VELNORA PUBLISHERS
PUBLISHING KNOWLEDGE INSPIRE WORLD

Open Access Journal of Physiotherapy
OAJOP

From Evidence to Impact: Integrating Rehabilitation to Improve Function, Equity, and Health-System Performance

Anelys Sanchez Lopez*

Hamad Medical Corporation (HMC), Qatar

***Corresponding author:** Anelys Sanchez Lopez, Aisha Al-Attiyah Hospital (AABH), Qatar Rehabilitation Institute (QRI), Hamad Medical Corporation (HMC), Doha, Qatar, Tel: +97477831192; Email: annee1316@gmail.com

Short Communication

Volume 1 Issue 1

Received Date: October 15, 2026

Published Date: November 02, 2026

Abstract

Rehabilitation is an essential component of comprehensive health care, enabling people to optimize functioning, independence, and participation throughout the life course. Nevertheless, substantial unmet need, fragmented care pathways, workforce shortages, and unequal access continue to limit its contribution to health outcomes and health-system performance. Global estimates indicate that approximately 2.41 billion people were living with conditions that could benefit from rehabilitation in 2019, underscoring the scale of this challenge. This short communication examines priorities for translating rehabilitation evidence into meaningful improvements in clinical practice and service delivery. These include integrating rehabilitation across the continuum of care, strengthening multidisciplinary coordination, measuring outcomes that reflect patients' goals and experiences, addressing inequities in access, and evaluating digital and other technological innovations responsibly. Achieving these priorities requires collaboration among clinicians, researchers, educators, service leaders, patients, and policymakers. Rehabilitation should not be regarded as an optional service delivered only after acute treatment, but as an essential, person-centred component of integrated health systems and universal health coverage.

Keywords: Rehabilitation, Evidence-Based Practice, Multidisciplinary Care, Health Systems, Functional Outcomes; Health Equity, Telerehabilitation

Introduction

For too long, rehabilitation has been regarded as a service that begins after the principal medical intervention has been completed. This perspective does not adequately reflect the role of rehabilitation in preventing complications, optimizing functioning, supporting recovery, and enabling participation in everyday life. Rehabilitation complements prevention, acute treatment, and long-term disease management; it is relevant throughout the life course and across health-care settings.

Population ageing, the growing burden of chronic disease, survival following acute illness and injury, and the increasing recognition of disability-related needs make rehabilitation an essential component of contemporary health systems. The World Health Organization (WHO) has called for rehabilitation to be integrated into health services at all levels, including primary care, hospitals, community services, and emergency preparedness [1,2]. However, the availability, organization, and quality of rehabilitation remain uneven. The challenge is therefore not simply to demonstrate that rehabilitation is necessary, but to ensure that evidence informs accessible, coordinated, and effective services.

The Global Need for Rehabilitation

The scale of rehabilitation need is substantial. Using data from the Global Burden of Disease Study 2019, [3] estimated that approximately 2.41 billion people worldwide had

conditions that could benefit from rehabilitation in 2019—equivalent to at least one in three people. Musculoskeletal conditions accounted for the largest share of this need, with low back pain representing a particularly important contributor. The estimated number of people with conditions amenable to rehabilitation increased by 63% between 1990 and 2019.

These estimates demonstrate that rehabilitation is not a narrowly specialized service reserved for a small group of people with permanent disabilities. It is relevant to people living with musculoskeletal, neurological, cardiovascular, respiratory, sensory, and other health conditions, as well as those recovering from injuries or experiencing functional limitations associated with ageing. The estimates should nevertheless be interpreted in the context of the conditions included in the analysis and the methods used to define rehabilitation need.

The WHO's *Rehabilitation 2030* initiative identified the need to strengthen leadership, investment, workforce capacity, service delivery, and information systems [1]. The subsequent *Package of Interventions for Rehabilitation* provides evidence-informed resources to help countries identify essential interventions and the workforce, equipment, assistive products, and other resources required to deliver them [2]. These initiatives provide a foundation for action, but implementation depends on whether rehabilitation is incorporated into national priorities, financing arrangements, service planning, and routine clinical pathways.

The contribution of this short communication is to connect these established WHO priorities with a practical clinical and service-delivery sequence: identify rehabilitation needs early, maintain shared goals and information across transitions, and use functional and patient-reported outcomes to guide care and service improvement. WHO initiatives set out system-level directions and planning resources; this article brings those directions together with examples of how teams can operationalize them and address common implementation barriers. It does not propose a new WHO framework or claim a new evidence base.

From Evidence to Everyday Practice

Evidence-based rehabilitation requires more than publishing research or issuing clinical guidelines. Evidence must be interpreted alongside professional expertise, patients' goals and preferences, available resources, and the circumstances in which care is delivered. Interventions that demonstrate efficacy under controlled conditions may be difficult to implement consistently when staffing is insufficient, equipment is unavailable, referral processes are fragmented, or clinicians have limited opportunities for continuing professional development.

Health services can help bridge the gap between evidence and practice through structured training, shared clinical protocols, clinical audit, multidisciplinary case discussions, and regular review of outcomes. Implementation strategies should be adapted to local needs rather than applied uniformly across settings with different resources, populations, and service structures.

Researchers also have a responsibility to generate findings that are relevant to routine practice. Pragmatic trials, implementation research, and economic evaluations can help determine not only whether an intervention works, but also for whom, under what conditions, at what cost, and with what implications for service delivery. Partnerships involving patients, frontline professionals, researchers, and service planners can improve the relevance and usability of research findings.

The central objective should be to establish a continuous relationship between evidence generation, clinical implementation, outcome assessment, and service improvement.

Integrating Rehabilitation Across the Continuum of Care

Rehabilitation needs frequently extend beyond a single professional or health-care setting. A person may move from emergency and acute hospital care to inpatient rehabilitation, outpatient treatment, primary care, and community-based support. When clinical information, referrals, functional assessments, and rehabilitation goals do not follow the patient across these transitions, delays, duplication, and discontinuity may result.

Clear referral criteria, timely communication, shared care plans, and defined responsibility for follow-up can improve continuity. Rehabilitation needs should be identified early, and appropriate interventions should be initiated when clinically indicated rather than postponed until all other treatment has ended. The timing and intensity of rehabilitation must, however, remain appropriate to the person's medical stability, condition, preferences, and goals.

For example, for a person preparing to leave hospital after a stroke, the inpatient team can document functional needs and patient-defined goals, identify the professional responsible for each follow-up action, and send the care plan to the receiving rehabilitation or community service before discharge. The receiving team can confirm the referral, review progress against the same goals, and communicate changes

Copyright© Anelys Sanchez Lopez.

back to the referring team. A locally selected, validated measure of mobility or daily activity, paired with a patient-reported goal and experience measure, can be recorded at transfer and follow-up to inform clinical decisions and identify gaps in continuity. This is an illustrative workflow; the specific measures and timing should fit the condition and local pathway.

Multidisciplinary collaboration is central to this process. Physicians in rehabilitation medicine, physiotherapists, occupational therapists, speech and language therapists, nurses, psychologists, and other professionals contribute complementary expertise. Effective teamwork requires clear professional responsibilities, shared decision-making, and goals that reflect the priorities of the person receiving care.

Integration also requires moving beyond hospital-centered models. Primary care and community services can support continuity, self-management, participation, and longer-term functional goals. The WHO's rehabilitation planning resources provide a basis for identifying essential interventions and the resources needed to deliver them across different service settings [2]. Health systems should translate this guidance into locally appropriate pathways with measurable responsibilities and outcomes.

Implementation can be constrained by workforce shortages, unclear referral ownership, limited time for team communication, and records that do not follow patients between settings. Practical responses include a brief shared referral template, named responsibility for follow-up, protected time for case review, and phased pathway rollout with routine audit. Where staffing is limited, teams can clarify which tasks may be shared or delegated within local scope-of-practice rules and provide appropriate supervision; these measures should complement, not replace, workforce investment. The need to adapt implementation to context is consistent with reports of workforce and information-system gaps across health systems [4,5].

Measuring Outcomes That Matter

The quality of rehabilitation should not be judged solely by service activity, such as the number of visits delivered, referrals completed, or inpatient days recorded. Although these indicators can support operational planning, they do not establish whether people have improved their mobility, independence, daily functioning, participation, or quality of life. This distinction also matters at health-system level: a comparative analysis of nine middle-income countries found limited integration of rehabilitation, low workforce numbers, and important gaps in routine rehabilitation information, illustrating why service activity alone cannot describe system performance [5].

A balanced measurement framework should combine validated measures of functioning, patient-reported outcomes and experiences, goal attainment, safety, access, and continuity of care. Measures should be feasible to collect, appropriate to the population, and sensitive to changes that matter to patients. Cultural and linguistic relevance is particularly important when outcomes are assessed across diverse populations.

Outcome measurement should also support clinical reasoning and service improvement. Teams can use results to identify unmet needs, examine variation between services, evaluate interventions, and adjust care pathways. Data collection becomes less useful when it serves only administrative reporting and does not inform decisions.

In practice, a team might review a patient-reported goal and a functional measure at the start of care, at a planned review, and at discharge or transfer. If progress is limited, the team can discuss whether the goal, intervention, equipment, or follow-up plan needs to change; aggregated results can also reveal where delays or loss to follow-up occur. The chosen measures should be feasible, meaningful for the population, and interpreted in light of clinical complexity and access barriers.

At the service level, outcome indicators should be interpreted alongside patient characteristics, clinical complexity, resource availability, and barriers to access. Comparisons that ignore these factors may misrepresent performance or disadvantaged services caring for populations with greater needs. Meaningful measurement therefore requires both consistent methods and thoughtful interpretation.

Equity, Access, and Technological Innovation

Equitable rehabilitation means that access is determined by need rather than by avoidable barriers associated with geography, income, age, diagnosis, language, disability, or other circumstances. Despite the scale of global need, many people do not receive timely or appropriate rehabilitation. Workforce shortages, limited financing, uneven service distribution, inaccessible environments, and fragmented referral systems contribute to this gap [1,6,10].

Addressing these barriers requires integrating rehabilitation into primary and community care, strengthening referral pathways, improving access to assistive technology, and developing a workforce with the appropriate skills and geographical distribution. Service planning should be informed by population needs rather than relying exclusively on existing institutional capacity. Comparative health-system assessments have reported low

Copyright© Anelys Sanchez Lopez.

rehabilitation workforce numbers and recurring workforce challenges; these findings support workforce planning tied to population need, education and retention, and more equitable distribution of services [4,5,7].

Digital rehabilitation and telerehabilitation may expand access for people who face geographical or mobility barriers. However, their suitability depends on the intervention, clinical condition, patient preferences, technological access, and availability of appropriate support. In their Cochrane review, [8] found that telerehabilitation after stroke produced outcomes similar to comparison approaches for some measures, including activities of daily living, but the evidence was generally of low to moderate quality and did not establish superiority across outcomes. A scoping review likewise identified feasibility, cost, access, and implementation conditions as relevant to telerehabilitation across settings [9]. Together, these findings support cautious, context-specific implementation rather than assuming that remote care is interchangeable with face-to-face rehabilitation in every circumstance.

Wearable sensors, virtual reality, robotics, and artificial intelligence may offer additional opportunities for assessment, treatment, monitoring, and personalization. Their adoption should be guided by clinical relevance, patient safety, effectiveness, feasibility, and cost-effectiveness. Technologies should support, not replace, professional judgement and person-centered decision-making. Digital literacy, language, disability-related accessibility, internet connectivity, privacy, and affordability must also be considered to avoid widening existing inequalities.

Innovation should therefore be assessed not only by technological capability but also by its contribution to functioning, participation, equitable access, and sustainable service delivery.

To reduce avoidable exclusion, services can offer a choice of in-person, remote, or hybrid follow-up when clinically appropriate; check access to a suitable device and connection; provide accessible instructions and language support; and offer a non-digital route when remote care is unsuitable. Monitoring uptake, completion, and outcomes by relevant patient groups can help identify whether a digital pathway is widening access or leaving some people behind. These are implementation considerations, not guarantees of improved access, and should be evaluated locally [9].

Priorities for Action

Translating evidence into impact requires coordinated action across clinical practice, research, service management, education, and health policy. Five priorities deserve particular attention.

- **First, integrate rehabilitation into health-system planning and financing:** Rehabilitation should be represented in national health strategies, service budgets, essential health-service packages, and emergency preparedness plans. Its inclusion should reflect the needs of populations across the life course and the range of settings in which rehabilitation is delivered.
- **Second, strengthen continuity across care pathways:** Health services should establish clear referral criteria, early identification of rehabilitation needs, shared goals, timely communication, and defined follow-up responsibilities. Coordination should extend from acute care to rehabilitation, primary care, and community support.
- **Third, develop the rehabilitation workforce:** Education, continuing professional development, interdisciplinary training, and supportive leadership are needed to maintain clinical competence and improve collaboration. Workforce planning should consider population needs, geographical distribution, and the range of professional skills required.
- **Fourth, measure outcomes and use evidence for improvement:** Services should agree on a practical set of meaningful indicators covering function, patient experience, safety, access, and continuity. Research
- partnerships should prioritize clinically relevant questions, implementation barriers, patient perspectives, and economic implications.
- **Fifth, pursue innovation without compromising equity:** Digital and technology-enabled approaches should be evaluated for effectiveness, accessibility, safety, acceptability, and cost. Their implementation should complement appropriate in-person care and respond to the needs of populations who may otherwise be excluded.

These priorities are interdependent. Workforce expansion will have limited impact if referral pathways remain fragmented; outcome measurements will have little value without the capacity to act on findings; and technological innovation will not improve equity if the people most in need cannot access it. Progress therefore requires leadership, sustained investment, accountability, and collaboration across professional and institutional boundaries.

Conclusion

Rehabilitation is central to functioning, independence, and participation, and its contribution should be recognized throughout the health system. The global scale of rehabilitation makes it essential to move beyond fragmented, reactive models of care toward integrated services that are

Copyright© Anelys Sanchez Lopez.

accessible, person-centered, and responsive to evidence.

Translating evidence into impact requires coordinated care pathways, multidisciplinary collaboration, meaningful outcome measurement, a skilled workforce, and sustained attention to equity. It also requires research that addresses practical implementation challenges and health policies that recognize rehabilitation as an essential component of comprehensive care.

Rehabilitation should not be treated as a luxury or an optional addition after acute treatment. It is an integral part of helping people live not only longer, but also more functional, independent, and meaningful lives. By aligning clinical practice, research, service leadership, and policy around the outcomes that matter to people, health systems can strengthen rehabilitation's contribution to individual well-being and population health.

Declarations

- **Conflict of Interest:** The author declares no conflict of interest.
- **Funding:** This work received no specific funding from any funding agency in the public, commercial, or not-for-profit sectors.
- **Originality and Exclusive Submission:** The author confirms that this manuscript is original, has not been published previously, and is currently not under consideration for publication elsewhere.
- **Ethical Approval:** Ethical approval was not required because this short communication does not involve human participants, identifiable personal data, or clinical interventions.
- **Editorial Independence:** The author is an Associate Editor of the *Open Access Journal of Physiotherapy*. To maintain transparency and avoid potential conflicts of interest, the author requests that the manuscript be assigned to an independent editor who is not involved in its authorship. The author will take no part in its peer review or in any editorial decision concerning the manuscript.
- **Author Responsibility:** The author accepts responsibility for the content of the manuscript and confirms that the declarations above are accurate to the best of her knowledge.

References

1. World Health Organization (2017) Rehabilitation 2030: A call for action.
2. World Health Organization (2023) Package of interventions for rehabilitation: Module 1. Introduction.
3. Cieza A, Causey K, Kamenov K, Hanson S W, Chatterji S, et.al. (2020) Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: A systematic analysis for the Global Burden of Disease Study 2019. The Lancet 396(10267): 2006-2017.
4. Campbell J, Mills J A (2022) Health systems and policy research needed to strengthen the rehabilitation workforce. Bulletin of the World Health Organization 100(11): 747-748.
5. Kleinitz P, Sabariego C, Llewellyn G, Taloafiri E, Mangar A, et.al. (2024) Integrating rehabilitation into health systems: A comparative study of nine middle-income countries using WHO's Systematic Assessment of Rehabilitation Situation (STARS). PLOS ONE 19(2): e0297109.
6. World Health Organization (2024) Rehabilitation.
7. Sivan M, Negrini S (2024) An expanded workforce is needed to strengthen rehabilitation in health systems. BMJ 384: 60.
8. Laver K E, Adey-Wakeling Z, Crotty M, Lannin N A, George S, et al. (2020) Telerehabilitation services for stroke. Cochrane Database of Systematic Reviews 2020(1): Article CD010255.
9. Nizeyimana E, Joseph C, Plastow N, Dawood G, Louw Q A (2022) A scoping review of feasibility, cost, access to rehabilitation services and implementation of telerehabilitation: Implications for low- and middle-income countries. Digital Health 8: 1-17.
10. Gimigliano F, Negrini S (2017) The World Health Organization "Rehabilitation 2030: A call for action." European Journal of Physical and Rehabilitation Medicine 53(2): 155-168.

Copyright© Anelys Sanchez Lopez.