

Access to rehabilitation in primary health care: an ongoing challenge





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Introduction

At the heart of the 1978 Declaration of Alma-Ata¹ was the recognition that primary health care² forms an integral part of every country's health system. It brings health care to people where they live and work and it constitutes the opening element of a continuing health care process. The Declaration made it clear that to address the main health needs of people in the community, primary health care must include promotive, preventive, curative, rehabilitative and palliative services in accordance with those needs (1). In this paper, rehabilitation is recognized as a core component of the health care continuum, as necessary in primary health care, at the gateway to service delivery as they are in secondary or tertiary care (see Box 1 for an outline of what rehabilitation comprises).

Box 1. What is rehabilitation?

Rehabilitation is a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment. Health conditions include disease (acute or chronic), disorders, injuries or trauma. A health condition may also include other circumstances such as pregnancy, ageing, stress, congenital anomaly or genetic predisposition. Environments refer to the physical, social, and cultural contexts in which individuals and their communities live.

Rehabilitation may be needed by anyone with a health condition who experiences difficulties in mobility, vision, hearing, speech, swallow or cognition, for example. Rehabilitation addresses impairments, activity limitations and participation restrictions, as well as personal and environmental factors (including assistive technology) that impact on functioning. Rehabilitation is a highly person-centred health strategy, with interventions focusing on the function and capacities of an individual as well as the goals and preferences of the user.

Rehabilitation usually includes the interventions provided by rehabilitation professionals such as physiotherapists, occupational therapists, speech and language therapists, orthotic and prosthetic technicians, psychologists and physical and rehabilitation medicine doctors (2).

The Declaration's recognition of rehabilitation was significant because it helped to promote a political commitment to improving access to rehabilitation for people in their communities. It did so by encouraging:

- empowerment of individuals, families and communities to optimize their health through rehabilitation;
- the streamlining of referrals to more specialized rehabilitation external to the community.

Since the signing of the Declaration countries have followed different approaches to integrate rehabilitation into primary health care, depending on their available resources and health infrastructure.

¹ A declaration on the need for urgent action by all governments, health and development workers, and the world community to protect and promote the health of all people, signed at the International Conference on Primary Health Care in Alma-Ata, 12 September 1978.

² Primary health care is a whole-of-society approach to maximizing the level and distribution of health and well-being by acting simultaneously on three components (1) *primary care* and essential public health functions as the core of integrated health services (2) *multisectoral policy and action* (3) *empowering people and communities*. Primary health care has been shown to be the most equitable, effective or and cost-effective way to enhance the health of populations.

Alma-Ata at 40: taking stock and looking ahead

Where the rehabilitation workforce capacity is stronger, rehabilitation professionals may be accessible at the primary care level, especially for addressing the needs of people with highly prevalent conditions, such as back pain or postpartum complications. Where the rehabilitation workforce capacity is less developed, rehabilitation interventions may sometimes be delivered by generalist health care providers. In all instances, the primary health care workforce – general-practitioners, primary care nurses or community health workers – should be trained to identify and assess the rehabilitation needs of their patients, and either provide rehabilitation interventions or refer them to the most suitable rehabilitation services (*3*, *4*). The three case studies in this paper demonstrate a variety of pathways that countries may take in ensuring that rehabilitation plays a key role in primary health care (see Boxes 4, 5 and 6).

As we approach the 40th anniversary of the Declaration of Alma-Ata, it is important to be realistic about the actual progress countries have made in both recognizing the vital importance of rehabilitation and the need to integrate rehabilitation in primary health care. Despite the Declaration of Alma-Ata, and the existence of successful models of integration, in the vast majority of health systems (especially in low- and middle-income countries), rehabilitation has not been fully or effectively integrated into primary health care. Data collected by the World Health Organization (WHO) Regional Office for the Western Pacific, for example, found that only 25% of countries in the region have well-established and sustainable rehabilitation in primary health care (*5*).

This year, the world comes together at the Global Conference on Primary Health Care to endorse the Declaration of Astana and to recommit to strengthening primary health care to achieve universal health coverage and the Sustainable Development Goals. At this time, it is important that we reflect on the current and future rehabilitation *needs* of individuals and communities and how this need can be efficiently met in the context of primary health care. It is also important to reflect on the current *challenges* we face when integrating rehabilitation in primary health care and what concrete actions can be taken. The 40th anniversary of this global health milestone provides an opportunity to reaffirm the principles of the original declaration and underline the importance of the integration of rehabilitation in primary health care in order to achieve the collective health goals for the 21st century.

Rehabilitation in primary health care: the need

Global demographic and health trends will probably increase the need for rehabilitation to be integrated into primary health care. The world's population is ageing, and the number of people living with noncommunicable diseases and the consequences of injuries are increasing (6–8). The population aged over 60 years is predicted to double by 2050, and the prevalence of noncommunicable diseases has already increased by 13.7% in the past 10 years (6, 9). Together, these trends bring a surge in the prevalence of disability and will place new and major demands on health and social systems, impacting the delivery of primary health care.

As the impact of noncommunicable diseases and population ageing continues, the number of people who require rehabilitation close to their homes will also increase. In addition, primary health care will continue to be an especially critical platform for the identification and referral of children with developmental, cognitive and other congenital conditions, as these individuals may never enter the hospital system and need long-term rehabilitation.





Rehabilitation in primary health care: the benefits

Primary health care is where the diagnosis of a large majority of health conditions, the identification of problems in functioning, and referral to other service delivery platforms need to occur. It is also the care platform where adherence to treatment plans and their progress take place. Promoting all these functions of primary health care insures that a life course and integrated perspective on care is achieved, which has a positive impact on functioning and quality of life.

In addition to health benefits, rehabilitation provided in primary health care also has broader social benefits (see Box 2 for examples). Early intervention can reduce the prevalence and minimize the disabling effects of chronic conditions among adults and children, such as managing cognitive decline for individuals with dementia, maintaining movement for those with arthritis, and optimizing functioning for children with cerebral palsy (10-12). Integrating rehabilitation into primary health care can also optimize the outcomes of other kinds of health interventions (surgical or psychological) by facilitating continuity of care that supports full recovery (13, 14). Rehabilitation provided close to people's homes enables them to remain in education and in the workforce, and remain independent or minimize care and financial supports for longer, leading to associated cost benefits for both the individual and society (15, 16). In addition, by helping to mitigate the risk of preventable complications and secondary conditions (17, 18), rehabilitation at the primary care level can also help to avoid costly hospitalizations and re-admissions (19-21).

Box 2. The wider benefits of rehabilitation

In Fiji, an elderly woman experienced a stroke and required full-time care. After receiving rehabilitation in her home, she learned to walk again, independently carry out her self-care tasks, and self-manage her symptoms. Now, using her orthoses and walking stick, she can go outside, tend to her garden and remain active. Her daughter has been able to return to work and improve their household income (22). A 49-year-old woman in Switzerland was involved in a bicycle accident, sustaining multiple injuries including a broken neck, crushed lower back and blocked arteries. She underwent many surgical procedures, and spent extensive time in hospital. When she was finally discharged, she continued rehabilitation with a community physiotherapist. Receiving this rehabilitation service has helped her to manage her chronic pain, improve her movement, strength and balance, and has allowed her to return to work and light exercise. She states that rehabilitation gave her a "second life, a second life definitely worth living" (23).

The health needs of people with long-term and chronic health conditions are unlikely to be effectively addressed without rehabilitation, leaving them at risk of being left behind unless rehabilitation is made accessible at the primary care level. For this reason, access to essential rehabilitation interventions at the primary care level is a key component of universal health coverage (7, 24).

Strengthening rehabilitation in primary health care: challenges and ways forward

Many ministries of health need to be persuaded of the value of rehabilitation through information about the effectiveness and cost–effectiveness of rehabilitation, and many countries will need guidance about how best to integrate rehabilitation into primary health care.

The common barriers and challenges encountered when integrating rehabilitation into primary health care are described in this section, along with some of the actions that can be taken to address them.

Limited rehabilitation leadership, planning and prioritization

Rehabilitation regularly lacks strong leadership and planning within health systems (26), and there is correspondingly limited championing of rehabilitation within primary health care. Health ministries have commonly prioritized preventive and curative care with focus on mortality (25). Failure to recognize the contribution of rehabilitation to population health and the lack of advocacy for rehabilitation have meant that rehabilitation is often excluded from health financing and planning processes, such as health care packages for primary health care.

- Creating and strengthening leadership and political support for rehabilitation at sub-national and national levels, and developing and implementing strategic plans and monitoring frameworks for rehabilitation, utilizing the WHO Rehabilitation in Health Systems Guide for Action (27).
- Ensuring that rehabilitation is integrated into health planning and financing processes, and into countries' efforts to achieve universal health coverage through the inclusion of essential care packages. A preliminary version of an "essential package of rehabilitation interventions" suitable for community settings has already been proposed and can be used for this purpose (28).
- Mobilizing users, people with disability and civil society to advocate for rehabilitation in primary health care by promoting campaigns that emphasize the personal, social and economic impact of rehabilitation, so that the need for rehabilitation resonates with decision-makers and budget holders.
- Encourage the emergence of rehabilitation professional associations that can represent and promote rehabilitation.







Misconceptions about rehabilitation

Several misconceptions have undermined the prominence of rehabilitation in primary health care (and in the health system more broadly). Across countries, especially low- and middle-income countries, rehabilitation is viewed as a fallback strategy when preventive or curative interventions fail. However, rehabilitation interventions are an integral component of the continuum of care and should be accessible alongside preventive and curative interventions in order to optimize outcomes.

A second misconception is that rehabilitation is a "luxury" or optional health service for those that can afford it. In reality, given the impact of rehabilitation interventions on people's lives, they are essential services that should be available to everyone.

A third misconception is that rehabilitation is a disabilityspecific service, when in fact it is a core service for population-wide health.

- Raising awareness of the added value of rehabilitation across a wide range of health conditions through compiling evidence of both the effectiveness of rehabilitation interventions and their cost-effectiveness.
- Engaging in and disseminating economic studies showing the return on investment of rehabilitation interventions across different communities.

Limited workforce capacity for rehabilitation

Access to rehabilitation is dependent on there being enough appropriately trained personnel to meet population needs, particularly in primary health care. In higher-resource settings, the rehabilitation workforce in primary health care is comprised of personnel with extensive training in rehabilitation, such as physiotherapists, occupational therapists, speech-language therapists and rehabilitation doctors. Meanwhile in many low-and middle-income countries, those professionals, when existing, tend to remain located in urban areas due to incentives around salary and working conditions, leaving the rest of their country uncovered.

However, in primary health care, it is also fundamental that other health workers such as general practitioners, primary health care nurses and community health workers are trained in assessing rehabilitation needs and in the delivery of rehabilitation interventions that address common health problems such as back pain and cardiac disease (29–31).

- Increasing the number of rehabilitation personnel in primary health care through greater investment in education and training programmes, and incentives for practice in the community. For example, include degree programmes for rehabilitation professions in universities or establish student exchange arrangements with international training programmes; ensure rehabilitation personnel are paid competitive salaries; and that there are opportunities for career progression.
- Using innovative workforce modelling to more efficiently and effectively distribute rehabilitation competencies among the workforce in accordance with population needs and country resources (*32, 33*). For example, re-evaluate traditional curricula and explore options for new cadres, such as rehabilitation assistants, or trans-disciplinary models of care.
- Introduce tele-rehabilitation to support general practitioners in the primary health care context to identify the appropriate intervention through distance support of a rehabilitation professional.
- Increasing the capacity and training of general practitioners in the early identification of functioning decline, referral to rehabilitation, and follow up and monitoring of at risk populations that may develop health complications that can limit functioning (e.g. those at risk of developing pressure ulcers or muscle contractures).
- Increasing the capacity of community health workers (e.g. community health nurses) to support rehabilitation through protocol-directed care of prevalent rehabilitation needs. For example, training community health workers in how to deliver exercises post stroke, and how to educate those with pulmonary and other chronic conditions in energy conservation and self-management.
- Optimizing rehabilitation workforce performance, retention and distribution through investing in supportive practice environments, such as sound supervisory structures, professional development opportunities, and active professional associations.



Poor referral systems for rehabilitation

Several studies have shown (see Box 3) that among general practitioners and other members of primary health care teams, under-referral for rehabilitation is a major hindrance, even in high-income settings.

Research suggests that, in many cases, general practitioners lack knowledge of rehabilitation needs for their patients, even for conditions like chronic arthritis for which rehabilitation should be an obvious option (3, 12, 34). Other factors that influence referral rates include: availability of rehabilitation (with particular challenges in rural areas and smaller communities); whether the referring service is public or private; co-location of services; the individual's burden of illness; the socioeconomic status of patients; and staff attitudes towards rehabilitation (35).

Areas of action include:

- Building smooth and effective rehabilitation referral processes, located inside and outside primary health care. Ensuring referral mechanisms "keep up" with services, especially in high-income countries where complexity and fragmentation is often a feature of health services (36).
- Raising awareness and educating the primary health care workforce of the benefits of rehabilitation across a wide range of health conditions, and the importance of early referral to rehabilitation. This may include in-house education sessions, adaptations to existing practice protocols, or setting up visual cues in the workplace to prompt staff to discuss rehabilitation options with their patients (*3*, *37*).
- Increasing opportunities for collaboration between rehabilitation providers and other primary health care workers. For example, co-location of services, team meetings and inter-professional models of service delivery can increase opportunities for understanding and trust among the primary health care workforce, and can positively influence rehabilitation referral rates (33).

Box 3. Scoping review

WHO conducted a scoping review on rehabilitation and primary health care using the PubMed database. The search string *rehabilitation* [*Title*/*Abstract*] *AND "primary health care" OR "primary care"* [*Title*/*Abstract*] was used, including studies published in English between 2008 and 2018. Of the 530 abstracts that were examined, 246 were excluded. A further 78 were excluded following full text review, resulting in 212 included in the final analysis.

Key findings

The majority of the literature reviewed (89%) came from high-income settings. Thematically, 64% of analysed studies mentioned referral to rehabilitation by the primary health care workforce, while others referenced rehabilitation carried out in a primary health care setting (25%), or explored the idea of rehabilitation in the primary health care context (11%).

One key issue repeatedly mentioned in the literature was under-referral to rehabilitation by the primary health care workforce. For example, several studies focused on the underutilization of pulmonary rehabilitation for chronic obstructive pulmonary disease (COPD), despite overwhelming evidence around its benefits for all symptomatic COPD patients (*31*, *38–41*). A systematic review of surveys and audits found that only 3–16% of eligible COPD patients were referred to pulmonary rehabilitation (*42*). Reasons for under-referral include lack of knowledge about pulmonary rehabilitation, particularly among general practitioners, and insufficient resources (*3, 43*).





Limited access to assistive products³

Assistive products such as walking aids, toilet and shower chairs, augmentative and alternative communication devices or simple time-management devices should be an essential component of rehabilitation and primary health care. A range of basic products needed by an increasing number of people can be provided with minimum training and can have a significant impact in a person's functioning, and should be available close to the person's home.

Yet access to assistive products is commonly lacking in primary health care and, where it may exist, affordability and quality are often a challenge. It is estimated that only one in ten people globally have the assistive products they need (44).

- Creating and strengthening leadership and political support for the provision of assistive products in primary health care, and building this provision into strategic plans and monitoring frameworks for health care.
- Ensuring that the provision of assistive products is integrated into health planning and financing processes and into countries' efforts to achieve universal health coverage through the inclusion of a "priority assistive products list". WHO has developed a model list of priority assistive products that can be adapted according to sub-national or national needs (44).
- Ensuring that procurement systems are in place with a sustainable supply of high-quality assistive products that are appropriate for the local environment in which they will be delivered.
- Equipping primary health care personnel with the knowledge and skills needed to provide a range of basic assistive products with inclusion of the following steps: assessment and selection, fitting, user training and follow-up, maintenance and repairs.
- Collaborating with local and community resources (such as carpenters, and welders) for the production of basic technical aids.

³ Assistive products are any external product (including devices, equipment, instruments and software), especially produced or generally available, the primary purpose of which is to maintain or improve an individual's functioning and independence, and thereby promote their well-being. Assistive products are also used to prevent impairments and secondary health conditions (43).



Limited primary health care data on rehabilitation

Robust data on rehabilitation access, needs and effectiveness is lacking in most countries – in particular for rehabilitation in primary health care. As a consequence, policy-makers lack the information they need to identify the population's needs, and to allocate resources effectively. Planners lack the necessary information to design more effective primary health care services. Managers lack the necessary information to monitor and evaluate these services, and primary health care professionals lack the information to provide high-quality and evidence-based care.

Including information on the amount and type of rehabilitation needs and the effectiveness of rehabilitation interventions in primary health care as part of countries' broader health information systems is essential for strengthening rehabilitation in primary health care. In addition, systems-level information about all aspects of the delivery and financing of rehabilitation is necessary. This includes information on inputs for rehabilitation (e.g. policy, financing, human resources and infrastructure); outputs from rehabilitation (e.g. service availability); and rehabilitation outcomes (e.g. service coverage and utilization).

- Ensuring that information on rehabilitation access, needs and effectiveness is integrated into primary health care information management systems, such as district health information software.
- Ensuring that system-level information about all aspects of the delivery and financing of rehabilitation in primary care is collected and used alongside information on population needs for health system planning.
- Equipping statistical departments of ministries of health with the knowledge and skills needed to collect, analyze and utilize data for policy decisions.

The Declaration of Astana and integration of rehabilitation in primary health care

Despite its poor integration to date, rehabilitation exemplifies the basic properties and virtues of primary health care: it provides a comprehensive and integrated response to the needs and challenges associated with a variety of underlying health conditions, addresses broader determinants of health through multisectoral coordination that improves accessibility for people with rehabilitative needs and empowers people and their families to care for their health and functioning. Overcoming the challenges and obstacles to placing rehabilitation higher up the primary health care agenda in all countries – regardless of their resource level – is now urgent. Ageing populations and the rise of noncommunicable and chronic health conditions will increase the prevalence of disability worldwide and dramatically increase the need for rehabilitation. This rising need must be addressed across the health system, but primarily within the context of primary health care.

Early access to rehabilitation through integration in primary health care helps to optimize outcomes, mitigate disability and improve people's ability to live independent lives (see Boxes 4–6 for examples of this). WHO's emphasis on universal health coverage and its recent launch of the Rehabilitation 2030 Call for Action are encouraging steps towards the goal of strengthening rehabilitation within the health system (*2, 23*), and in particular in primary health care. Rehabilitation 2030 was a commitment to key actions to strengthen rehabilitation by Member States, international and professional organizations, nongovernmental organizations, and rehabilitation experts issued in 2017. As we move forward towards the Declaration of Astana, designing and implementing concrete steps to bring rehabilitation fully within the primary health care agenda and fulfil the promise of Alma-Ata will demand ingenuity, energy and strong commitment from all stakeholders.



Box 4. Example from Chile

In Chile, primary health care is of paramount importance for the development of rehabilitation. Rehabilitation available in primary health care has increased over the past decade. A survey based on the International Classification of Functioning, Disability and Health (ICF) (*45*), was conducted in 2004 to measure disability in the population. Among other outcomes, the survey findings highlighted the need for improved rehabilitation in the country. In 2007, the *Programa de Rehabilitación Integral en la Atención Primaria de Salud* (Integral Programme of Rehabilitation in Primary Health Care - Public Assistance Network) was initiated in order to:

- optimize the functioning and independence of individuals with permanent or temporary health conditions, bringing rehabilitation to the community;
- increase the provision of assistive products;
- facilitate intersectoral work; and
- promote community participation.

How was rehabilitation integrated into primary health care?

The Integral Programme of Rehabilitation in Primary Care is funded by the Ministry of Health. The initiative involved significant enhancement of primary health care infrastructure, with 243 new facilities being built across the country, equipped with relevant rehabilitation equipment and resources. Rehabilitation in the new facilities was prioritized for individuals with acute and chronic musculoskeletal, respiratory and neurological conditions.

The programme also saw a boost in the rehabilitation workforce, with an increase in kinesiology and occupational therapy staff. Rural rehabilitation teams were formed to increase access to rehabilitation in remote rural areas.

What was the impact?

The Chilean Ministry of Health has developed a rehabilitation network at the primary care level that covers an important part of the rehabilitation needs of the population, particularly for individuals with musculoskeletal, respiratory and chronic neurological conditions. This has opened the possibility for hospitals to focus their rehabilitation resources on more complex and specialized services, with an emphasis on early rehabilitation in the acute and subacute phase of the pathologies. It has also increased the quality of care for patients needing ambulatory or close-to-home rehabilitation, with the outcome of reducing recovery times and preventing or improving disability (46).



Box 5. Example from Fiji

A Mobile Rehabilitation Service was set up in Fiji in 2013 to provide multidisciplinary rehabilitation at the primary care level. This government-led outreach rehabilitation service provides a decentralized approach to rehabilitation service provision, complementing other rehabilitation services available at the tertiary level, and ensuring that rehabilitation reaches those living in rural and remote locations.

How was rehabilitation integrated into primary health care?

Rehabilitation is well integrated in Fiji's health system and is acknowledged in both the annual Corporate Plan and the Strategic Plan. The Mobile Rehabilitation Service is aligned with national health priorities, and as such receives buy-in and financial support from the Ministry of Health and Medical Services (MHMS). The service sits within Fiji's National Rehabilitation Hospital (NRH), and works in close partnership with other nongovernmental agencies. The activities of the service are overseen by the Acting Rehabilitation Consultant, who effectively coordinates the teams, plans upcoming outreach visits, manages the list of clients and coordinates with MHMS regarding the budget. The Ministry of Education and the Ministry of Social Welfare have also been engaged in aspects of the service, to facilitate referral pathways for children and to promote joint service provision.

The service operates effectively with minimal resources. Rehabilitation, including provision of assistive devices, is provided free of charge for clients.

The Mobile Rehabilitation Service team is made up of staff from the NRH, including a rehabilitation consultant, prosthetic and orthotic technician, nurse, community rehabilitation assistant and a physiotherapist when available. It is committed to ongoing training of its experienced staff. The service has access to quality assistive devices and rehabilitation equipment, which are sourced and procured by local organizations.

Data collection related to clients and the provision of assistive devices is largely paper based. Discussions are underway to develop a standalone database or module within the MHMS patient information system to improve visibility of service achievements and information handover between health services.

The Mobile Rehabilitation Service has well established referral pathways, with community rehabilitation assistants playing a key role. The service not only ensures continued rehabilitation beyond hospital discharge, but also identifies new clients in the community, ensuring access for those who would otherwise not receive any services. The service consistently carries out follow-up visits with clients to monitor progress and ensure maintenance and training in use of assistive devices. Opportunities to further strengthen referral processes with other health services are being explored, and several strategies have already been implemented (including developing health information, participating in a coordinating committee and attending meetings with relevant stakeholders).

Service coverage is an ongoing challenge. The Mobile Rehabilitation Service visits clients in the western and northern divisions of Fiji, however there is still very limited coverage in the outer islands due to the cost and time required to travel to these areas. There is also currently inequity in service provision for the different age groups, with adults receiving more services than children. This is likely due to the service's' focus on rehabilitation interventions for amputations and spinal cord injuries, which often present in adulthood.

What was the impact?

A recent evaluation of the Mobile Rehabilitation Service (22) found it to be an effective approach to rehabilitation service provision, having notable impact on the lives of service users. The success of the Mobile Rehabilitation Service service has informed policy development, including the draft National Disability Inclusive Health and Rehabilitation Action Plan 2017–2022.





Box 6: Case example from Canada

In 2003, the First Ministers of Canada committed to improving access to multidisciplinary primary health care teams (33). This health reform prompted a number of initiatives that focused on integrating rehabilitation within primary health care, and has seen improvements in health care costs, individual outcomes and quality of care (47).

How was rehabilitation integrated in primary health care?

Between 2009 and 2013, the Ontario government (Ministry of Health and Long-Term Care) allocated funding to expand the number of occupational therapy and physiotherapy positions within primary health care (33, 47).

The additional rehabilitation workforce were integrated into a variety of service delivery settings, from Family Health Teams (an inter-professional model of primary care), to aboriginal health centres, community health centres and nurse practitioner-led clinics (33, 47). The interdisciplinary workforce in these settings varies, but can include physiotherapists, occupational therapists, chiropodists, dietitians, psychologists, social workers, mental health workers, pharmacists, physicians, respiratory therapists, and nurses (33). Most of the workforce provides services for individuals across the lifespan and with a wide range of health conditions (33, 47).

A key challenge in the integration process was the lack of understanding among the primary health care workforce regarding the role of a physiotherapist and occupational therapist (33, 47). Shared electronic medical records, as well as co-location of services and team meetings were crucial in enabling formal and informal communication and in increasing awareness amongst physicians and other interdisciplinary team members (33).

What was the impact?

Integration of rehabilitation within Ontario's primary health care services has seen significant overall improvements in patient functioning, mobility and quality of life, and improved access to services. Pain management services, for example, have seen a decrease in repeat visits, a reduction in medication prescription, improvements in self-management and patient satisfaction (47).

References

- Declaration of Alma-Ata. International conference on primary health care, Alma-Ata. USSR, 6–12 September 1978. Geneva: World Health Organization; 1978 (http://www.who.int/publications/almaata_ declaration_en.pdf?ua=1, accessed 21 September 2018).
- 2. Krug E, Cieza A. Strengthening health systems to provide rehabilitation services. Eur J Phys Rehabil Med. 2017;53(2):153–4. doi:10.23736/S1973–9087.17.04728–1.
- Foster F, Piggott R, Riley L, Beech R. Working with primary care clinicians and patients to introduce strategies for increasing referrals for pulmonary rehabilitation. Prim Health Care Res Dev. 2016;17(3):226–37. doi:10.1017/S1463423615000286.
- 4. Kruis AL, Chavannes NH. Potential benefits of integrated COPD management in primary care. Monaldi Arch Chest Dis. 2010;73(3):130–4. doi:10.4081/monaldi.2010.297.
- 5. Rehabilitation and disability in the Western Pacific. Manila: 2017 (http://iris.wpro.who.int/bitstream/han dle/10665.1/13808/9789290618331-eng.pdf?ua=1&ua=1, accessed 21 September 2018).
- Vos T., Allen C., Arora M., Barber R.M., Bhutta Z.A., Brown A. et al. Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The Lancet. 2016;388(10053):1545-602.
- 7. World Health Organization. World Report on Ageing and Health. Geneva: World Health Organization,; 2015.
- Chatterji S, Byles J, Cutler D, Seeman T, Verdes E. Health, functioning, and disability in older adults -- present status and future implications. Lancet. 2015;385(9967):563–75. doi:10.1016/S0140– 6736(14)61462–8.
- United Nations. World population ageing 2015. New York: UN Department of Economic and Social Affairs; 2015 (http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_ Report.pdf, accessed 10 October 2018).
- 10. Nguyen C, Lefevre-Colau MM, Poiraudeau S, Rannou F. Rehabilitation (exercise and strength training) and osteoarthritis: a critical narrative review. Ann Phys Rehabil Med. 2016;59(3):190–5. doi:10.1016/j. rehab.2016.02.010.
- Bosch-Bayard RI, Llibre-Rodriguez JJ, Fernández-Seco A, Borrego-Calzadilla C, Carrasco-García MR, Zayas-Llerena T et al. Cuba's strategy for Alzheimer disease and dementia syndromes. MEDICC Rev. 2016;18(4):9–13. doi:10.1590/medicc.2016.18400004.
- Hubermann L, Boychuck Z, Shevell M, Majnemer A. Age at referral of children for initial diagnosis of cerebral palsy and rehabilitation: Current practices. J Child Neurol. 2016;31(3):364–9. doi:10.1177/0883073815596610-r.
- Aziz AFA, Nordin NAM, Ali MF, Aziz NAA, Sulong S, Aljunid SM. The integrated care pathway for post stroke patients (iCaPPS): a shared care approach between stakeholders in areas with limited access to specialist stroke care rrservices. BMC Health Serv Res. 2017;17(1):35. doi.org/10.1186/s12913–016– 1963–8.
- 14. Thingstad P, Taraldsen K, Hagen G, Sand S, Saltvedt I, Sletvold O et al. Effectiveness of task specific gait and balance exercise 4 months after hip fracture: protocol of a randomized controlled trial the Eva-hip study. Physiother Res Int. 2015;20(2):87–99. doi:10.1002/pri.1599.
- Ni M, Brown LG, Lawler D, Ellis TD, Deangelis T, Latham NK et al. The rehabilitation enhancing aging through connected health (REACH) study: study protocol for a quasi-experimental clinical trial. BMC Geriatr. 2017;17(1):221. doi:10.1186/s12877–017–0618-x.
- Persson J, Bernfort L, Wåhlin C, Öberg B, Ekberg K. Costs of production loss and primary health care interventions for return-to-work of sick-listed workers in Sweden. Disabil Rehabil. 2015;37(9):771–6. do i:10.3109/09638288.2014.941021.

- 17. Grace SL, Turk-Adawi KI, Contractor A, Atrey A, Campbell NR, Derman W et al. Cardiac rehabilitation delivery model for low-resource settings: an international council of cardiovascular prevention and rehabilitation consensus statement. Prog Cardiovasc Dis. 2016;59(3):303–22. doi:10.1016/j. pcad.2016.08.004.
- 18. Nas K, Yazmalar L, Şah V, Aydın A, Öneş, K. Rehabilitation of spinal cord injuries. World J Orthop. 2015;6(1):8–16. doi:10.5312/wjo.v6.i1.8.
- 19. Clark RA, Conway A, Poulsen V, Keech W, Tirimacco R, Tideman P. Alternative models of cardiac rehabilitation: a systematic review. Eur J Prev Cardiol. 2015;22(1):35–74. doi:10.1177/2047487313501093.
- Gillespie LD, Robertson M.C., Gillespie W.J., Sherrington C., Gates S., Clemson L.M. et al. Interventions for Preventing Falls in Older People Living in the Community. Cochrane Database Syst Rev.2009;15(2):CD007140. doi:10.1002/14651858.CD007146.pub2.
- 21. Hawley-Hague H, Roden A, Abbott J. The evaluation of a strength and balance exercise program for falls prevention in community primary care. Physiother Theory Pract. 2017;33(8):611–21. doi:10.1080/0 9593985.2017.1328721.
- 22. World Health Organization Regional Office for the Western Pacific. Evaluation of Fiji's Mobile Rehabilitation Service. Manila: World Health Organization; 2017.
- 23. Rehabilitation 2030: A call for action, February 6–7 2017, meeting report. Geneva: World Health Organization; 2017 (http://www.who.int/disabilities/care/Rehab2030MeetingReport2.pdf?ua=1, accessed 21 September 2018).
- 24. Garvey J, Connolly D, Boland F, Smith SM. OPTIMAL, an occupational therapy led self-management support programme for people with multimorbidity in primary care: a randomized controlled trial. BMC Fam Pract. 2015;16:59. doi:10.1186/s12875–015–0267–0.
- 25. Rehabilitation in health systems. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/ bitstream/handle/10665/254506/9789241549974-eng.pdf?sequence=1, accessed 10 October 2018).
- 26. World health report 2008: primary health care: now more than ever. Geneva: World Health Organization; 2008 (http://www.who.int/whr/2008/whr08_en.pdf, accessed 10 October 2018).
- 27. Rehabilitation. In: World Health Organization [website]. Geneva: World Health Organization; 2018 (http://www.who.int/rehabilitation/en/, accessed 10 October 2018).
- Mills J, Marks E, Reynolds T, Cieza A. Rehabilitation: essential along the continuum of care. In: Jamison DT, Gelband H, Horton S, Jha P, Laxminarayan R, Nugent R, editors. Disease control priorities: improving health and reducing poverty. Washington (DC): The World Bank; 2017:285–95.
- Heiberg KE, Bruun-Olsen V, Bergland A. The effects of habitual functional training on physical functioning in patients after hip fracture: the protocol of the HIPFRAC study. BMC Geriatr. 2017;17(1):23. doi:10.1186/s12877-016-0398-8.
- 30. Sjöström-Strand A, Ivarsson B, Sjöberg T. Primary health care resources for rehabilitation and secondary prevention after myocardial infarction a questionnaire survey. Scand J Caring Sci. 2013;27(2):260–6. doi:10.1111/j.1471–6712.2012.01025.x.
- Sundh J, Lindgren H, Hasselgren M, Montgomery S, Janson C, Ställberg B et al. Pulmonary rehabilitation in COPD – available resources and utilization in Swedish primary and secondary care. Int J Chron Obstruct Pulmon Dis. 2017;12:1695–704. doi:10.2147/COPD.S135111.
- 32. Dizon JM, Grimmer K, Louw Q, Machingaidze S, Parker H, Pillen H. Barriers and enablers for the development and implementation of allied health clinical practice guidelines in South African primary healthcare settings: a qualitative study. Health Res Policy Syst. 2017;15(1):79. doi:10.1186/s12961–017–0243–3.
- 33. Donnelly C, Brenchley C, Crawford C, Letts L. The integration of occupational therapy into primary care: a multiple case study design. BMC Fam Pract. 2013;14:60. doi:10.1186/1471–2296–14–60.

- 34. Feldman DE, Bernatsky S, Lévesque JF, Van MT, Houde M, April KT. Access and perceived need for physical and occupational therapy in chronic arthritis. Disabil Rehabil. 2010;32(22):1827–32. doi:10.3109/09638281003734417.
- Sennehed CP, Holmberg S, Stigmar K, Forsbrand M, Petersson IF, Nyberg A et al. Referring to multimodal rehabilitation for patients with musculoskeletal disorders – a register study in primary health care. BMC Health Serv Res. 2017;17(1):15. doi:10.1186/s12913–016–1948–7.
- Everink IHJ, van Haastregt JCM, Evers SMAA, Kempen GIJM, Schols JMGA. An economic evaluation of an integrated care pathway in geriatric rehabilitation for older patients with complex health problems. PLoS One. 2018;13(2):e0191851. doi:10.1371/journal.pone.0191851.
- 37. Lineker SC, Husted JA. Educational interventions for implementation of arthritis clinical practice guidelines in primary care: effects on health professional behavior. J Rheumatol. 2010;37(8):1562–9. doi:10.3899/jrheum.100045.
- Bereznicki B, Walters H, Walters J, Peterson G, Bereznicki L. Initial diagnosis and management of chronic obstructive pulmonary disease in Australia: views from the coal face. Intern Med J. 2017;47(7):807–13. doi:10.1111/imj.13418.
- 39. Boulet LP, Bourbeau J, Skomro R, Gupta S. Major care gaps in asthma, sleep and chronic obstructive pulmonary disease: a road map for knowledge translation. Can Respir J. 2013;20(4):265–9. doi:10.1155/2013/496923.
- 40. Butts JF, Belfer MH, Gebke KB. Exercise for patients with COPD: an integral yet underutilized intervention. Phys Sportsmed. 2013;41(1):49–57. doi:10.3810/psm.2013.02.1999.
- 41. Garvey C. Recent updates in chronic obstructive pulmonary disease. Postgrad Med. 2016;128(2):231–8. doi:10.1080/00325481.2016.1118352.
- 42. Johnston K, Grimmer-Somers K. Pulmonary rehabilitation: overwhelming evidence but lost in translation. Physiother Can. 2010;62(4):368–73. doi:10.3138/physio.62.4.368.
- Molin KR, Egerod I, Valentiner LS, Lange P, Langberg H. General practitioners' perceptions of COPD treatment: thematic analysis of qualitative interviews. Int J Chron Obstruct Pulmon Dis. 2016;11:1929– 37. doi:10.2147/COPD.S108611.
- 44. Priority assistive products list: improving access to assistive technology for everyone, everywhere. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/handle/10665/207694/ WHO_EMP_PHI_2016.01_eng.pdf?sequence=1&isAllowed=y, accessed 10 October 2018).
- International classification of functioning, disability and health: ICF. In: World Health Organization [website]. Geneva: World Health Organization; 2018 (http://www.who.int/classifications/icf/en/, accessed 10 October 2018).
- 46. Ministerio de Salud Chile. Model de Gestion Red de Rehabilitacion. Chile: Gobierno de Chile; 2018.
- 47. Physiotherapy in primary health care. Ontario: Ontario Physiotherapy Association; 2017 (https://opa. on.ca/wp-content/uploads/Physiotherapists-Primary-Health-Care.pdf, accessed 10 October 2018).



