed operates in partnership with an existing PRC located within the provincial hospital compound, serving

an established service user base built over many years. The site served 3,539 service users during the reporting period, with repairs accounting for 33% of total interventions, reflecting the PRC's core sustaining function for long-term clients. To deepen clinical integration, Exceed has established a dedicated HBRU in hospital space immediately adjacent to the PRC, placing both services within the same physical footprint for the first time. Referral pathways and visiting services have also been established between the Kampong Som PRC and Koh Kong, Kampot, and Kep Provincial Referral Hospitals, extending the reach of the model along the coast and demonstrating that the dual-platform approach can function across a sub-regional catchment, not only within a single facility.

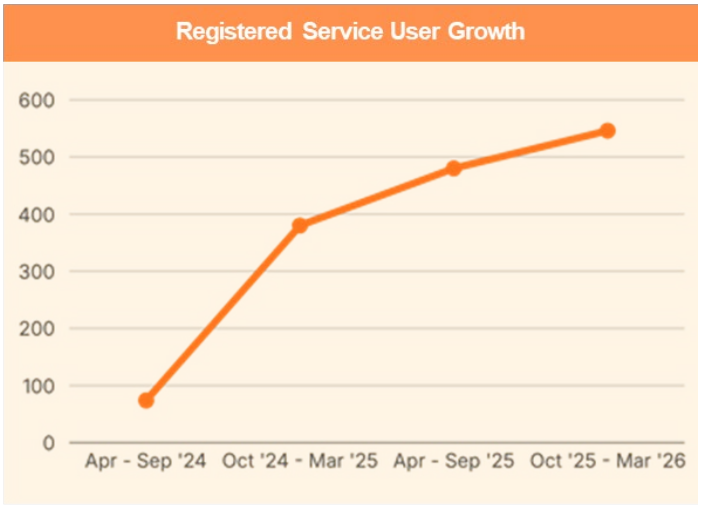
This dual-platform arrangement also creates a clearer pathway to formal financing coverage. As hospital-based services, HBRUs are better positioned to facilitate HEF and NSSF reimbursement for eligible service users than standalone PRCs, which sit outside the hospital service delivery framework these mechanisms are designed to support. A service user accessing a PRC who would previously have had no route to HEF or NSSF coverage for their rehabilitation care can, through integration with an HBRU, access that entry point. At the same time, the user fee and cost recovery mechanism operating through the HBRU enables higher-end clinical services to be offered on a cost-recovery basis, cross-subsidising care for those unable to pay.

Beyond Kampong Som, this model has clear application across Exceed's broader network. Exceed also operates the PRC in Kampong Chhnang, located directly adjacent to the provincial hospital, where visiting services have already been established and hospital management has signalled openness to the establishment of a dedicated HBRU. As Exceed transitions to joint management of ICRC's Battambang and Kampong Speu PRCs from December 2027, establishing complementary HBRUs at those sites would allow high-volume PRC catchments to benefit from integrated hospital-based entry points, earlier clinical intervention, and stronger referral pathways, while maintaining the outreach and social support functions those PRCs are built to deliver.

What makes this scalable across diverse provincial contexts is the institutional flexibility built into Cambodia's hospital governance model. Public hospitals operate with a degree of autonomy that allows hospital directors to enter into service level agreements with external providers, within the boundaries of MoH policy and ministerial directives. Rather than applying a uniform template, the HBRU-PRC collaboration can be configured to reflect the clinical priorities, physical infrastructure, and catchment characteristics of each site: the balance between hospital-based and community-oriented functions, the division of referral responsibilities, and the physical relationship between the two services can each be tailored to what works best in a given provincial context, formalised through a service level agreement that provides institutional grounding without requiring centralised direction.

3.1.7 HBRU Network Growth Outlook

The HBRU network's growth trajectory provides a basis for forward-looking demand estimation.



The Kratie HBRU is the most instructive example. After commencing in October 2024, Kratie reached a sustained rate of 25 to 41 registrations per month by mid-2025. Over the period December 2024 to November 2025, Kratie registered approximately 339 service users. Total registrations for December 2025 to November 2026 are projected at approximately 456 (approximately 132% of the Kratie PRC's projected 2025 service user base of 345). The HBRU is exceeding the historical caseload of the PRC it was established alongside. It is doing so by reaching a new type of service user, namely service users identified through clinical referral.

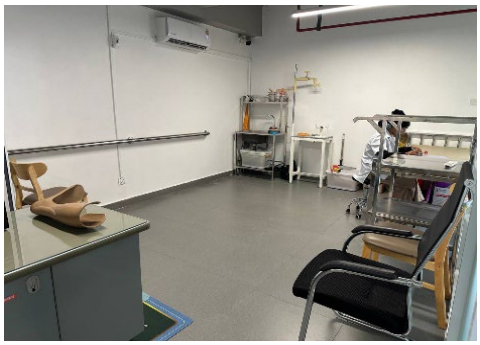


Figure 16: HBRU at Preah Kossamak Hospital

NPH, the longest-operating site, offers a view of what maturity looks like. Monthly registrations have ranged between 15 and 73, with the most recent six months averaging approximately 51. The peak of 73 in December 2025, achieved by the same two-person team, confirms that the staffing model can absorb significantly higher volumes when demand is present.

The pipeline of new sites is substantial: Preah Kossamak Hospital (commenced March 2026 – see figure 16), Chey Chumneaes Referral Hospital in Kandal (signed service level agreement, renovations underway), the Kampong Som HBRU, and Calmette and Kampong Chhnang Hospitals under active consideration. Each new site adds capacity, extends geographic reach, and brings visiting service outreach to surrounding hospitals.

The CFU data supports confidence in the network's ability to scale. CFU output grew from an average of 21 interventions per month in the first six months of the reporting period to 146 per month in the final six months (slightly faster than HBRU-side demand growth). The CFU has demonstrated it can absorb growing volumes without service disruption.

The central constraint is financing and workforce. The data shows that demand is present, absorptive capacity exists in the staffing model, and the CFU is operationally ready to scale. What is required is the operationalisation of HEF and NSSF as reimbursement pathways

alongside a structured pathway for integrating rehabilitation professionals into MoH employment and financing structures. Both are examined in Chapters 4 and 5.

The financing data also demonstrates the short to medium term need for international development assistance to ensure complete coverage. Successfully securing development assistance, often relies on demonstrating sustainability so successful HEF and NSSF mobilisation would assist this endeavour.

3.1.8 Service User Satisfaction

Exceed conducted service user satisfaction surveys across three HBRU sites during the second half of 2025 (NPH and Kratie from Jul to Dec 2025 and Ang Doung Hospital in Dec 2025). A total of 84 service users were surveyed across the three HBRU sites.

Satisfaction scores were high across all key indicators. Across the network, approximately 92% of respondents rated P&O services overall as excellent or very good, and approximately 90% rated the co-location of P&O services within the hospital at the same level.

Staff attitude and clarity of service explanation both rated above 90% across the network. Waiting time received the lowest scores of any indicator, though still above 80% excellent or very good at the network level, and notably higher at Kratie and Ang Doung than at National Paediatric Hospital.

Table 7: Service User Survey Results by HBRU

Indicator	NPH HBRU (n=44)	Kratie HBRU (n=26)	Ang Doung HBRU (n=14)	HBRU Network Average (n=84)
Staff attitude in providing services	88.6%	100%	100%	~94%
Overall P&O service quality	90.9%	88.5%	100%	~92%
Appreciation of having P&O services located inside the hospital	88.6%	88.4%	100%	~90%
Clarity of explanation of services provided	84.1%	96.2%	100%	~91%
Quality of facilities used to provide services	81.8%	76.9%	100%	~84%
Waiting time to receive services	70.5%	88.5%	92.9%	~81%

Note: All figures represent the share of respondents rating the indicator as excellent or very good.

The qualitative responses reinforce two findings that are relevant beyond service quality alone. **First, the hospital co-location model materially reduced the cost and time**

burden on service users and their families. Respondents across all three sites consistently noted that receiving P&O services within the hospital eliminated the need to travel to a separate facility, reducing both financial cost and time away from work or family.

Second for a significant proportion of service users, reaching P&O care was contingent on the hospital integration model. A recurring pattern across the qualitative responses was service users reporting that they had no prior awareness of P&O services before being identified within the hospital.

Taken together, the satisfaction data and qualitative responses confirm that the HBRU model is delivering services that are well-regarded by service users, are accessible in ways that standalone facilities have not been and reaching people who were previously outside the service system entirely.

3.2 System-Level Impact

3.2.1 Integration into Hospital Workflows and Improved Continuity of Care

Until 2024, physical rehabilitation, apart from physiotherapy, operated as a service largely disconnected from the health system. P&O care was delivered only through PRCs that were institutionally disconnected from clinical care. Word of mouth and community outreach became the default mechanism for identifying and addressing unmet need. Two pieces of evidence demonstrate this arrangement was not adequate for continuity of care:

- By 2019, the PRC network's total service user base was approximately 90% existing service users across all agencies, with repairs outpacing new device production by more than 2:1
- The 1,480 service users registered through HBRUs in the first two years of operation were entirely new to the network (no one was drawn from an existing PRC caseload).

This demonstrates a large, chronically underserved population requiring P&O care. The HBRU model has begun to close this service delivery gap by positioning specialist P&O care inside hospitals. As set out in Section 3.2, 84.6% of all screened service users across the four HBRU sites were referred by doctors or hospital staff rather than self-presenting or being reached through community outreach. At NPH, that figure is 96.8%. This is the most significant system-level finding in the service delivery data: clinicians are now identifying rehabilitation need and acting on it as part of routine patient management. **Rehabilitation has shifted, in practice if not yet fully in policy, from an optional and unknown external service to a recognised component of clinical care.**

This shift generates system effects beyond the individual service user. When rehabilitation professionals are present in hospital wards and outpatient departments, they inform discharge decisions, contribute to treatment planning, and help ensure that assistive devices are prescribed appropriately rather than provided generically or withheld entirely.

The strength of integration is not yet uniform across sites. Variation in referral volumes correlates closely with the depth of engagement from hospital leadership, the awareness of clinical staff, and the development of clear referral protocols at each site. NPH, where integration is deepest, reflects a multi-year relationship and sustained clinical engagement. Preah Ang Duong, a newer site, illustrates how referral pathways require active cultivation over time rather than simply being activated at the point of HBRU establishment. Sustaining and deepening integration at all sites will require continued investment in clinical engagement, training, and the formalisation of referral protocols within hospital governance structures. Physical presence is a key condition for integration, but it is not the only one.

Figure 17: Exceed staff providing training to Ang Doung Hospital Staff

Finally, it is important to note that Exceed did not run any public awareness campaigns about HBRU services. Demand has come entirely through clinical referrals, case collaboration, and word of mouth. This allows the strength of clinical integration to be assessed in isolation, without the confounding effect of demand-generation activity.

Case Study: Mrs. Nhem Pheang, Kratie Provincial Referral Hospital

Diagnosed with diabetes in 2018 at age 31, Mrs. Nhem Pheang developed a severe foot infection by 2023 that required transfer from Kratie Provincial Referral Hospital to a specialist facility in Phnom Penh. Following treatment, she was left with a fixed plantar flexion contracture, knee hyperextension, a skin graft across her ankle and foot, and loss of sensation in the affected area, a combination of impairments that left her unable to walk normally and at significant ongoing risk of further skin breakdown and injury.

Mrs. Nhem Pheang had no prior awareness of prosthetic and orthotic services. It was the referring doctor at Kratie Provincial Referral Hospital who identified her need and directed her to the HBRU clinic. This is precisely the access pathway the HBRU model is designed to create: clinical identification at the point of care, by a treating physician, for a patient who would not otherwise have known such services existed.

Following a multidisciplinary assessment, the clinical team prescribed a rigid ankle-foot orthosis lined with EVA foam to accommodate the contracture, distribute weight along the foot, and protect the insensate skin from injury. Within two weeks of assessment, the device had been fabricated, fitted, and adjusted. Mrs. Nhem Pheang left the clinic walking

with equal weight distribution, a functional outcome that had not been achievable without the orthosis.

At follow-up, she reported walking more easily and continuing her daily activities without difficulty.

3.2.2 Contribution to Policy Development and Implementation

Historically, efforts to reform rehabilitation's position within the health system have a mixed record of success. Since at least 2012, development partners sought to build continuity of care linkages between clinical and rehabilitation services and to advance system-level coordination, but progress was constrained by the institutional separation of rehabilitation from the health system. Rehabilitation sat under MoSVY, hospitals sat under MoH, and no meaningful institutional mechanism existed to bridge the two.

Council of Ministers' Directive 1218 (2024), established a workable resolution: MoH assumes responsibility for medical rehabilitation within the health system, while MoSVY retains responsibility for social rehabilitation through PRCs. This policy shift is significant, and the HBRU service delivery model makes it implementable. Without an operational example of what medical rehabilitation within a hospital looks like, Directive 1218 would remain a commitment without a vehicle. The four active HBRUs and the service delivery data they generate have provided the practical evidence base needed to define, plan, scale, and finance this function.

The broader policy environment has shifted correspondingly. Rehabilitation now appears explicitly in the Health Strategic Plan (2025-2034), the UHC Roadmap (2024-2035), the Health Workforce Development Plan (2025-2034), the National Social Protection Policy Framework (2024-2035), the Primary Health Care Booster Implementation Framework (2023), and is being operationalised through the Complementary Package of Activities (CPA) and Minimum Package of Activities (MPA). These alignments reflect a sustained policy engagement effort, anchored by operational evidence generated through the HBRU network.

The most immediate policy application is the design of a rehabilitation benefits package under the guidance of the General Secretariat of the National Social Protection Council (GS-NSPC). Technical work is underway to define what an eligible rehabilitation service looks like, including service definitions and clinical scope, how services are costed, which providers are accredited to deliver them, and how claims, coding, and verification processes will function. The HBRU network's data on case mix, user profiles, and financing patterns, detailed in Section 3.2, is primary evidence base for this work. The translation of these policy commitments into functional reimbursement mechanisms is a core challenge examined in Chapter 4.

3.2.3 Partnerships and Coordination

The HBRU model's system-level impact is inseparable from the partnerships that sustain it. At the facility level, each HBRU operates through a formal service level agreement (SLA) with a hospital, embedding Exceed's rehabilitation professionals within MoH-managed infrastructure. These agreements represent meaningful institutional commitment: hospital directors are allocating space, clinical relationships, and referral processes to a model under

their governance. The fact that four hospitals have entered such agreements, with additional sites in the pipeline, reflects growing confidence among MoH's hospital leadership in the model's clinical value.

The Kratie experience offers the clearest illustration of what genuine government ownership of rehabilitation can produce. When a gap in rehabilitation services emerged in Kratie Province in March 2024, the Provincial Health Department moved quickly, formally requesting that ACCESS 2 establish a hospital-based rehabilitation unit within Kratie Provincial Referral Hospital. By October 2024, the HBRU was operational. Within 18 months it had registered 461 service users, a figure already exceeding projections for the previously existing rehabilitation services in the area. This reflects what is possible when counterparts are invested in the outcome and when rehabilitation is embedded within hospital governance rather than alongside it.

A specific acknowledgement should be made to the management of National Paediatric Hospital (NPH), who worked closely with Exceed to pioneer the first hospital-based rehabilitation unit. Their willingness to allocate space, support clinical integration, and champion rehabilitation within hospital workflows was critical to demonstrating the model's feasibility. The depth of integration observed at NPH reflects this leadership and has set a practical benchmark for other hospitals.

Concurrently, the rehabilitation sector's partnership landscape has evolved. ACCESS 2 and Exceed recently began collaborating with GIZ's ISPH II programme, co-funded by Australia and Germany, on health financing. Synergies are being made the Korea Foundation for International Healthcare (KOFIH), which is strengthening rehabilitation in health through the establishment of dedicated rehabilitation units at Khmer Soviet Hospital in Phnom Penh and Battambang Hospital. ACCESS 2 also regularly advocates for the alignment of the ATscale program and its implementing partners HI and the Clinton Health Access Initiative (CHAI). Most recently, engagement with the Asian Development Bank (ADB) on data and referral systems for rehabilitation has expanded the network of active partners further.

Coordination is not always seamless, and priorities do not always align but it represents a meaningful shift from the siloed approaches that characterised the sector for much of the past two decades, when rehabilitation was a single-Ministry concern. The current convergence of multiple development partners around the HEF and NSSF financing question creates a genuine reform window.

Despite the progress made through these partnerships, the need for targeted needs-based inter-ministerial collaboration remains. HBRUs and PRCs serve genuinely different populations: HBRUs generate new access for service users with NCD, trauma, and developmental conditions presenting through hospital clinical pathways, while PRCs continue to serve an existing service user base with a higher proportion of conflict and mine-related amputation cases requiring ongoing device maintenance. These are complementary functions, and the sector's challenge is to sustain both while reforming the financing architecture to support each appropriately.

Case Study: Service User from Ratanakiri Province

A 16-year-old boy from an indigenous community in Ratanakiri Province living with congenital femoral deficiency, a condition in which the femur fails to develop fully, resulting in a significantly shortened limb, had never been assessed for prosthetic or orthotic support and had no knowledge that services existed.

He was identified not through a clinical referral but through chance: an Exceed clinician accompanying an ACCESS 2 partner event in Ratanakiri recognised his condition and, after speaking with him and his father, explained what the P&O unit in Kratie could offer. Coordination between Exceed, CARE, and sub-national authorities under the ACCESS 2 program arranged transport, accommodation, casting, and fitting for him and eight other people from Ratanakiri. Exceed clinical staff worked across weekends so that the children could attend without missing school. CARE covered travel costs throughout.

His case illustrates what coordinated cross-partner outreach can achieve: a young person with a complex congenital condition, living in a remote community, identified and connected to specialist care through a combination of clinical awareness, inter-agency cooperation, and practical problem-solving.

3.2.4 Exceed's Rehabilitation Ecosystem Approach

The HBRU network's impact cannot be assessed in isolation. Each unit is the visible surface of a broader operational ecosystem that Exceed has built over thirty-five years: a workforce pipeline and training capability, supply and distribution infrastructure, a quality management system, a research and knowledge network, and local leadership. The coherence of this ecosystem is what makes the HBRU model scalable and what distinguishes it from standalone service delivery. In this report, the clinical tier is the most visible: 1,480 service users registered across four sites in two years, with a growth trajectory detailed in Section 3.2. But this output depends on several supporting factors.

The workforce pipeline is Exceed's most distinctive, and at times most underappreciated, system-level asset. The Cambodian School of Prosthetics and Orthotics (CSPO), which Exceed established over three decades ago, remains Cambodia's only training institution for qualified P&O professionals, accredited by the International Society of Prosthetics and Orthotics (ISPO). Historically, fewer graduates have been employed by the PRCs than the school produces. Exceed's ability to employ CSPO graduates into HBRU positions is therefore both a service delivery necessity and a national workforce function. It also protects decades of public investment in Cambodia's rehabilitation workforce. After financing, workforce is the binding constraint on HBRU expansion, and CSPO is what makes that constraint manageable.

Prior to the establishment of the Central Fabrication Unit, Exceed had already developed a robust supply and distribution capability across Cambodia, built on long-standing partnerships with international suppliers of P&O materials and components. This included

procurement systems, quality assurance processes, inventory management, and logistics networks capable of supplying multiple service delivery sites reliably. It was this existing technical and operational expertise that enabled the successful establishment of the CFU. Rather than creating a new system from scratch, the CFU formalised and scaled capabilities that were already in place, allowing Exceed to centralise fabrication, standardise quality, and improve efficiency across the HBRU network. The CFU should therefore be understood not as a standalone innovation, but as the evolution of an established supply and distribution system that underpins network expansion.

Exceed's Quality Management System (QMS), currently aligned with ISO 9001:2015, underpins both service quality and system integration. The QMS provides standardised clinical and operational procedures across all service delivery sites, ensuring consistency in assessment, prescription, fabrication, and follow-up care. This is critical not only for maintaining quality as the network scales, but also for enabling interoperability with public health system processes. The QMS is also directly relevant to the design of rehabilitation benefits packages: standardised procedures, documentation, and quality assurance mechanisms are necessary for defining service packages, costing them, and supporting claims and verification processes under HEF and NSSF. This alignment will also assist in the development of Clinical Practice Guidelines (CPGs), further strengthening integration of rehabilitation into national health system protocols. Exceed is currently refreshing its QMS to ensure it remains aligned with current international standards, reinforcing its position as a provider capable of meeting the requirements of a publicly financed and regulated health system.

Exceed's research network provides a further system-level contribution that is less visible but strategically important. Evidence generated through the network on rehabilitation outcomes, financing patterns, and service models informs advocacy, benefits package design, and policy development across the sector. A service model that generates no routine evidence cannot make a credible case for public financing. The HBRU network generates that evidence, and its value will continue to compound as the dataset matures.

Exceed's policy engagement capability is a core part of its system-level contribution. Over multiple decades, Exceed has built trusted relationships with government counterparts at both national and sub-national levels, positioning it as a credible technical partner rather than solely a service provider. This has enabled sustained engagement on sensitive issues such as integrating rehabilitation within the health system and shaping financing mechanisms.

A defining feature of this capability is Exceed Cambodia's local leadership. Exceed Cambodia is fully Cambodian led and operated, reflecting long-term investment in national capacity. This has strengthened trust with government counterparts, improved alignment with national priorities, and enabled more effective navigation of institutional dynamics. The HBRU model and associated policy shifts are not only technical achievements but also the result of this sustained, locally grounded engagement approach.

Taken together, these pillars demonstrate a coherent, system-aligned model for delivering rehabilitation within the health system: integrated service delivery, reliable fabrication and supply capacity, a sustained workforce pipeline, and strong alignment with clinical and health system processes. The ecosystem approach does not, on its own, resolve the financing gap. That is the work of the next phase, and it is the focus of Chapter 4.

3.3 Financial and Economic Impact

3.3.1 Cost Efficient Service Delivery Model

The financial case for the HBRU model begins with its cost structure. Standalone PRCs require dedicated land, buildings, utilities, security, administrative functions, and support staff. This is a fixed overhead base that is insensitive to service volumes and has partly contributed to making PRCs dependent on international donor funding to remain viable. The HBRU model eliminates or minimises several of these costs by operating within existing hospital infrastructure. Space, utilities, patient flow, and basic administrative functions all gain economies of scale by aligning within the hospital system.

This is a structural change in how rehabilitation services are established. A new HBRU can be established at a fraction of the cost of a new PRC, with faster mobilisation, without the need to build a parallel organisational and administrative infrastructure, and with a built-in referral mechanism in the form of the hospital's own clinical staff. The 84.6% doctor referral rate documented in Section 3.2 is not just a clinical integration indicator; it is also an efficiency indicator. Significant volumes of service users are being identified and referred within the hospital system without the added costs of awareness raising or outreach.

The centralised fabrication model compounds this structural advantage. By concentrating device production in a single facility serving all HBRU sites, the network achieves economies of scale and avoids the capital, overheads, and staffing costs of site-level workshops. The result is a network designed to become more financially viable as it scales: the cost of adding new HBRUs remains marginal, ongoing costs are aimed to be covered in a blended finance model (discussed in Section 4.1), and the CFU's efficiency continues to develop as capacity is more fully utilised.

3.3.2 Productivity and the Case for Early Intervention

The economic cost of untreated P&O related impairments in Cambodia is unmeasured but nonetheless remains significant and real. For example, service users who present following surgery for fracture, amputation, or stroke and are discharged without rehabilitation referral face longer recovery periods, higher rates of complications, greater dependency on family caregivers, and reduced prospects of returning to work or education.

In a country where 24.4% of the population aged five and above report some degree of functional difficulty (Cambodia Demographic and Health Survey, 2021-22), and where the WHO Rehabilitation Needs Estimator suggests approximately one in four Cambodians could benefit from rehabilitation services (WHO, 2021), the aggregate productivity cost of an outreach-dependent, access-constrained rehabilitation system is substantial.

The HBRU model addresses this directly through clinical integration. As documented in Section 3.2, most service users are referred by clinicians rather than presenting through community outreach or self-referral. Rehabilitation is being initiated at or shortly after the point of clinical contact, during inpatient care or at outpatient consultation. For a working-age adult following a road traffic injury, earlier access to an appropriate orthosis can determine whether functional recovery is sufficient to return to employment. For a child with cerebral

palsy identified through hospital care, early orthotic intervention can influence developmental trajectory and lifetime educational participation.

While Cambodia-specific quantification of these returns is limited, global evidence provides a strong proxy. ATscale research estimates that timely access to assistive technology can increase a child's lifetime earnings by up to USD 100,000. The same research finds a USD 9 economic return for every USD 1 invested in assistive technology, generated through increased workforce participation, reduced healthcare costs, and greater social and economic participation. These returns depend on services being delivered at the right time, to the right service users, with appropriate clinical support. The HBRU model's integration into hospital clinical pathways is what makes early, appropriate intervention possible at scale.

Early Intervention Example: Trauma (Amputation)

Without P&O Integrated in Clinical Services	A service user is involved in a road traffic accident undergoes amputation and is discharged without referral to P&O services. The service user spends an extended period without appropriate mobility support, leading to preventable secondary complications, both medical and psychosocial. Functional recovery, including return to work or education, is delayed. This results in prolonged income loss, increased care burden on the household, and higher long-term costs to social protection schemes, with broader productivity losses across the economy.
P&O Integrated in Clinical Services	The service user is identified early during their hospital stay, receives physiotherapy, and is referred to P&O services. This supports faster recovery, fewer complications, earlier return to work and a reduction to care giving burden at the household level. At a system level, reliance on social protection schemes is reduced, while increased workforce participation drives productivity gains and strengthens overall economic output. Earlier intervention and coordinated care also reduce hospital waiting times and avoid repeat visits, freeing up hospital resources and improving overall system efficiency.

Case Study: Mr. Hen Ron, Kratie Provincial Referral Hospital

Mr. Hen Ron is a 46-year-old farmer from Kratie Province and the primary income earner for his wife and four children. In July 2022, a road traffic accident resulted in a knee disarticulation at Kratie Referral Hospital. Unable to work on crutches and dependent on others for everyday tasks, the injury threatened not only his mobility but his household's livelihood.

Following referral to the Kratie P&O clinic, Mr. Hen Ron was assessed and fitted with a knee disarticulation prosthesis designed to meet the physical demands of agricultural work. After two days of supervised gait training, he was walking with

confidence and balance. He was provided with guidance on daily device use, maintenance, and when to seek follow-up care.

Mr. Hen Ron's case illustrates the economic dimension of accessible rehabilitation. For working adults in physically demanding occupations, the gap between injury and functional recovery is not only a clinical question: it is the difference between household income and dependence. Timely access to appropriate prosthetic care, close to home, compressed that gap from an open-ended period of crutch-dependent limitation to a defined clinical pathway with a functional outcome.

3.3.3 Cost Transparency and the Prerequisites for Public Financing

One of the most persistent structural barriers to integrating rehabilitation into Cambodia's public financing mechanisms has been the absence of credible, standardised cost data. Donor-funded service delivery models, including PRCs, typically operate without consistent costing frameworks, making it difficult to define service packages, establish reimbursement rates, or assess efficiency. Without this data, HEF and NSSF simply cannot include rehabilitation as there would be nothing to accurately and transparently price and no basis on which to set a claims assessment process.

The HBRU model generates this data routinely. Service volumes, device types, staffing ratios, financing categories, and cost recovery revenue are recorded at each site and aggregated across the network. The data presented in Section 3.2, covering 1,480 registered service users, 2,263 assistive devices, and USD 44,422 in user fee revenue over 24 months, represents exactly the kind of empirical foundation that benefits package design requires. GS-NSPC's current technical work on a benefits package for rehabilitation can draw directly on this data.

3.3.4 Burden Sharing Through Cost Recovery (User Fees)

User fee-based cost recovery has been operationalised at NPH and Central Hospital during the reporting period. Across these two sites, 118 service users paid user fees, generating USD 44,422 in revenue over 24 months, an average of approximately USD 1,851 per month. This represents 8.0% of all registered service users across the network.

This demonstrates proof of concept: willingness to pay exists within the HBRU service user population, fee collection can be operationalised within public hospital financial systems, and revenue can be generated and accounted for within existing regulatory frameworks. This is not new for Cambodia's health system, as public health facilities have had the authority to levy user fees since the 1996 Health Financing Charter. What the HBRU model adds is a structured, transparent framework for applying this authority to rehabilitation services within the hospital context, creating a burden sharing architecture that government financing mechanisms can interface with directly.

The results also confirm that cost recovery, at this scale, remains a burden sharing mechanism and not a complete solution to the financing gap. Eight percent fee-paying users generating approximately USD 2,115 per month does not constitute financial sustainability on its own but is also not insignificant. The user fee (cost recovery) mechanism is discussed further in Section 4.2.

The financing profile data from Section 3.2 frames the longer-term picture clearly. At Kratie, 43.8% of registered service users hold IDPoor cards and are eligible for HEF reimbursement. At Preah Ang Duong, 64.4% hold NSSF membership. Even with these mechanisms operationalised, a share of service users will fall outside current eligibility criteria, as the 'Other / Unknown' category in the site-level financing tables illustrates. This residual gap is the clearest evidence that development partner support will remain necessary alongside public financing for the short to medium term. The model's goal is not to eliminate this gap overnight, but to progressively reduce it as HEF and NSSF come online. Once established in Cambodia's UHC architecture, rehabilitation services will progressively benefit from the systematic UHC coverage expansion efforts, making them part of a wider journey rather than a standalone donor project.

3.3.5 The Economic Case for Sustained Investment

The economic argument for continued and expanded investment in the HBRU model rests on five compounding factors.

The first is the **return on assistive technology investment**. For every dollar invested, approximately nine dollars are generated in economic benefit through increased workforce participation, reduced healthcare costs, and improved social participation (ATscale, 2022).[3] For prosthetics specifically, adequate provision globally is estimated to generate USD 1.8 trillion in economic benefit. These figures reflect the aggregate effect of enabling people with impairments to participate in economic and community life rather than remaining dependent on careers and/or social protection.

The second is the **cost of inaction**. WHO estimates approx. one in four Cambodians could benefit from rehabilitation services, against a sector that reaches a small fraction of this population. The PRC network, which has historically served the bulk of demand, is facing increasing operational and funding constraints, including ICRC's conclusion of their rehabilitation program at the end of 2027 and the conclusion of HI's program in 2030. Without a scaled, sustainable alternative, the economic costs of untreated impairment will continue to grow. There are also losses from losing trained workforce with a lack of

[3] *Estimated economic benefit for Cambodia calculated by applying the ATscale (2022) ratio of USD 9 return per USD 1 invested in assistive technology, based on the total value of devices delivered through the HBRU network (April 2024 to March 2026), excluding Kampong Som. Device costs only (clinical staffing and broader rehabilitation inputs are excluded). The ATscale ratio is derived from global evidence and should be understood as indicative rather than a precise projection for the Cambodian context.

employment opportunities making Cambodian P&O go abroad for employment. Human capital investment intended for Cambodia is now benefiting other countries.

The third is the importance of **capturing remaining international development assistance**. The recent global contraction in international development assistance will make it harder for Cambodia to compete, particularly as it nears LDC graduation. Modest domestic investment now signals commitment and sustainability that makes continued international investment attractive.

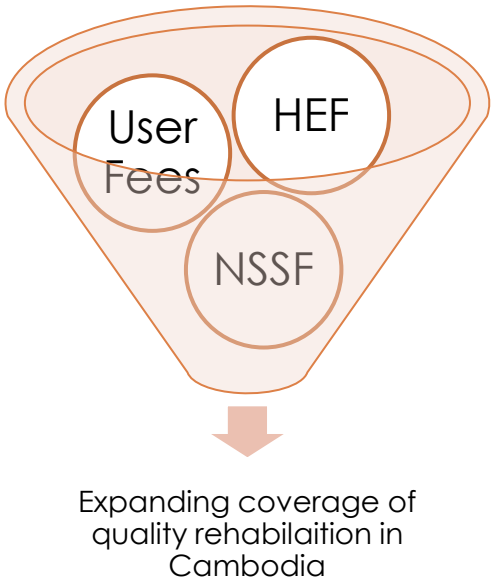
The fourth is the i**nvestment efficiency of the HBRU model**. With 1,480 new service users registered across four sites in two years at a structurally lower cost than standalone alternatives, and with a pipeline of additional sites ready to come online, the model is positioned to scale cost-effectively. Ensuring system sustainability is not just about mobilising domestic financing but also reducing costs and establishing burden sharing mechanisms.

The fifth is the l**everage effect of public financing**. Each dollar of development partner funding that helps operationalise HEF or NSSF coverage for rehabilitation creates a multiplier: once rehabilitation is in the benefits package, government and contributory funding take over a sizeable portion of recurring cost, freeing donor resources for the next stage of expansion. The same applies to the absorption of contracted services into fully hospital-managed services, discussed further in Section 4.3.

Chapter 4: Financial Sustainability

4.1 Proposed Cross-subsidisation Approach

No single financing stream can sustain the HBRU model on its own. HEF reimbursement rates will be shaped by fiscal space and are unlikely to cover full costs in the near term. NSSF coverage is expanding but remains concentrated in the formal sector. User fees generate supplementary rather than primary revenue. International development assistance is finite by design. The model's financial sustainability depends on combining these streams in a way that covers the full cost of service delivery across a mixed service user population.



The proposed approach maps four financing streams to the service user groups they are best placed to serve and uses revenue from higher-margin streams to offset costs in lower-margin ones.

HEF reimbursement is the primary financing mechanism for IDPoor card holders. As the benefits package is operationalised, HEF is expected to become the dominant financing source for the majority of HBRU service users currently receiving free services under ACCESS 2.

NSSF reimbursement provides coverage for formal-sector workers. NSSF members are currently served at no charge under the ACCESS 2 grant, pending conclusion of pricing negotiations with NSSF. Once ACCESS 2 funding concludes in February 2027, free service delivery for NSSF members will not continue as NSSF reimbursement will be the expected mechanism for covering their care. Once pricing negotiations are concluded and coverage is activated, NSSF will provide a predictable, case-based revenue stream for this service user category.

User fees provide supplementary revenue from service users who voluntarily elect to access higher-end devices. As described in section 4.2, this stream currently generates modest revenue. Its value lies as much in cross-subsidising free services and generating cost and demand evidence for the benefits package design as in immediate revenue.

International development assistance, primarily through ACCESS 2, currently finances the gap between all other streams and actual service delivery costs. As described in section 4.5, ODA's role should progressively shift from financing services directly toward financing the system-building that allows other streams to take over.

One constraint that honest planning must acknowledge is the residual financing gap. Case-based reimbursement through HEF and NSSF will not cover all fixed system costs, including workforce development and quality assurance. These require a separate financing answer, whether through government budget allocations or continued targeted international development assistance. The benefits package design process needs to surface this gap explicitly rather than assuming it resolves itself when HEF and NSSF coverage is secured.

The cross-subsidisation model is not novel in Cambodia's health sector. MoH has consistently encouraged blended public-private financing across other health areas. What the HBRU model adds is a structured, transparent framework for applying that principle to P&O services within a public hospital setting, with equitable access protections built in from the outset.

4.2 User Fees (Cost Recovery) Process

User fees collected from service users with the capacity to pay are a supporting component of the HBRU model's cross-subsidisation approach. Since the late 1990s the Ministry of Health has encouraged public hospitals to levy fees to sustain and develop services. Therefore, the HBRU model does not introduce a novel financing concept but aligns P&O services with Cambodia's existing health financing architecture.

The mechanism is transitional and complementary, designed to generate supplementary revenue while HEF and NSSF coverage is still being developed, while maintaining free access for service users who cannot pay. Importantly, user fee revenue alone is not sufficient to sustain the HBRU network. Its primary value lies in supporting cross-subsidisation in the short term, while generating real-world data on service demand, pricing, and service user segmentation that directly informs the development of HEF and NSSF financing pathways.

There is a sound legal basis for this mechanism. Cambodia's 1996 Health Financing Charter established the right of public health facilities to levy user fees, with protections for the poor. Joint Prakas No. 657 explicitly authorises health service facilities at hospital level to organise and charge fees. Exceed operates within this framework under its MoU with MoH, which specifically mandates Exceed to help develop cross-subsidisation models and health care financing mechanisms within the agenda of Universal Health Coverage. Service Level Agreements with each participating hospital formalise site-level arrangements. Independent legal advice obtained by Exceed confirms that the mechanism is compliant with Cambodia's financial and health sector requirements, provided Exceed continues to operate within its humanitarian purpose, its agreements with government and hospital partners, and its applicable tax and reporting obligations.

During the reporting period (April 2024 to March 2026) the user fee mechanism was only operational in the National Paediatric Hospital (NPH) and Central Hospital. However, following learnings from its implementation, it is intended to be scaled across the full HBRU network.

It is important to note, the user fee model (as it currently operates) is 100% voluntary and is for any service user who wishes to access high end devices.

The collection of user fees involves a six-step mechanism covering service user categorisation and screening; cost calculation; payment and invoicing; reinvestment; audit, assurance, and governance; and risk management and equitable access (see right figure).

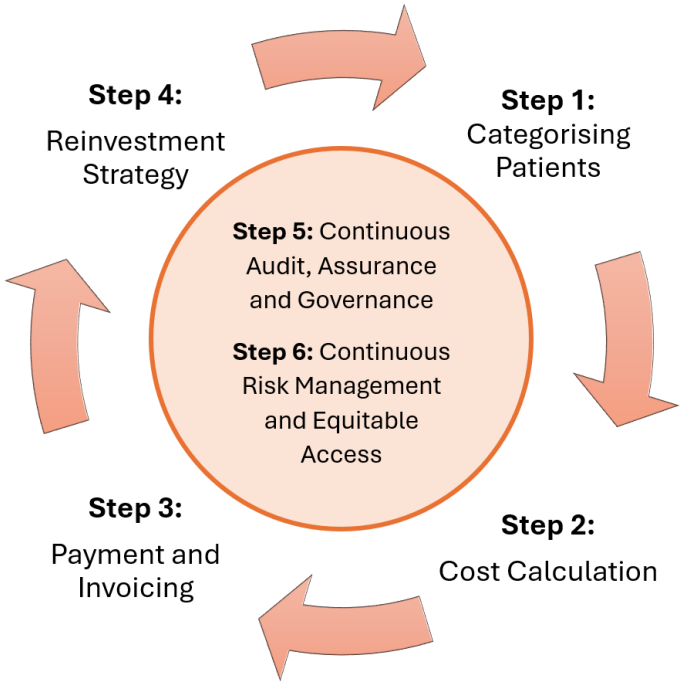


Figure 18: Summary of Exceed's cost recovery mechanism steps.

4.2.1 Service User Screening (Categorising Service Users)

All service user screening is conducted in line with MoH and hospital screening procedures.

As user fees are currently 100% voluntary, there has not been a requirement to make final determinations on who pays and who receives free services. If this were required, this would be conducted under MoH guidelines and based on means testing of the service user's financial circumstances. As this is currently not required, a means testing procedure is not in place. The development of such a procedure would need to be done in consultation with the MoH and incorporated as part of the benefits package design process.

Currently, the HBRU's screening produces three service user categories:

1. Those eligible for free services, either because they hold an IDPoor card, have a letter from local authorities attesting to low income, or are assessed by hospital staff as unable to pay.
2. Those who hold NSSF membership.
3. Those who can pay and elect to self-finance, including those seeking higher-end device options.

Service users in the first category receive services free of charge using locally sourced components, primarily from the OCF, with costs currently financed by the ACCESS 2 program. It is envisioned HEF could progressively assume this role.

Service users in the second category (those who hold NSSF membership) receive services free of charge using locally sourced components, primarily from the OCF, with costs currently financed by the ACCESS 2 program. This is because HBRUs currently do not have

NSSF coverage. Should NSSF coverage be introduced, NSSF members would be provided high end devices (as requested by NSSF).

Service users in the third category proceed through the user fee pathway, either through the hospital billing system or directly through Exceed, depending on the site arrangement (agreed through the Service Level Agreement).

The three-category structure provides a clear future framework for device selection: locally sourced devices for service users unable to pay, and a range of options including imported components for those with capacity to contribute (including NSSF members).

4. Trans Tibial Prosthesis

	Components and Materials	Photo	Company	Exceed Price
1	Negative Cast			$ 25.00
2	Positive Mold			$ 25.00
3	Plastic Socket			$ 125.00
4	EVA liner	EVA		$ 37.50
6	Socket Adaptor		Regal	$ 30.00
7	Below Knee Tube		Regal	$ 26.25
8	Pyramid SACH Foot Adaptor		Regal	$ 21.25
9	Prosthetics Foot		Regal	$ 32.50
10	Cosmesis Coverage		Local	$ 100.00
11	Cotton Sock Stockinette (25cmx 2meters)		Regal	$ 12.50
12	Bank Charge + Shipping + Taxation + Transportation			$ 200.00
13	Labour fees	PO= 10 hrs	POT=5 hrs	
		$ 150.00	$ 50.00	$ 200.00
			Total Price	835.00
			Total Price + Overhead Cost 15%	960.25

Figure 19: Example pricing structure for high-end trans tibial (below the knee) prosthesis.

Importantly, service user choice is preserved throughout. This includes those assessed as able to pay who may still opt for lower-cost local devices.

4.2.2 Pricing Structures (Cost Calculation)

Exceed's pricing methodology is transparent, standardised, and built from the actual cost structure of each device.

In line with the Health Financing Charter, a copy of the pricelist is shared with hospital management and provided to fee paying service users.

This matters because it is defensible to service users, hospital management, and financing partners, and it creates a pricing basis compatible with future reimbursement negotiations.

For service users receiving free of charge services, no charge applies.

For fee-paying service users, pricing is built from the following components:

- A markup on imported high-end components.
- Standard labour rates
- A flat charge for devices using imported components, covering international bank charges, shipping, taxation, and transport.
- An overhead charge applied to the subtotal, covering utilities, rent, and administrative costs.

Staff salaries are the same for both free and fee-paying services and Exceed staff do not receive bonuses or commissions linked to high-end services. Exceed has developed a comprehensive price list covering both standard and modern device pathways.

4.2.3 Financial Management (Including Payment and Invoicing)

The financial management architecture for user fees is deliberately robust, and this robustness matters beyond internal compliance. This level of financial discipline is critical for building trust with government and financing partners, particularly as discussions on HEF and NSSF reimbursement progress.

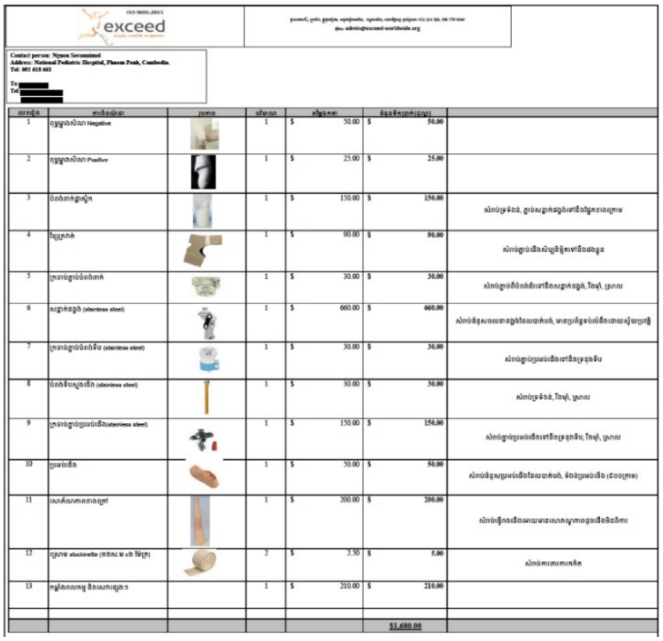


Figure 20: Example Exceed invoice to a fee-paying service user.

Where service users pay Exceed directly (currently at NPH HBRU), payments are recorded in QuickBooks (accounting software) and deposited into a dedicated ABA account used exclusively for user fee revenue. Cash payments are not accepted with all payments made by bank transfer or QR code.

Where service users pay through hospitals (currently at Central Hospital and Preah Ang Doung), Exceed invoices the hospital monthly at its base price and the hospital adds its own margin before collecting from the service user.

Monthly bank reconciliations are performed by finance staff and reviewed by senior management, with segregation of duties between clinicians issuing invoices and finance staff managing reconciliation. Exceed's Chief Financial Officer reviews all reconciliation statements quarterly, and quarterly revenue and expenditure reporting is shared with both hospital management and ACCESS 2.

The audit framework is layered: user fee revenue and expenditure are subject to Exceed's statutory annual audit, ACCESS 2-specific independent audit requirements, and six-monthly internal audits. These audits also ensure Exceed's continued tax registration and annual submission of audited financial reports through Cambodia's ACAR system by 15 March each year.

4.2.4 Reinvestment Mechanism

Revenue generated through user fees is reinvested according to a cascading set of priorities, subject to quarterly review and partner scrutiny. The priorities follow a defined sequence:

- First, reimbursement to hospitals for agreed overheads such as rent or utilities, as established in the relevant Service Level Agreement.
- Second, replenishment of component stock used for fee-paying service users to keep the mechanism operationally viable.

- Third, support to Exceed's ACCESS 2 activities in Cambodia, with emphasis on activities that advance service user equity and long-term sustainability, including the CFU, new HBRU sites, staff training, and supply procurement.
- Fourth, where immediate reinvestment would not represent value for money, retention of funds as a reserve against financial shocks or HEF/NSSF funding delays.

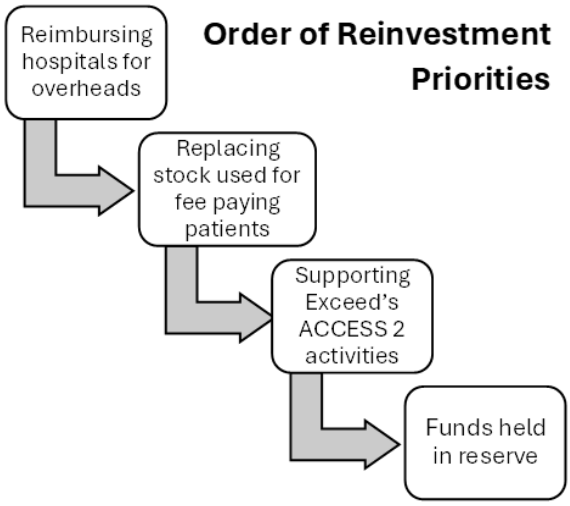


Figure 21: Exceed's user fee (cost recovery) mechanism re-investment priorities

Responsibility for reinvestment decisions lies with Exceed, but decisions must be justified against the agreed priorities and principles, including equitable access, sustainability, compliance, transparency, and value for money.

Independent legal advice confirms this reinvestment approach is consistent with Exceed's obligations under its MoU with MoH, which requires Exceed to help develop cross-subsidisation models and support accessibility and availability of choice. In this way, reinvestment supports not only immediate service delivery but also the strengthening of provider readiness for integration into future public financing mechanisms.

4.2.5 Current Performance

The user fee mechanism has moved beyond proof of concept and demonstrated operational feasibility, although is not active across all HBRU sites. The mechanism is currently active at the NPH, where Exceed collects fees directly, and at Central Hospital, which operates as a private fee-paying hospital under a distinct service arrangement. Preah Ang Doung Hospital commenced user fee collection in March 2026 only.

Between April 2024 and March 2026, a total of 118 service users were financed through user fees across active sites: 79 at NPH, 38 at Central Hospital, and 1 at Preah Ang Doung. Total user fee revenue over this period was approximately USD 44,400: USD 23,800 at NPH, USD 18,900 at Central Hospital, and USD 1,700 at Preah Ang Doung. Revenue is uneven month to month, reflecting both the small numbers of fee-paying service users and the high unit value of individual P&O devices.

These figures are best read alongside the value of services provided free of charge. Over the same period, the tracked value of free devices across NPH, Kratie, and Preah Ang Doung HBRUs exceeded USD 147,000. Taken together, these figures confirm that user fees remain a small contributor to overall financing, with only 8% of service users electing to pay for high end services. This reinforces the role of user fees as a supplementary rather than primary funding source. The exercise has also demonstrated the value of systematically tracking free service costs, which will be essential for evidencing demand and cost to HEF as the benefits package is developed.

4.2.6 Key Constraints

The primary limitation of the user fee mechanism is that it cannot generate sufficient revenue at scale. Fees are active at a subset of sites, and even where active, revenue depends on a small number of fee-paying service users, making it sensitive to fluctuations in demand.

A second constraint is variation across hospital arrangements. The direct payment model at NPH, the hospital-mediated model at Central Hospital and Preah Ang Doung, and the still-developing arrangements at other HBRUs each involve slightly different processes, revenue-sharing expectations, and administrative requirements. This flexibility has enabled rollout but reduces standardisation and makes consistent scaling harder.

A final constraint is ongoing regulatory compliance. Independent legal advice confirms the mechanism is compliant as currently structured, but the key risks now lie in ongoing compliance obligations including tax reporting, annual submission of audited financial reports through ACAR, and continued demonstration that income-generating activity supports a humanitarian and non-profit purpose.

Notwithstanding these constraints, the user fee mechanism represents a meaningful step toward financial sustainability. It has demonstrated operational viability in a hospital-based P&O setting, established the financial management and governance foundations required for public financing arrangements, and produced early evidence on pricing, service user segmentation, and service demand that will directly inform the benefits package design process. As HEF and NSSF pathways are progressively activated, user fees will transition from a bridging mechanism to a stable supplementary revenue stream within a broader, publicly anchored financing model.

4.2.7 Balancing Sustainability with Equitable Access

Providing quality services to people who cannot afford to pay is not a secondary objective of the HBRU model. It is the primary one. Exceed's 35-year track record in Cambodia is built on that commitment, and the user fee mechanism has been designed explicitly to protect it rather than erode it.

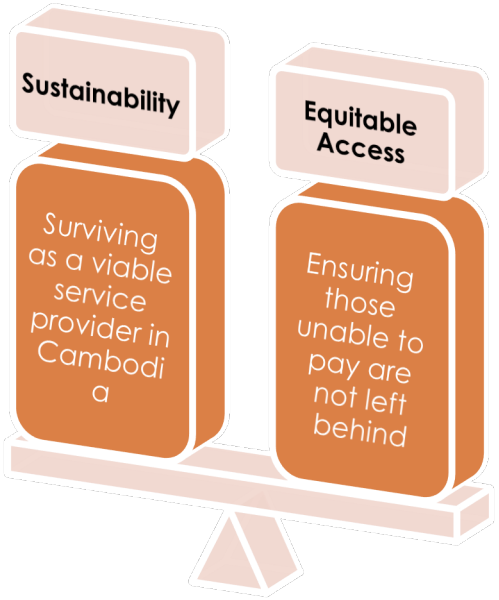
The starting point is that free services have been unsustainably dependent on international donor financing. The ACCESS 2 grant currently covers the cost of free services across the HBRU network, but this cannot continue indefinitely. ICRC has announced the conclusion of its physical rehabilitation program in Cambodia in February 2027. Other development partners are also drawing down. In that context, the sustainability of free services depends on finding a financing model that does not collapse when donor funding ends.

The user fee mechanism addresses this in two ways:

- First, it generates supplementary revenue that is reinvested to support service delivery, including for service users who cannot pay, through the cross-subsidisation approach described in section 4.1
- Second, and more importantly over the longer term, it creates the financial management systems, pricing evidence, and demand data that are prerequisites for accessing HEF and NSSF reimbursement. HEF remains the most credible long-term mechanism for ensuring equitable access to rehabilitation services for poor and

vulnerable populations. The user fee mechanism is not a substitute for HEF but a bridge toward it

The safeguards built into the mechanism reflect this. Means testing and service user categorisation remain under MoH guidelines, not Exceed's. Reinvestment priorities place hospital overheads and stock replenishment before any other use of funds. Staff do not receive incentives linked to high-end services. And the commitment to provide free services to those deemed unable to pay is unconditional: where Exceed has the funds to do so, free services will always be provided.



The balance between sustainability and equity requires continuous attention as service user volumes, financing pathways, and the policy environment evolve. Quarterly review of the mechanism's reinvestment priorities and equitable access performance is built into the governance arrangements for precisely this reason.

4.3. Prosthetics and Orthotics Benefits Package Design

The development of a rehabilitation benefits package for HEF and/or NSSF is a necessary and important step toward sustainable financing. It is not, however, the financing strategy. The challenge is broader than package design alone. Securing sustainable financing and service continuity will have to be achieved through a combined pathway involving HEF, NSSF, government budget support, and, where necessary, time-bound transitional international donor assistance.

As a starting point, ACCESS 2, with technical input from GIZ, has drafted a roadmap for the design of a benefits package. The draft roadmap outlines the key areas of consideration for service scope, eligibility, costing, contracting, provider readiness, claims processes, and verification requirements.

The focus of this benefits package is prosthetics and orthotics rather than a comprehensive rehabilitation package. This reflects a deliberate sequencing approach:

- P&O services involve distinct technical and operational requirements, including device fabrication, component costing, and multi-step service episodes. These characteristics require specific approaches to pricing, verification, and quality assurance that are not directly transferable to other rehabilitation services. Developing a dedicated package allows these elements to be defined clearly and robustly

- A broader rehabilitation package would also intersect with existing physiotherapy coverage, creating risks of duplication, inconsistent pricing, and unclear entitlements. Maintaining separation at this stage supports policy coherence while the broader rehabilitation financing framework continues to evolve
- Finally, levels of readiness across rehabilitation services are uneven. While P&O service delivery models, costing structures, and provider networks are sufficiently developed to support package design, other areas of rehabilitation are progressing along different timelines. For example, work led by OIC to strengthen hospital-based speech therapy models and the associated evidence base indicates an advanced stage of preparation compared to other services. In contrast, areas such as occupational therapy require further development across service models, costing frameworks, and delivery capacity. Allowing these services to continue progressing at their own pace enables more appropriate design of future packages, rather than forcing premature standardisation

This approach positions P&O as an initial entry point for rehabilitation financing, with scope to expand to additional services as system readiness, evidence, and policy alignment strengthen.

GS-NSPC is well placed to lead this process. ACCESS 2 are engaged in a technical support role, with the shared objective of developing a package that is fiscally realistic, operationally implementable, and consistent with Cambodia's existing social protection architecture.

It is also worth noting GS-NSPC's interest spans both HEF and NSSF. How the two financing mechanisms develop, including on timelines and processes is a matter for GS-NSPC, MoH and NSSF. To help set clarity of scope and strategic direction, this should be an early point of consideration for the benefits package design. Section 4.2.4 further addresses the NSSF dimension.

A key lesson from Cambodia's HIV and TB sustainability planning is instructive for the design of a P&O benefits package. That process demonstrated that benefits package design works best when it is embedded in a broader transition and financing framework, combining service definition, costing, phased domestic financing, integration into national systems, formal governance arrangements, and milestone-based implementation tracking. Rehabilitation requires a similarly structured approach. The benefits package is one component of a broader financing pathway and should not be a standalone technical product.

4.3.1 Draft Roadmap Summary

The draft roadmap for prosthetics and orthotics sets out a comprehensive workplan covering stakeholder mapping, policy and legal foundations, service definitions, beneficiary eligibility, service delivery arrangements, contracting, costing, budgeting, payment, quality assurance, provider readiness, implementation phasing, and documentation and claims processing.

To sharpen the process, a finalised roadmap needs to be explicit about the key decisions that must be made and sequenced. These include:

- Scope of services to be included in the initial P&O package, and the pathway for expansion to other rehabilitation services

- Reimbursement approach, whether fee-for-service per device, bundled payment covering the full-service episode, or case-based rates by device category
- Contracting model, including how the relationship between NGO providers, host hospitals, and financing schemes will be structured
- Financing mix across HEF, NSSF, government budget, and transitional international donor support
- Rollout sequencing, including which facilities are included first and on what timeline

Making these decisions explicit and assigning them to specific points in the process will prevent the roadmap from becoming a technically sound but operationally stalled exercise.

4.3.2 Service Definitions

Clear service definitions are fundamental, as costing, contracting, claims, and verification all depend on them. The roadmap correctly identifies the need to define discrete services such as assessment, device provision, fitting, adjustment, repair, and follow-up.

The key issue is sequencing and grounding. Definitions need to be anchored in the actual hospital-based delivery model, including by addressing the following:

- What is delivered within hospital-based rehabilitation units
- How the central fabrication function interfaces with clinical services
- How referral, follow-up, and continuity of care are managed

Definitions not anchored in actual service delivery risk becoming either too narrow to capture the full-service episode or too broad to be operationally usable.Quality standards are also a core component of service definition and should be addressed explicitly in the package design process. Exceed's current services are delivered under ISO 9001:2015 quality management certification, and all P&O practitioners hold qualifications recognised by the International Society for Prosthetics and Orthotics (ISPO). These standards provide a credible foundation for defining quality requirements under any benefits package. While it is for MoH, GS-NSPC and NPCA to determine the specific quality criteria for contracted providers, establishing clear standards as part of the package design will be important for ensuring consistent service quality, protecting service users, and maintaining the integrity of public financing.

The longitudinal nature of P&O care also presents a specific structural challenge for benefits package design. HEF and NSSF are largely built around episodic care: a service user presents with a condition, receives treatment, and the claim is settled. P&O does not conform to this architecture. A service user who receives a prosthetic or orthotic device will return for adjustment, repair, and replacement, potentially across many years and multiple claims cycles. If the benefits package does not explicitly define eligibility conditions for return visits, including prescribed review intervals, repair entitlements, and replacement criteria by device type and service user category, two predictable failures follow: providers face claims rejection for clinically legitimate return consultations, and service users face out-of-pocket costs the package was designed to eliminate. The design process must treat repeat prescription pathways as a core structural requirement, not an administrative detail to be resolved at implementation. This includes agreeing rules governing follow-up frequency,

repair versus replacement thresholds, and how eligibility is verified across multiple claims cycles for the same service user.

There is also an important distinction to maintain between clinical service components and manufacturing and supply inputs, which require different costing and verification logic. P&O services combine both, which is one reason standard outpatient billing formats may not map cleanly onto this context. However, there are solutions (like transparently building reasonable overheads into device pricing) and internationally recognised costing tools available to resolve this, as discussed in section 4.3.3.

4.3.3 Costing and Pricing Structures

Costing must answer two distinct questions:

- What does it cost to deliver a quality P&O service?
- What is a fiscally realistic reimbursement rate for HEF and/or NSSF to pay?

These are related but not the same and conflating them risks either pricing the package in a way that is fiscally unacceptable to government or setting reimbursement rates that do not cover actual costs. An evidence-based compromise will have to be settled.

A critical distinction must be maintained between fixed system-level costs and variable case-based costs. Fixed costs, including workforce development, supervision, quality assurance, and data systems, are unlikely to be fully covered through a per-episode payment mechanism. Cambodia's HIV and TB sustainability planning addressed this explicitly by combining case-based financing with budget financing for system functions, rather than assuming a single payment mechanism could carry the full model[4]. A P&O benefits package design could follow the same logic.

There is a further structural constraint specific to HEF that affects how device costs can be recovered through reimbursement. Under current HEF rules, a hospital can only charge one service package per patient visit, and revenue from that package is distributed according to a fixed formula: 60% to staff incentives, 39% to the facility revolving fund for supplies, and 1% to tax. This formula applies to both user fees and HEF reimbursements. It works well for consultation-based services where staff time is the dominant cost. For P&O services, where the procurement cost of the device itself can represent most of the total service cost, the formula is structurally inadequate. A reimbursement rate distributed on those terms would leave insufficient funds to cover component procurement, regardless of how the rate is set. Whether the current revenue distribution formula can accommodate device-intensive services is a design question that will require resolution with GS-NSPC and MoH as part of the benefits package process. This is a design question the benefits package process will need to raise directly with GS-NSPC and MoH, and it is one reason cross-subsidisation through the cost recovery mechanism remains important in the near term, even after a benefits package is established.

However, it is worth noting that this constraint applies specifically to public hospital revenue distribution. A contracted non-government provider receiving payment directly from a HEFO

[4] Draft Sustainability and Transition Roadmap for Cambodia's National HIV and TB Programs (Jan 2026). Pharos Global Health Advisors

or NSSF would not be subject to the same distribution requirement, which is one further consideration in favour of exploring direct contracting arrangements as discussed in section 4.3.8.

The recommended costing methodology is a two-stage approach:

- **Unit cost calculation** using the ICRC cost calculation tool. The ICRC tool captures direct labour costs, production costs, administrative costs, and component costs in a structured and auditable format. This produces transparent, defensible unit costs by device category.
- **Financial viability and demand forecasting** using a separate modelling tool. Once unit costs are established, multi-scenario demand modelling is needed to estimate the aggregate fiscal implications of the package under different coverage and utilisation assumptions. This analysis is what allows GS-NSPC and government counterparts to assess affordability, sequence rollout, and plan financing responsibilities across HEF, NSSF, and other sources.

In practice, reimbursement rates will be shaped not only by cost evidence but by fiscal space, comparability with existing benefit packages, and broader social protection priorities. Therefore, the output of costing work should be a transparent cost build-up by service type, a proposed reimbursement rate range, and an explicit identification of the residual financing gap. Importantly, **that gap is not a problem to conceal but rather the basis for the cross-subsidisation discussion that sits alongside the package design**.

4.3.4 Verification Mechanisms

Verification is a core design issue and not an implementation detail to be resolved after the package is approved. For rehabilitation services, it is more complex than verifying a single outpatient consultation. Device provision involves multiple steps, sometimes across multiple visits, and includes assessment, fabrication, fitting, adjustment, follow-up, device repair, and replacement. Each of these represents a distinct point of accountability.

The National Payment Certification Agency (NPCA) will play a central role in verification and should be engaged early in the design process. Key decisions that need to be made are:

- What constitutes a completed and payable rehabilitation service episode
- What documentation is required at each step to support a valid claim
- How verification requirements are calibrated to provider reporting capacity
- How repairs, replacements, and follow-up visits are handled within the payment framework

Integrating verification into contracting and governance design from the outset, rather than treating it as a downstream operational matter, is one of the clearest lessons from comparable benefits package processes in Cambodia.

4.3.5 Claims Processes

Claims processes are likely to become one of the main operational bottlenecks if not carefully designed from the beginning. P&O services do not align neatly with standard outpatient billing formats, because they combine consultation, fabrication, fitting, and follow-up across time, and because the material cost of a device often represents the largest share of the total service cost.

A complication is that current HEF rules allow facilities to charge only one service package per patient visit. For a service episode that involves an outpatient consultation, device fabrication, and fitting, this creates a structural problem as the rules (as currently written) cannot accommodate the multi-component nature of a P&O service episode within a single claims' submission. Addressing this will require either a specifically designed P&O service package that bundles all components into a single claimable episode, or an amendment to HEF rules to allow multiple packages within a single rehabilitation episode. Either approach needs to be resolved early in the design stage, rather than being discovered as an implementation barrier after the package is approved.

If claims processes are not aligned with existing hospital administrative workflows and NPCA requirements, there is a real risk of delayed payments, claim rejection, and reduced provider participation. Therefore, the design principles that should guide claims development are simplicity, alignment with actual service workflows, and feasibility for both providers and purchasers.

Piloting claims processes at a small number of sites before broader implementation is essential. That experience should be used to refine documentation requirements and processing timelines before rollout is scaled nationally.

4.3.6 Demand Forecasting and Financial Viability

Demand forecasting must be integrated into package design from the outset. A package designed based on current utilisation alone will understate future financial requirements. Demand for rehabilitation services is expected to grow with improved access, better referral pathways, and ongoing demographic and epidemiological trends, particularly the rising burden of NCDs and ageing-related conditions.

Cambodia's HIV and TB sustainability planning used scenario-based modelling to estimate financing gaps and guide phased implementation decisions. A similar approach is appropriate here. The package design process will determine the most appropriate modelling but three scenarios worth considering are:

- A baseline scenario reflecting current utilisation at in the HBRU network
- A moderate scale-up scenario reflecting an expansion of HBRU sites and improved referral systems
- A higher-demand scenario accounting for the HBRU network's absorption of service users as the PRC network contracts following donor withdrawal

Initial scenario modelling should be deliberately simple and iterated over time, rather than attempting a fully comprehensive model upfront. The fiscal implications of each scenario, modelled over a three-to-five-year horizon, provide the evidence base for budget

negotiations, phased rollout planning, and decisions about the level of transitional international donor financing required.

Should the decision be taken to include Provincial Rehabilitation Centres under the P&O benefits package, additional cost calculation, provider readiness assessment, and demand forecasting specific to the PRC context would be required. Package design can address this in one of two ways: by building in flexibility for PRCs to be added as a subsequent cohort of providers, or by scoping them into the initial design from the outset. Either approach is viable; what matters is that the question is resolved early enough not to create ambiguity in the contracting and verification architecture.

4.3.7 Provider Readiness

Provider readiness is a key prerequisite for implementation, and system readiness is the relevant frame. Hospitals hosting rehabilitation units, verification institutions, and government counterparts managing claims and payment all need to be operationally prepared. Most importantly, the primary service provider needs adequate systems in place. Package approval without that broader readiness creates policy on paper that is difficult to deliver in practice.

For providers like Exceed, the key readiness requirements for HEF and/or NSSF contracting include electronic financial management and reporting systems, electronic clinical documentation aligned with claims requirements, governance structures, and staffing arrangements. Work is currently underway to update these systems, with the intention of ensuring Exceed is well prepared to be contracted as a provider as the benefits package is finalised.

The same logic applies to any other provider seeking access to HEF and/or NSSF financing. PWDF, which operates the network of PRCs, has expressed interest in accessing these financing mechanisms and faces equivalent readiness requirements. An assessment of PWDF's readiness is currently being undertaken by the ATscale program, examining financial management, service package alignment, claims management capacity, and contracting pathways.

The requirements for any provider seeking to contract under HEF and/or NSSF are consistent regardless of institutional affiliation. These are defined and costed service packages (including quality standards), financial accountability systems, digital clinical documentation aligned with verification requirements, and governance arrangements that support contractual compliance.

4.3.8 Institutional Roles

Institutional clarity is a significant determinant of whether the benefits package successfully moves from design to implementation. The technical quality of the package matters but it will not be sufficient if roles, responsibilities, and decision-making authority are ambiguous.

The draft roadmap correctly identifies the key stakeholders: GS-NSPC, MoH, NPCA, hospitals, and providers. Effective implementation requires formal coordination mechanisms with assigned roles and milestones. This means:

- Defining institutional responsibilities clearly across policy leadership, financing, verification, and service delivery
- Tracking progress against explicit milestones and connecting technical outputs to government budget and policy decision cycles

Clear alignment between health sector leadership and social protection financing authorities will be critical, as fragmentation between these functions has the potential to delay or dilute implementation.

Contracting relationship between NGO providers and HEF / NSSF (Including the 60/39/1 Rule)

One structural question that will require resolution through the design process is the contracting relationship between NGO providers and HEF and NSSF. The two financing mechanisms manage this differently, and that distinction matters for how provider contracting is designed.

Under HEF, payment flows through a structured purchaser-provider separation. Health Equity Fund Operators (HEFOs) function as intermediaries, verifying patient eligibility, processing claims, and channelling reimbursements to contracted facilities. HEF contracts with public hospitals and facilities.GS-NSPC has indicated that direct contracting with non-government providers is not currently available under HEF rules. The practical pathway for Exceed is therefore a sub-contracting arrangement, with the host hospital holding the formal HEF provider contract and Exceed operating as a specialist service provider within that arrangement. This positions Exceed as a contracted supplier to the hospital rather than a direct HEF claimant, which is consistent with the existing SLA architecture.

It is worth noting that sub-contracting through a host hospital would subject HEF reimbursement to the standard 60/39/1 revenue distribution rule that applies to hospital revenue. For P&O services where device component costs are significant, this would likely leave insufficient funds to cover components (after staff incentives and facility allocations have been allocated). This constraint does not apply under direct contracting arrangements with NSSF, which is a further argument for advancing NSSF as a parallel financing track rather than sequentially after HEF.

Direct contracting arrangements, where Exceed receives payment from a HEFO or NSSF without the hospital as intermediary, would avoid this constraint. Both models carry different implications for financial accountability and administrative burden, and the benefits package design process should assess these with this trade-off explicitly in mind.

Under NSSF, the contracting structure is different. NSSF operates as a social health insurance scheme with a direct contractual relationship between the fund and its contracted providers. This means NSSF can pay providers directly without the intermediary role that HEFOs play under HEF. This distinction makes NSSF contracting a more straightforward pathway in the near term, though questions around eligibility, service scope, and rate-setting still need to be addressed. Both pathways warrant exploration in parallel, and the contracting model question is one of the key decisions the design process must resolve early, as it determines the claims, verification, and reporting architecture that follows.

4.3.9 Standard Assistive Devices: Coverage, Eligibility, and Pricing

Standard assistive devices, including crutches, walking frames, and wheelchairs, account for 70.2% of all devices delivered across the HBRU network during the reporting period. This proportion reflects the contemporary rehabilitation caseload such as patients recovering from surgery, trauma, stroke, and other acute presentations frequently require a standard assistive device as part of their clinical management.

This scale has significant implications for benefits package design. Standard assistive devices are prescribed across a wide range of clinical services and patient presentations. It is not practically feasible to embed standard device coverage across multiple condition-specific benefits packages. Therefore, a dedicated coverage position for standard assistive devices is needed.

The current default is out-of-pocket purchase by service users from pharmacies and medical device suppliers. This places a direct financial burden on patients at the point of clinical need and is inconsistent with the equity objectives of both HEF and NSSF. At the same time, extending full coverage through a benefits package carries significant cost implications that MoH and GS-NSPC will need to weigh carefully.

Pricing and provider viability

The market for standard assistive devices in Cambodia is competitive. Wholesalers, particularly those operating in and around Phnom Penh's Olympic Market, can supply devices at prices that reflect procurement at scale without clinical overheads. Device quality across this market varies considerably, and many devices, including wheelchairs, require professional adjustment and fitting by a qualified P&O professional or physiotherapist to be clinically appropriate. A low-cost device dispensed without professional assessment may be unsuitable or unsafe for the service user.

This creates a structural pricing tension. If HEF and NSSF reimbursement rates for standard assistive devices are set at or near market rates, hospital-based providers operating with qualified clinical staff will recover costs below their actual delivery cost. At the scale at which standard devices are dispensed through HBRUs, this would generate consistent losses on the largest single category of device delivery, directly undermining the cross-subsidisation model that makes equitable access financially viable. Reimbursement rates must therefore reflect the full cost of clinically appropriate provision, including professional assessment and fitting, not only the device procurement price.

Eligibility design

Given the cost implications of broad standard AT device coverage, GS-NSPC and MoH will need to establish clear eligibility rules governing which patients receive standard assistive devices through the benefits package and under what conditions. A blanket entitlement, under which any patient presenting to an HBRU receives a funded device regardless of clinical indication or presenting pathway, would expose the package to significant and potentially financially unmanageable volume. Eligibility criteria anchored to clinical referral, confirmed diagnosis, and professional assessment provide a more defensible and cost-controlled approach.

Device return schemes

One mechanism for reducing the per-unit cost burden of standard assistive devices is a structured return scheme, under which service users return devices when they are no longer

clinically required. Crutches, for example, are frequently prescribed for short-term post-operative recovery and are no longer needed once mobility is restored. A return scheme for time-limited devices of this type could enable reuse, reduce procurement costs over time, and extend the effective life of the benefits package budget.

The practical and ethical design of any return scheme requires careful consideration. Enforcement mechanisms, eligibility for retention in cases of ongoing need, and the administrative cost of retrieval and quality assessment all affect whether marginal savings are achievable at scale. A return scheme should be piloted before being built into benefits package costings, to establish whether the savings are material relative to the administrative burden and the risk of pressuring service users to relinquish devices they continue to require.

Linkage to the Essential Medicines List

Inclusion of standard assistive devices on MoH's Essential Medicines List (EML) is a prerequisite for their systematic integration into benefits package coverage. EML listing formalises the status of standard devices as recognised health system inputs, provides the policy basis for procurement standardisation, and enables GS-NSPC and NSSF to reference a defined product list when establishing reimbursement rates and eligibility criteria. Without EML inclusion, standard assistive devices remain outside the formal health system supply architecture, making consistent pricing, quality assurance, and benefits package design significantly more difficult to operationalise. The recommendation to pursue EML inclusion for the full range of prosthetic, orthotic, and standard assistive products is addressed in Section 5.2.

4.3.10 Broader Considerations

The draft P&O benefits package roadmap is technically sound and provides a strong foundation. The main risk is not in the technical content but in the framing: a well-designed package that is not financially viable, not institutionally anchored, and not operationally implementable will not deliver the financing sustainability that is the underlying objective.

Starting with a dedicated P&O package is the right approach. The technical specificity of device provision, the availability of internationally recognised costing tools, and the existing evidence base from HBRU operations make P&O the strongest candidate for an initial package. The institutional learning from this process will inform the design of packages for other rehabilitation services as the system develops.

The lessons from Cambodia's HIV and TB sustainability planning point consistently in the same direction. Package design is most effective when it is embedded in a broader transition framework that combines service definition, costing, phased domestic financing, formal governance, and milestone-based accountability. For rehabilitation, that means treating the current roadmap as the beginning of a financing pathway, with HEF and NSSF as major components, and ensuring that institutional, operational, and fiscal foundations are built alongside the technical package design.

4.4 Rehabilitation under the National Social Security Fund (NSSF)

NSSF is a significant financing pathway for rehabilitation. In terms of coverage, NSSF is currently limited to formal sector workers and their dependants, which, depending on the HBRU site, can represent a smaller share of the rehabilitation population than HEF. Service user data from the HBRU network illustrates this clearly: at Kratie Provincial Hospital, 43.8% of registered service users hold an IDPoor card and 12.1% hold NSSF membership, reflecting a rural population with high HEF eligibility. At Preah Ang Duong Hospital, by contrast, 64.4% hold NSSF membership and only 12.9% hold IDPoor cards, reflecting an urban, formally employed population for whom NSSF is the appropriate mechanism. This makes the data-driven case for inclusion under both schemes: HEF to reach poor and vulnerable households, NSSF to reach formally employed workers, with the right mechanism varying by site and population.

Unlike HEF, which requires more complex HEFO intermediary processes described in section 4.2.3, NSSF operates as a social health insurance scheme with a direct contractual relationship between the fund and its contracted providers. This structural difference makes NSSF potentially a more straightforward near-term pathway for expanding rehabilitation coverage.

It is also worth noting that GS-NSPC's interest spans both HEF and NSSF. How the two financing mechanisms develop, including on timelines and processes, is a matter for GS-NSPC, MoH, and NSSF. To help set clarity of scope and strategic direction, this should be an early point of consideration for the benefits package design process.

NSSF finances rehabilitation services under both its Occupational Risk Scheme, which covers work-related injuries, and its Health Care Scheme, which covers general medical rehabilitation for formal sector workers and their dependants. Coverage to date has included physiotherapy, P&O, vocational training, and home-based care, with contracted services provided through hospitals and, in some cases, through private providers. NSSF has expressed a clear interest in strengthening and expanding its rehabilitation coverage.

Exceed has been engaging directly with NSSF's Department of Medical Rehabilitation. These discussions have confirmed NSSF's interest in expanding rehabilitation coverage, including through public hospital services, a direction consistent with the HBRU model.

NSSF has been in negotiations with Exceed over pricing and is working to further develop costing for rehabilitation, with technical support being sought from development partners. ACCESS 2 and Exceed are well positioned to contribute to and align with that process. This is where ACCESS 2's recent increased collaboration with GIZ's ISPH program will help drive complementary efforts.

Some possible near-term priorities for the NSSF pathway could include:

- Continued direct engagement with NSSF to share service delivery evidence, costing data, and the HBRU model as a basis for expanded coverage

- Ensuring alignment between ACCESS 2's benefits package design work under GS-NSPC and NSSF's own costing and coverage development process, to avoid disconnected processes
- Exploring the contracting pathway for Exceed as a provider under NSSF as a near-term pathway for expanding rehabilitation coverage

Given NSSF's established precedent for rehabilitation financing, its direct contracting model, and its expressed interest in expanding coverage, it represents a concrete and time-sensitive opportunity that warrants structured engagement alongside the benefits package design process.

4.5 Future Role of International Development Assistance

International development assistance has been foundational to Cambodia's rehabilitation sector. Decades of donor investment across a range of partners helped build the physical infrastructure, technical workforce, and service delivery models that the sector depends on today. The HBRU network itself is a product of that investment, demonstrating what is possible when ODA is deployed strategically to evaluate and scale new models rather than simply sustain existing ones.

That era is ending. Donor support to rehabilitation in Cambodia is contracting, and the trajectory will not reverse. ICRC, which has operated the country's largest rehabilitation centres for decades, is concluding its rehabilitation program. Other partners are similarly refocusing or reducing. Rather than being a crisis to be managed, this should be a transition to be designed. The contraction of ODA is the forcing function that makes domestic financing through HEF, NSSF, and government budget the only viable long-term foundation for the sector, and it creates the urgency necessary to move those processes forward.

The question is not whether ODA will decline, but whether the remaining period of donor engagement is used well enough to make that decline survivable. There is a clear and time-bound window in which targeted ODA can do the work that domestic financing cannot yet do on its own.

Two immediate financing priorities are:

- **Technical assistance for benefits package design and provider readiness.** This is where ODA has the highest leverage in the near term. The work of designing a credible P&O benefits package for HEF and/or NSSF and building the supporting system and provider readiness cannot be done by government alone. Sustained and well-coordinated technical support from ACCESS 2, GIZ's ISPH program, and other partners is what makes this process move at the pace required
- **Bridge financing.** Domestic financing through HEF and NSSF will not come online immediately. Benefits package design, provider readiness, and contracting will take time, and there is a real risk of a financing gap between the contraction of donor support and the establishment of domestic revenue streams. Targeted bridge financing, explicitly transitional and tied to milestones in the domestic financing process, can prevent service disruption during that gap

In addition to these immediate financing priorities, four operational sustainability foundations require continued ODA support:

- Policy and Governance
- Supply Chains
- Workforce
- Data Systems

Chapter 5 explores these operational sustainability foundations, which are required alongside the financing pathway described in Chapter 4.

Across all areas, the design principle is the same: ODA should be deployed to build the conditions for its own redundancy. Open-ended donor support, however well-intentioned, delays the institutional ownership and domestic investment that the sector requires. Every dollar spent in this period should be explicitly linked to a milestone in the domestic financing transition.

Chapter 5: Operational Sustainability

Financial sustainability, as described in Chapter 4, also depends on a set of accompanying foundations. A benefits package without qualified professionals to deliver services, a supply chain to provide components, a policy framework to anchor clinical standards, and data systems to process claims is a document, not a functioning system. This chapter covers those enabling foundations across four areas: policy and governance, supply chains, workforce, and data systems.

Operational sustainability efforts only deliver results when they are embedded in government planning and budget cycles, not treated as open-ended development partner activities.

5.1 Policy and Governance

As explored in section 1.4.2 of this report, there is already a strong policy foundation establishing the mandate for rehabilitation as an essential health service. Policy work has now moved to defining the standards against which services are delivered, such as the soon to be released Complementary Package of Activities (CPA), and financed, such as the draft benefits package roadmap.

In addition to standards and financing, policy provides the institutional framework within which workforce, supply chain, and data systems can be organised and sustained.

This section covers the national policy landscape, the CPA, clinical practice guidelines (CPG), referral systems within the health sector, and governance and coordination. Policy relevant to the workforce is covered in section 5.3; policy relevant to procurement and assistive device supply is covered in section 5.2.

5.1.1 Rehabilitation in National Policy and Planning

Cambodia's policy landscape for rehabilitation has strengthened in recent years, including:

- Council of Ministers Directive 1218 (2024) and Sub-decree 238 on the Organisation and Functioning of the Ministry of Health (2025) provide a legal basis for the strengthening of rehabilitation services in the health system
- The Roadmap Towards Universal Health Coverage (2024-2035) and National Social Protection Policy Framework (2024-2035) recognise rehabilitation as an essential health service to be included in expanding social health protection coverage
- MoH's Health Strategic Plan (2025-2034) and Health Workforce Development Plan (2025-2034) identify rehabilitation as a Ministerial priority for scale-up
- The National Healthcare Policy and Strategy for Older People (2016) and Primary Health Care Booster Implementation Framework (2023) have also recognised the need to integrate rehabilitation services
- Standard setting has commenced, with the soon to be released CPA containing a dedicated rehabilitation chapter for the first time (see Section 5.1.2 for details)

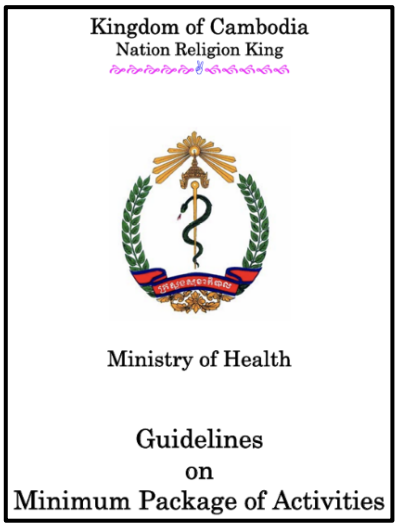
- Additionally, WHO is supporting MoH in drafting a National Strategic Plan on Disability, Rehabilitation and Assistive Technology in Health, with a situation assessment completed and a first draft under development.

Together these frameworks represent a coherent policy environment and reflect the genuine commitment of the Ministry of Health. Translating policy commitments into funded implementation plans remains the substantive task ahead, for which early collaboration has been encouraging.

5.1.2 Complementary Package of Activities (CPA)

The revised Complementary Package of Activities (CPA) formally incorporates a dedicated rehabilitation chapter for the first time. This chapter defines minimum service standards across all levels of referral hospitals:

- CPA 1 hospitals are required to provide basic rehabilitation services focused on early intervention
- CPA 2 hospitals must provide a broader range including more specialised physiotherapy and referral pathways
- CPA 3 and regional hospitals must deliver comprehensive multidisciplinary rehabilitation services and function as referral hubs for complex cases



Finalisation and dissemination of the CPA rehabilitation chapter should be an immediate priority, including developing the implementation guidance, staff awareness materials, and monitoring arrangements that give it operational traction.

During the next Minimum Package of Activities (MPA) review period, consistency between the CPA and MPA frameworks will be important for coherent implementation across levels of care.

The CPA is linked to financing as HEF reimbursement to hospitals is conditioned on compliance with CPA standards, including, where relevant or existing, clinical practice guidelines. A hospital providing rehabilitation services under an eventual benefits package will need to demonstrate CPA compliance. Therefore, ensuring providers understand the CPA's requirements is part of provider readiness work discussed in section 4.3.7 of this report.

5.1.3 Clinical Practice Guidelines (CPG)

While the CPA defines what rehabilitation services hospitals should provide, Clinical Practice Guidelines (CPGs) govern how those services are delivered. The development of rehabilitation CPGs is listed as a priority in MoH's draft National Strategic Plan on Disability, Rehabilitation and Assistive Technology in Health.

CPGs are not a strict prerequisite for the completion of a benefits package. The package can be designed to state that CPGs must be adhered to when they are established, without the

whole process being held up pending their development. What matters is that CPG development is treated as part of the broader quality assurance agenda rather than left as an indefinite future task. Once adopted by MoH, CPGs will strengthen clinical consistency across HBRU sites and provide the standard against which HEF compliance can be assessed.

5.1.4 Referral Systems and Care Pathways

The HBRU data in Chapter 3 demonstrates that where intra-hospital referral is functioning well, utilisation and outcomes are significantly stronger. This demonstrates the benefit of strengthening pathways between hospital wards and HBRUs and the development of formal referral protocols within hospitals that contain HBRUs.

ACCESS 2 and Exceed have been active in this area across all HBRU sites. The task now is to institutionalise these practices within MoH systems rather than leaving them dependent on individual relationships. Integrating rehabilitation referral protocols into MoH's hospital management frameworks is the step that makes intra-hospital referral durable.

5.1.5 Governance and Coordination

Sub-decree 238 on the Organisation and Functioning of the Ministry of Health (2025) has assigned responsibility for medical rehabilitation to the Preventive Medicine Department (PMD), providing a clearer institutional home for rehabilitation within MoH's structure.

In terms of wider coordination, the Technical Working Group on Health of Persons with Disabilities (TWG-HPD) provides a platform across which MoH, MoSVY, and development partners can share updates and seek feedback.

A key governance consideration is ensuring alignment with GS-NSPC on financing, as discussed in Section 4.3.8. Clear alignment between health sector leadership and social protection financing authorities is particularly important as the benefits package design moves forward. Fragmentation between these functions is a risk, and the governance structure for the benefits package design process should be designed to prevent this from becoming an operational bottleneck.

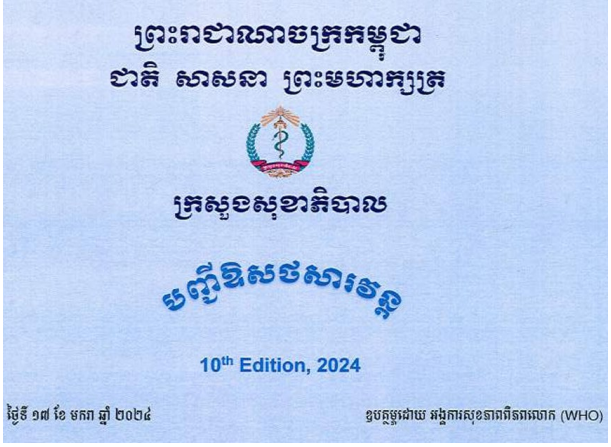
5.2 Supply Chains

The HBRU service delivery model depends on a reliable supply of affordable, quality components and finished devices. Supply chain resilience is therefore a sustainability condition, not a logistical detail. This section covers the EML, the Orthopaedic Component Factory, technology and the international component market, and the role of the CFU. The primary financing pathway for custom-fabricated P&O devices runs through HEF and NSSF reimbursement, as described in Section 4.3. EML inclusion complements that pathway by establishing a public procurement mechanism for standardised assistive products and by embedding finished devices within MoH's essential health products framework.

The WHO's global standards call for a national priority list of prosthetic and orthotic products to be established, maintained and updated regularly, and for national regulation of prosthetic and orthotic products to be integrated into the broader health care regulatory system (WHO

Standards for Prosthetics and Orthotics, 2017, Standards 17 and 21). Both are currently absent in Cambodia. The HBRU network's use of ISO and ISPO-accredited devices and internationally sourced components provides the practical foundation on which such a list and regulatory framework can be built, drawing on operational experience that most countries in the region lack at this stage of system development. Inclusion of the full range of prosthetic and orthotic products, both standardised assistive devices and custom-fabricated devices, on MoH's EML represents the most immediate and practical step toward meeting these standards within Cambodia's existing policy architecture.

5.2.1 Essential Medicines List (EML)



EML inclusion operates differently depending on device type, and this distinction has significant implications for how the recommendation above is implemented in practice.

For standardised assistive products, such as basic mobility aids, prefabricated orthoses, crutches, and similar items that can be bulk-procured and stocked, EML listing enables Central Medical Stores to supply them to hospitals at no cost, in the same way that medicines listed as vital are distributed through the public procurement system. Inclusion of these products on the EML matters particularly for patients who fall outside HEF and NSSF coverage.

For custom-fabricated prosthetic and orthotic devices, the EML mechanism does not translate directly. A custom-fabricated prosthesis is not a standardised commodity that Central Medical Stores can stock and distribute. The sustainable financing pathway for these devices is through HEF and NSSF reimbursement, with the benefits package priced at a level that covers the full-service episode including device and component costs. As discussed in Section 4.3, the extent to which reimbursement can cover device costs under HEF will depend partly on the contracting model adopted, given that sub-contracting through a public hospital would subject reimbursement to the standard 60/39/1 revenue distribution formula, which is structurally inadequate for device-intensive services.

EML inclusion still matters for custom devices in one important respect: it establishes that finished prosthetic and orthotic devices are formally recognised as essential health products within MoH's policy framework. This strengthens the case for their inclusion in the benefits package and for hospital procurement systems to treat them as legitimate health expenditure rather than a non-clinical supply cost.

5.2.2 Orthopaedic Component Factory (OCF)

The Orthopaedic Component Factory (OCF), operating under MoSVY, has historically been a significant source of locally manufactured orthopaedic components. An ATscale-funded situational analysis conducted in early 2025 found that the OCF operates significantly below capacity, lacks quality management systems, relies heavily on donor financing for materials and equipment, and faces challenges related to technology, workforce, and quality

assurance.[5] ATscale subsequently supported the development of a business plan for reform.[6]

The OCF's planned relocation to the Cambodian National Centre for Persons with Disabilities in Angk Snuol District introduces additional operational and financial uncertainty during a period when the factory is already under strain. Taken together, these factors represent a genuine supply chain risk for the sector. If OCF operations are disrupted, the availability of locally manufactured components would be affected.

Exceed's Central Fabrication Unit (CFU) does not manufacture orthopaedic components but maintains procurement agreements to import quality components at competitive prices from established international suppliers. These arrangements provide a reliable contingency supply pathway for the HBRU network.

5.2.3 Technology and Innovation (Including International Component Market)

The international P&O component market offers access to a wide range of technologies, from basic polypropylene through to modular systems and more advanced components.

Technology innovation in prosthetics and orthotics is advancing globally, including in areas relevant to lower-resource settings such as polypropylene adaptations and improved suspension systems. Any adoption of new technologies needs to be assessed against clinical effectiveness, cost relative to existing approaches, and compatibility with the supply chain and technical capacity available in Cambodia. This is where Exceed's ecosystem, including its ISO 9001:2015 certified quality management system, is relevant. If a new component or material meets the certification, quality, and pricing requirements, it can be introduced and scaled across the HBRU network through the CFU.

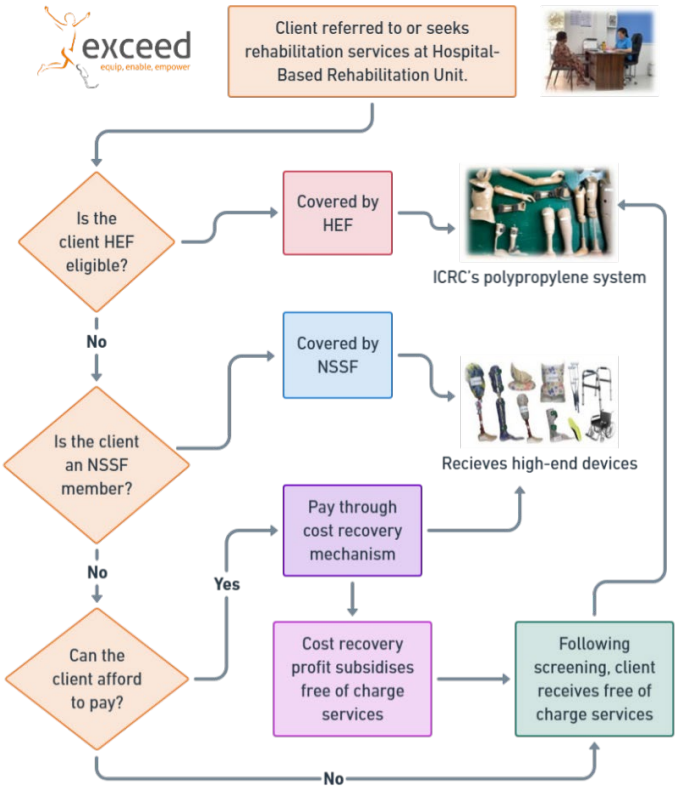


Figure 22: Possible technology platform based on financing mechanism

[5] International Research and Evaluation Services (2025). *Orthopaedic Component Factory (OCF): Situational Analysis Report*. 31 January 2025.

[6] International Research and Evaluation Services (2025). *Orthopaedic Component Factory (OCF): Business Development Strategy*. 28 March 2025.

Currently, the HBRU model operates through the CFU using a mixed technology strategy:

- For service users provided devices free of charge, devices are fabricated using components sourced through the OCF
- For service users who opt to pay a user fee under the cost recovery model, more advanced component options are available. Exceed imports advanced components from ISO 13485:2016 and ISO 9001:2015 certified companies.

NSSF is currently seeking modern, high-end devices for its members and is in negotiations with Exceed on costing. For HEF, ICRC's polypropylene system offers a quality, cost-sensitive option. Should a benefits package settle on this tiered approach, technology choice for service users could follow a similar model (see figure 22 above).

Where imported components play a role in delivery of a benefits package, maintaining competitive and reliable import procurement will be an ongoing operational requirement, with exchange rate movements and shipping costs needing to be reflected in the costing methodology used for benefits package pricing.

5.2.4 Future Role of CFU

The CFU is the supply backbone of the HBRU network. It fabricates finished devices for delivery to HBRU sites, manages component procurement and stock, maintains quality assurance standards, and provides the technical infrastructure that allows individual HBRUs to focus on clinical service delivery. Without the CFU, the decentralised HBRU model would not be viable.

The CFU currently operates under Exceed's management with donor support. Its transition toward a more financially sustainable operating model is one of the more complex challenges in the overall sustainability picture.

Figure 23: A PO technician fabricating a prosthetic device

The most straightforward pathway to CFU sustainability is transparent costing of CFU infrastructure, staffing, and procurement into device pricing. This creates a clear and auditable basis for contracting Exceed and ensures that the full cost of fabrication is reflected in any reimbursement rate negotiated under a benefits package. However, the benefits package design process will also need to consider a broader range of scenarios. For example, as the HBRU network expands, a hospital may establish its own P&O clinical capacity while still relying on the CFU for device fabrication. In that scenario, the CFU functions as a contracted fabrication service rather than as part of a vertically integrated Exceed-managed unit, and the reimbursement and contracting architecture needs to accommodate that arrangement. Systematically working through these scenarios is part of the benefits package design process, and it argues for treating CFU costing and contracting as a distinct design question rather than an assumption buried within device pricing.

5.3 Workforce

Cambodia's rehabilitation workforce is one of the most significant constraints on the sector's capacity to scale. A financing mechanism can be designed, a policy framework can be established, and a supply chain can be secured, but none of it delivers services without qualified professionals to provide them.

The current model represents a transitional arrangement, where services are delivered through Exceed staff contracted to public hospitals under service level agreements, with a structured medium-term pathway toward integration into MoH employment and financing structures.

Figure 24: Mr Yohei Sasakawa, Chairman of The Nippon Foundation, to the Cambodia School of Prosthetics and Orthotics

Two employment mechanisms are available to MoH for absorbing rehabilitation professionals into the public system. The first is full civil service appointment, which provides permanency and access to the full range of government employment benefits but is subject to quota constraints and lengthy administrative processes that limit the speed at which positions can be created. The second is MoH service contracts, a more flexible mechanism through which MoH can engage qualified professionals on defined terms without the quota and process requirements of civil service appointment. Service contracts offer a practical near-term pathway for formalising the employment of HBRU staff within the public system, providing job security and institutional affiliation while longer-term civil service integration is pursued in parallel.

Exceed's service level agreements with host hospitals are designed to support this transition. SLAs can include provisions under which hospital management assumes direct responsibility for staff employed at HBRU sites over time, creating a structured handover mechanism that aligns with MoH's broader workforce absorption agenda. This approach ensures continuity of service delivery during the transition and positions rehabilitation professionals as hospital staff rather than NGO contractors, which is a prerequisite for durable integration into public sector employment and financing structures.

The conditions for this transition are already present at the clinical level. Across HBRU sites, P&O clinicians and hospital physiotherapists collaborate routinely in the course of service delivery, sharing facilities for alignment and early walking exercises following device fitting. This day-to-day working relationship, built through shared clinical practice rather than formal coordination alone, illustrates how rehabilitation professionals are already functioning as part of hospital clinical teams in practice.

5.3.1 Current Prosthetic and Orthotic Workforce and Constraints

Cambodia's rehabilitation workforce is severely inadequate relative to population needs, and the gap is widest for the professions most central to the HBRU model.

The WHO Rehabilitation in the Health Sector Situation Assessment (March 2026) identified 20 qualified prosthetists and orthotists, currently active in the workforce.[7] This is a density of 0.01 per 10,000 population, supported by approximately 60 P&O bench technicians at 0.03 per 10,000. Against the WHO global benchmark of 5 to 10 qualified P&Os per million population, Cambodia would need between 85 and 170 P&Os to meet minimum coverage needs for its population of approximately 17 million. The current figure of 20 falls well short of even the lower end of that range.

Workforce planning must also account for the compounding effect of longitudinal caseloads. As the HBRU network matures, it accumulates a returning caseload that grows alongside new demand. Children fitted with devices at network sites in the first years of operation will require regular clinical review and device replacement as they grow. Adults managing NCD-related conditions will return for repairs, adjustments, and device renewal across a period of years. Workforce projections based solely on new service user intake will therefore systematically understate future clinical demand. Planning models should incorporate an estimated returning caseload ratio to produce staffing requirements that reflect the full sustained demand a maturing network will generate.

The attrition picture compounds the scarcity problem. Since 1994, CSPO has graduated 177 qualified P&O professionals, yet approximately 75 percent of that trained workforce has left the sector, primarily due to limited employment prospects with the PRC network, limited career progression options, and salary dependence on INGO support. The PRC workforce has experienced significant attrition over the past decade, driven in part by the absence of new professional recruitment into the network since approximately 2012. As trained staff retired, moved into other roles, or left the profession, positions were not replaced. The result is a workforce that has aged and contracted without replenishment, leaving many facilities operating below their original staffing complement. The retention challenge reflects structural gaps in employment conditions that remain unresolved.

At the current rate of attrition, reaching even the lower WHO benchmark would require both a significant increase in graduation numbers and a structural solution to retention. Neither is achievable without sustained government investment.

Beyond P&O, shortfalls are significant across all rehabilitation professions. Physiotherapy is the largest cadre, but Cambodia's ratio of approximately 1:34,000 population compares poorly against an ASEAN average of around 1:13,000. Occupational therapy, speech and language therapy, rehabilitation medicine as a medical specialty, and audiology are either absent or present in extremely limited numbers in the public health system. Speech therapy services are beginning to be established through OIC and ACCESS 2 support at hospitals in Kampong Speu and Kratie. The HBRU model is demonstrating in practice what integrated,

[7] Note: This figure does not reflect the full number trained through CSPO and predecessor programs; a proportion of graduates have exited the profession or moved into other roles over time.

multidisciplinary rehabilitation looks like within a hospital setting, creating the institutional precedent for adding disciplines as workforce capacity develops.

5.3.2 Training of Prosthetists and Orthotists and P&O Technicians

Cambodia has established in-country training infrastructure for its prosthetic and orthotic workforce. Established by Exceed, the Cambodian School of Prosthetics and Orthotics (CSPO, also known as DPO) offers:

- A three-year bachelor's degree programme, accredited by the International Society for Prosthetics and Orthotics (ISPO), previously known as Category II
- A unique one-year International Certificate for Prosthetic and Orthotic Technicians, also accredited by ISPO, previously known as Category III

Figure 25: A student at the Cambodian School of Prosthetics and Orthotics (CSPO)

Continuing professional development remains underdeveloped. The Cambodian Association for Prosthetists and Orthotists (CAAPO) run an annual conference, but beyond this there are no nationally coordinated continuous professional development system, no formal CPD requirements linked to professional registration, and no standardised quality assurance for training content. Building a sustainable CPD system matters not just for workforce quality but for the accreditation and licensing frameworks that professional recognition depends on.

5.3.3 Professional Accreditation of Prosthetists and Orthotists

Professional accreditation for rehabilitation workers within Cambodia's health system is the responsibility of MoH, working through the Accreditation Committee of Cambodia (ACC) and in collaboration with the Cambodian Association for Prosthetists and Orthotists (CAAPO) and relevant development partners.

ISPO's international accreditation framework provides a credible reference point for P&O professional standards, and CSPO's ISPO-recognised training establishes a clear competency baseline. Exceed's services are delivered under ISO 9001:2015 quality management certification, which provides an organisational quality standard that complements individual professional accreditation. These foundations establish that quality standards for P&O services in Cambodia are grounded in internationally recognised frameworks.

P&O services involve invasive assessment, custom fabrication, and the fitting of devices that directly affect a service user's mobility, function, and physical safety. A poorly fitted prosthesis or orthosis can cause pressure wounds, falls, or long-term musculoskeletal harm. Professional accreditation is the mechanism that ensures practitioners have the competency

to deliver these services safely. There is no viable pathway to public financing of P&O services that does not include clear and enforceable professional standards, and no basis on which those standards can be relaxed to accommodate providers who do not meet them. Development partners supporting rehabilitation services in Cambodia operate under do-no-harm and safeguarding obligations that require services they support to be delivered by appropriately qualified and accredited practitioners.

Accreditation also has a direct bearing on benefits package design. Quality standards embedded in a HEF or NSSF provider contract will reference accreditation requirements for the professionals' delivering services. Establishing MoH-endorsed accreditation standards is therefore part of provider readiness work, not a separate long-term policy objective. The two processes need to be coordinated: accreditation standards should inform contracting requirements, and contracting requirements should create the incentive for providers to meet accreditation standards.

5.3.4 Employment of Prosthetists and Orthotists under MoH

The long-term aspiration is for rehabilitation professionals to be employed within MoH's civil service framework, with compensation and career structures that do not depend on INGO salary support. MoH's Health Workforce Development Plan (2025-2034) identifies rehabilitation professions as a priority for scale-up and provides the policy basis for developing formal job classifications and career pathways for P&O professionals and physiotherapists. This is the right direction, even if the pace will be determined by factors outside the rehabilitation sector's control, including MoH workforce planning cycles and MEF's broader constraints on public service expansion.

In practice, establishing professional accreditation standards is the necessary first step before employment pathways can be formalised. MoH cannot absorb rehabilitation professionals into civil service structures without defined job classifications, competency standards, and regulatory frameworks in place. The accreditation work described in section 5.3.3 is therefore a prerequisite for employment pathway development, not a parallel track.

Exceed's contracted service model within MoH hospitals represents the viable interim arrangement. Under the Service Level Agreements governing Exceed's presence in hospital settings, hospitals are asked to consider absorbing Exceed's staff and functions at the end of the agreement period. This creates a structured, low-pressure pathway toward eventual integration without placing an immediate burden on MoH or MEF. Where a hospital does take on Exceed staff, it frees Exceed's resources and operational capacity to establish services at a new HBRU site, advancing network expansion rather than duplicating existing arrangements. The contracted model is best understood as a transitional measure that serves both sustainability and scale objectives simultaneously.

It is also important that the benefits package design advances in parallel: a sustainable financing mechanism is what creates the service base that makes public employment of rehabilitation professionals fiscally justifiable to MoH and MEF. Without a funded service to staff, the case for civil service positions is difficult to make. The two agendas are mutually reinforcing, and sequencing matters.

5.3.5 Performance Incentives

Performance incentives for the rehabilitation workforce are a medium to long-term priority. The more immediate constraints, including accreditation, employment pathways, and benefits package design, need to progress first. That said, the long-term direction is worth establishing clearly so that incentive design can be built into workforce planning as those foundations are put in place.

Performance incentives need to address two distinct problems:

1. Retaining qualified professionals in the sector
2. Deploying them to provincial settings where they are most needed

These require different approaches.

For sector retention, the primary lever is compensation. The user fee mechanism (cost recovery) described in Section 4.2, could be reinvested in staff compensation and professional development, reducing dependence on donor salary support but the amounts are insufficient for full coverage of salary. The transition toward MoH-funded compensation at competitive levels is the necessary direction, but it requires budget allocations that have not yet materialised at scale.

For provincial deployment, financial incentives alone are unlikely to be sufficient. Packages combining enhanced salary allowances and priority access to further training have demonstrated effectiveness in other health cadres in other countries. MoH's Health Workforce Development Plan provides the policy basis for developing such packages for rehabilitation professionals. Performance management frameworks, including MoH's National Quality Enhancement and Monitoring Tool, could provide a basis for linking performance assessment to professional development and career progression.

As with employment pathways, meaningful progress on performance incentives depends on the benefits package design advancing first. A funded service base is what makes it fiscally justifiable to invest in the incentive structures needed to staff it sustainably.

5.4 Data Systems

Rehabilitation is not yet systematically integrated within Cambodia's health information systems. Service data are fragmented, reporting is unstandardised, and the gap between the data infrastructure that currently exists and what HEF and NSSF contracting will require is significant. This section explains Cambodia's digital health landscape, identifies the key gaps, and sets out what needs to change for the HBRU model to operate within a publicly financed system.

5.4.1 Cambodia's Digital Health Landscape

The key systems relevant to the health sector and social protection financing are:

HMIS 3.0 (Health Management Information System): MoH's current routine health information system, deployed across over 1,400 public health facilities. It captures service utilisation data and is the system that HEF claims must align with. Rehabilitation is not currently integrated as a distinct reporting category within HMIS.

DHIS2 (District Health Information System 2): The platform MoH is transitioning toward, supported by UNICEF, WHO, CHAI, and others. It will eventually replace or absorb HMIS. The WHO has developed a rehabilitation module for DHIS2 with standardised indicators that countries can adapt.

PMRS (Patient Management and Registration System): The web-based system hospitals use to capture diagnosis data for HEF claims. Critically, treatment data is currently captured only in physical logbooks rather than digitally, creating a split record that complicates claims verification.

EMR (Electronic Medical Record): MoH's facility-level patient record system, currently under development. Once operational, it will be the primary clinical documentation platform within hospitals. Rehabilitation data capture systems being designed now need to be compatible with the eventual EMR architecture.

HSPIS (Health Social Protection Information System): NSSF's own information system, separate from MoH's infrastructure. Providers contracting with both HEF and NSSF will face reporting requirements across two distinct systems.

DSPP (Digital Social Protection Platform): GS-NSPC's platform, anchored by the Social Protection Registry (SPR) and Social Protection ID (SPID). As the SPID is progressively adopted, it will become the common identifier linking HEF, NSSF, IDPoor, and other social protection systems, with direct implications for patient eligibility verification.

MoSVY operates a separate digital ecosystem centred on the Disability Management Information System (DMIS) and PWDF's Rehabilitation Centre Data System (RCDS). These systems are isolated from MoH's digital infrastructure and from the DSPP. Integration work with the DSPP is ongoing but incomplete.

The HBRU model operates within MoH's hospital infrastructure and is therefore oriented toward MoH's systems, which is the most practical alignment for a health sector financing pathway.

Exceed is currently transitioning its clinical data systems to OpenMRS, an open-source electronic medical record platform widely used in lower-resource health settings. OpenMRS is designed to be interoperable, with application programming interfaces (APIs) that allow it to exchange data with other systems, including HMIS, DHIS2, and eventually MoH's forthcoming EMR. This transition positions Exceed well for the data integration requirements of HEF and NSSF contracting and provides a flexible platform that can be adapted as MoH's digital infrastructure continues to develop.

5.4.2 Current Data System Gaps

The fundamental gap is the absence of standardised, nationally integrated systems for collecting and reporting rehabilitation data. Rehabilitation indicators are not included in routine HMIS reporting. Service utilisation data across the sector are non-standardised, making aggregation and comparison across facilities impossible without bespoke data collection exercises. There is no systematic collection of data on service quality or functional outcomes.

Within the HBRU network, Exceed maintains functional service delivery data systems covering service user numbers, service types, device production, IDPoor and NSSF membership screening, and financial data. These systems provided the data foundation for the impact analysis in Chapter 3. The transition to OpenMRS will bring these systems closer to MoH's infrastructure, with standardised data exchange interfaces (APIs) offering a pathway to integration with HMIS and DHIS2 without requiring a full system replacement. Any data system investment should follow this principle: build toward existing government infrastructure rather than alongside it.

A key distinction is that the HBRU model, operating within MoH hospitals, has a better foundation for aligning with MoH's digital infrastructure than standalone services. This positions the service delivery model more favourably for integration with HMIS, DHIS2, and the DSPP's SPID.

5.4.3 Data for Clinical Care

At the clinical level, the data priorities are service user records that support continuity of care and outcome measurement that demonstrates the functional impact of rehabilitation interventions.

Service user records in the HBRU setting need to capture the full-service episode: initial assessment, device specifications, fabrication and fitting dates, adjustment and follow-up visits, and repair and replacement history. Exceed currently captures this data, and the transition to OpenMRS will bring it into a structured, interoperable digital format. Designing this with compatibility with MoH's forthcoming EMR in mind avoids the need for costly

system migration later. OpenMRS's API architecture also provides flexibility to connect with multiple systems as MoH's digital infrastructure evolves.

On outcome measurement, the priority is a small set of feasible, standardised indicators collectible without overwhelming clinical workflows, rather than a comprehensive framework attempted at scale too early. The WHO WHODAS and condition-specific measures provide reference points, but their routine application should be piloted carefully before being built into reporting requirements.

5.4.4 Data for Financing

From a financial sustainability perspective, data systems need to serve the specific requirements of HEF and NSSF contracting, claims submission, and NPCA verification. These requirements are distinct from clinical data needs and must be designed around the administrative workflows of the financing mechanisms.

Under HEF, hospitals submit claims through NPCA, and those claims must match service data recorded in HMIS. The verification process is highly manual: NPCA staff review claims against supporting documentation, and verification and payment currently takes three to six months. Neither HEF nor NSSF currently provides facilities with any visibility of claims status after submission, creating cash flow uncertainty for providers. For a contracted provider managing component procurement and CFU operating costs against expected reimbursement flows, this verification lag is a genuine operational risk. Simplifying verification processes and introducing basic claims tracking visibility for providers are design requirements for the benefits package, not afterthoughts.

A specific structural bottleneck in the current system is that diagnosis is captured digitally in PMRS, but treatment data is captured only in physical logbooks. For rehabilitation, where a service episode involves multiple steps across potentially multiple visits, this split record creates a documentation gap that will directly affect claims integrity. Exceed's adoption of OpenMRS provides a practical pathway to resolving this, as OpenMRS can capture the full treatment record digitally and, through its API, supply the structured data that HMIS and the HEF claims process require.

MoH's transition toward DHIS2 will allow more consistent reporting of rehabilitation service use across hospitals and link more easily with the DSPP's SPID. NSSF operates its own HSPIS, and for providers contracting with both schemes, the reporting requirements of both systems need to be manageable within a single operational workflow. OpenMRS's flexible API architecture is directly relevant here: it can be configured to meet the data output requirements of multiple systems without requiring separate data entry processes for each. This is one reason Exceed's move to OpenMRS represents a meaningful investment in provider readiness for benefits package contracting.

5.4.5 Data to Support Monitoring, Evaluation, Learning and Planning

Beyond clinical and financing data, rehabilitation needs to be integrated into the national planning and performance monitoring systems that MoH and GS-NSPC use to allocate resources and track system performance. At present, rehabilitation is invisible in these

systems: it does not appear in HMIS as a distinct reporting category, and there is no mechanism for aggregating service delivery data across public, NGO, and private providers.

The WHO rehabilitation module for the District Health Information Software 2 (DHIS2) would provide a standardised set of rehabilitation indicators and offer an efficient pathway to establishing a nationally standardised baseline without designing a Cambodia-specific indicator set from scratch. Adopting and contextualising this module within Cambodia's HMIS and DHIS2 transition is one of the clearest and most cost-effective data system contributions available in the current period.

ACCESS 2's MEL framework captures significant data on HBRU performance, and the annual workplan and reporting cycle generates regular performance data on key indicators. Bridging that data to MoH and GS-NSPC planning processes, by presenting outputs in formats usable by government planners, is one of the most immediately actionable contributions ACCESS 2 can make.

NSSF's HSPIS captures service delivery and quality data but currently has no link to benefits package update or design, meaning NSSF cannot yet use its own claims data to refine coverage decisions or assess the impact of its rehabilitation financing. Building that feedback loop into the NSSF system as part of the benefits package design process would strengthen the evidence base for progressive coverage expansion over time.

5.5 Sequencing the Sustainability Roadmap

Operational sustainability work needs to be progressed with the same level of focus and institutional commitment as the financing work. A benefits package that is eventually secured but lands in a system without qualified providers, a reliable supply chain, clear clinical standards, and functional data infrastructure will underperform or fail in implementation. The two tracks are mutually reinforcing, not interdependent in a blocking sense.

However, the operational sustainability areas covered in this chapter (policy and governance, supply chains, workforce, and data systems), are not strict prerequisites for the benefits package design described in Section 4.3. It is important benefits package design, NSSF engagement, and cost recovery development proceed in parallel, rather than waiting for every enabling condition to be in place.

The lesson from Cambodia's HIV and TB sustainability transition is instructive: operational and financial sustainability efforts succeeded where they were explicitly staged, linked to government planning and budget cycles, and anchored in institutions that outlasted the donor programs that initiated them. The same principle applies here. Each of the areas covered in this chapter requires not just technical work but a named institutional lead, a connection to a specific government decision point, and a timeline that keeps pace with the financing transition rather than drifting behind it.

Parallel capacity building and system strengthening efforts, however well designed, are unlikely to deliver the transition Cambodia's rehabilitation sector requires unless they are driven with that discipline. The ACCESS 2 program period is finite. The work described in this chapter needs to be completed, or at minimum decisively advanced, within it.

Chapter 6: Sustainability Recommendations

Hospital-based prosthetic and orthotic service delivery works in Cambodia. Demand is present, clinical integration is functioning and the cost and operational model is viable. What the network has not yet secured secure is the domestic financing and operational infrastructure required to sustain and scale it. The recommendations below address that gap.

These recommendations are sequenced. Immediate priorities are committing to the benefits package design process and securing transitional financing. In parallel, provider readiness and system compatibility must be addressed to enable contracting. Regulatory and workforce measures will consolidate and sustain the system as financing is operationalised.

Financial Sustainability Recommendations

RECOMMENDATION 1: Commit to a structured benefits package design process with early agreement on key design directions

The technical groundwork for a prosthetic and orthotic benefits package under HEF and NSSF is already well advanced. A draft design roadmap exists, relevant government institutions are engaged, and the policy basis for inclusion within Cambodia's social protection architecture is established. What is now required is a formal commitment to the design process itself.

Not all technical questions need to be resolved at the outset. What does need to be established early is clarity on direction across the key design areas, including:

- the scope of the initial package, whether under HEF, NSSF, or both
- the broad contracting model for NGO providers operating within hospital-based financing mechanisms, including how provider and payment functions are separated
- the technology approach for prosthetic and orthotic devices, including the role of polypropylene-based fabrication alongside higher-end component options
- how verification and claims architecture will accommodate provider workflows
- the costing and contracting treatment of multi-episode service delivery, covering consultation, casting, fitting, and rehabilitation, as well as shared infrastructure costs including the Central Fabrication Unit

Setting early direction on these questions prevents the process from drifting and ensures that technical work proceeds with a shared understanding of the destination.

RECOMMENDATION 2: Secure transitional bridge financing to enable continued network operation and expansion

The conclusion of ACCESS 2 funding for the HBRU network in February 2027 will create a gap between the end of current support and the full mobilisation of HEF and NSSF

reimbursement. Without bridge financing, that gap threatens not only service continuity, but the momentum required to expand the network when the sector needs it most.

The PRC network continues to face service availability pressures, ICRC concludes its physical rehabilitation program at the end of 2027, and HI's program concludes by 2030. Hospital-based rehabilitation units are on track to absorb a growing share of national rehabilitation demand precisely as the sector's other service infrastructure recedes. This is the window in which network expansion has the greatest strategic value. Allowing it to stall now would forfeit the opportunity to scale a proven model at the point of maximum need.

Development partners with existing familiarity with Cambodia's rehabilitation sector are well placed to consider time-bound transitional support, explicitly linked to milestones in the domestic financing transition. Bridge financing should be explicitly linked to maintaining and expanding HBRU coverage, sustaining CFU operations, and achieving defined milestones in HEF and NSSF contracting readiness. This financing should be time-bound with a clear exit pathway linked to domestic financing uptake.

RECOMMENDATION 3: Standardise and optimise the user-fee (cost recovery) mechanism

The user fee (cost recovery) mechanism is operational and has established proof of concept across the network. The priority now is to convert the learnings from current sites into a standardised model including consistent pricing structures; refined reinvestment protocols; and enhanced service user screening procedures. This refined model should be applied across all HBRU sites and applied to new ones. The financial management systems, service user data, and pricing evidence generated through this mechanism continues to be relevant for HEF and NSSF contracting readiness, helping reduce the lead time required to operationalise public financing when it becomes available.

RECOMMENDATION 4: Advance provider readiness and confirm data system compatibility as a contracting prerequisite

Contracting with HEF requires digital clinical documentation compatible with NPCA verification requirements. Exceed's transition to OpenMRS is underway. The critical next step is confirming that OpenMRS's API architecture is compatible with MoH and GS-NSPC systems, including HMIS, DHIS2, and the DSPP's SPID, before contracting processes commence. This work should be conducted concurrently with the benefits package design process. Where provider data systems are incompatible with verification requirements, even a well-designed package will face significant implementation barriers.

RECOMMENDATION 5: Advance the inclusion of assistive products in national regulatory and procurement frameworks

Most assistive products, including prosthetic and orthotic devices, are currently not included in the MoH’s national regulatory and procurement architecture. There are no regulatory standards for device components and materials and no formal procurement pathway. This limits the government's ability to verify product quality within a benefits package and leaves providers without the regulatory clarity that public contracting requires. The WHO calls for national regulation of prosthetic and orthotic products specifically to be integrated into the

health care regulatory system. The HBRU network's operational experience, with ISO and ISPO-accredited clinicians, devices meeting international quality standards, and centralised quality-controlled fabrication through the CFU, provides the evidence base to advance both.

Alongside this, inclusion of standardised assistive products on MoH's EML, covering prefabricated orthoses, mobility aids, hearing aids, communication devices, and similar items that can be procured and distributed through Central Medical Stores, would extend access for service users who fall outside HEF and NSSF coverage and formally establish assistive products as essential health products within MoH's policy framework. For custom-fabricated devices, the sustainable financing pathway remains HEF and NSSF reimbursement, with EML inclusion serving as a complementary instrument that strengthens the overall policy architecture.

Operational Sustainability Recommendations

RECOMMENDATION 6: Disseminate the rehabilitation CPA chapter and initiate the development of Clinical Practice Guidelines

The rehabilitation chapter of the CPA is finalised and pending official launch. Dissemination within hospitals, with specific reference to P&O services within HBRUs and the referral obligations that follow, will convert this policy into clinical behaviour change. As part of this process, an accompanying ministerial instrument (such as a Prakas) providing operational guidance on the delivery of P&O services within hospital settings would strengthen the regulatory basis for the HBRU model.

The development of Clinical Practice Guidelines (CPG) for P&O services has not yet commenced. Initiating that process, as a medium-term priority, is necessary to anchor clinical standards and support the quality assurance requirements that benefits package contracting will require.

RECOMMENDATION 7: Formalise referral pathways and establish quality assurance standards across the network

Across the HBRU network, 84.6 per cent of screened service users were referred by doctors or hospital staff demonstrating the referral model is working in practice. The task is to make it durable, through service level agreements, hospital SOPs, and further structured awareness and training sessions with clinical staff.

Quality assurance is also necessary. Routine clinical audits, device quality inspection protocols, and service user follow-up mechanisms should be established progressively, informed by the development of CPGs as they come online. Funding of these oversight activities will require the establishment of a direct Rehabilitation budget line under the MoH’s budget. These quality assurance measures are also the contractual compliance foundations that HEF and NSSF contracting will require.

RECOMMENDATION 8: Sustain and expand the P&O workforce pipeline and advance professional accreditation

A limited availability of qualified P&O professionals remains a constraining factor for national expansion of the HBRU unit network. To address this, two interconnected priorities require attention.

The first is the **workforce pipeline**. International Society of Prosthetics and Orthotics (ISPO) accredited training through the Cambodian School of Prosthetics and Orthotics (CSPO) must be sustained as this builds the foundation of the qualified workforce the HBRU model depends on.

Provincial deployment must be actively supported, as the concentration of qualified professionals in Phnom Penh creates a structural constraint on expansion into provincial hospitals, including the consideration of deployment incentives.

The risk of trained Cambodian P&O professionals being lost to better-remunerated positions in the region must also be taken seriously. Employment conditions for P&O professionals must be aligned with those of other health professionals at equivalent levels of responsibility, including within MoH employment pathways.

The second is **professional accreditation**. There is no viable pathway to public financing of P&O services without clear and enforceable professional standards. MoH-endorsed accreditation standards must be developed in coordination with the benefits package design process, not after it. Accreditation requirements will inform provider contracting standards, and contracting requirements will create the incentive for providers to meet them.

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