GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

Iechyd Rhyngwladol International Health

International Horizon Scanning and Learning Report

Report 39, June 2022

Canolfan Gydweithredol Sefydliad Iechyd y Byd ar Fuddsoddi ar gyfer Iechyd a Llesiant

World Health Organization Collaborating Centre on Investment for Health and Well-being

Overview

The International Horizon Scanning and Learning reports was initiated as part of the COVID-19 public health response, to support dynamic response and recovery measures and planning in Wales. They varied in focus and scope, depending on the evolving COVID-19 situation and public health/policy needs at that time. The reports focussed on COVID-19 international evidence, data, experience, policy and public health measures, transition and recovery approaches. Learning and intelligence was collated and synthesized to understand and explore solutions for addressing the on-going and emerging health, well-being, social, economic and environmental impacts (potential harms and benefits) of the pandemic.

In spring 2022, the scope of the reports has been expanded to cover priority public health topics, including in the areas of health improvement and promotion, health protection, and health care public health. The report topics and findings are aligned with and help inform decision-making and on-going work in Welsh Government, the NHS and Public Health Wales. They are also disseminated to wider network of (public) health professionals and partners nationally and internationally.

This is part of a wider Public Health Wales' systematic approach to intelligence gathering and evidence translation into policy and practice, supporting coherent, inclusive and evidence-informed action, which progresses implementation of the Well-being of Future Generations (Wales) Act and A Healthier Wales strategic plan towards a healthier, more equal, resilient, prosperous and globally responsible Wales.

Disclaimer: The reports provide a high-level summary of learning from real life countries' experiences, and from a variety of scientific and grey literature, including sources of information to allow further exploration. The reports are not comprehensive and are not aimed at providing detailed, robust or in-depth evidence review, analysis or quality assurance. They are meant to offer a brief snapshot or current evidence, policy and practice, sharing relevant country examples and key (reputable) international bodies' guidance and principles.

In focus:

- **Intermediate care**

Contents

At a glance: summary of international learning

"Consensus was established that intermediate care provides holistic and person-centred care; with the involvement of family and caregivers and support for self-management; while using relational approaches, creative solutions and simple technologies"
(Sezgin et al, 2020)[1]

Overview and principles of intermediate care

- Intermediate care has **developed in response to:**
  - Changing **demographics** and increasing **long-term conditions and multi-morbidity**
  - Need to **increase outcomes and value for people/patients** and families
  - Need to **decrease costs and increase value for money**
- There is **no universally accepted definition** of intermediate care internationally
- **Key principles** and characteristics of intermediate care include:
  - Implementation of **integrated health, social, and other care services** using a **collaborative inter-disciplinary** approach with **service users as partners**
  - **Person-centred** focusing on outcomes that matter to the user/s, promoting faster recovery, maximising independent living and reducing in/out-patient delays
  - **Home/locally delivered** care which is **short term and time limited**
  - **Accessible, flexible, responsive** through a **single point of contact** available 24/7
  - **Clear governance and accountability**, monitoring delivery and quality
  - **Use of technology and digital tools** to support self-management and care
  - **Workforce education and training** that fosters trust and collaborative working

Application of intermediate care

- Intermediate care is **applicable to any age group** (including children) for a **wide range of needs** (illness or injury), including:
  - Individuals who have recently lost function
  - When at higher risk of emergency (re)admission to hospital
  - To avoid premature permanent admission to long term institutional care
- Intermediate care **can help:**
  - **Prevent unnecessary or premature admission** to hospital / long term care facility
  - **Faster recovery** after illness or injury, **rehabilitation and reablement**
  - **Discharge** from inpatient settings and **transition** between settings ("transitional care")
  - Facilitate people's **independence and confidence**
  - **Reduce the need** for long term and inpatient care services
  - **Reduce costs** for the health and social care system
- There are **variations in intermediate care system structure and processes across countries**, however, it is often provided within and funded by other care services
- **COVID-19 has impacted supply and demand** for intermediate care:
  - Due to **resource reallocation**, some hospital patients were discharged into long term care facilities instead of receiving intermediate care
  - **Demand** for specific intermediate care services (e.g. pulmonary rehabilitation) is **expected to increase** following COVID-19

[1] https://pearl.plymouth.ac.uk/bitstream/handle/10026.1/16330/Sezgin%202020%20Intermediate%20Care%20International%20Definition.pdf?sequence=1&isAllowed=n

Intermediate care: overview

Definition[2][3][4]

- There is **no universally accepted definition** of intermediate care internationally
- It has developed to **expedite discharge from hospital** and to provide an **alternative to an emergency** hospital admission
- **In the UK,** it is defined as **a range of integrated services** that[5][6] *(Figure 1)*:
  - ✓ Promote faster recovery from illness
  - ✓ Prevent unnecessary acute hospital admissions and premature admissions to long-term care
  - ✓ Support timely discharge from hospital
  - ✓ Maximise independent living
  - ✓ Delivered for a **short period,** e.g. maximum six weeks
  - ✓ Referred to as **reablement, crisis response, home based and bed based**
  - ✓ **A form of active rehabilitation,** which is non-means-tested, time limited, short term[7]
  - ✓ Having **clear objectives to prevent** readmissions, shorten hospital stays and reduce delays in transition to post-acute care *(in contrast to chronic case management)*
  - ✓ Can have **different names; also called "transitional care"** when it refers to services during the transitions from hospital to home / home to hospital, and from illness / injury to recovery and independence

Figure 1: Intermediate care at a glance[6]

[2] https://pubmed.ncbi.nlm.nih.gov/25377746/
[3] Understanding intermediate care, including reablement | Quick guides to social care topics | Social care | NICE Communities | About | NICE
[4] https://apps.who.int/iris/bitstream/handle/10665/274628/9789241514033-eng.pdf?sequence=1&isAllowed=y
[5] Recommendations | Intermediate care including reablement | Guidance | NICE
[6] understanding-intermediate-care-quick-guide.pdf (nice.org.uk)
[7] Intermediate care and reablement (ageuk.org.uk)

Drivers and eligibility

Drivers for introducing intermediate care include:

- **Ageing** population and **increase in long-term conditions and multi-morbidity**[8][9][10][11][12][13]
- Opportunity to **decrease costs and increase value for money** through shifting care from an institution to a home setting
- Opportunity to **increase outcomes and value for the people and families**, aligning with their needs and preferences

A **broad scope of individuals can benefit** from intermediate care if it is likely that specific support and rehabilitation would **improve their ability to live independently** and[14][15]:

- They are **at (higher) risk of hospital / emergency admission or readmission**
- They have been in hospital and **need help to regain independence**
- They are **living at home** and having **increasing difficulty with daily life** through illness or disability
- To **avoid premature permanent admission to long term** institutional care

Key principles[16]

Effective intermediate and transitional care can make an **important contribution to a number of positive outcomes for older adults and for healthcare systems**.

Principles underpinning effective intermediate care are:

- Delivered **at home**, if safe and appropriate, or **as locally as possible**
- **Accessible, flexible and responsive** through a **single point of contact** that operates for extended hours, seven days per week
- **Maximise independence, confidence and the outcomes** that matter to the individual through comprehensive assessment and focus on rehabilitation, reablement and recovery
- **Time limited**, with **person-centred** anticipatory care and discharge planning from day one
- Delivered by an **interdisciplinary team within an integrated health and social care -** with patients, caregivers and families as partners; and in collaboration with primary care, community support, social care, care homes and specialist hospital services
- **Sufficient capacity and appropriate expertise** to manage individuals with complex needs
- **Workforce education and training** that fosters trusting relationships between staff from different disciplines, care settings and sectors
- **Clear governance**, care standards and arrangements to monitor and report on the demand, activity, quality and outcomes of care
- **Use of technology:** electronic records, home and mobile health monitoring, video consultations, assistive living equipment, and digital tools to support self-management

[8] Our ageing population - The Health Foundation
[9] Ageing and health (who.int)
[10] Long-term conditions and multi-morbidity | The King's Fund (kingsfund.org.uk)
[11] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/198033/National_Service_Framework_for_Older_People.pdf
[12] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ageing_Europe_-_statistics_on_population_developments#:~:text=In%202019%2C%20there%20were%2090,4,22.1%20%25%20in%20predominantly%20rural%20regions.
[13] https://www.gov.scot/publications/maximising-recovery-promoting-independence-intermediate-care-framework-scotland/pages/5/
[14] https://www.nice.org.uk/guidance/ng74/chapter/Recommendations
[15] https://advantageja.eu/images/WP7_Intermediate-and-transitional-care-task-group-report.pdf
[16] WP7_Intermediate-and-transitional-care-task-group-report.pdf (advantageja.eu)

The World Health Organization (WHO) global strategy on people-centred and integrated health services[17] provides **a conceptual framework** *(Figure 2)* and **recommends:**

- Placing **individuals, families and communities at the centre of care**, organising **services around people's health needs and expectations**, rather than their disease
- Developing a service delivery that supports **universal, equitable, people-centred and integrated** care, with close **collaboration between service providers**
- Ensuring people receive a **continuum of health care services** within the health system, **throughout their life course**
- Considering **five strategic directions** for service delivery, which should be implemented in a manner **sensitive to the local context, values, and preferences** *(Figure 3)*

Figure 2. WHO conceptual framework for people-centred and integrated health services

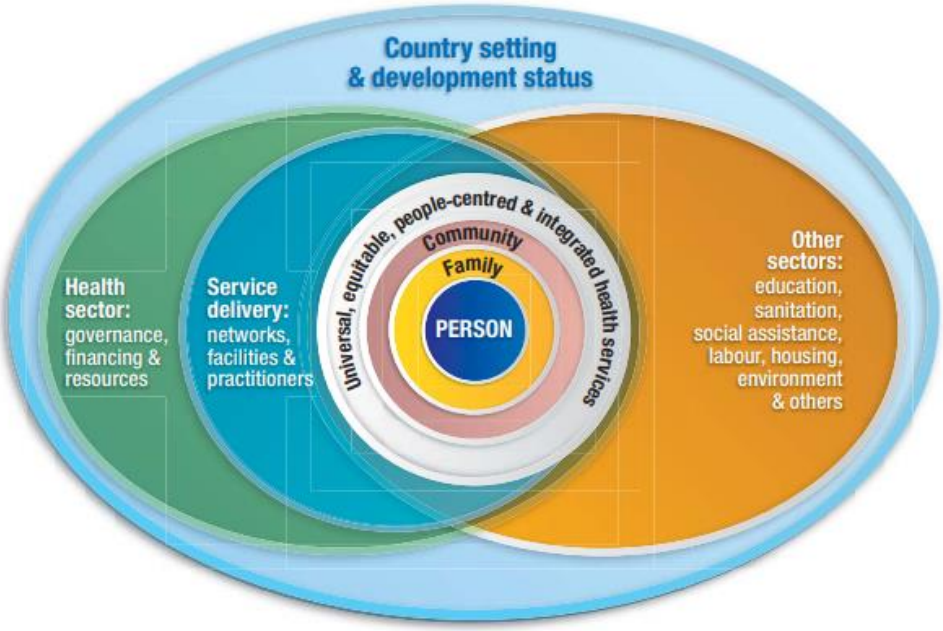
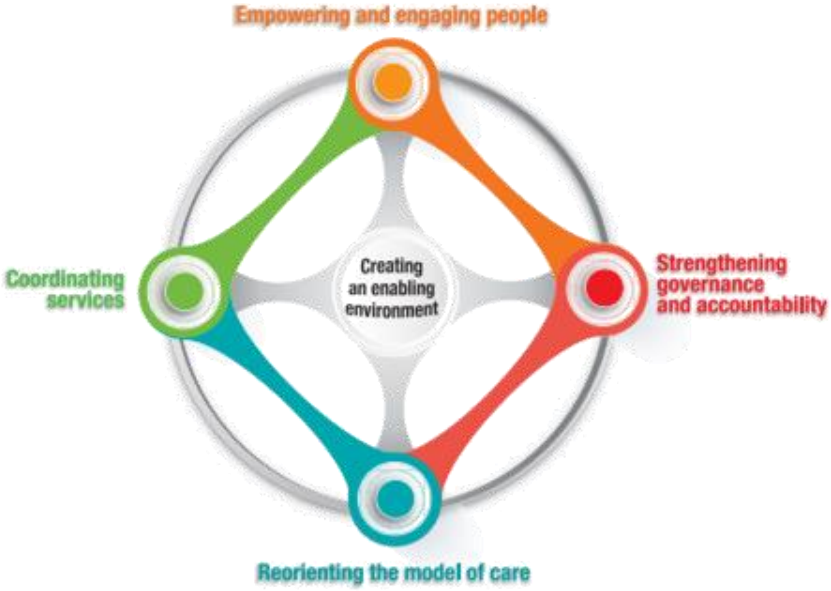


Figure 3. Five strategic directions to support people-centred and integrated health services



[17] http://apps.who.int/iris/bitstream/handle/10665/155002/WHO_HIS_SDS_2015.6_eng.pdf?sequence=1

Overview of intermediate care in the UK

The concept of intermediate care was developed in 2000 with a specific focus on older people to promote independence and improve quality of care[18]. It was implemented into the *National Service Framework for Older People 2001*, giving older people **a new range** of services[19].

Recommendations focus on collaborative goal setting, and a person-centred approach with consideration of specific cultural and other preferences, individual motivations, and a focus on the person's strengths in order to build skills and confidence[20].

Services commonly include, but are not limited to: general practice, podiatry, pharmacy, mental health and dementia services, specialist and longer-term rehabilitation services, housing services, third sector services, community and faith services. Services are delivered by health care professionals such as nurses, occupational therapists, physiotherapists, speech and language therapists, and social workers, amongst others[20].

Scotland[21]

Intermediate Care Framework for Scotland[22] key components:

- Clear scope, focused on prevention, rehabilitation, reablement and recovery
- Time limited, linking and complementing existing services
- Accessible, flexible and responsive through a single point of access, 7 days a week, and 24 hours a day
- Holistic assessment to maximise independence, confidence and personal outcomes
- Co-ordinated, able to draw on multi-professional and multi-agency skills and resources to meet complex needs
- Informing service improvement through assessing the impact of interventions

Northern Ireland[23]

Intermediate care services should:

- Be targeted at people who would otherwise face:
  - ✓ Inappropriate admission to acute in-patient care
  - ✓ Long-term residential/nursing home care
  - ✓ Unnecessarily prolonged hospital stays; or
  - ✓ Continuing Health and Personal Social Services inpatient care
- Be provided on the basis of a comprehensive person-centred assessment of need, resulting in a structured individual care plan that, where appropriate, involves active therapy, treatment or opportunity for recovery
- Have a planned outcome of maximizing independence and typically enabling service users to remain or resume living at home
- Be time-limited, usually no longer than six weeks and frequently as little as one-two weeks or less
- Involve cross-professional working, with a single assessment framework, increasingly integrated professional records and shared protocols

[18] https://webarchive.nationalarchives.gov.uk/ukgwa/20100408165047/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_5207931
[19] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/198033/National_Service_Framework_for_Older_People.pdf
[20] https://www.nice.org.uk/guidance/ng74/chapter/Recommendations
[21] Intermediate care - Independent living - gov.scot (www.gov.scot)
[22] https://www.gov.scot/publications/maximising-recovery-promoting-independence-intermediate-care-framework-scotland/pages/6/
[23] Intermediate care circular final.doc (health-ni.gov.uk)

Intermediate care: country insights

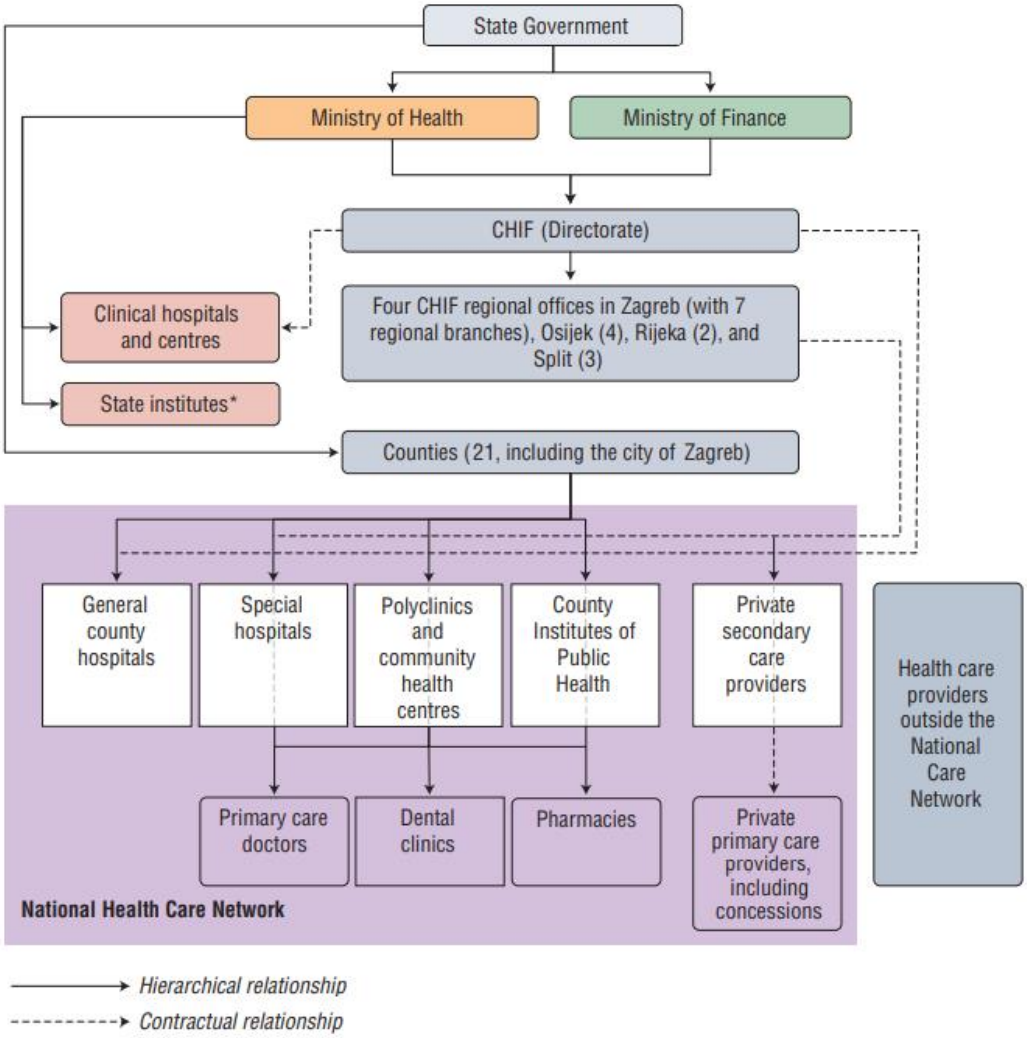
This section provides an insight of intermediate care services in selected countries, including: Croatia, Germany, Norway and Canada, based on available evidence in the English language. The majority of **available evidence is focusing on services targeted at older people**, though intermediate care can be used to address various needs across the life course.

Croatia

Health system overview[24]

The Ministry of Health is charged with the health system governance with funding and regulation managed at the national level *(Figure 4).* Counties are responsible for the organisation and management of primary and secondary care, while national authorities are responsible for tertiary care. Primary care physicians serve as "gate-keepers" ensuring that health care is provided at the lowest possible level of the system, following relevant strategies and plans.

Figure 4: Organisation of the Health System in Croatia



[24] Croatia (who.int)

Rehabilitation services[25][26]

In Croatia, **rehabilitation is a subsystem within the health care system**, comprising of specific care systems, such as stroke, spinal cord injury, or traumatic brain injuries. Rehabilitation goals vary from partial independence to return to school/work/leisure. The *Croatian Society of Physical Rehabilitation Medicine* organises continuous medical education in rehabilitation, and proposes measures for improving scientific and professional work. The most common causes for impairment requiring rehabilitation are noted as: stroke, spinal cord injury, trauma to the head, lower limb amputation, osteoarthritis and rheumatoid arthritis.

Rehabilitation services **emerged from three sources** - orthopaedics, balneology (the science of the therapeutic use of baths) and physiotherapy, and evolved following local or sectorial initiatives. Physiotherapy and rehabilitation are **provided at:**

- Primary care level as part of home care services
- Secondary and tertiary care level with dedicated beds in all types of health care stings, including teaching hospitals, specialist hospitals, and former spas

Referral for inpatient rehabilitation is regulated by the *Croatian Institute for Health Insurance (CIHI),* which defines three categories of patients/beds with different funding allocations[27]:

- **Patients with complex impairments** where the CIHI is paying per patient, per day: €40 for amputees; €32-48 for mobile traumatic brain injury patients; €72 for those in coma or vegetative state; and €90 per spinal cord injury patients
- **Patients with acute illness** referred to teaching hospitals where CIHI is paying €50 per patient, per day (in reality these beds are used for the diagnosis / treatment of arthritis)
- **Beds in special hospitals for medical rehabilitation** (SHMRs) intended for patients with chronic illness in need of physiotherapy where the CIHI is paying €40 per patient, per day, while on the market a SHMR can obtain at least 30% more

Specialist rehabilitation: stroke care[28]

Stroke is the leading cause of death and disability in Croatia; with stroke morality far more prevalent amongst those aged 65+. Evidence shows that early rehabilitation can reduce disability following a stroke and significantly contribute to patients regaining independence. **Speech therapy** is an important form of stroke rehabilitation as 21-24% of stroke patients suffer with aphasia as a direct result of their stroke.

The *Croatian Stroke Society* recommends that **stroke rehabilitation should be divided into four main stages**: early rehabilitation; rehabilitation on vital function stabilisation; rehabilitation following physical recovery and partial personal independence of hospital care; and rehabilitation follow-up. This is undertaken by a multidisciplinary team, led by a neurologist and inclusive of a patient's family members.

Specialist stroke units provide care coordinated by a **multidisciplinary team,** including medical, nursing, physiotherapy, occupational therapy, speech and language therapy and social care staff. **The units vary** from intensive care units, acute stroke treatment, acute phase rehabilitation, rehabilitation and mobile stroke teams. Rehabilitation **admission usually begin**

[25] The system for medical rehabilitation in Croatia (tandfonline.com)
[26] Croatia (who.int)
[27] The system for medical rehabilitation in Croatia: Disability and Rehabilitation: Vol 28, No 15 (tandfonline.com). ***Please, note, prices are from 2004-2005***
[28] Èlanci.p65 (srce.hr)

1-2 weeks after stroke onset as early intervention improves outcomes[29]. Evidence has shown that **introducing specialist stroke units** in Croatia, consisting of neurologists specialised in the management of cerebrovascular diseases, trained nurses, and rehabilitation practitioners such as physiotherapists, and speech and language therapists, **has been associated with a significant reduction of in-hospital case fatality**[30]**.**

Impact of COVID-19
The full extent of the COVID impact is still unknown, but recent study suggests that **the demand for rehabilitation may increase in future in relation to pulmonary rehabilitation** for post-COVID patients[31].

Germany

Health system overview[32]

The health care system in Germany is complex, funded through both social and private health insurance *(Figure 5).* Service provision is fragmented with separate legislation, governance and financing for the different services, e.g. public health, inpatient care, long term care, etc.

Rehabilitation services[33]

Rehabilitation services fall **under intermediate care** and are the **responsibility of the statutory health insurance** (statutory retirement insurance for pensioners or accident insurance in the event of an accident at work, or an occupational disease). A **law to strengthen,** among other things, **short-term care** was passed in 2015, which allowed people with mild cognitive impairments to access intermediate care, for example.[34]

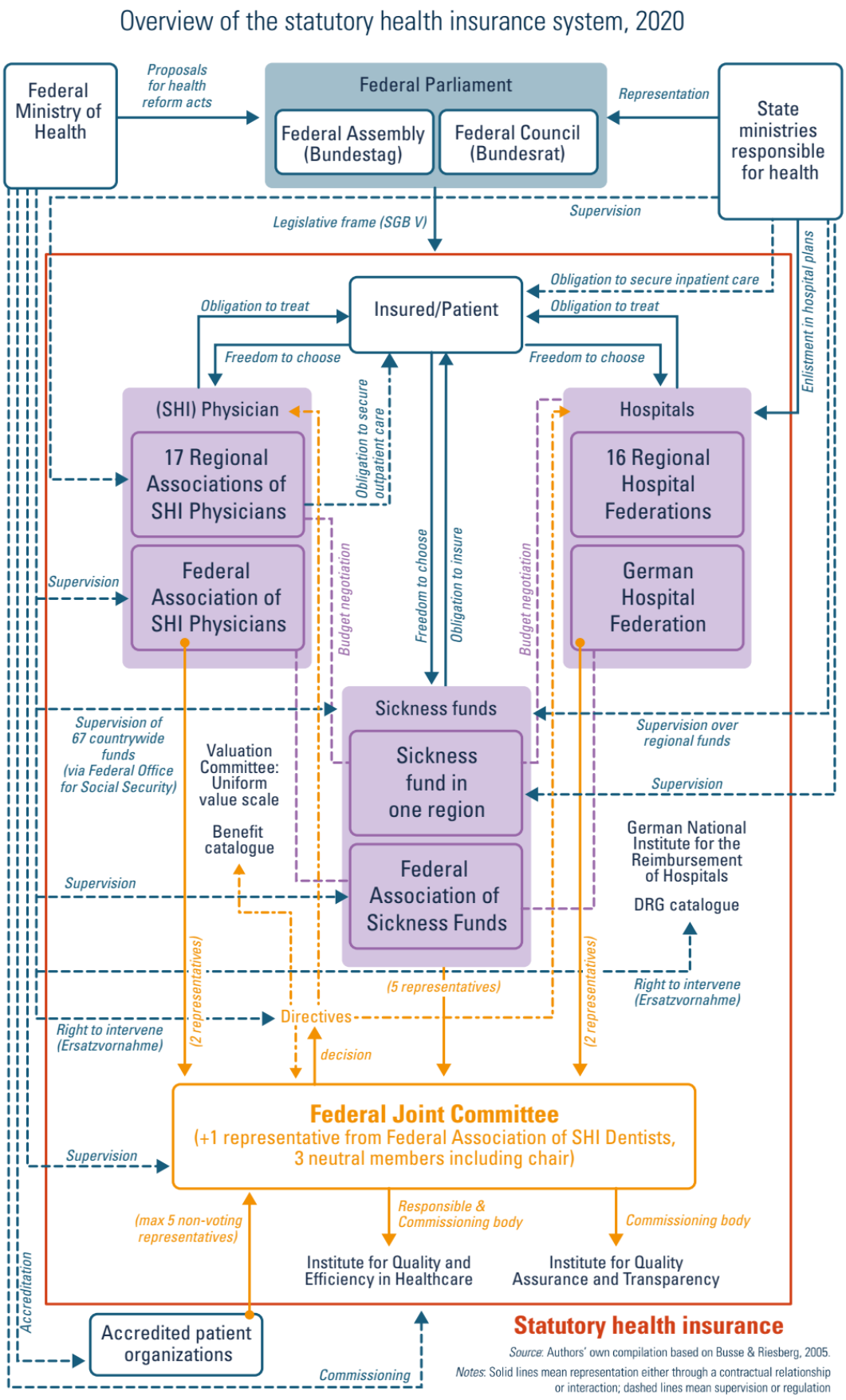
Rehabilitation services incorporate medical treatment by physicians, dentists and other allied health professionals; the provision of pharmaceuticals, bandages and dressing materials; therapies, which include physiotherapy, speech therapy, occupational therapy, and psychotherapy; the provision of therapeutic appliances; and early support for disabled children or children threatened by disablement.

Duration: inpatient preventive and rehabilitation services usually last three weeks; outpatient rehabilitation services - a maximum of 20 treatment days; the standard duration of inpatient preventive and rehabilitation measures for children under the age of 14 is four to six weeks.[35]

Financial maintenance and complementary benefits include cash benefits, such as a health allowance, injury allowance, bridging allowance or maintenance allowance. People in need of long-term care, who become dependent on full inpatient care for a limited time, for example, because of a crisis at home, can access intermediate care in inpatient facilities for a maximum of eight weeks per year / the maximum amount per year covered by the statutory health insurance is €1612[36].

[29] Stroke unit - Where all stroke patients should be treated (researchgate.net)
[30] 8100 Supanc.vp (srce.hr)
[31] Dnb-33_S-4_CONF_COM-SVE_1.pdf (psychiatria-danubina.com)
[32] https://eurohealthobservatory.who.int/monitors/health-systems-monitor/countries-hspm/hspm/germany-2020/organization-and-governance/organization/
[33] Germany: health system review 2020 (who.int)
[34] Zwischen Häuslichkeit und Kurzzeitpflege | SpringerLink
[35] Vorsorge und Rehabilitation: Dauer und Zuständigke - Bundesgesundheitsministerium
[36] Kurzzeitpflege - Bundesgesundheitsministerium

Figure 5. Health System in Germany[37]



[37] https://eurohealthobservatory.who.int/images/librariesprovider3/monitors-content/hspm/germany/germany-2020/germany2020-fig22.png?sfvrsn=aec14738_5

Geriatric intermediate care

Intermediate care is often targeted at older people following illness or injury to ensure adequate recovery[38]. Geriatric rehabilitation takes place in **inpatient day centres, or ambulatory / outpatient facilities**, and aims to enable older people to live at home in familiar surroundings and to actively participate in everyday life for as long as possible[3940].

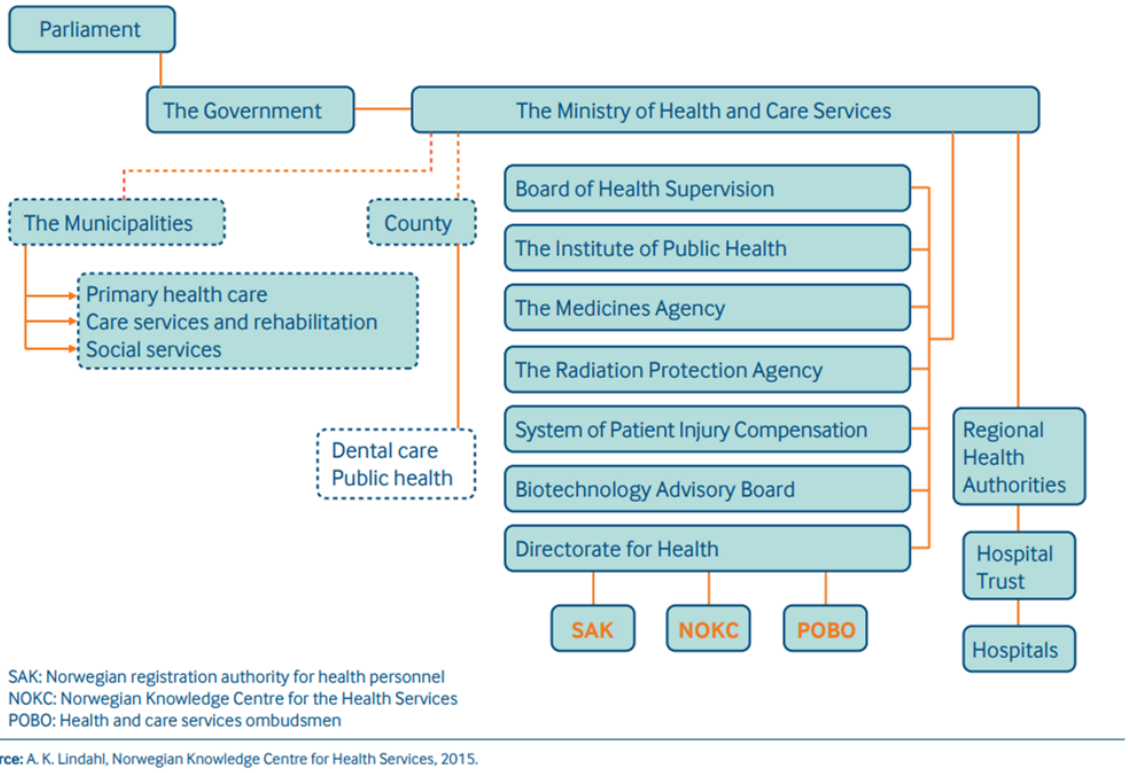
The **standard duration** of geriatric rehabilitation, set by the *Intensive Care and Rehabilitation Strengthening Act 2020*, is three weeks for inpatient care, and 20 days for outpatient care[39]. **Outpatient** geriatric rehabilitation has been implemented cautiously across Germany due to resource implications (e.g. time consuming for healthcare staff), however, **evaluations have shown high satisfaction among older people[41].**

Norway

Health system overview[42]

Norway has **universal health coverage**, funded primarily by general taxes and by payroll contributions shared by employers and employees. Services covered include primary, ambulatory, mental health, and hospital care, as well as selected outpatient prescription drugs. Health care organisation is split between the national government and municipalities, with care services and rehabilitation being the responsibility of local municipalities *(Figure 6).*

Figure 6: Organisation of the Health System in Norway[43]



Source: A. K. Lindahl, Norwegian Knowledge Centre for Health Services, 2015.

[38] Kurzzeitpflege - Bundesgesundheitsministerium
[39] Vorsorge und Rehabilitation: Dauer und Zuständigke - Bundesgesundheitsministerium
[40] https://apps.who.int/iris/bitstream/handle/10665/341674/HiT-22-6-2020-eng.pdf
[41] Pflege-Report_2020_Neuausrichtung_von_Versorgung_u.pdf
[42] Norway: health system review 2020 (who.int)
[43] International Profiles of Health Care Systems: Australia, Canada, China, Denmark, England, France, Germany, India, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, Taiwan, and the United States (commonwealthfund.org)

Rehabilitation services

Rehabilitation is provided at both primary (physiotherapy, occupational therapy, etc.) **and secondary** (specialised rehabilitation) levels. Over the last two decades, Norway has developed some intermediate rehabilitation services based on shared care between specialised and primary health care[44]:

- **Primary care rehabilitation services are provided in the community** – in patients' homes, schools and institutions run by the municipalities, e.g. nursing homes. Services are provided by medical doctors, physiotherapists, nurses and midwives
- **Secondary care rehabilitation services** are provided in hospitals in dedicated rehabilitation departments or other units, such as rheumatology or neurology departments
- The *"Regulation for habilitation/rehabilitation, individual plan and co-ordinator" 2018* changed the definitions of 'habilitation' and 'rehabilitation' to make it more patient focused.

With a **population spread across great distances**, Norway has a long tradition for offering **decentralised specialist care**, for example, through specialists ambulating to local hospitals. One key strategy for ensuring specialised health services outside of the central areas are **intermediate care units**, specifically Local Medical Centres (LMCs). Evidence has shown that **LMC's close contact with primary care increases 'best practice' sharing, which increases patient safety[45].**

Specialist rehabilitation

Amputation

In Norway, the prevalence of lower extremity **amputation as a result of diabetes is much higher amongst those aged 65+,** as is the case in other Nordic countries[46]. Major amputation (upper or lower limb) requires **comprehensive, multidisciplinary rehabilitation**. The type and length of rehabilitation varies significantly depending on the type of amputation.

Currently, **specialist rehabilitation following upper limb amputation** is not standardised and its organisation differs across the five sites offering it. Amputees are not routinely referred to rehabilitation or prosthetic fitting at discharge from the surgical ward. The **establishment of a Norwegian Registry** of upper limb amputations could be a valuable tool in monitoring, planning and carrying out rehabilitation to ensure optimal results; and referral to a rehabilitation unit should be mandatory at surgery discharge, as recommended by research[47].

Hip fracture

Norway reports the **highest prevalence of hip fractures in the world**, a common and serious event amongst older adults. Research with rehabilitation physiotherapists has found that:[48]

- Physiotherapists view the rehabilitation trajectory after hip fracture as fragmented and poorly suited for patients with complex needs
- Early hospital discharge, multiple transfers and insufficient staffing, puts patients at risk of not receiving adequate care
- An ortho-geriatric, person-centred approach to rehabilitation would appear to be beneficial

[44] https://eurohealthobservatory.who.int/publications/i/norway-health-system-review-20
[45] Promoting patient safety: An emerging role for intermediate care units in Norway (ijic.org)
[46] FULLTEXT01.pdf (diva-portal.org)
[47] Adult acquired major upper limb amputation in Norway: prevalence, demographic features and amputatio (tandfonline.com)
[48] Physiotherapists´ experiences with older adults´ rehabilitation trajectory after hip fracture: A qualitative study in Western Norway: Physiotherapy Theory and Practice: Vol 0, No 0 (tandfonline.com)

Chronic Obstructive Pulmonary Disease (COPD)[49][50]

COPD refers to a group of closely related diseases recognised by irreversibly impaired lung function and airflow obstructions. The COPD burden of disease is increasing in Norway and it is most prevalent at older age, presenting a major future challenge for health services.

Evidence of the **efficacy of treating acute exacerbation of COPD in intermediate units, called 'hospitals at home',** compared to traditional hospital care, suggests that:

- Treatment in 'hospitals at home' may be a safe alternative to conventional hospital care, leading to fewer readmissions, and may even show a trend for lowering mortality
- Less than 25% of patients were deemed appropriate for treatment in "hospital at home" due to either poor lung function or severe comorbidities, such as heart disease
- More research is needed to assess the cost-effectiveness of intermediate 'hospital at home' care for treating acute exacerbation of COPD

Canada

Health system overview

Canada has a universal publicly funded health care system, Canadian Medicare where health authorities and responsibilities are divided between the federal government; and the provincial / territorial governments. The latter have primary responsibility for financing, organising, and delivering health services and supervising providers (*Figure 7*)[51][52].

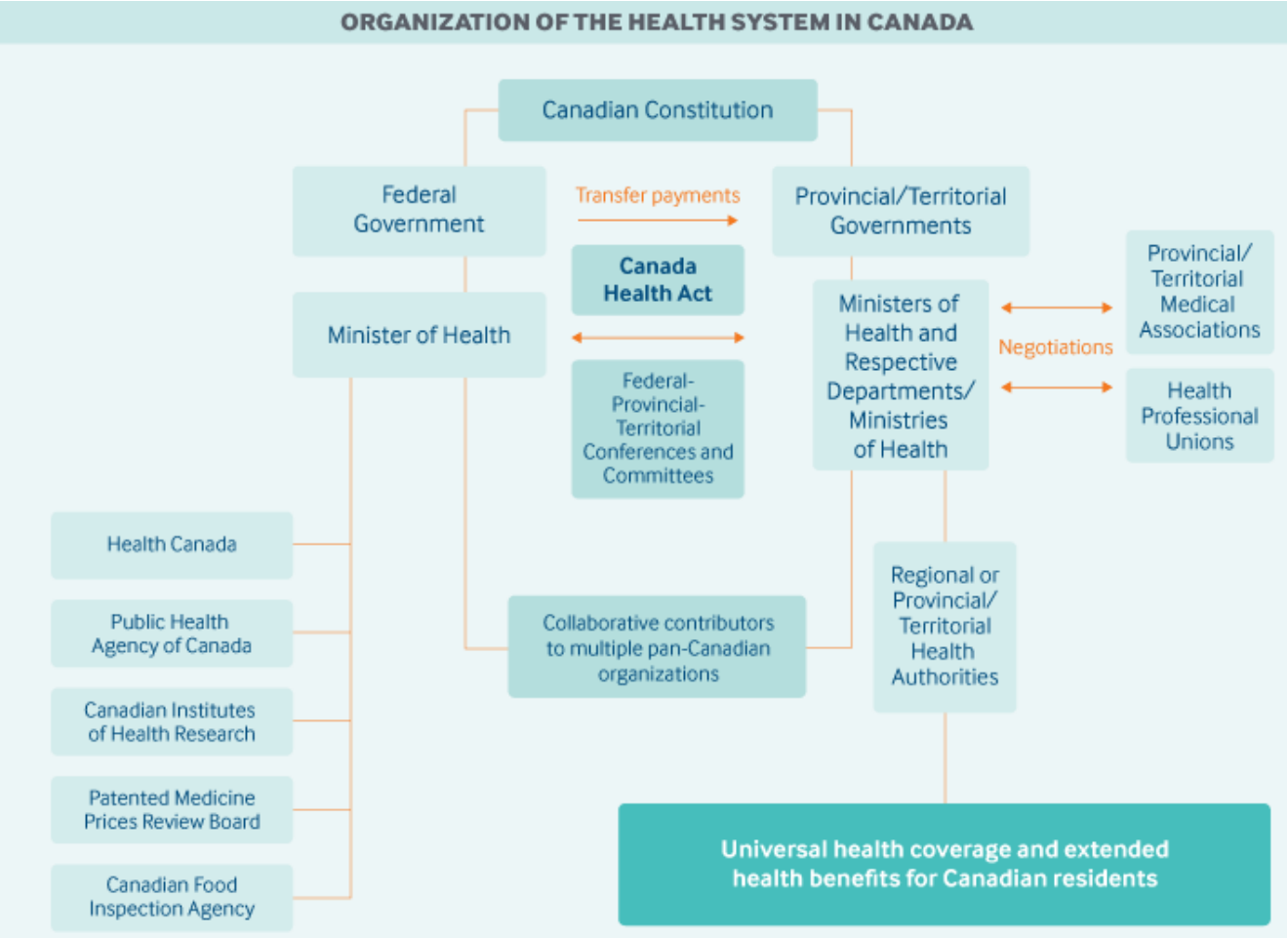
Rehabilitation services

Inpatient rehabilitation provided in hospitals and specialised rehabilitation facilities are available without charge to citizens as part of the Canadian Medicare[51][52]

- Patients can choose to go directly to a specialist, but it is more common for GPs to refer patients to specialist care
- The majority of specialist care is provided in hospitals, both inpatient and outpatient
- There is a trend towards providing less-complex services in non-hospital diagnostic or surgical facilities
- Inpatient rehabilitation tends to focus on orthopaedics (immediately following hip and knee replacement surgery), stroke, brain dysfunction, limb amputation and spinal cord injury, with around 50% involving orthopaedic and post-stroke rehabilitation
- Outpatient services are generally provided in clinics directed by physiotherapists or occupational therapists

[49] Intermediære enheter og "hjemmesykehus" ved behandling av pasienter med akutt KOLS-forverring (fhi.no)
[50] GBD Compare | IHME Viz Hub (healthdata.org)
[51] Canada | Commonwealth Fund
[52] Canada (who.int)

Figure 7: Organisation of the Health System in Canada[53]



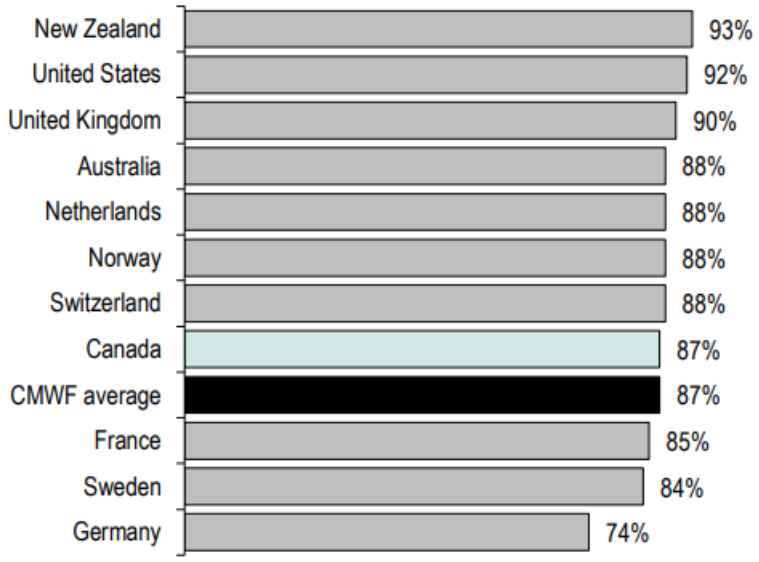
Geriatric intermediate care

Ageing population is a challenge in Canada, as in many other countries, with older people over the age of 75 expected to double over the next 20 years[54]. This is combined with increasing burden of chronic conditions; and growing patient expectations of remaining at home as long as possible.

Research of **intermediate care services across 11 countries**, focusing on the **experience of older adults, shows positive feedback about support received at home post hospital discharge** with Canada scoring about average; New Zealand, United States, UK, Australia, Norway, the Netherlands and Switzerland, above the average; followed closely by France and Sweden *(Figure 8)*[55].

[53] Canada | Commonwealth Fund
[54] Seniors in Transition: Exploring Pathways Across the Care Continuum (cihi.ca)
[55] How Canada Compares: Results From the Commonwealth Fund's 2021 International Health Policy Survey of Older Adults in 11 Countries (cihi.ca)

Figure 8. Respondents who felt they had the support and services needed to help them manage their health condition at home after hospital discharge[1]



Geriatric rehabilitation has the potential to optimise medical conditions, assess cognitive impairment and depression, and provide respite for caregivers. It also offers an opportunity to train junior doctors and expose health professionals to medical complexity and interdisciplinary teamwork. As yet, geriatric rehabilitation does not have a high profile in Canadian health care and as a result does not receive adequate funding.

The *Regional Geriatrics Program of Ontario* has identified **recommendations for Geriatric Rehabilitation Unit Best Practice** to improve rehabilitation care *(Table 1)*[56].

Impact of COVID-19[57]

At the start of the pandemic, one in five hospital beds in Ontario were taken up by patients who no longer needed acute care; most of them elderly; and 11.6% of these waiting for rehabilitation. These patients were rapidly discharged to redirect resources to COVID-19, which raised concerns as to whether these patients were receiving adequate care and monitoring of their conditions.

- Initially many patients were moved to long term care facilities, but due to rising levels of infection this was not sustainable
- The *Toronto Rehabilitation Institute's* post-acute program opened 24 beds in a repurposed space and 48 in a "reactivation unit" designed to serve patients caught in the limbo between acute care and other settings during the pandemic
- Similar approaches were taken by other hospitals across the country throughout the pandemic

[56] Organization-Design-for-Geriatrics.pdf (rgps.on.ca)
[57] What happened to the hospital patients who had "nowhere else to go"? (cmaj.ca)

Table 1: Recommendations for Geriatric Rehabilitation Unit Best Practice[58]

Admission Screening

- Patients should have preadmission screening for rehabilitation potential prior to admission to a GRU (level 3 evidence).
  - Assess: functional impairment, medical complexity, psychological functioning, and social support.
  - Exclude: patients who are too medically unstable, more appropriate for palliative care, or can be treated at home as outpatients.
- The screening process should be used to establish well-defined, patient-focused goals for rehabilitation (level 3 evidence).

Comprehensive Geriatric Assessment (CGA)

- CGA is important for frail older persons with rehabilitation needs (level 3 evidence).
- Close medical supervision and concomitant treatment for intercurrent and comorbidities is important (level 3 evidence).

Assessment Tools

- Assessment tools should be used to aid in diagnosis and to measure outcome of rehabilitation (level 3 evidence).

Team Approach to Care

- Geriatric rehabilitation should have an interdisciplinary team approach (level 1 evidence).
- Medical care and rehabilitation should be managed by a physician and team trained in care of the elderly (level 1 evidence).
- The rehabilitation team physician and pharmacist should complete a medication review (level 3 evidence).
- Patients with complex medication regimes who are returning to community living may benefit from a self-medication program (level 1 evidence).

Hip Fracture

- Frail older persons with hip fracture should receive geriatric rehabilitation (level 1 evidence).

Nutrition

- Frail older rehabilitation patients should receive nutritional screening (level 3 evidence).
- Nutritional supplements should be provided to under-nourished frail older rehabilitation patients (level 1 evidence).
- Treatment plan and dietary interventions should be provided to for frail older patients with dysphagia (level 2 evidence).
- Gastrostomy tube feeding is superior to nasogastric tube feeding for older stroke patients with severe dysphagia (level 1 evidence).
- The nutritionally at-risk older patient with hip fracture may benefit from nutrition supplementation (level 1 evidence).

Depression

- Frail older rehabilitation patients should be screened for depression and treatment plans initiated when appropriate (level 3 evidence).

Cognitive impairment

- Frail older patients should be screened for cognitive impairment (level 2 evidence).
- Frail older rehabilitation candidates with mild to moderate dementia should not be excluded from rehabilitation (level 1 evidence).

[58] Organization-Design-for-Geriatrics.pdf (rgps.on.ca)

Case studies of transitional / intermediate care[59]

The WHO has recognised **transitional (intermediate) care as a priority**, showcasing that **effective transition between hospital and home** improves the quality of care, patient satisfaction and recovery; and reduces re-hospitalisation risk and costs *(Table 2).*

Table 2. Examples of transitional (intermediate) care services across countries, their outcomes, impact, challenges and enablers

Description	Outcome and Impact	Challenges and Enablers
Transitional care service, Singapore		
The Aged Care Transition Programme (ACTION), implemented at five general public hospitals in Singapore over four years from 2008, targeted elderly inpatients with significant functional decline or complex medical problems. A team of dedicated nurses and social care coordinators worked with the patients and their families during hospitalization, followed them up with telephone calls and home visits for up to eight weeks after discharge and coordinated placements with appropriate community service providers. The coordinators supported people in expressing their preferences and goals and enabled self-management. Some sites have extended this goal-oriented time-limited team model of care transition to adults with conditions including cerebrovascular accident, diabetes, pneumonia, dementia or heart failure for up to six months, with a family physician on the team.	**Outcome for people:** better continuity, quality of life and self-rated health; support in managing medicines. **System impact:** fewer unplanned admissions and emergency department visits for up to six months after enrolment.	**Challenges:** optimizing the handover to primary care of people with continuing complex care needs. **Enablers:** extending the team expertise to include family physicians.
Noora health education, India		
Most patients recovering from medical interventions rely on care by family members, who are often ill-equipped to provide support during recovery, resulting in high rates of relapse and complications. Noora Health is a non-governmental organization that provides patients' families with actionable health information, so that they become more competent and confident in providing safe, effective care. The approach is a "train the trainer" certification programme for hospital nurses, who deliver interactive practical health education and awareness to patients and their families, with learning materials that can be used at home to facilitate recovery following treatment. This allows family members to support patients, alleviate their anxiety and ease the transition from hospital to home. The classes are available in several languages and vary in size (5–30 people) and location (hallways, waiting rooms, wards). The programme has been implemented in 26 hospitals in India, and 50,000 caregivers have been trained.	**Outcomes for people:** carers are more competent and confident in providing safe, effective care at home. **System impact:** a 3-month pilot study with adult post-surgical cardiac patients showed a 36% decrease in complications, a 23% decrease in 30-day readmissions, and a 55% increase in patient satisfaction	**Challenges:** managing health literacy and language needs. **Enablers:** materials co-designed with patients, trainers and families.

[59] https://apps.who.int/iris/bitstream/handle/10665/274628/9789241514033-eng.pdf?sequence=1&isAllowed=y

Care transitions at the end of life: compassionate communities, Colombia		
The New Health Foundation's model for integrated palliative care, introduced in Colombia in 2015, raises public awareness and engagement in caring for people at the end of their lives and in supporting them through collective learning in social networks. Although each network is largely self-organizing, this is facilitated by a "community promoter", whose role is to align social and health care services towards more integrated palliative care and to strengthen the natural support systems of family, friends and neighbours. This is achieved through a dynamic volunteer network that can offer care and companionship at the end of life. More than 50 organizations (including schools, universities, businesses, non-governmental organizations and faith groups) in Colombia's largest cities are working together to create a network of compassionate cities. This approach mirrors the "todos contigo" (we are all with you) model in Spain, where there are other examples of compassionate communities and cities. This community-led model is an important driver of a more effective, sustainable network for integrated palliative and end-of-life care.	**Outcomes for people:** less loneliness and isolation; better quality of end-of-life care and support for caregivers; increased community participation and well-being of volunteers. **System impact:** reduced hospital costs and surgical interventions in the last month of life.	**Challenges:** aligning policy, financial levers and regulation of end-of-life care in the community. **Enablers:** professional, policy and political leadership and a shared vision.
Transitional care for victims of sexual violence, Democratic Republic of the Congo		
In a project for survival after sexual violence at Panzi General Referral Hospital in Bukavu, South Kivu, eastern Democratic Republic of the Congo, a one-stop centre was set up for the case management of survivors of violence against women and girls. The centre provides medical, psychosocial, legal and socioeconomic care by a team of doctors, nurses, midwives, laboratory technicians, radiology technicians, pharmacy assistants, lawyers, paralegals, administrative resources and people who coordinate and manage the women's discharge from hospital and reintegration into society. Personalized care based on listening closely to the personal narrative of each abused girl and woman is planned, implemented and documented with the aim of restoring the health of the victims and their reintegration into society. Follow up home visits are organized to assess and secure reintegration, including provision of family mediation, counselling for couples, psychological support, guidance on medication use and identification of any additional care required. It also encourages the girls and women to participate in organized community collectives, such as micro-financing initiatives. One-stop centre models of care have been used globally in a number of settings for survivors of violence against women and girls. A reduced, adapted model functions in some rural areas in low-income countries, in which good-quality services are scaled up during post-conflict reconstruction and recovery.	**Outcomes for people:** coordinated care for complex health and psychological problems and social support. **System impact:** reintegration of vulnerable girls and women into society.	**Challenges:** managing stigmatization and other cultural issues. **Enablers:** cross-sectoral interdisciplinary partnership.

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