World Health Organization

European Region

The need for REHABILITATION SERVICES in the WHO European Region

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European Region

The need for rehabilitation services in the WHO European Region

Abstract

Rehabilitation aims to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment. It is a cost-effective service that anyone may need at some point in their lives. Universal health coverage and the attainment of the Sustainable Development Goals cannot be achieved without access to quality rehabilitation without financial hardship.

The Global Burden of Diseases, Injuries and Risk Factors Study 2019 assessed the prevalence and incidence as well as years lived with disability resulting from over 300 diseases and injuries. From this dataset this report describes the need for rehabilitation services in the WHO European Region. A total of 25 disease causes, impairments and sequelae that are amenable to rehabilitation at some point in their course were identified. For each Member State of the WHO European Region, the need for rehabilitation was described by presenting the prevalence and years lived with disability of the conditions amenable to rehabilitation. Data are disaggregated by age group (0–14 years, 15–64 years, ≥ 65 years) and sex as well as according to seven groups of health conditions: musculoskeletal disorders, neurological disorders, sensory impairments, mental disorders, chronic respiratory diseases, cardiovascular diseases and neoplasms.

In the WHO European Region in 2019, 394 million people had a health condition amenable to rehabilitation during its course. This represents two in five people. Musculoskeletal disorders, sensory impairments and neurological disorders were the most prevalent groups of health conditions. The significant rehabilitation needs in the overall population require strong rehabilitation services.

Keywords

REHABILITATION, HEALTH SERVICES ACCESSIBILITY, PRIMARY HEALTH CARE, UNIVERSAL HEALTH CARE, WORLD HEALTH ORGANIZATION

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Foreword

I welcome the publication of this report on the need for rehabilitation services in the WHO European Region. Using the Global Burden of Diseases, Injuries and Risk Factors Study 2019 dataset to estimate the extent and the nature of the need for rehabilitation services, the report enriches the evidence base for rehabilitation policy and system design. As the report highlights, the need for rehabilitation is very significant in all Member States of the WHO European Region and is expected to increase. The sheer size of the need for rehabilitation presented in this report dispels the common view that rehabilitation is a service required by only a select few. Anyone may require rehabilitation during the course of their lives. Rehabilitation services are cost-effective, should be integrated into all levels of care and should be accessible to all without financial hardship.

The WHO Regional Office for Europe set three priorities as part of its 2020–2025 European Programme of Work entitled "United action for better health in Europe". The programme is the driving force of the work of WHO in the Region and rehabilitation contributes to all three priorities. The first priority is to support countries towards universal health coverage, in line with the Sustainable Development Goals. This coverage includes rehabilitation services. The second priority is to protect populations from health emergencies. Health emergencies not only compromise rehabilitation service provision, but they also increase the need for rehabilitation. Thus, rehabilitation is considered an essential service in health emergencies. Finally, the third priority is to ensure healthy lives and well-being for all, where again, rehabilitation is a central element.

The WHO Regional Office for Europe is committed to supporting Member States in integrating rehabilitation into their health systems and strengthening their rehabilitation workforce. I hope that this report, presenting data and identifying resources, will act as catalyst for action – for strengthening rehabilitation systems throughout the Region, and thereby, for promoting health and well-being across the life course.

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Glossary

Assistive products	An assistive product is any external product (including devices, equipment, instruments or 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 *(1)*.
Assistive technology	Assistive technology is the application of organized knowledge and skills related to assistive products, including systems and services, and is a subset of health technology *(1)*.
Disability	Disability results from the interaction between individuals with a health condition, such as cerebral palsy or depression, and personal and environmental factors, such as negative attitudes, inaccessible transportation and public buildings or limited social support *(2)*.
Health	Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity *(3)*.
Health condition	A health condition is an umbrella term covering acute and chronic disease, disorders, injury or trauma. Health conditions may also include other circumstances such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition *(4)*.
Impairment	Impairments are problems in body function or structure, such as a significant deviation or loss *(2)*.
Rehabilitation	Rehabilitation is a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment *(5)*.
Rehabilitation outcomes	Rehabilitation outcomes represent changes in the functioning of an individual over time that are attributable to rehabilitation interventions. They may include fewer hospital admissions; greater independence; reduced burden of care; a return to roles and occupations that are relevant to their age, gender and context, such as school or work; and better quality of life *(5)*.
Rehabilitation stakeholder	Rehabilitation stakeholders include individuals with disability, caretakers for individuals with disability, health professionals, administrators and policy-makers. Stakeholders could represent governmental bodies, private for-profit organizations, non-governmental organizations, community-based organizations, or disabled people's organizations. These bodies could be at the regional, national or international level *(6)*.
Rehabilitation worker	A rehabilitation worker is a person delivering or supporting the delivery of rehabilitation, whether interacting directly or indirectly with a person, their family or user groups *(7)*.
Rehabilitation workforce	This represents the wide range of professions who deliver care across the different levels of the health system and in settings, such as hospitals, schools, workplaces and people's homes *(7)*.
Universal health coverage	Universal health coverage is the possibility for all individuals and communities to receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation and palliative care across the life course *(8)*.

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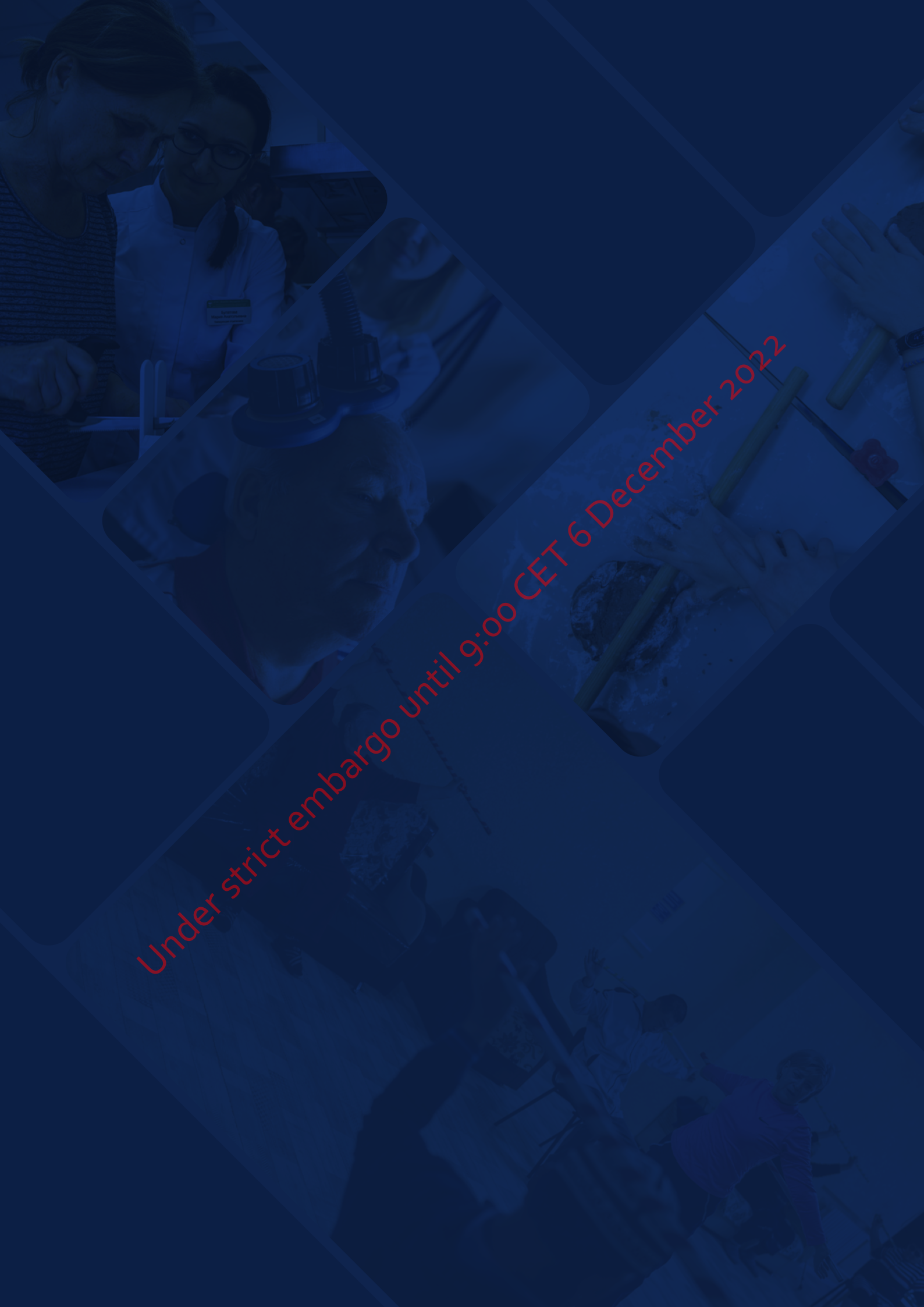
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Introduction

Universal health coverage means that all people have access to the health services they need, when and where they need them, without financial hardship. It includes the full range of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care *(1)*.

Rehabilitation is essential to the attainment of the 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015 *(2)*.

This report focuses on the rehabilitation needs in the WHO European Region. The WHO 2020–2025 European Programme of Work has three main pillars *(3)*. Rehabilitation contributes to all three pillars by:

- supporting countries towards universal health coverage, the definition of which includes rehabilitation as an essential quality health service;
- protecting populations from health emergencies, such as conflict and disease outbreaks, and rehabilitation is considered an essential service in health emergencies; and
- ensuring healthy lives and well-being for all, where rehabilitation plays a key role.

Many countries in the Region offer limited rehabilitation services and many people do not receive the rehabilitation they need. This report summarizes the estimated need for rehabilitation in each of the Region's 53 Member States. Data on the need for rehabilitation are derived from the Global Burden of Diseases, Injuries and Risk Factors Study 2019 *(4)*.

This report has three aims, including:

- raising awareness of rehabilitation and the wide range and high prevalence of conditions that are amenable to rehabilitation;
- providing country-specific information on the estimated need for rehabilitation; and
- serving as a resource that can support the development or expansion of rehabilitation services and of the rehabilitation workforce.

Rehabilitation

Rehabilitation addresses the impact of a health condition on a person's life with a primary focus on improving and maintaining their functioning. Difficulties in functioning occur because of impairments in body functions, such as pain or muscle weakness; limitations in activities, such as self-care or walking; and restrictions in participation, such as in community life or at work *(5)*.

WHO defines rehabilitation as a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment *(6)*. Rehabilitation addresses a person's limitations in everyday physical, mental and social functioning due to ageing or a health condition, including chronic diseases or disorders, injuries, or trauma *(6)*. Fundamentally, rehabilitation focuses on the functioning of an individual and not on the disease. It does this through a strong emphasis on optimizing functioning and educating and empowering people to manage their health conditions, adjust to their situation, and remain active. Rehabilitation might be needed by anyone, regardless of age, gender, or socioeconomic status. Rehabilitation is an essential health service that expands the focus of health beyond preventive and curative care to address how people function *(7)*. Rehabilitation should be available at all levels of health care, from primary through to tertiary health-care settings. It may be delivered through specialized rehabilitation facilities and programmes, especially for people with complex and intensive rehabilitation needs. It is also a highly integrated form of health care and is incorporated in a wide range of other health specialties and services, such as in the care of people who have neurological, mental health, musculoskeletal, cardiovascular, pediatric, geriatric, vision, hearing, women's health, or pulmonary issues, as well as cancer or a communicable disease. Importantly, rehabilitation should be available in primary care settings, where most cases of chronic diseases are managed, and in community settings, such as homes and schools, where individuals participate in activities meaningful to them.

Rehabilitation workers typically include people belonging to the professions of occupational therapists, orthotists, physiotherapists, prosthetists, psychologists, rehabilitation doctors, rehabilitation nurses, social workers and speech and language therapists. The rehabilitation workforce also includes rehabilitation assistants, technicians and community-based rehabilitation workers, or any other health cadres delivering rehabilitation. Depending on a person's needs, rehabilitation may be provided by one professional, although it often requires multi-professional collaboration.

The provision of and training in the use of assistive products is an essential component of rehabilitation. People with difficulties in their functioning benefit from a wide range of assistive products, such as those for mobility, vision, hearing, self-care, communication and cognition *(8)*. The provision of most assistive products occurs in the context of wider health care – for example, hearing care requires assessment, fitting, training, follow-up and maintenance support. An important component of the provision process is ensuring the assistive product is well-fitted and is suited to the individual and appropriate for the environment within which they operate.

Rehabilitation benefits

Evidence shows that rehabilitation interventions are cost-effective and help to achieve and maintain the best outcomes of other health interventions *(*for example, *9–10)*. Rehabilitation has the potential to avoid costly hospitalization and reduce the time spent in a hospital, decrease re-admissions and reduce the risks of complications due to health problems *(11)*. By improving function and the ability to participate in everyday life, rehabilitation cuts the costs of ongoing care and supports individuals to participate in education and employment *(6)*. Evidence has shown that functional capability can be improved, even with low-cost interventions in low resource settings *(*for example, *12)*.

Importantly, access to rehabilitation supports the realization of the right of all people to health, and this is particularly important for realizing the rights of people with disabilities as well as other population groups, such as older persons. Access to rehabilitation is enshrined in the Convention on the Rights of Persons with Disabilities *(13)*.

Universal health coverage and the Sustainable Development Goals

Universal health coverage means that all people have access to the health services they need, when and where they need them, without financial hardship. This includes the full range of essential health services, from health promotion to prevention, treatment, rehabilitation, and palliative care *(14)*. Universal health coverage thus requires that everyone has access to quality rehabilitation services and assistive products at all health-care levels, without financial hardship. Countries that progress towards universal health coverage often concurrently make progress towards other health and non-health related targets, such as access to school and work. At the individual level, good health and functioning promotes community inclusion and supports participation, allowing children to learn and adults to earn an income. It also helps lift people out of poverty and contributes to long-term, sustainable economic development.

At the population level, rehabilitation is an important investment in human capital and contributes to health and economic and social development, and progress towards the attainment of the 2030 Agenda for Sustainable Development and several of its Sustainable Development Goals *(2)*. This includes Sustainable Development Goal 3 regarding good health and well-being, Sustainable Development Goal 4 regarding quality education, Sustainable Development Goal 8 regarding decent work and economic growth and Sustainable Development Goal 10 regarding reduced inequalities *(2)*. Rehabilitation is included in the indicators of overall progress towards sustainable development *(15)*.

The positive health, social and economic effects of rehabilitation can have a profound impact on population health and therefore cements the position of rehabilitation as an essential health service.

The importance of rehabilitation in primary health care

Crucial to achieving universal health coverage is the integration of rehabilitation in primary health care. Primary health care is an integral part of every country's health system *(16)*. It brings health care to people where they live and work and is often the first point of contact to a health-care pathway and where most chronic diseases are managed *(16)*. Primary health care is usually a person's most accessible and frequented health-care contact, and therefore a vital service for overall health management, the detection of health problems, referrals to other health services and early diagnosis *(16)*. The Alma-Ata Declaration on primary health care states that rehabilitation is an essential component of primary health care *(17)*.

The integration of rehabilitation service provision into primary health care is important, because many people who could benefit from rehabilitation services may never enter the hospital system and may require long-term rehabilitation that is close to their home and local community. Rehabilitation in primary health care facilitates a life course approach to health interventions that promotes and optimizes well-being and functioning as well as socioeconomic benefits *(18)*. However, in many countries rehabilitation services are provided in secondary and tertiary level facilities that are situated in urban areas, leaving rural and remote areas underserved. In most health systems, rehabilitation has not been fully or effectively integrated into primary health care *(18)*.

Drivers for the need for rehabilitation

This section summarises factors that drive the need for rehabilitation in the WHO European Region.

Ageing

The WHO European Region has the oldest population of the six WHO regions. Of the world's 25 countries and areas with the oldest populations in 2015, 22 were in Europe *(19)*. The Region has the highest median age in the world and the proportion of people aged 60 and older is forecast to increase from 23.9% in 2015 to 34.2% in 2050 *(19)*. Increasing age correlates with multimorbidity and functioning impairments resulting from frailty, impaired cognition as well as continence, gait and balance problems *(20)*. Collectively, these functioning deficits lead to a higher risk of disability and difficulties in completing essential daily activities, and consequently, this group requires rehabilitation services *(20)*.

Noncommunicable diseases

Globally, in 2013, noncommunicable diseases accounted for two out of every three years lived with disability *(21, 22)*. Of the six WHO regions, the European Region is the most affected by noncommunicable diseases and they are the leading cause of death, disease and disability in the Region *(23)*. Alone, five noncommunicable diseases – namely, diabetes, cardiovascular diseases, cancer, chronic respiratory diseases and mental disorders – account for an estimated 86% of the deaths and 77% of the disease burden in the Region *(23)*. Noncommunicable diseases can lead to functioning difficulties related to mobility, self-care, communication, pain and cognition *(23)*. Such functioning difficulties can challenge participation in employment and social activities, leading to isolation, poverty and increased demands on social and health systems *(24)*. Thus, many people living with noncommunicable diseases and consequential functional difficulties require rehabilitation services.

Disability

Disability refers to the interaction between individuals with a health condition, such as cerebral palsy, depression, diabetic amputation or blindness, and personal and environmental factors, such as negative attitudes, inaccessible transportation and public buildings or limited social support *(5)*. In the WHO European Region, six to 10 out of every 100 people live with a disability *(25)*, a number which is growing, in part due to ageing populations and an increase in chronic health conditions. Compared to people without disabilities, persons with disabilities experience poorer health and more health-care needs, are more vulnerable to complications, secondary conditions, comorbidities and age-related health conditions, face widespread barriers in accessing services, and have higher rates of premature death *(26)*. Rehabilitation services, including the provision of assistive technology, are among the health services that people with disabilities most commonly require to optimise functioning, independence and participation.

Violence and injuries

Violence and unintentional injuries cause deaths, human suffering and disability. In the WHO European Region, they accounted for almost 525,000 deaths, or 5.5% of all deaths, and 10.1% of all disability-adjusted life years in 2019 *(27)*. This burden contributes significantly to the need for rehabilitation services. Hospital and community-based rehabilitation for serious injuries, such as those sustained in assaults or road traffic crashes, is required to improve the outcomes of emergency and surgical care and to limit the physical and psychological impact of injuries *(28)*.

Migrants and refugees

In 2018, approximately 10% of the WHO European Region's population were international migrants – an increase from 3.9% in 1990 *(29)*. This diverse and heterogenous group faces various health challenges and therefore have different health-care needs. A person's health outcomes are often a result of an entire lifetime of risks and exposures – both harmful and protective – which may occur before, during or after migration, and health differences may appear differently across the life course *(30)*.

Migrants and refugees may be particularly vulnerable to infectious diseases, and injuries resulting from violence and trauma, due to exposures in living and working conditions, as well as a lack of access to, or interrupted, care *(30)*. Care for chronic conditions and rehabilitation for disabilities are often the most pressing needs of migrant and refugee children *(31)*.

This large population, of unknown size and for which the extent of health-care need is unclear, faces particular and often multiple disadvantages in accessing health-care services.

Emergencies

Emergencies come in many forms, from disease outbreaks to conflicts, humanitarian crises and disasters. They can have devastating and long-lasting effects, not only on people's health but also on societies and their economies. Emergencies, particularly sudden-onset disasters, such as earthquakes or mud slides, can result in a sudden surge of traumatic injuries that overwhelm health systems and leave a legacy of permanent disability in their wake *(32, 33, 34)*. WHO has recognized rehabilitation as an essential component of the response in health emergencies and disease outbreaks *(35)*.

Conflict

Conflict causes direct physical harm that necessitates the immediate provision of health services, and impacts health systems with damage or disruption to infrastructure, the workforce and health facilities, thereby affecting the provision of, and access to, health services, including rehabilitation care *(36)*. Traumatic injury resulting from violence, land mines and other explosive weapons of war can cause devastating and long-lasting physical and psychological disability, requiring early and tailored rehabilitation interventions from a multidisciplinary team and long-term follow-up to optimize function and quality of life *(37)*. Consequently, conflict increases both the demand for rehabilitation and difficulties in accessing such interventions. Conflict exacerbates existing unmet rehabilitation needs, particularly in low- and middle-income settings where rehabilitation service provision is already lacking *(37)*.

Disease outbreaks

A sudden increase in occurrences of a communicable disease, such as poliomyelitis (polio) or COVID-19, can cause a surge in rehabilitation needs that require early and multi-disciplinary rehabilitation interventions. The response must trigger a quick and tailored response for the prevention of further infections and for its treatment, while minimizing disruption to health systems and routine health care provision. When this is not the case, rehabilitation services may suffer.

For example, the COVID-19 pandemic severely disrupted rehabilitation service delivery in the WHO European Region. A rapid assessment of noncommunicable disease service provision found 79% of responding countries reporting disruptions *(38)*. Services were closed for various reasons, such as being thought to be nonessential, due to lack of staff from illness or redeployment to other clinical services or with the aim to reduce costs. These service disruptions have posed significant challenges to those who rely on rehabilitation services for the long-term management of chronic conditions *(38)*, and for those with new rehabilitation needs due to the disease or a new condition or injury.

Rehabilitation in the WHO European Region

Within the 53 Member States of the WHO European Region, there is large variation in the provision, access to and quality of rehabilitation services. What is common, however, is the substantial need for rehabilitation and aspirations to achieve universal health coverage and the attainment of the 2030 Agenda for Sustainable Development. In some countries, rehabilitation has been a core component of health care for many decades and is generally available to those who need it. In other countries across the Region, rehabilitation services have developed more recently and remain limited with many people unable to access the rehabilitation they need *(39)*.

In the Region, there are many complex and interrelated reasons for having limited rehabilitation services and these reasons often vary across contexts. For example, countries with underdeveloped rehabilitation services often have limited awareness about what they are, what they do and their many benefits. Low levels of awareness about rehabilitation may occur within health administration structures or among health providers and people in the community. Additionally, misconceptions are common and rehabilitation can be erroneously perceived as a disability-specific service needed by only a few, or a luxury service that only the select few can afford *(40, 41)*. Widespread limited awareness and misconceptions about rehabilitation contribute to a low demand for services, underdeveloped services and numerous system level challenges.

One way to represent the challenges faced by rehabilitation as an essential health service is to describe them across the six building blocks of the WHO health systems framework: leadership and governance; financing; information; workforce; health products, technologies and medicines, and; service delivery *(42)*.

Rehabilitation leadership and governance

Rehabilitation leadership and governance typically includes identifying priorities and setting the strategic direction for rehabilitation through legislation, policy and planning, and then identifying methods for overseeing the implementation of actions, establishing accountability and tracking progress. Usually, these functions within countries are limited or do not occur, along with inadequate rehabilitation leadership and coordination mechanisms. Ways forward to address this include evidence-informed advocacy to support the prioritization of rehabilitation in health leadership, creating sector coordination mechanisms, strengthened rehabilitation planning and integration into other health and social sector plans and establishing monitoring frameworks that track the status and outcomes of rehabilitation.

Financing of rehabilitation

Health financing focuses on the core functions of:

- revenue raising through sources of funds, including government budgets, compulsory or voluntary prepaid insurance schemes; direct out-of-pocket payments by users; and external aid;
- pooling funds, namely the accumulation of prepaid funds on behalf of some or all of the population; and
- purchasing services, namely the payment or allocation of resources to health service providers.

These functions are achieved through health and social sector financing schemes that exist in countries. In many countries, rehabilitation is not well integrated and there is limited coordination between financing schemes, leading to insufficient financing for rehabilitation, inadequate coverage and reduced service quality. Ways forward to address this include the further integration of rehabilitation into financing mechanisms, better definition of services packages, improved coordination between financing mechanisms, and improved data collection to track service delivery and outcomes.

Rehabilitation information

Health information systems serve multiple users and a wide array of purposes that can be summarized as the generation of information to enable decision-makers at all levels of the health system to identify problems and needs, make evidence-informed decisions on health policy, and allocate scarce resources optimally. There is currently a lack of robust information on rehabilitation needs and service delivery and limited integration into existing health information systems. Ways forward to address this include the integration of rehabilitation into data collection from different sources, from health facilities, population-based surveys, and civil registration and vital statistics systems.

Rehabilitation workforce

The rehabilitation workforce is composed of a wide range of occupational groups who deliver care across the different levels of the health system, and in settings such as hospitals, schools, workplaces and people's homes. Many countries experience shortages or an inequitable distribution of rehabilitation workers, and regulatory issues that impact on the quality of rehabilitation services. In the WHO European Region, there are 12 times fewer physiotherapists, 141 times fewer occupational therapists, six times fewer prosthetics and orthotics professionals and three times fewer physical and rehabilitation medicine practitioners in middle-income countries than in high-income countries *(43)*. Solutions include strengthening rehabilitation workforce planning, education and training and regulation through competency-based approaches.

Health products, technologies and medicines for rehabilitation

Assistive technology is the application of organized knowledge and skills related to assistive products, including systems and services. Assistive products maintain and improve individual functioning and include external devices, equipment, instruments or software that are used to support mobility, vision, hearing, cognition and communication. The provision of assistive products aims to improve people's functioning, prevent complications and promote health. However, this provision is often limited, and people cannot access or afford the products they need. In addition, the systems that supports provision, including its leadership, regulation, financing, procurement and distribution, are often weak. Ways forward to address this include: the development of national priority assistive product lists; adoption of standards and regulatory mechanisms; integration into health planning, financing and information systems; and ensuring the provision of assistive products is a core component of rehabilitation, hearing, vision and other health services.

Rehabilitation service delivery and its quality

Rehabilitation services can be provided over different levels of care, settings and models, in both inpatient and outpatient care. This occurs at hospital and institutional settings at district, regional and national levels, such as general hospitals and specialized rehabilitation wards, centres and hospitals. Rehabilitation services are crucial in primary care and may include outpatient, outreach and home care in community settings, including single or multi-professional practices, homes, schools and workplaces. Furthermore, rehabilitation services should be person-centred, evidence-based and outcomes-focused.

However, rehabilitation services may be limited at all levels of care and not be available in home and community settings where required; usually, they are focused in major urban areas and have limited availability in rural and remote areas. In addition, the quality of rehabilitation can vary both within and across countries. Ways forward to address this include better integration of rehabilitation into service planning and financing with a focus on inclusion within health-care benefit packages, establishing service standards, and ensuring the provision of person-centred, evidence-based and cost-effective care.

Estimating the need for rehabilitation using Global Burden of Disease data

Country estimates

The needs for rehabilitation in each of the Region's 53 Member States are summarized in a series of country fact sheets. Each fact sheet presents, as of 2019, the:

- total population of the country and its income classification;
- number of people who need rehabilitation as well as number of years lived with disability, with the prevalence of the need for rehabilitation disaggregated by age group (0–14 years, 15–64 years, ≥65 years) as well as by sex; and
- seven main groups of health conditions that contribute to the need for rehabilitation services: musculoskeletal disorders, neurological disorders, sensory impairments, mental disorders, chronic respiratory diseases, cardiovascular diseases and neoplasms.

Methods

The 2019 Global Burden of Diseases data from the Institute for Health Metrics and Evaluation based in Seattle, Washington, United States of America, was used to estimate the need for rehabilitation by presenting the prevalence, and associated years lived with disability, of 25 health conditions – disease causes, impairments and sequelae – that are amenable to rehabilitation at some point in the course of disease *(4)*. The methods are the same as used in a paper published in 2020 *(44)*.

The 25 health conditions were selected using a three-step approach *(44)*. First, 20 conditions with the highest number of associated years lived with disability were identified. Second, from the 20 conditions, some were excluded, as rehabilitation is considered not essential and is indicated as a secondary intervention. Third, WHO convened a group of rehabilitation experts to discuss the list of conditions and add any other condition for which rehabilitation is a key intervention. The resulting 25 disease causes, impairments and sequelae are categorized within seven groups of health conditions (see Table 1).

Table 1. Health conditions amenable to rehabilitation at some point in their course

Groups of health conditions (n=7)	Disease causes, impairments and sequelae (n=25)
musculoskeletal disorders	low back pain; neck pain; fractures; other injuries; osteoarthritis; amputation; rheumatoid arthritis
neurological disorders	cerebral palsy; stroke; traumatic brain injury; Alzheimer's disease and dementia; spinal cord injury; Parkinson's disease; multiple sclerosis; motor neuron disease; Guillain-Barré syndrome
sensory impairments	hearing loss; vision loss
mental disorders	developmental intellectual disability; schizophrenia; autism spectrum disorders
chronic respiratory diseases	chronic obstructive pulmonary disease
cardiovascular diseases	heart failure; acute myocardial infarction
neoplasms	neoplasms

Source: adapted with permission of the authors *(44)*.

Exclusions included mild health states, motor impairment, borderline intellectual disability, mild hearing loss, mild vision loss and minor injuries, assuming people with these conditions would be less likely to require rehabilitation. For malignant neoplams, the diagnosis and primary therapy phase of all cancers, as well as colon and rectum cancer with stoma, larynx cancer with laryngectomy and breast cancer with mastectomy, were included *(44)*.

Years lived with disability is a measure of the burden of non-fatal disease and injury; it was calculated by multiplying the prevalence of each condition by the estimated level of health loss in the form of a disability weight. Disability weights range from 0 (that is, perfect health) to 1 (that is, death) and represent the severity of the disease. These weights were derived from population surveys using pairwise comparison methods between random pairs of health states. The disability weights were defined, measured and given numerical value to quantify the time lived in non-fatal health states. All Global Burden of Diseases 2019 years lived with disability estimates were corrected for comorbidity using simulation methods and assumed a multiplicative model for coexisting health states, to account for the cumulative effect of comorbidities *(44)*.

For each Member State of the WHO European Region, population size was described according to the 2019 Global Burden of Disease data. The income classification arises from the World Bank, based on the 2019 calendar year *(45)*. Source data from the Institute for Health Metrics and Evaluation, which is responsible for the Global Burden of Disease data, were accessed to estimate the need for rehabilitation. Stata 15.1 (College Station TX), a statistical software, was used to extract the WHO European Region data from the source data.

WHO European Region estimates

The country estimates were added together to arrive at the WHO European Region estimates, summarized in the regional fact sheet. In 2019, 394 million people, or two of every five inhabitants, had a disease or injury deemed amenable to rehabilitation during the course of the condition.

Musculoskeletal diseases, including low back pain, neck pain, fractures, other injuries, osteoarthritis, amputation and rheumatoid arthritis, were the main type of cases needing rehabilitation services, accounting for over 60% of cases. Sensory impairments, including hearing and vision loss, were the second main type, accounting for approximately 17% of cases. Neurological disorders accounted for approximately 9% of cases. The remaining, accounting for approximately 10% of cases in total, comprised chronic respiratory diseases, mental disorders, cardiovascular diseases and neoplasms.

Data visualization tools

Readers interested in further exploring the data are invited to visit two data visualization tools. Both tools allow users to download the supporting data. Firstly, the data has been integrated into the European Health Information Gateway, which allows users to view and interact with country results *(46)*. Whilst the present report focuses on 2019 data, the European Health Information Gateway presents data for all consecutive years from 1990 to 2019. Secondly, the Institute for Health Metrics and Evaluation data visualization allows users to view the results in maps, bar charts and line charts for a country or world region of interest, and also by prevalence, years of life lived with disability, age, sex and year *(47)*. Just like in *(44)*, the Institute for Health Metrics and Evaluation data visualization *(47)* aggregated countries in seven regions: World Bank high-income countries and all six of the WHO regions, excluding the high-income countries from each region. For this reason the regional estimates presented here are different from those of *(44)* and *(47)*, but the country estimates are the same.

Call for action

In 2017, WHO Member States and rehabilitation stakeholders from around the world endorsed *Rehabilitation 2030: A Call for Action (48)*, which acknowledges the profound unmet need for rehabilitation, emphasizes the value of equity in access to quality rehabilitation services and identifies priority actions to strengthen rehabilitation in health systems.

In particular, considering national circumstances and priorities, the call for action urges countries to:

- raise awareness and build political commitment for rehabilitation and to foster the integration of rehabilitation within their national health policies, while promoting inter-ministerial and intersectoral work;
- improve the integration of rehabilitation into health financing mechanisms and incorporate rehabilitation into packages of essential health care as part of universal health coverage;
- expand rehabilitation to all levels of health care, including primary health care, with rehabilitation ensured at the community level; develop specialized rehabilitation centres and services to meet the requirements of people with complex needs; and ensure rehabilitation reaches people in urban, rural and remote areas;
- ensure the integrated and coordinated provision of quality, evidence-based interventions for rehabilitation along the continuum of care, including the provision of assistive products;
- develop a strong multidisciplinary rehabilitation workforce that is suitable for a country's context, and promote rehabilitation competencies among all health workers;
- integrate rehabilitation information into health information systems, including utilizing the International Classification of Functioning, Disability and Health for information on functioning, so that rehabilitation outcomes can be monitored effectively; and promote high quality rehabilitation research, including health policy and systems research; and
- ensure the timely integration of rehabilitation in emergency preparedness and response.

WHO resources

In response to *Rehabilitation 2030: A Call for Action (48)*, WHO is developing a series of resources to assist Member States in evaluating their existing rehabilitation services, and to expand them to provide accessible and quality rehabilitation programs. The key resources include:

- **Rehabilitation in Health Systems: Guide for Action** *(49)* to identify priorities, develop strategic plans and establish monitoring mechanisms;
- **Package of Interventions for Rehabilitation** *(50)* to inform budget and service planning in countries to ensure that rehabilitation, including assistive technology, is integrated into universal health coverage mechanisms, such as essential health-care packages;
- **Rehabilitation Competency Framework** *(51)* to improve workforce planning in low-resource settings and to address workforce challenges;
- **Guide for Rehabilitation Workforce Evaluation** *(52)* to assist countries to evaluate rehabilitation workforce levels, and to inform workforce strengthening efforts;
- **District Health Information System 2 Rehabilitation Module** *(53)* to support routine rehabilitation data collection in countries, including for assistive technology; and
- **Minimum Technical Standards and Recommendations for Rehabilitation** *(54)* to ensure that emergency medical teams, both national and international, prevent patient complications and ensuing impairment and ensure a continuum of care.

Additionally, WHO resources have been developed that support strengthening assistive technology, which can be used in the context of strengthening the provision of assistive products, including:

- Priority Assistive Products List *(55)*
- Assistive Technology Capacity Assessment *(56)*
- Rapid Assistive Technology Assessment tool *(57)*
- Assistive Product Specifications *(58)*
- Manual for public procurement of assistive products, accessories, spare parts and related services *(59)*
- Personnel training in priority assistive products *(60)*.

The Global Report on Assistive Technology presents a comprehensive dataset and analysis of the current access to assistive technology and makes recommendations for concrete actions that will improve access *(8)*.

Conclusion

This report describes the large number of people that could benefit from rehabilitation services in the WHO European Region. Policy-makers may use the information presented in this report to better understand the magnitude of the need for rehabilitation in their country and compare the size of the need with the current capacity of their rehabilitation services. They may be encouraged and prompted by the call to action and use WHO resources described above to take steps to strengthen rehabilitation governance and services, including rehabilitation workforce planning.

Furthermore, the data presented in this report may be used to advocate among service providers, policy-makers and governments the setting of priorities to act and address rehabilitation needs. Building understanding and increasing awareness regarding the need for rehabilitation in countries remains an important key to strengthening rehabilitation services. The 53 country fact sheets have been developed to support evidence-informed advocacy and awareness raising activities that can also inform health planning through better insights into the rehabilitation needs of national populations. Country stakeholders may familiarize themselves with this information and make linkages between rehabilitation needs, services available and any gaps that may exist.

The results demonstrate the large reduction in morbidity that would result from rehabilitation services became widely available. This powerful figure should be a catalyst for governments to strengthen rehabilitation services as part of their drive to achieve universal health coverage, ensuring access to all. The WHO Regional Office for Europe is committed to support countries in strengthening their rehabilitation services.

The need for rehabilitation is expected to rapidly grow with an ageing population, an increasing number of people living with noncommunicable diseases and the consequences of injuries affecting function. The demand for rehabilitation has also been compounded with the disruption to services caused by health emergencies. These trends should urge health policy planners to prioritize rehabilitation services. Rehabilitation has the power to unleash significant human potential and contribute to societal growth and must no longer be viewed as an optional service for the few; rehabilitation is crucial to ensure the health outcomes of the many.

Under strict embargo until 9:00 CET 6 December 2022

Regional fact sheet

WHO EUROPEAN REGION

REGIONAL NEED FOR REHABILITATION SERVICES

Population: **931 680 438 inhabitants**
Member states: **53**

394 292 822 people have at least one condition that would benefit from rehabilitation services, contributing to **49 221 779** years lived with disability.

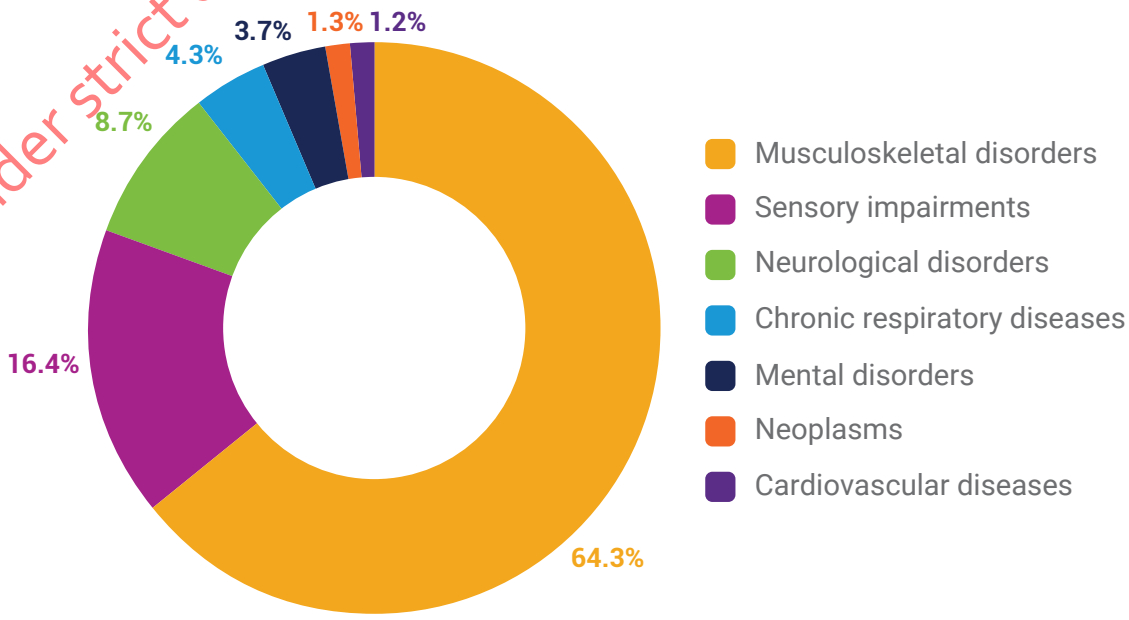
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

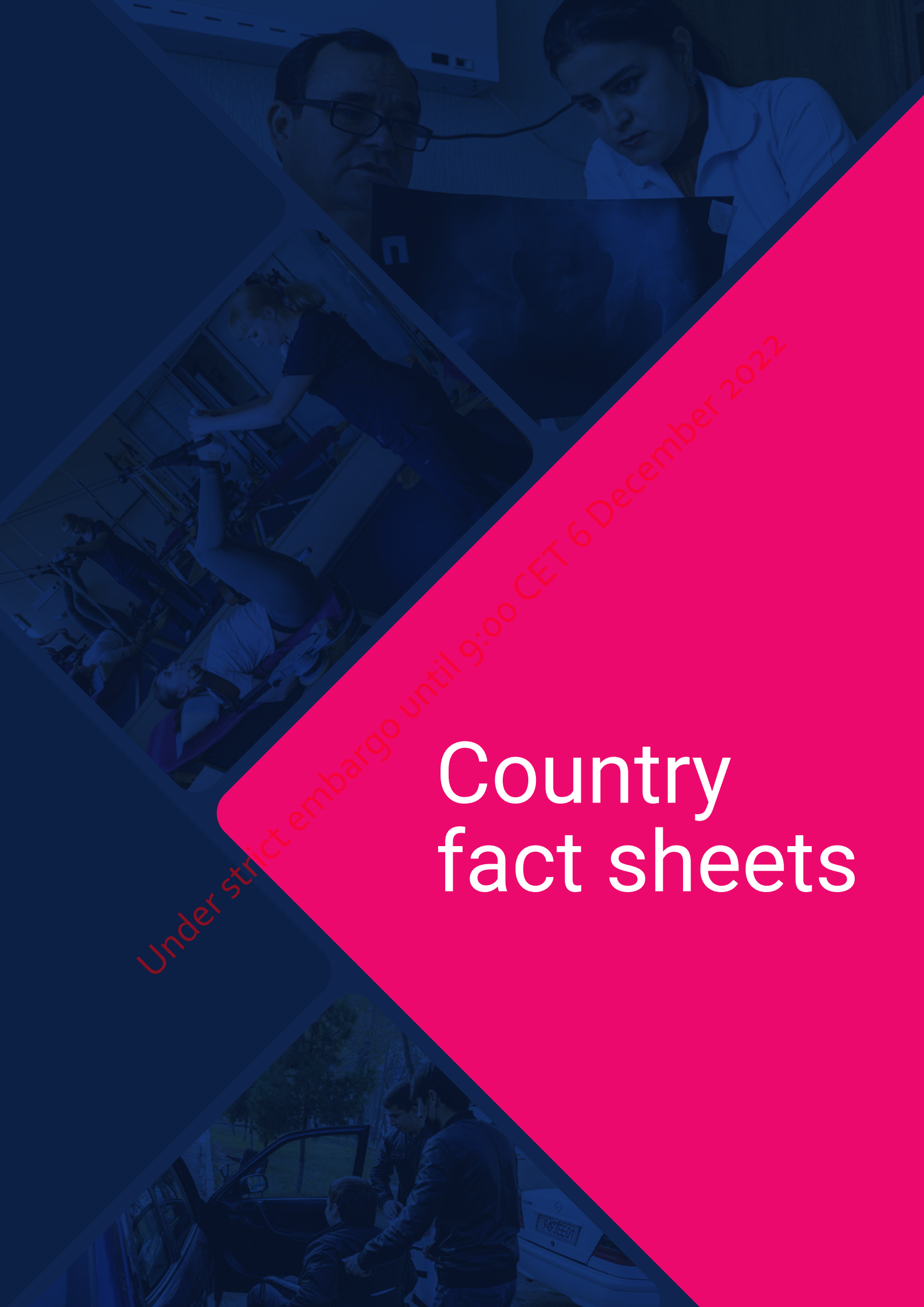
0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
7 015 969	7 732 784	124 338 991	130 083 119	73 762 199	51 359 760
14 748 753		254 422 110		125 121 959	
394 292 822					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)



Country fact sheets

ALBANIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **2 720 353 inhabitants**
World Bank classification: **Upper middle income**

1 223 439 people have at least one condition that would benefit from rehabilitation services, contributing to **141 396** years lived with disability.

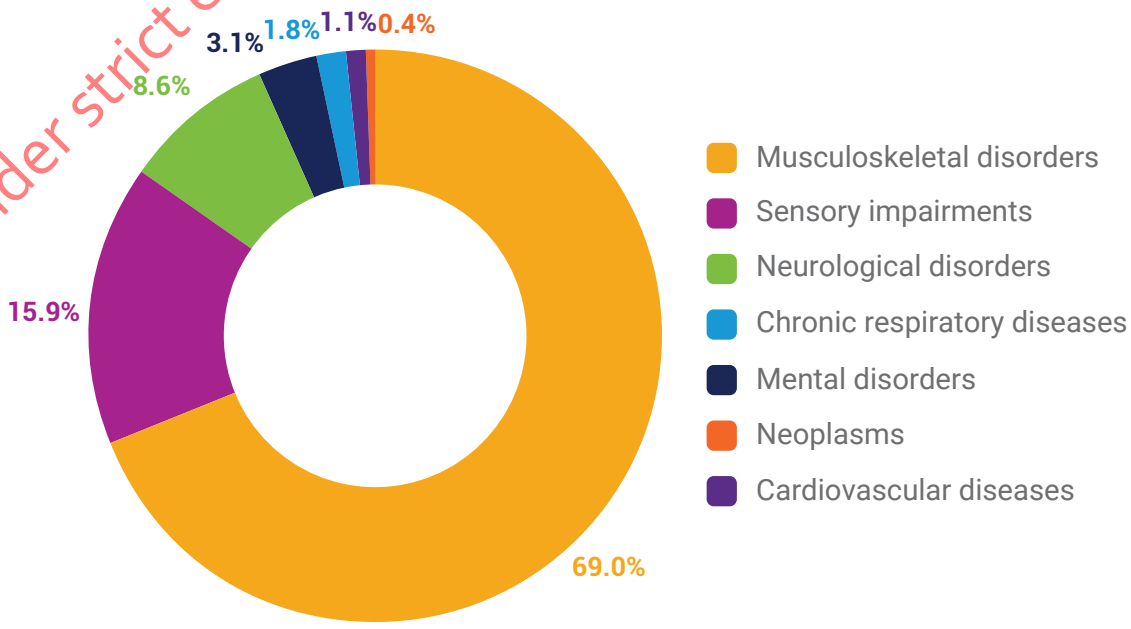
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
20 915	26 951	374 691	473 713	164 850	162 319
47 866		848 404		327 169	
1 223 439					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ANDORRA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **83 064 inhabitants**
World Bank classification: **High income**

36 116 people have at least one condition that would benefit from rehabilitation services, contributing to **4 470** years lived with disability.

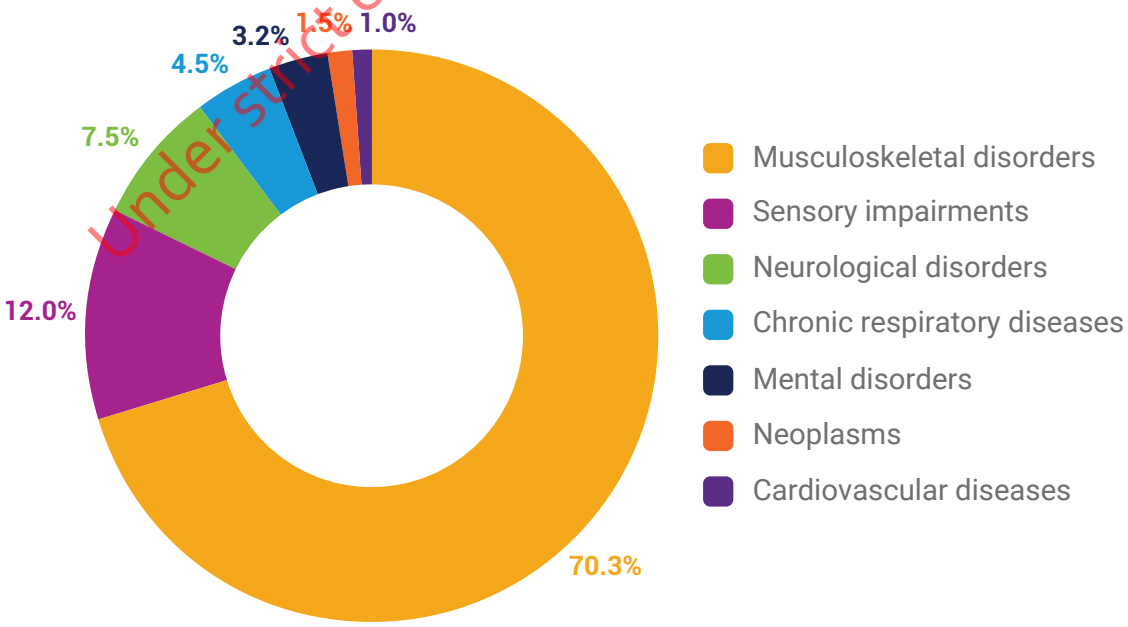
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
470	526	13 321	11 817	5 159	4 823
996		25 138		9 982	
36 116					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ARMENIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **3 019 674 inhabitants**
World Bank classification: **Upper middle income**

1 141 279 people have at least one condition that would benefit from rehabilitation services, contributing to **132 614** years lived with disability.

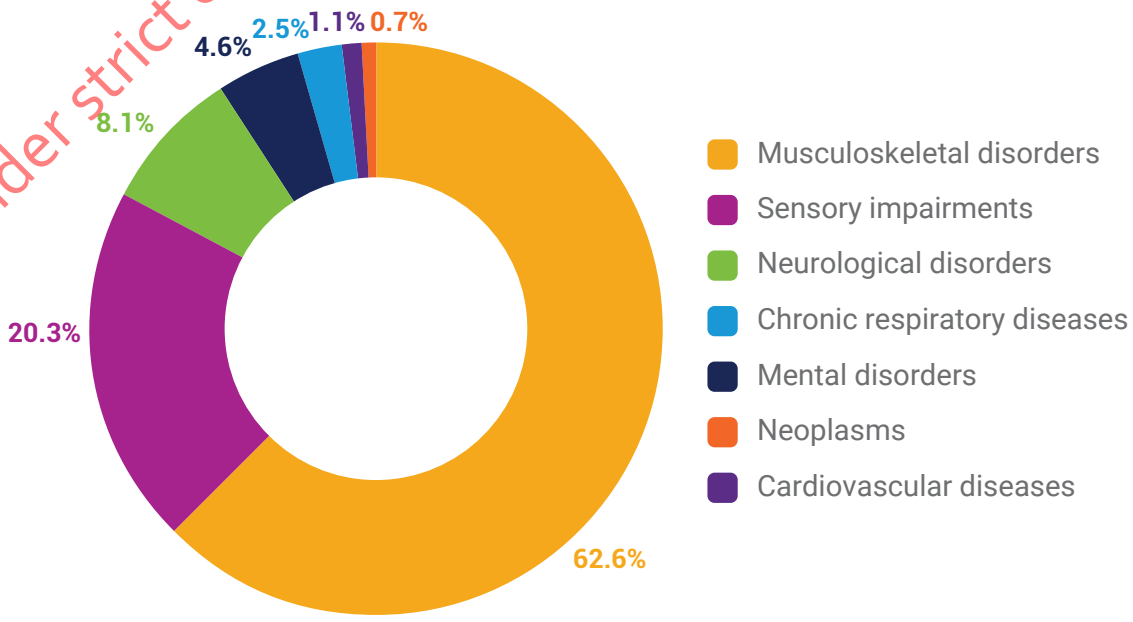
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
23 350	28 254	403 352	399 430	170 322	116 571
51 604		802 782		286 893	
1 141 279					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

AUSTRIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **8 916 185 inhabitants**
World Bank classification: **High income**

3 820 274 people have at least one condition that would benefit from rehabilitation services, contributing to **473 208** years lived with disability.

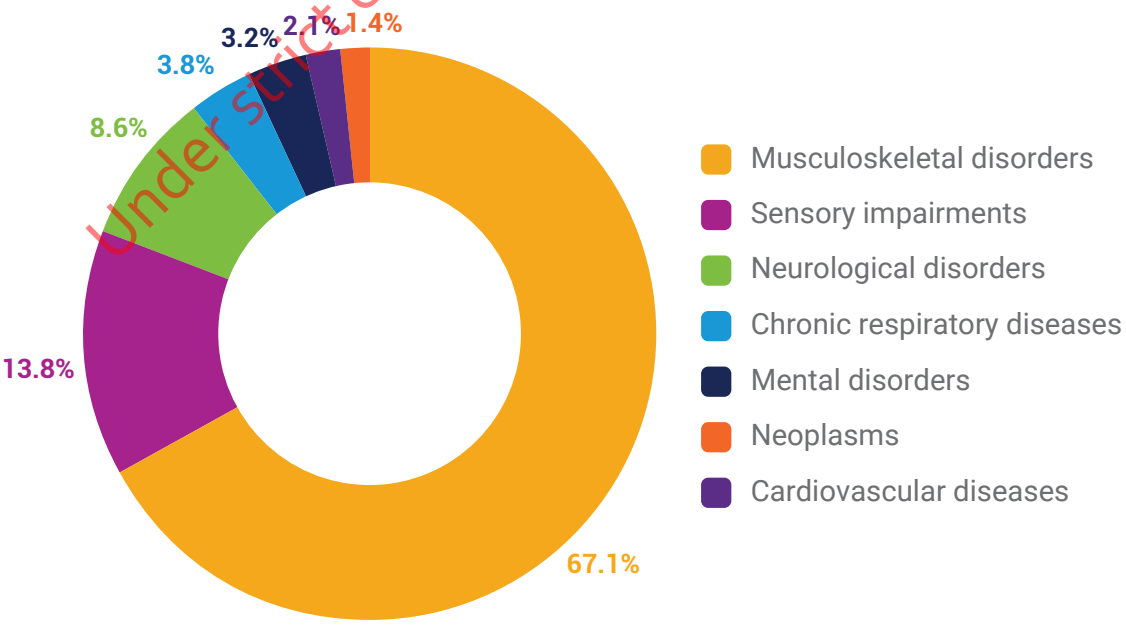
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
54 484	60 120	1 216 357	1 131 286	772 898	585 129
114 604		2 347 643		1 358 027	
3 820 274					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

AZERBAIJAN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **10 278 674 inhabitants**
World Bank classification: **Upper middle income**

3 266 603 people have at least one condition that would benefit from rehabilitation services, contributing to **364 253** years lived with disability.

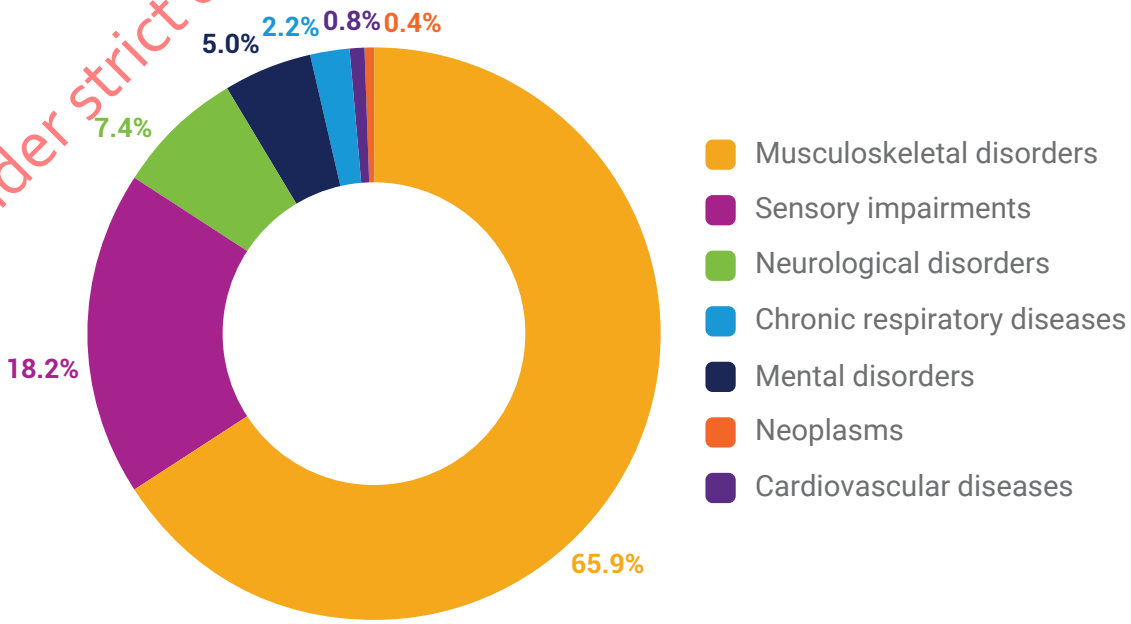
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
81 765	107 288	1 256 696	1 371 808	259 721	189 325
189 053		2 628 504		449 046	
3 266 603					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

BELARUS

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **9 500 785 inhabitants**
World Bank classification: **Upper middle income**

4 299 733 people have at least one condition that would benefit from rehabilitation services, contributing to **513 889** years lived with disability.

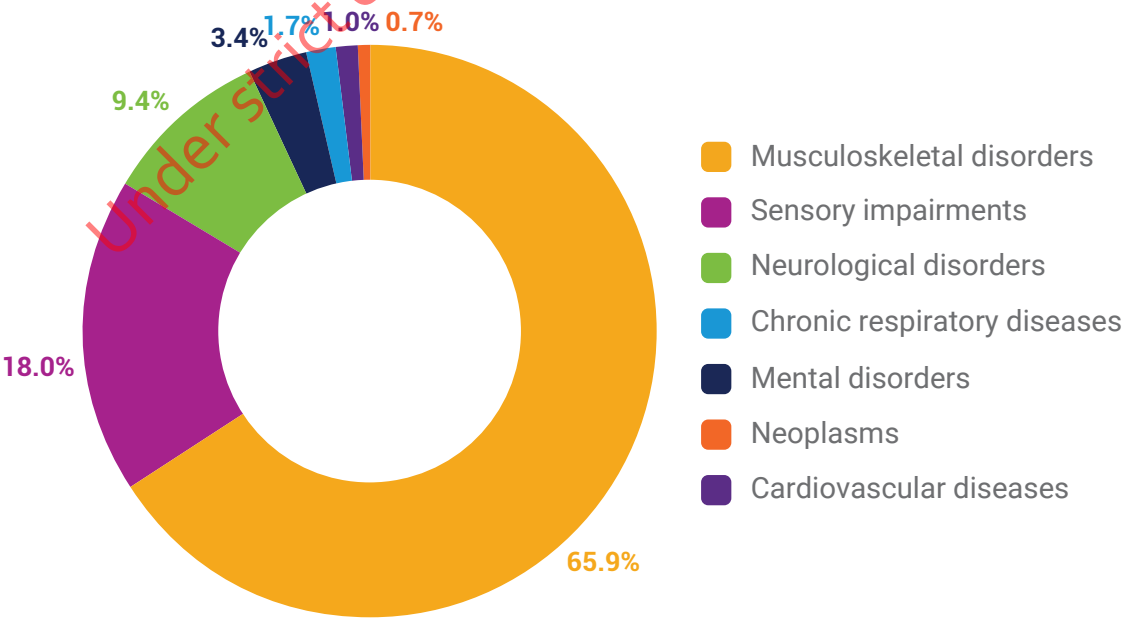
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
69 426	75 110	1 439 214	1 508 033	795 804	412 146
144 536		2 947 247		1 207 950	
4 299 733					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

BELGIUM

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **11 419 166 inhabitants**
World Bank classification: **High income**

5 046 655 people have at least one condition that would benefit from rehabilitation services, contributing to **649 572** years lived with disability.

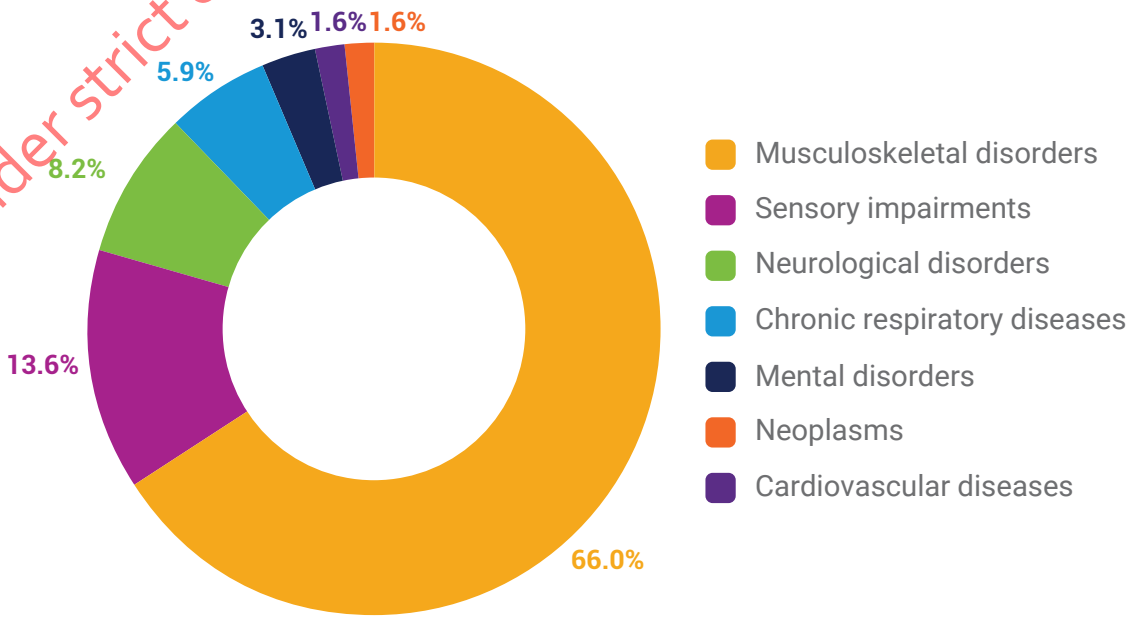
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
86 932	96 652	1 490 374	1 562 794	1 032 635	777 268
183 584		3 053 168		1 809 903	
5 046 655					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **3 299 982 inhabitants**
World Bank classification: **Upper middle income**

1 628 124 people have at least one condition that would benefit from rehabilitation services, contributing to **196 017** years lived with disability.

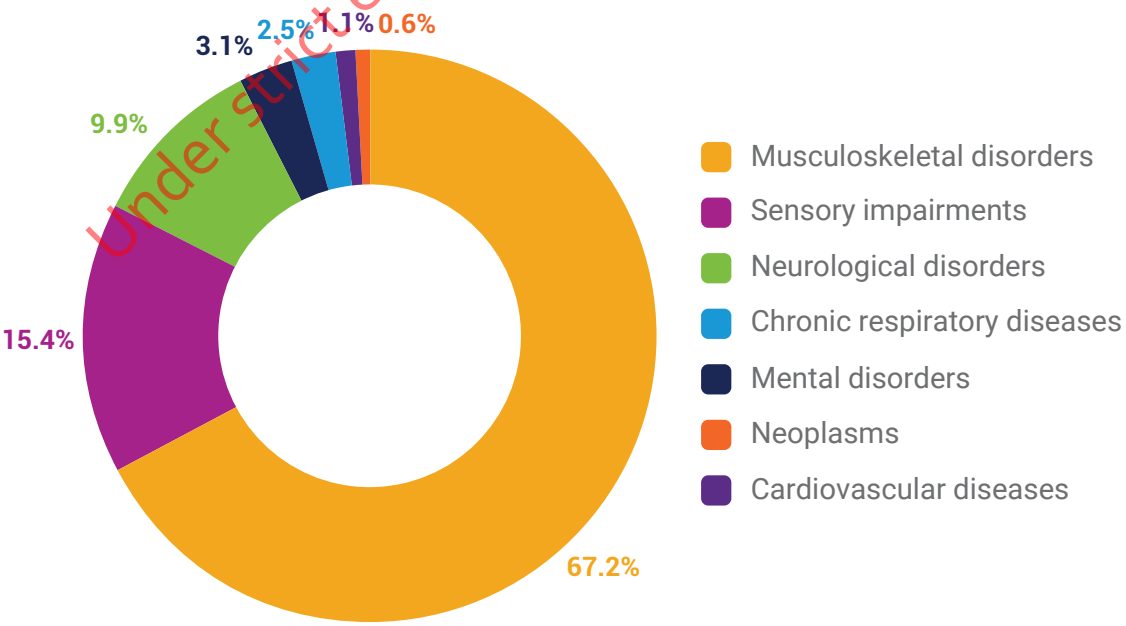
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
23 674	27 425	505 713	610 325	256 686	204 301
51 099		1 116 038		460 987	
1 628 124					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

BULGARIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **6 934 625 inhabitants**
World Bank classification: **Upper middle income**

3 540 328 people have at least one condition that would benefit from rehabilitation services, contributing to **438 910** years lived with disability.

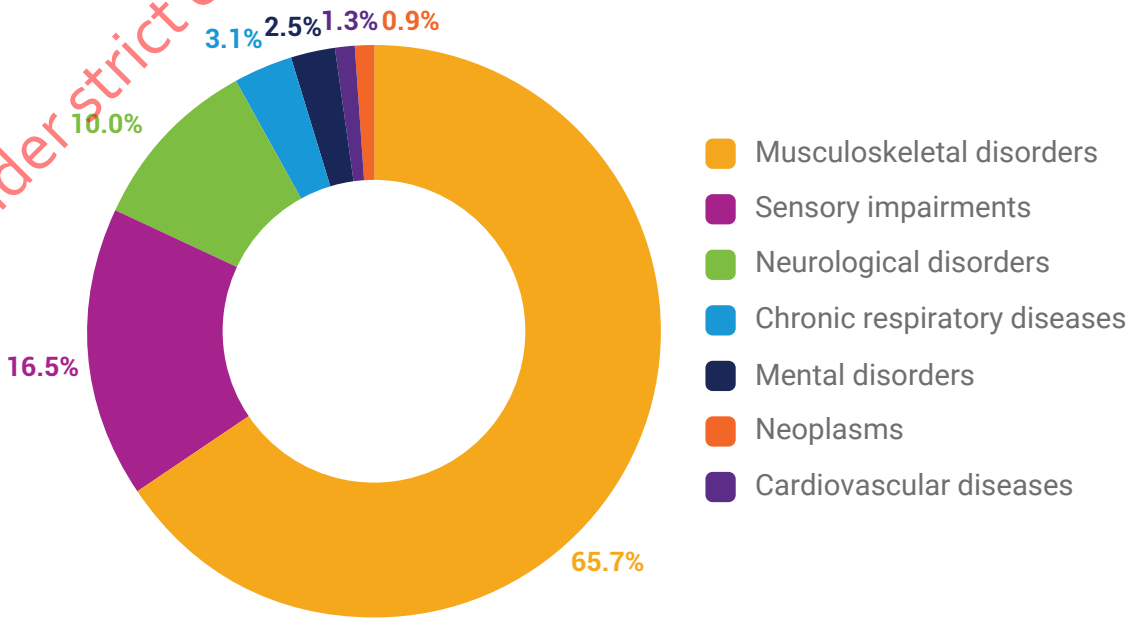
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
46 880	56 629	966 330	1 243 328	706 511	520 650
103 509		2 209 658		1 227 161	
3 540 328					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

CROATIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **4 247 903 inhabitants**
World Bank classification: **High income**

2 081 622 people have at least one condition that would benefit from rehabilitation services, contributing to **265 747** years lived with disability.

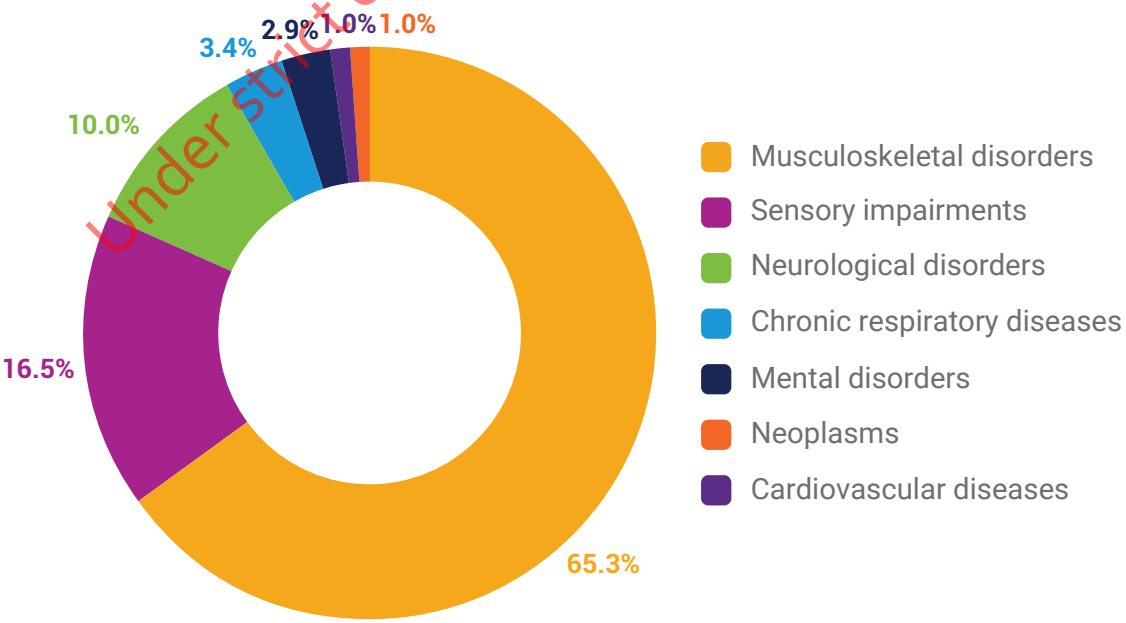
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
28 956	33 510	586 107	708 075	420 589	304 385
62 466		1 294 182		724 974	
2 081 622					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

CYPRUS

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **1 313 477 inhabitants**
World Bank classification: **High income**

520 378 people have at least one condition that would benefit from rehabilitation services, contributing to **61 903** years lived with disability.

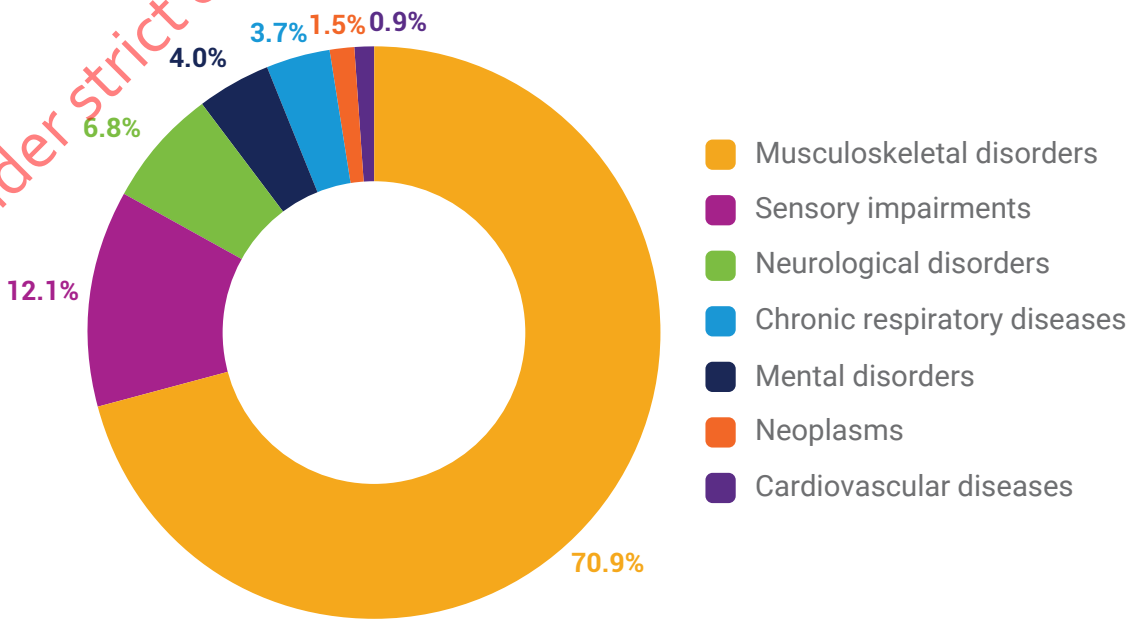
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
8 841	10 353	176 347	180 370	76 330	68 137
19 194		356 717		144 467	
520 378					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

CZECHIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **10 643 487 inhabitants**
World Bank classification: **High income**

5 341 208 people have at least one condition that would benefit from rehabilitation services, contributing to **649 596** years lived with disability.

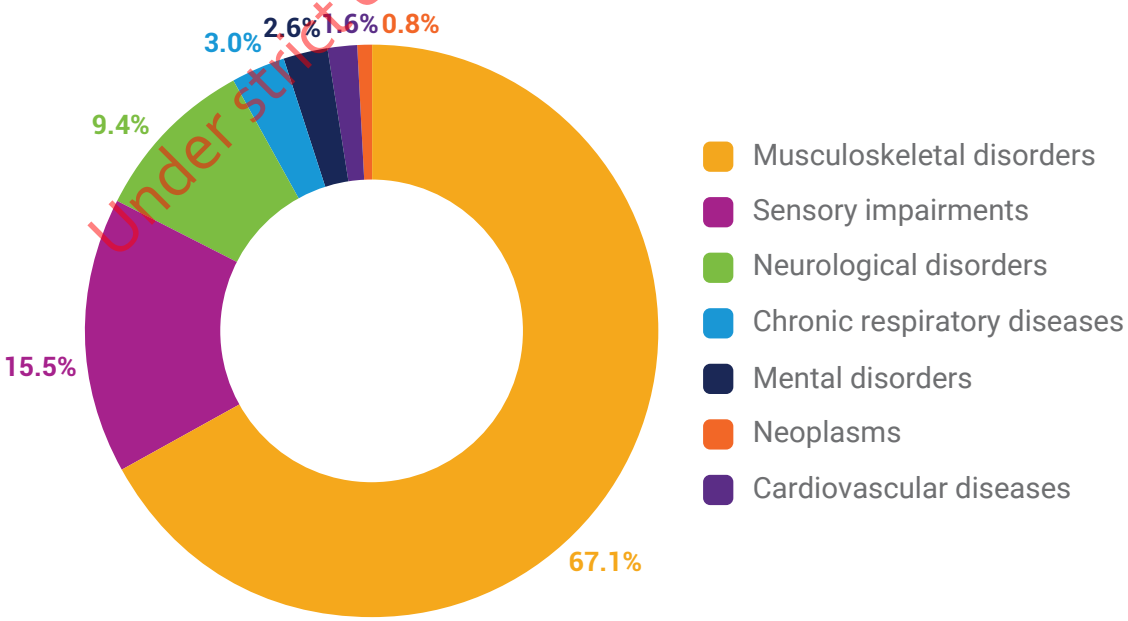
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
85 083	95 647	1 502 105	1 856 678	1 015 358	786 337
180 730		3 358 783		1 801 695	
5 341 208					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

DENMARK

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **5 858 922 inhabitants**
World Bank classification: **High income**

2 565 531 people have at least one condition that would benefit from rehabilitation services, contributing to **330 503** years lived with disability.

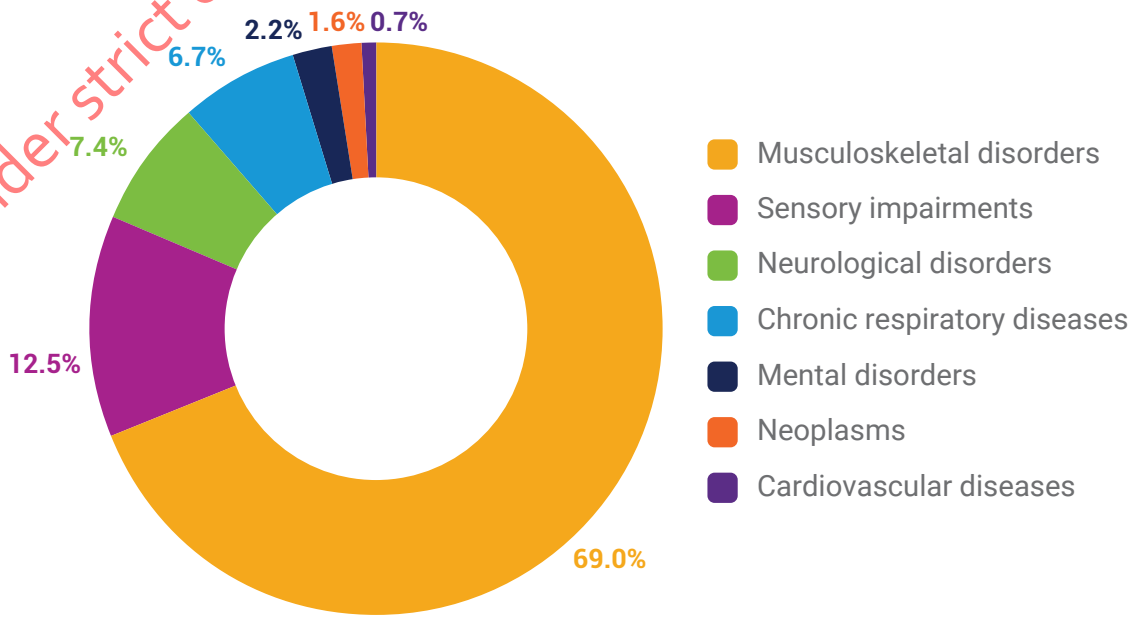
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
41 616	46 247	767 973	788 821	510 062	410 812
87 863		1 556 794		920 874	
2 565 531					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ESTONIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **1 312 361 inhabitants**
World Bank classification: **High income**

589 153 people have at least one condition that would benefit from rehabilitation services, contributing to **70 396** years lived with disability.

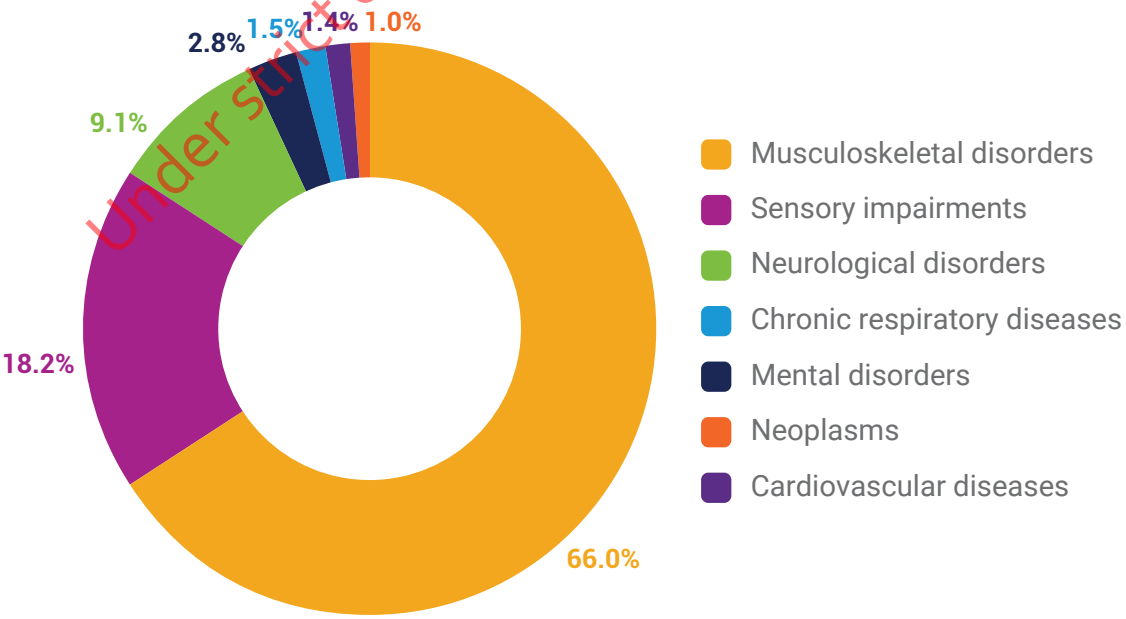
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
9 451	8 760	171 007	186 526	138 206	75 203
18 211		357 533		213 409	
589 153					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

FINLAND

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **5 534 095 inhabitants**
World Bank classification: **High income**

2 593 316 people have at least one condition that would benefit from rehabilitation services, contributing to **323 319** years lived with disability.

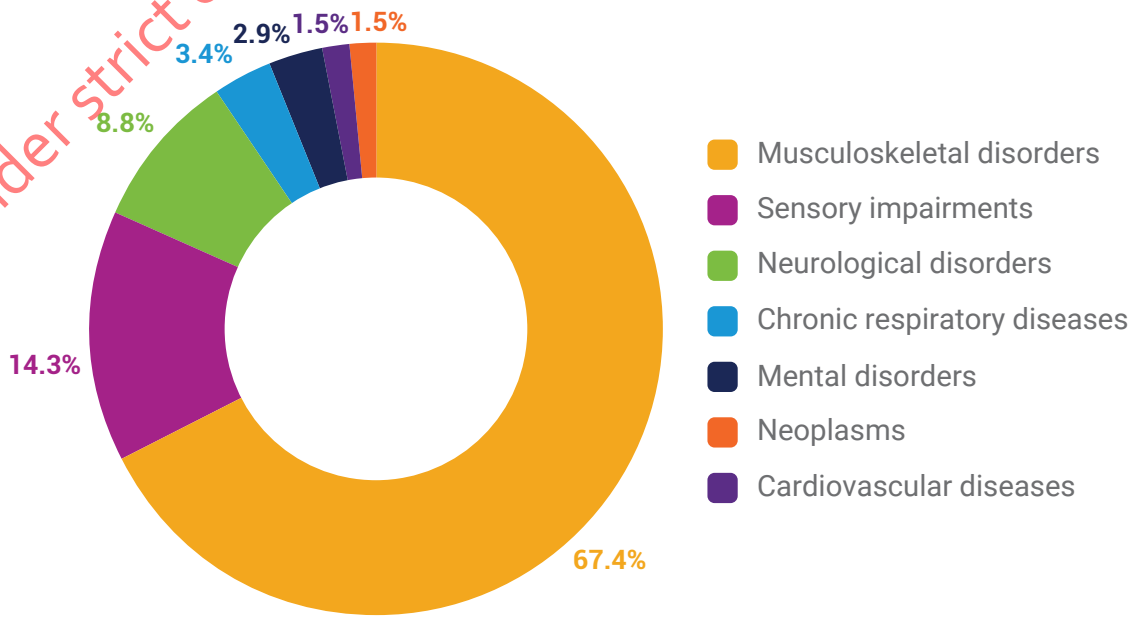
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
44 326	50 015	718 561	761 027	580 135	439 252
94 341		1 479 588		1 019 387	
2 593 316					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

FRANCE

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **66 204 316 inhabitants**
World Bank classification: **High income**

28 287 093 people have at least one condition that would benefit from rehabilitation services, contributing to **3 510 473** years lived with disability.

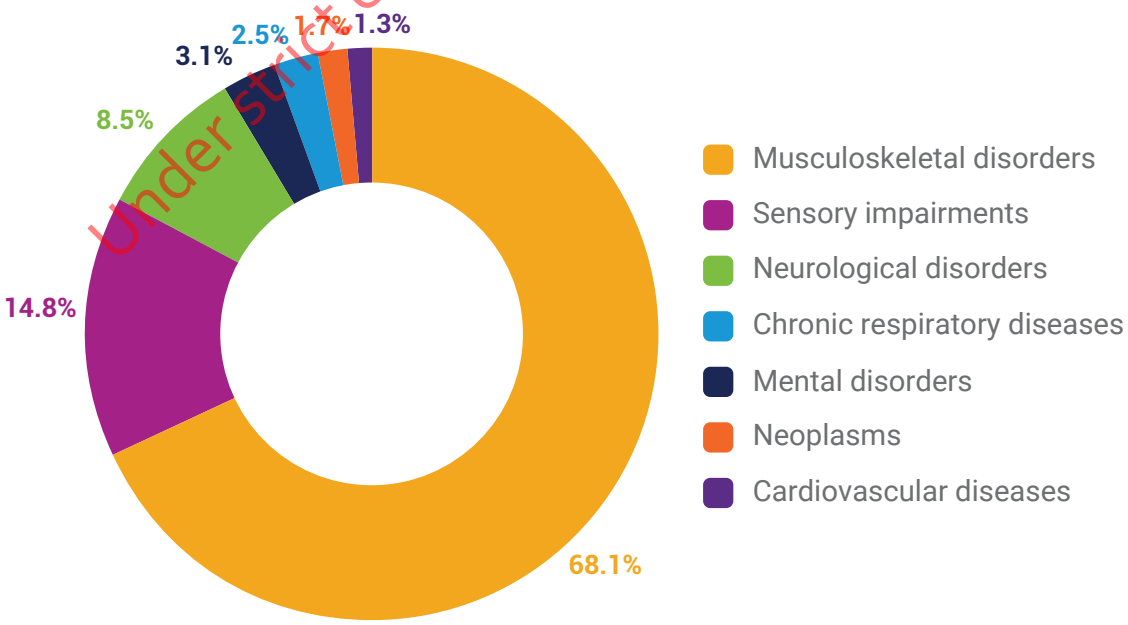
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
529 523	566 887	8 346 196	8 131 732	6 224 535	4 488 220
1 096 410		16 477 928		10 712 755	
28 287 093					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

GEORGIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **3 664 752 inhabitants**
World Bank classification: **Upper middle income**

1 520 042 people have at least one condition that would benefit from rehabilitation services, contributing to **181 635** years lived with disability.

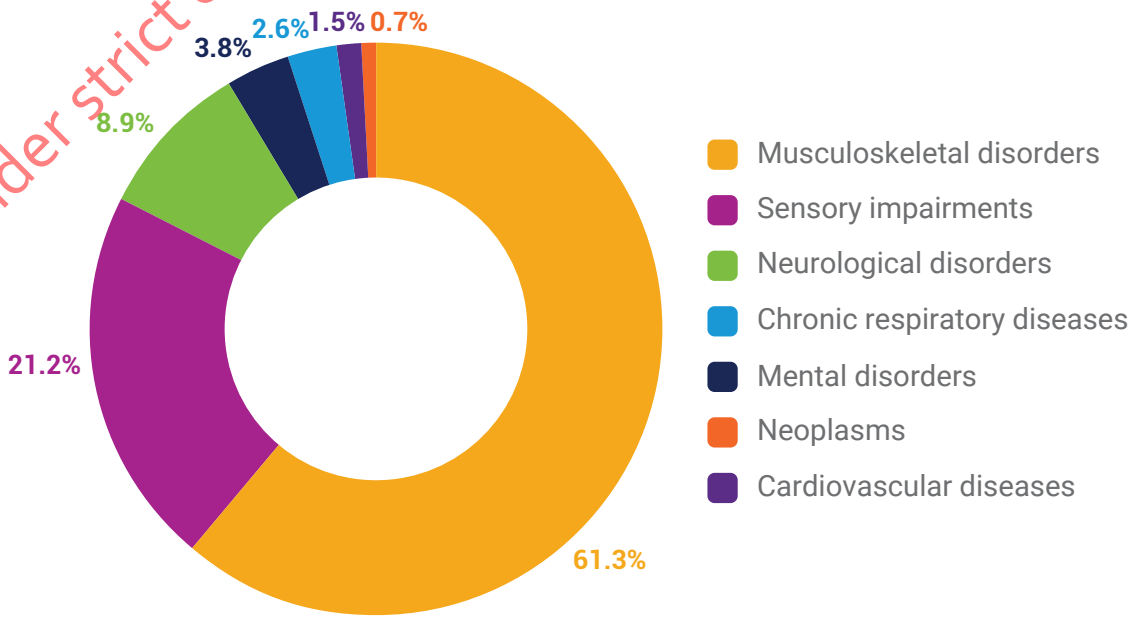
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
27 435	35 859	446 865	549 845	283 385	176 653
63 294		996 710		460 038	
1 520 042					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

GERMANY

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **84 914 056 inhabitants**
World Bank classification: **High income**

38 483 874 people have at least one condition that would benefit from rehabilitation services, contributing to **5 033 693** years lived with disability.

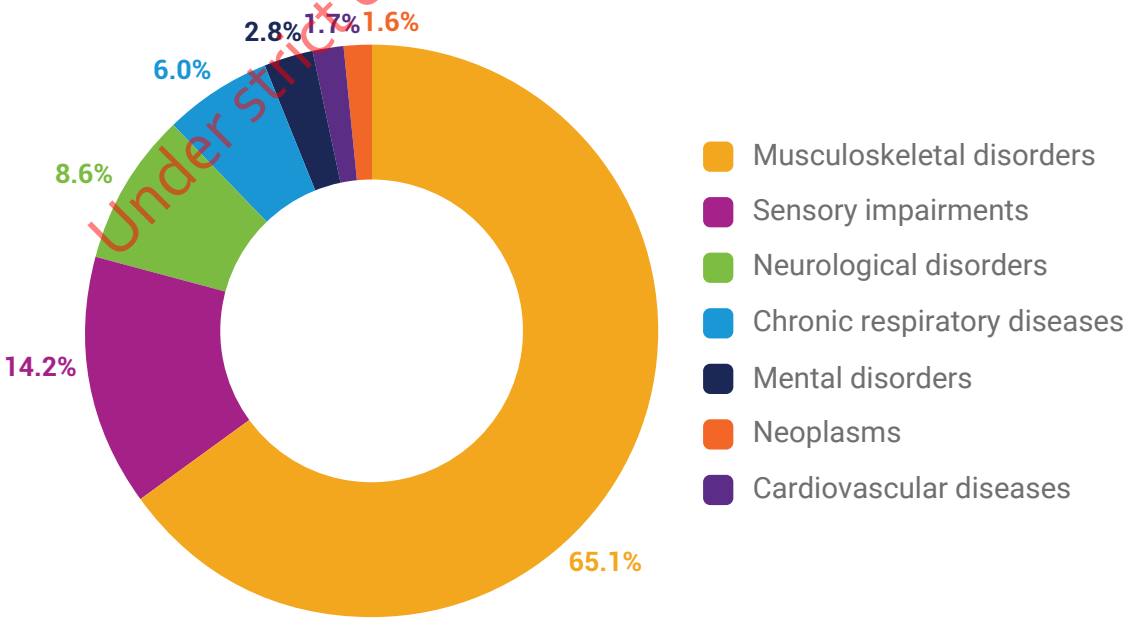
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
539 288	580 192	11 237 207	11 501 366	8 391 257	6 234 564
1 119 480		22 738 573		14 625 821	
38 483 874					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

GREECE

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **10 337 172 inhabitants**
World Bank classification: **High income**

4 537 827 people have at least one condition that would benefit from rehabilitation services, contributing to **588 231** years lived with disability.

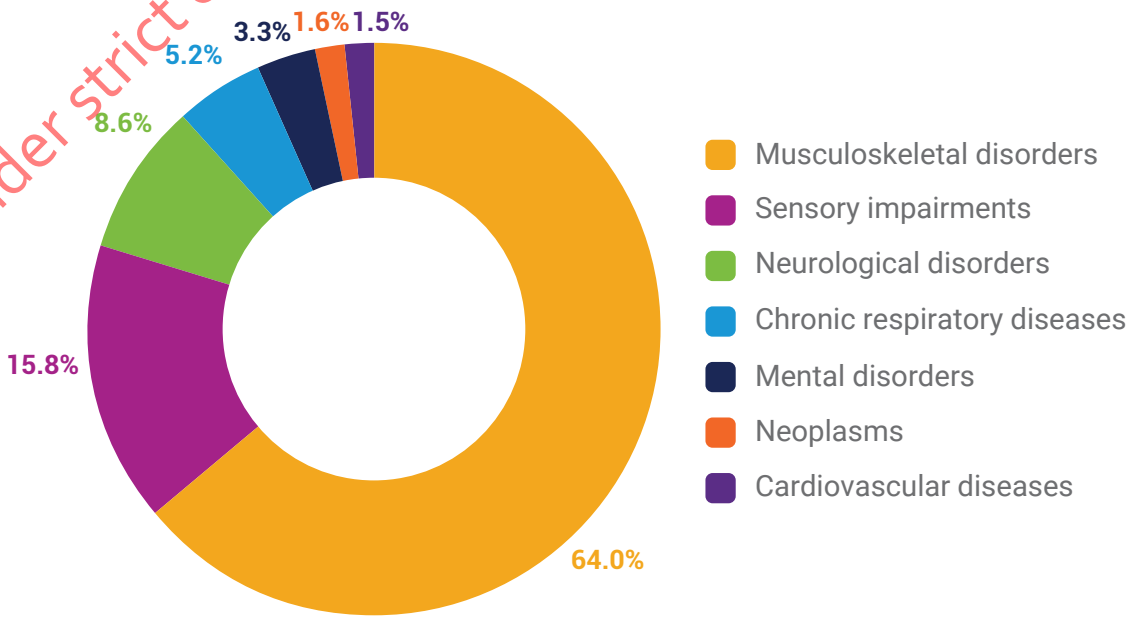
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
64 770	69 886	1 323 248	1 295 527	996 521	787 875
134 656		2 618 775		1 784 396	
4 537 827					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

HUNGARY

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **9 674 413 inhabitants**
World Bank classification: **High income**

4 771 113 people have at least one condition that would benefit from rehabilitation services, contributing to **599 067** years lived with disability.

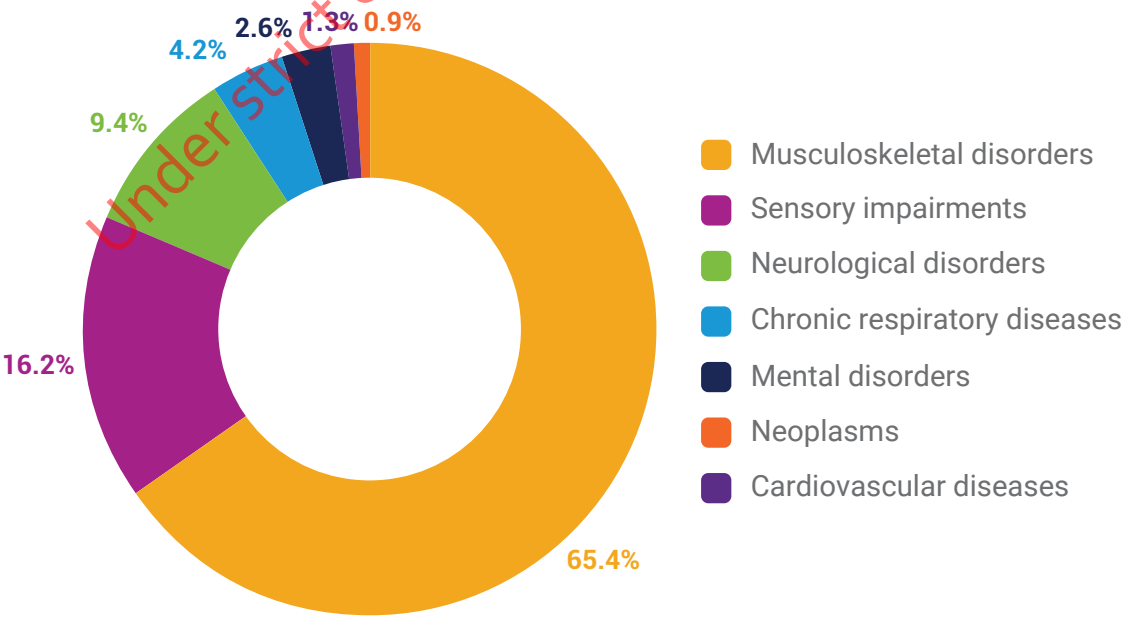
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
66 922	78 354	1 391 791	1 613 420	981 766	638 860
145 276		3 005 211		1 620 626	
4 771 113					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ICELAND

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **344 876 inhabitants**
World Bank classification: **High income**

137 098 people have at least one condition that would benefit from rehabilitation services, contributing to **16 992** years lived with disability.

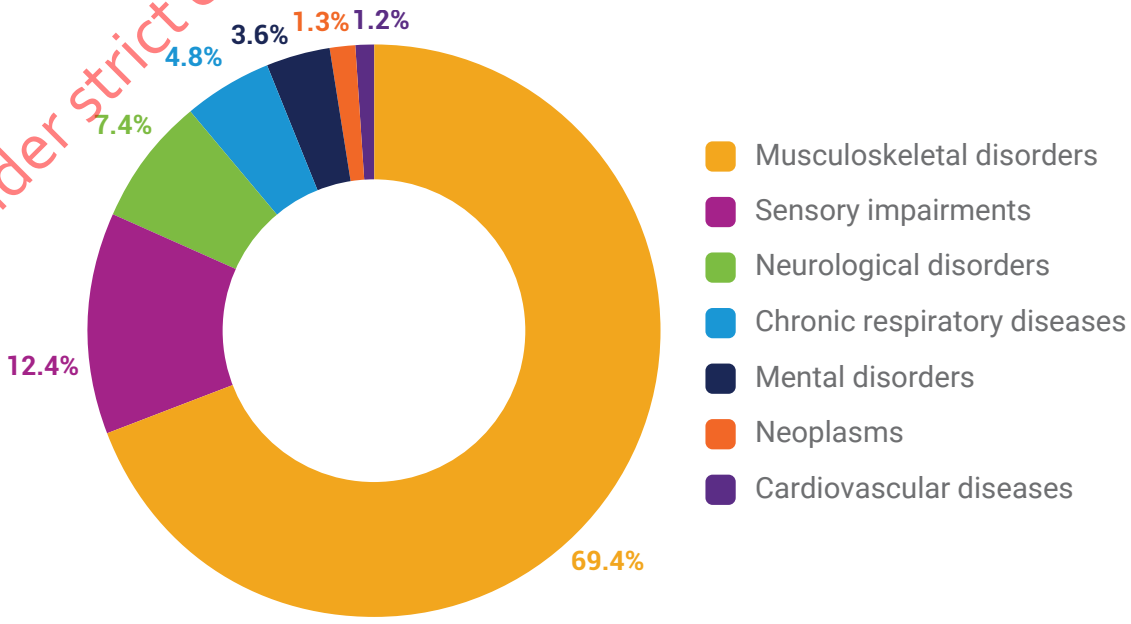
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
2 880	3 155	43 418	45 671	22 608	19 366
6 035		89 089		41 974	
137 098					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **4 910 358 inhabitants**
World Bank classification: **High income**

1 929 011 people have at least one condition that would benefit from rehabilitation services, contributing to **237 866** years lived with disability.

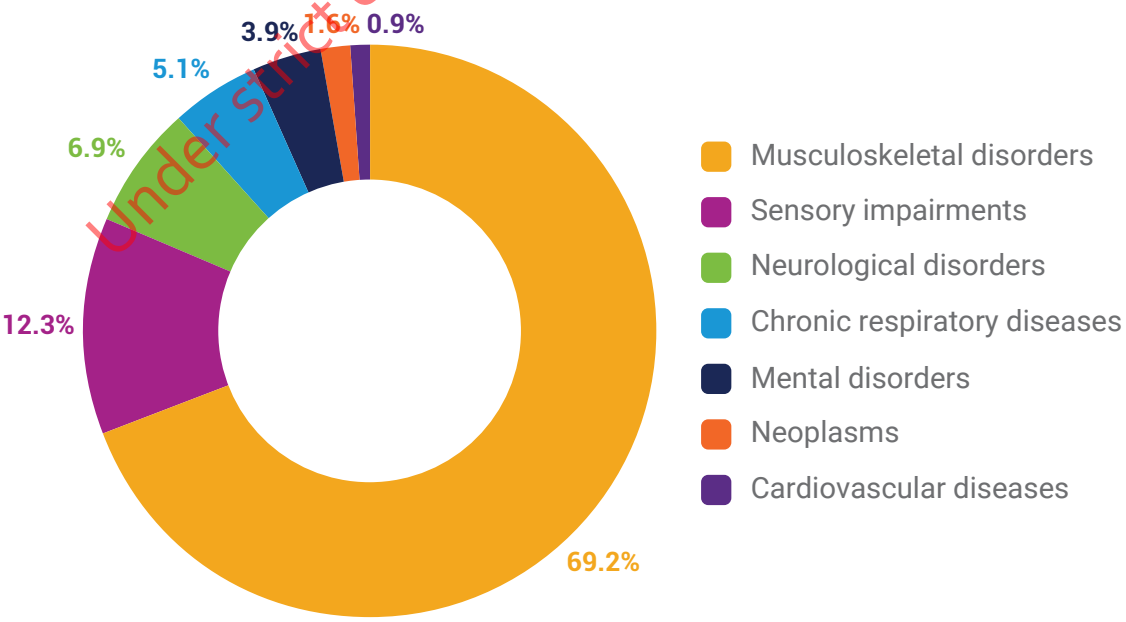
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
47 101	50 579	640 425	632 245	303 359	255 302
97 680		1 272 670		558 661	
1 929 011					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ISRAEL

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **9 309 583 inhabitants**
World Bank classification: **High income**

3 163 277 people have at least one condition that would benefit from rehabilitation services, contributing to **369 387** years lived with disability.

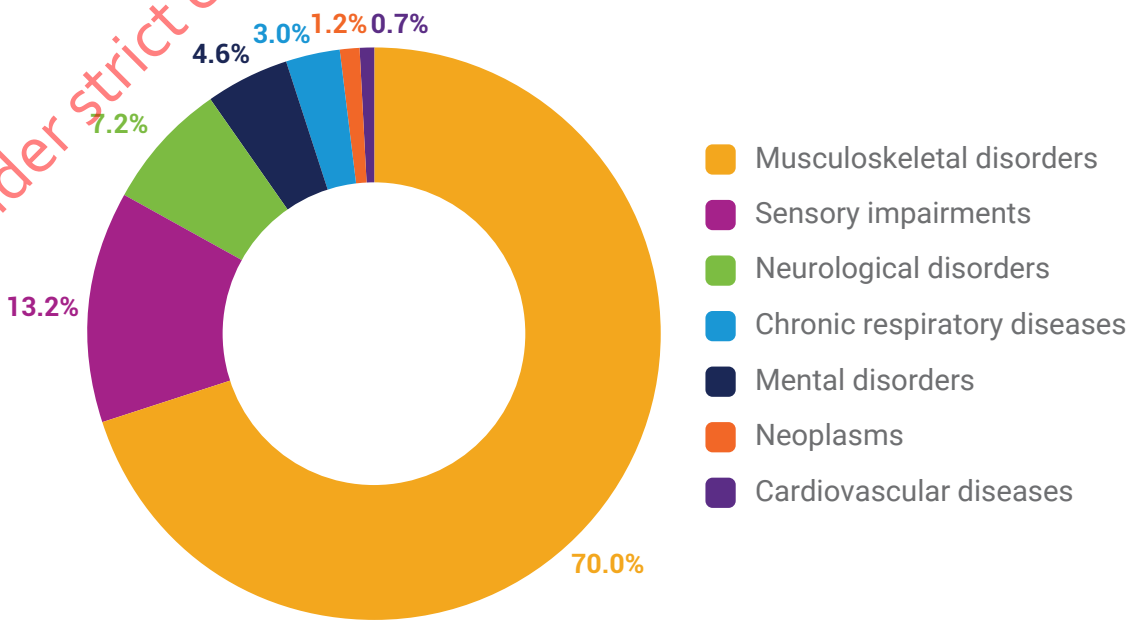
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
112 226	120 342	1 027 019	1 044 796	481 711	377 183
232 568		2 071 815		858 894	
3 163 277					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ITALY

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **60 313 168 inhabitants**
World Bank classification: **High income**

27 117 057 people have at least one condition that would benefit from rehabilitation services, contributing to **3 660 525** years lived with disability.

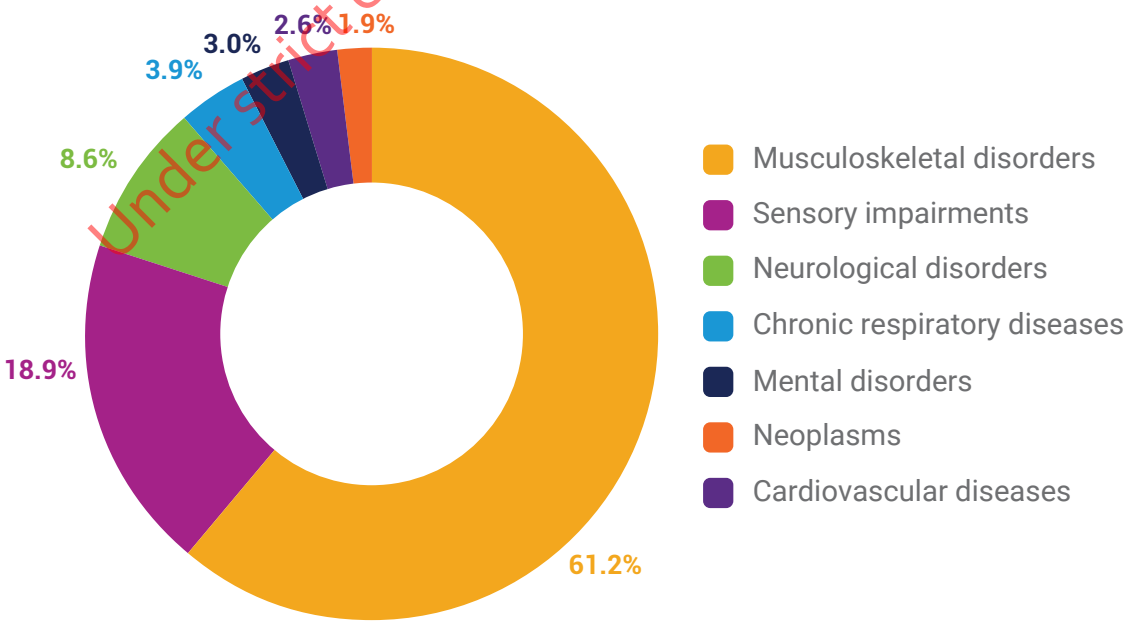
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
326 724	386 150	7 431 739	7 906 424	6 322 574	4 743 446
712 874		15 338 163		11 066 020	
27 117 057					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

KAZAKHSTAN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **18 392 068 inhabitants**
World Bank classification: **Upper middle income**

5 845 234 people have at least one condition that would benefit from rehabilitation services, contributing to **670 508** years lived with disability.

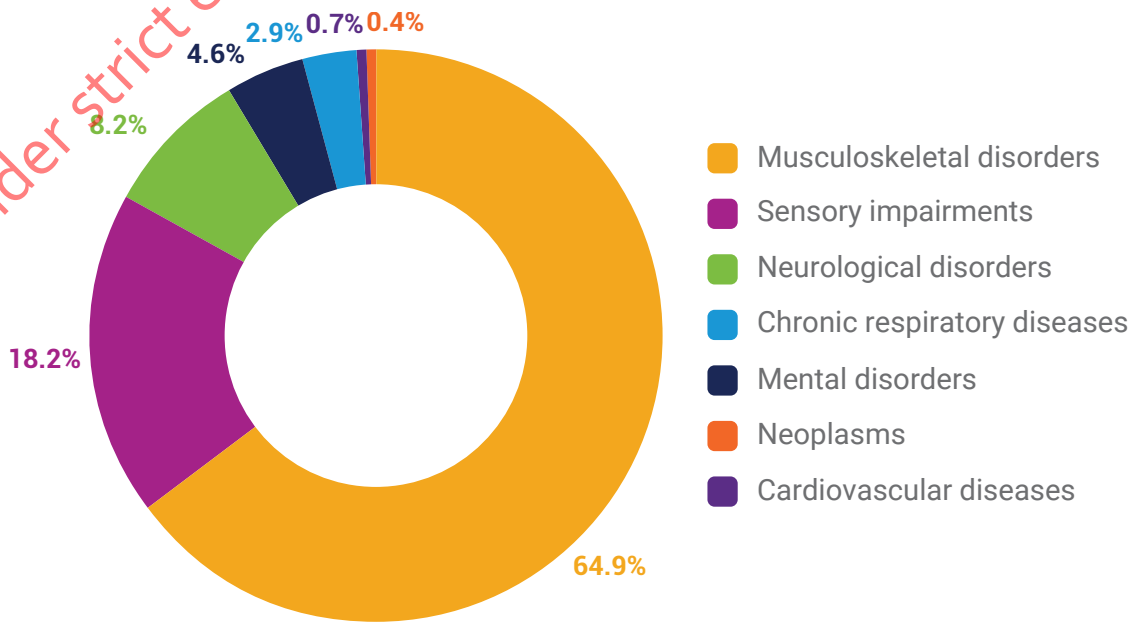
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
175 948	213 193	2 101 616	2 314 574	657 633	382 270
389 141		4 416 190		1 039 903	
5 845 234					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

KYRGYZSTAN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **6 535 459 inhabitants**
World Bank classification: **Lower middle income**

1 734 718 people have at least one condition that would benefit from rehabilitation services, contributing to **196 495** years lived with disability.

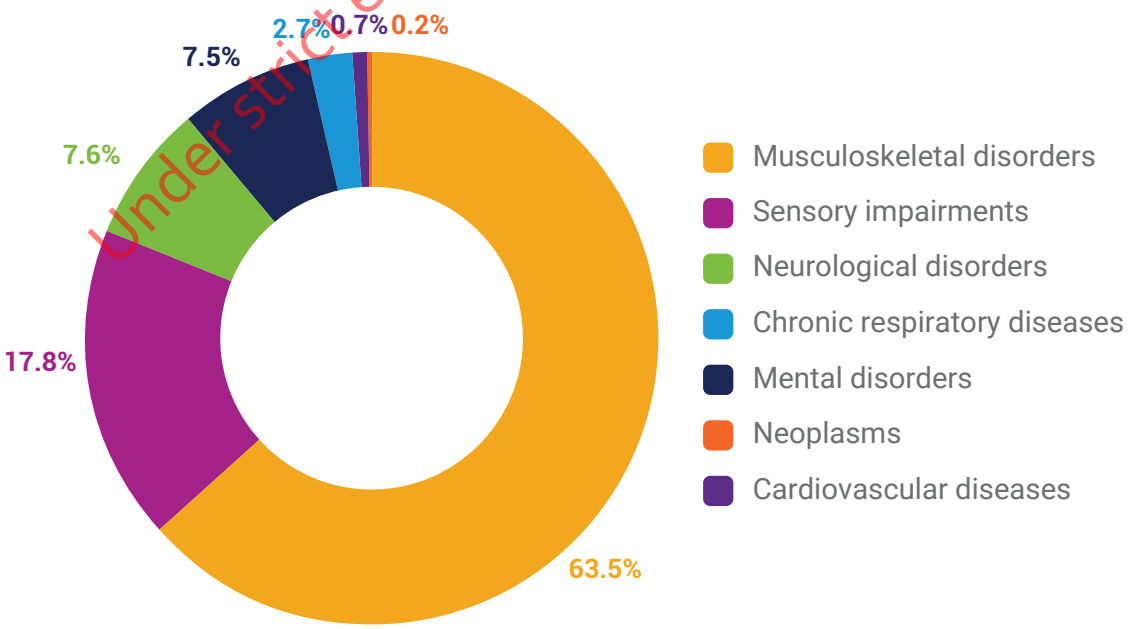
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
77 899	92 219	645 052	681 580	143 334	94 634
170 118		1 326 632		237 968	
1 734 718					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

LATVIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **1 915 292 inhabitants**
World Bank classification: **High income**

897 949 people have at least one condition that would benefit from rehabilitation services, contributing to **111 206** years lived with disability.

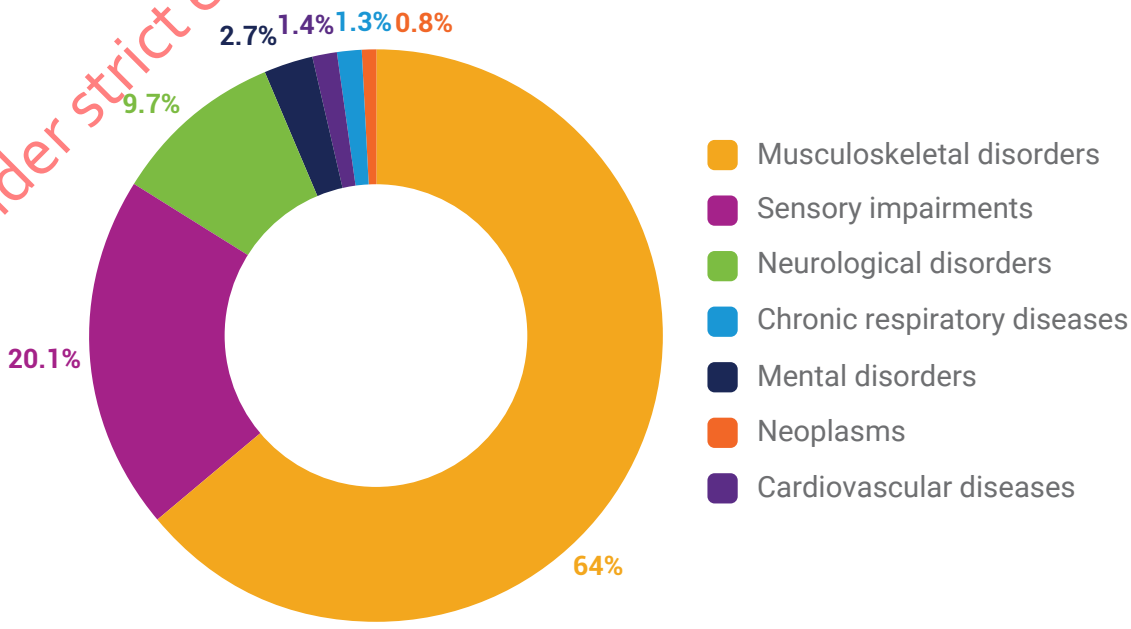
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
12 655	13 756	265 160	278 663	216 548	111 167
26 411		543 823		327 715	
897 949					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

LITHUANIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **2 794 223 inhabitants**
World Bank classification: **High income**

1 315 772 people have at least one condition that would benefit from rehabilitation services, contributing to **163 842** years lived with disability.

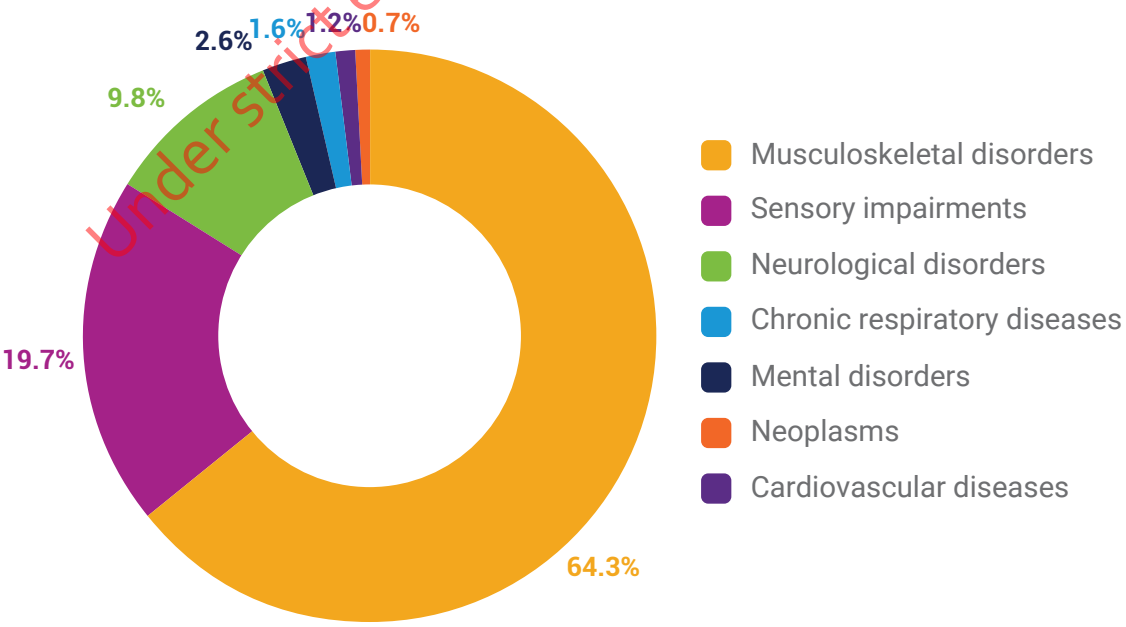
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
17 101	18 441	398 149	413 758	306 082	162 241
35 542		811 907		468 323	
1 315 772					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

LUXEMBOURG

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **618 550 inhabitants**
World Bank classification: **High income**

254 111 people have at least one condition that would benefit from rehabilitation services, contributing to **31 239** years lived with disability.

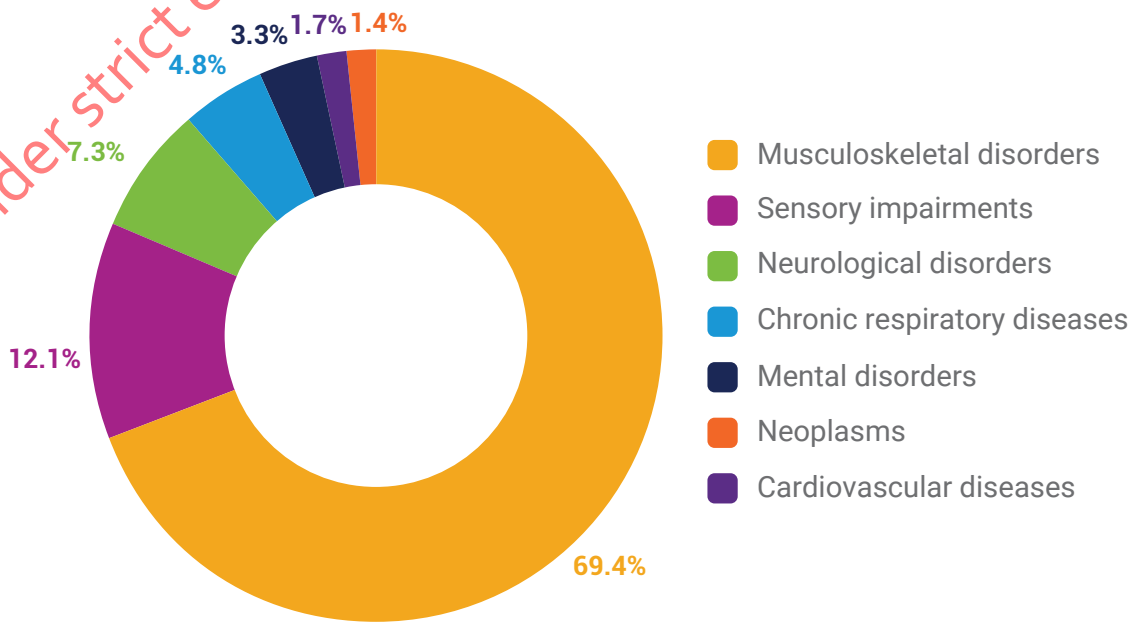
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
4 294	4 692	84 374	87 959	41 127	31 665
8 986		172 333		72 792	
254 111					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

MALTA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **439 221 inhabitants**
World Bank classification: **High income**

200 148 people have at least one condition that would benefit from rehabilitation services, contributing to **24 898** years lived with disability.

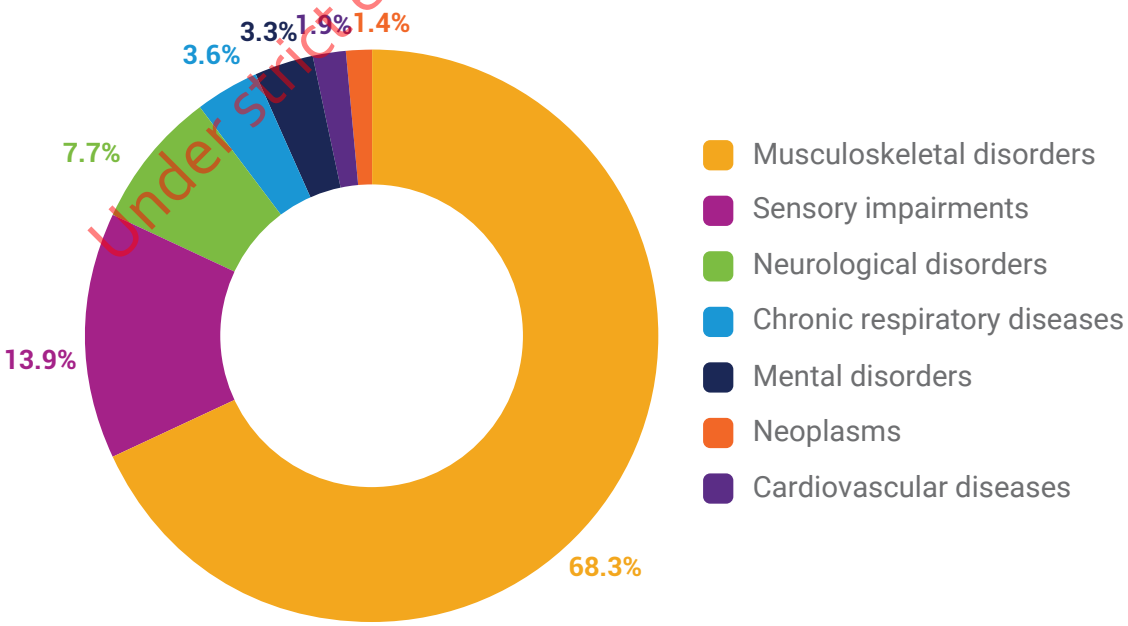
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
2 853	3 346	57 479	61 786	41 504	33 180
6 199		119 265		74 684	
200 148					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

MONACO

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **37 572 inhabitants**
World Bank classification: **High income**

17 483 people have at least one condition that would benefit from rehabilitation services, contributing to **2 273** years lived with disability.

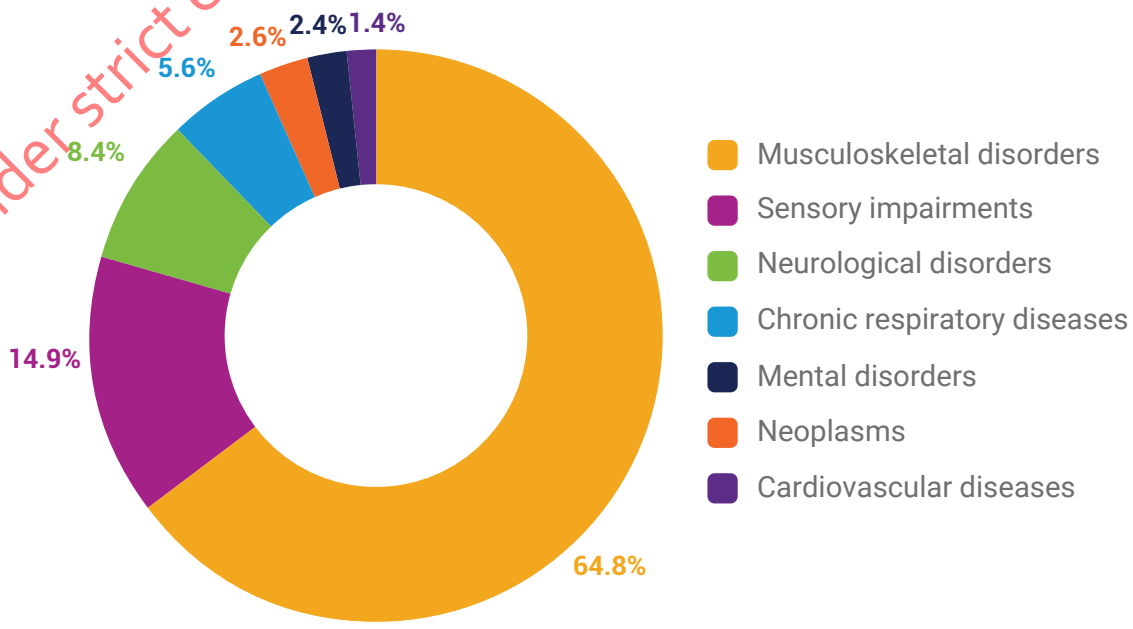
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
193	213	4 812	4 881	4 125	3 259
406		9 693		7 384	
17 483					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

MONTENEGRO

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **620 340 inhabitants**
World Bank classification: **Upper middle income**

280 009 people have at least one condition that would benefit from rehabilitation services, contributing to **32 360** years lived with disability.

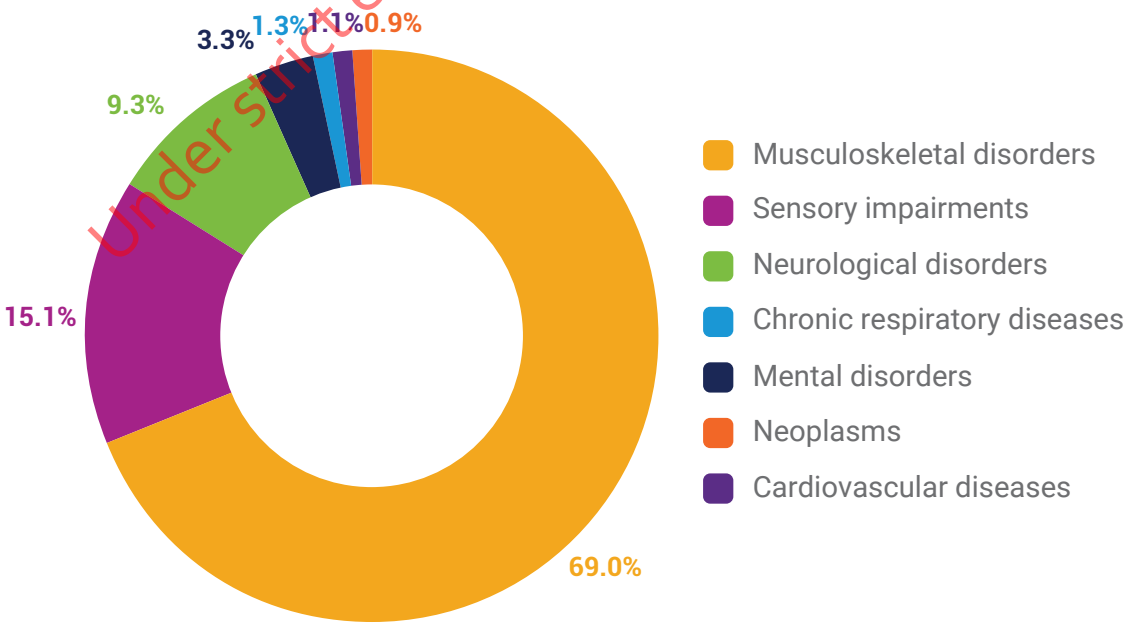
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
5 044	6 209	86 846	106 644	41 451	33 815
11 253		193 490		75 266	
280 009					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

NETHERLANDS

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **17 156 788 inhabitants**
World Bank classification: **High income**

6 902 825 people have at least one condition that would benefit from rehabilitation services, contributing to **906 437** years lived with disability.

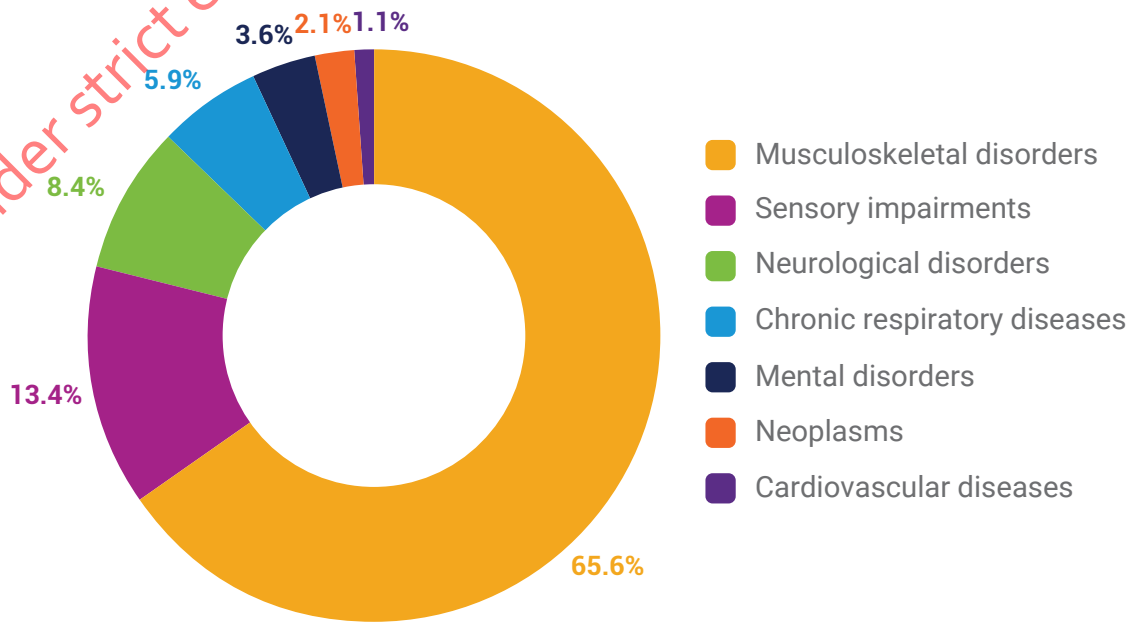
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
106 832	114 621	2 073 717	2 031 854	1 440 431	1 135 370
221 453		4 105 571		2 575 801	
6 902 825					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **2 152 731 inhabitants**
World Bank classification: **Upper middle income**

946 171 people have at least one condition that would benefit from rehabilitation services, contributing to **108 912** years lived with disability.

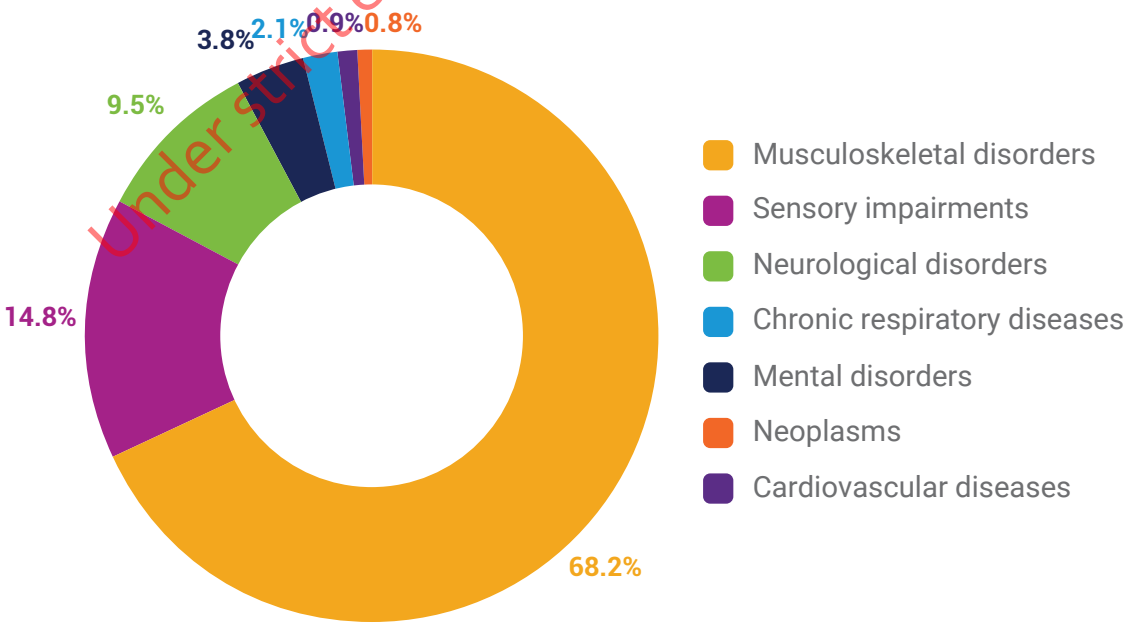
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
15 626	18 618	294 896	383 326	122 177	111 528
34 244		678 222		233 705	
946 171					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

NORWAY

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **5 348 847 inhabitants**
World Bank classification: **High income**

2 173 468 people have at least one condition that would benefit from rehabilitation services, contributing to **277 501** years lived with disability.

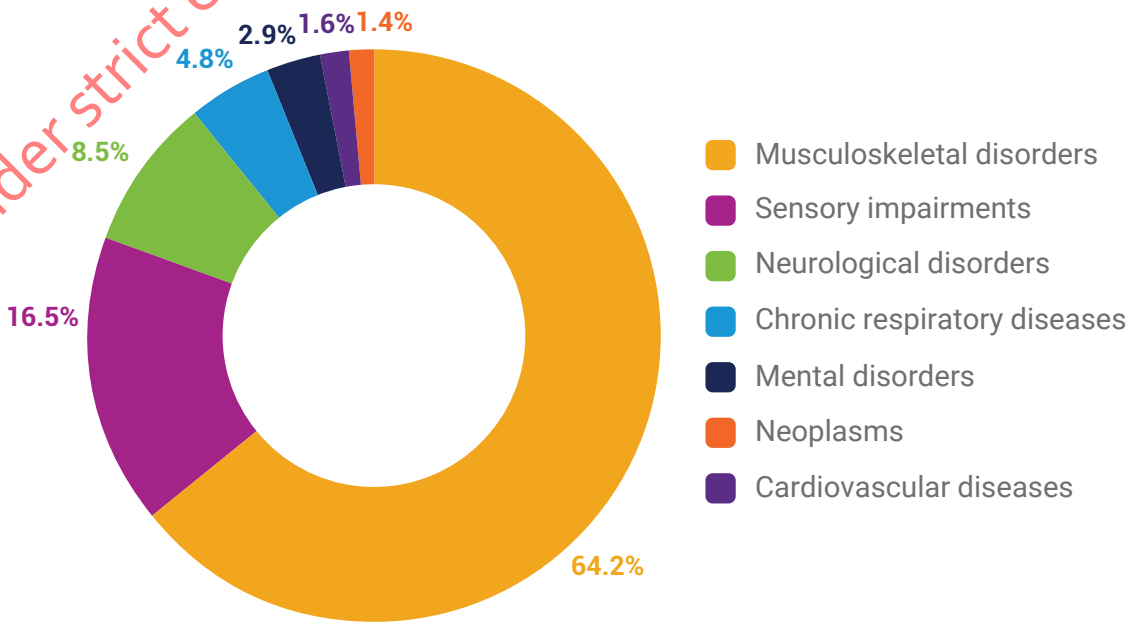
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
37 180	42 035	641 419	693 622	414 522	344 690
79 215		1 335 041		759 212	
2 173 468					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **38 434 444 inhabitants**
World Bank classification: **High income**

18 538 769 people have at least one condition that would benefit from rehabilitation services, contributing to **2 265 737** years lived with disability.

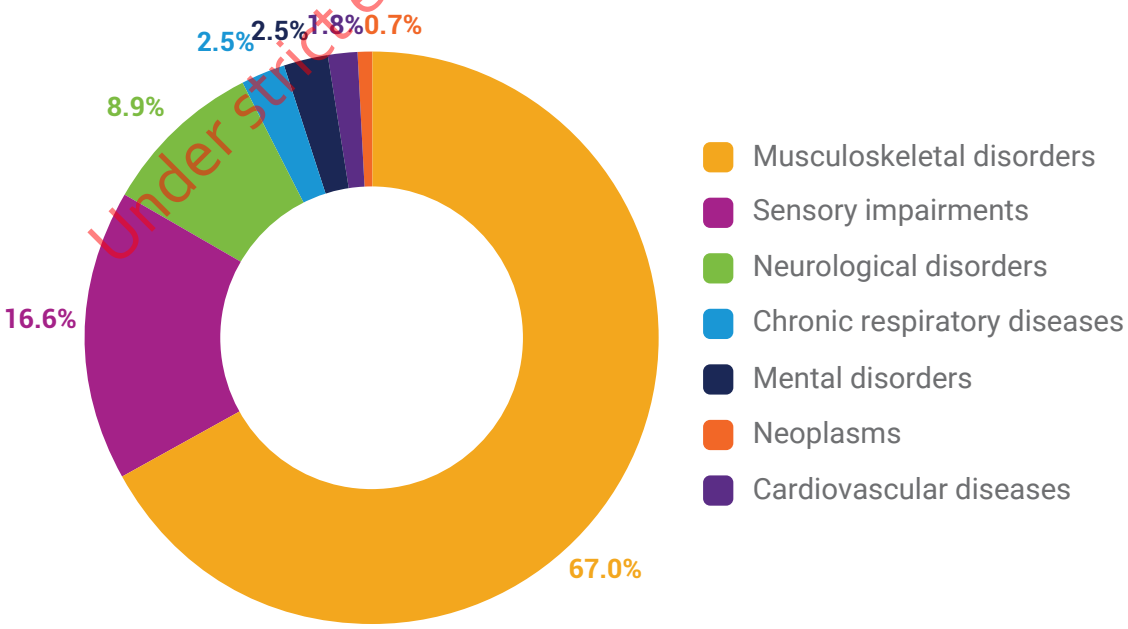
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
266 047	298 630	5 624 993	6 625 297	3 353 030	2 370 772
564 677		12 250 290		5 723 802	
18 538 769					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

PORTUGAL

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **10 651 263 inhabitants**
World Bank classification: **High income**

4 622 579 people have at least one condition that would benefit from rehabilitation services, contributing to **592 996** years lived with disability.

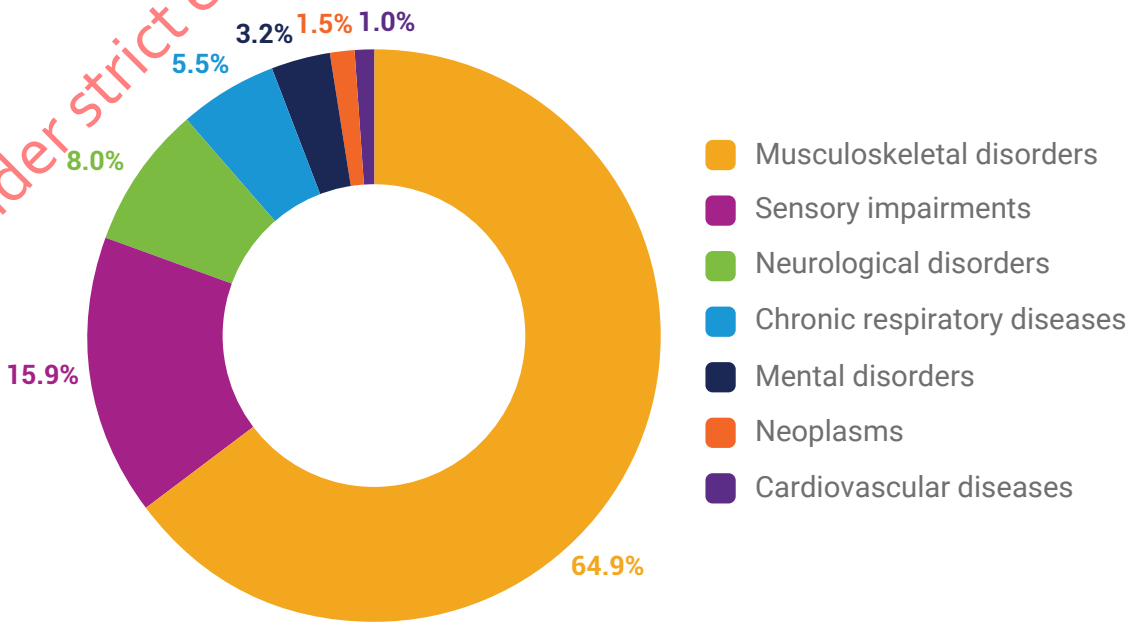
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
57 949	62 303	1 417 487	1 247 726	1 088 335	748 779
120 252		2 665 213		1 837 114	
4 622 579					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **3 688 191 inhabitants**
World Bank classification: **Lower middle income**

1 593 353 people have at least one condition that would benefit from rehabilitation services, contributing to **194 412** years lived with disability.

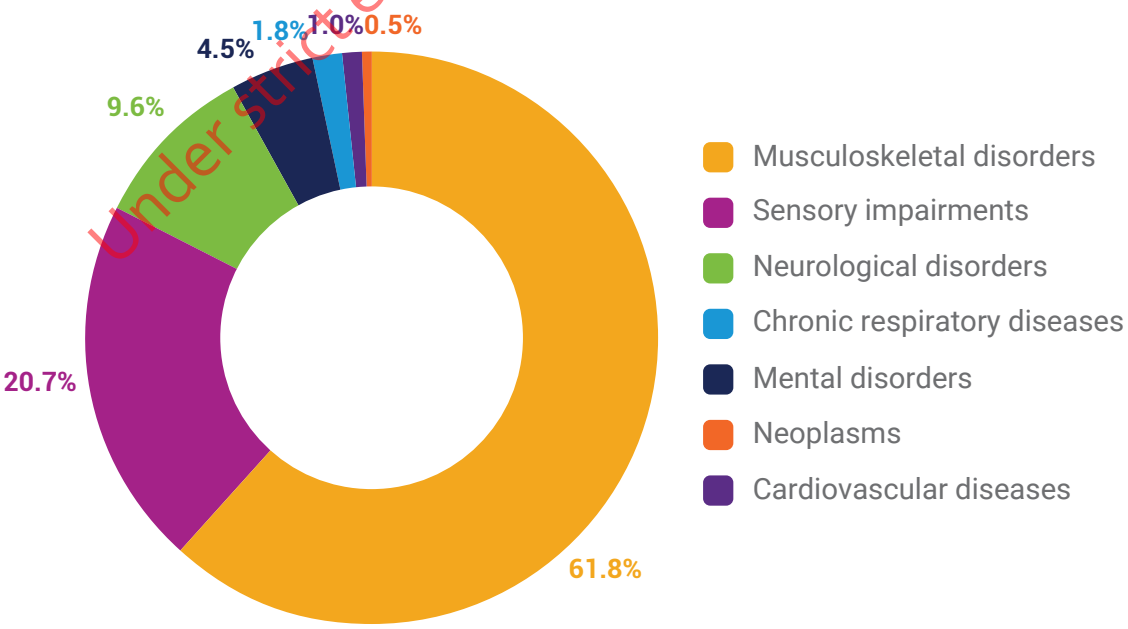
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
29 554	32 292	544 120	555 033	266 188	166 166
61 846		1 099 153		432 354	
1 593 353					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

ROMANIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **19 237 066 inhabitants**
World Bank classification: **High income**

9 294 541 people have at least one condition that would benefit from rehabilitation services, contributing to **1 135 792** years lived with disability.

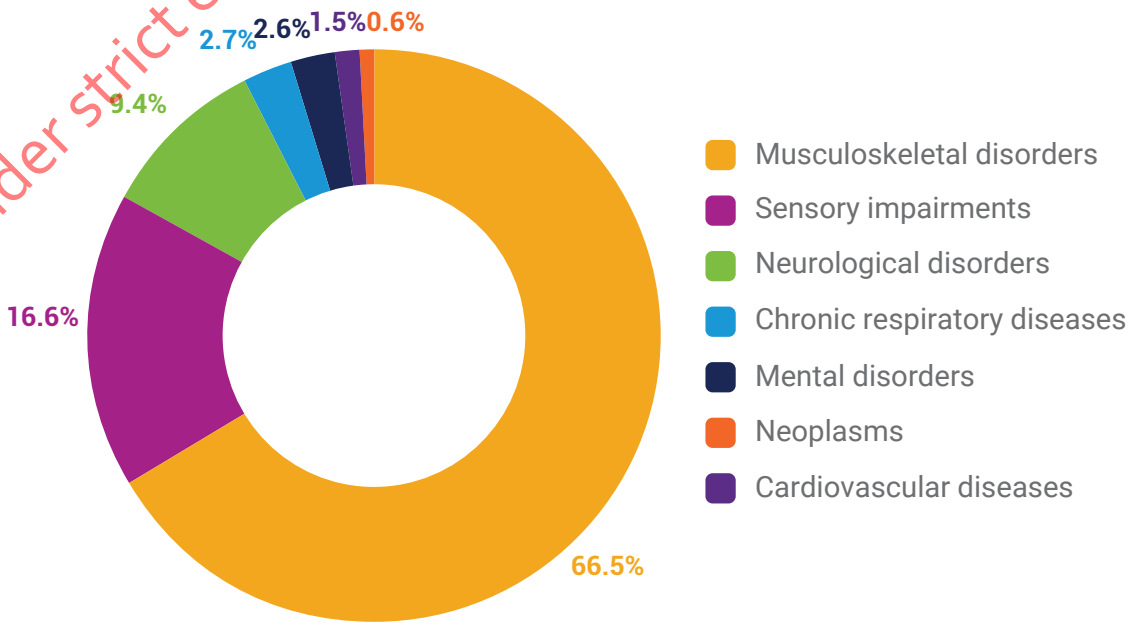
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
142 845	162 291	2 656 663	3 292 052	1 748 291	1 292 399
305 136		5 948 715		3 040 690	
9 294 541					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **146 717 424 inhabitants**
World Bank classification: **Lower middle income**

67 796 627 people have at least one condition that would benefit from rehabilitation services, contributing to **8 373 650** years lived with disability.

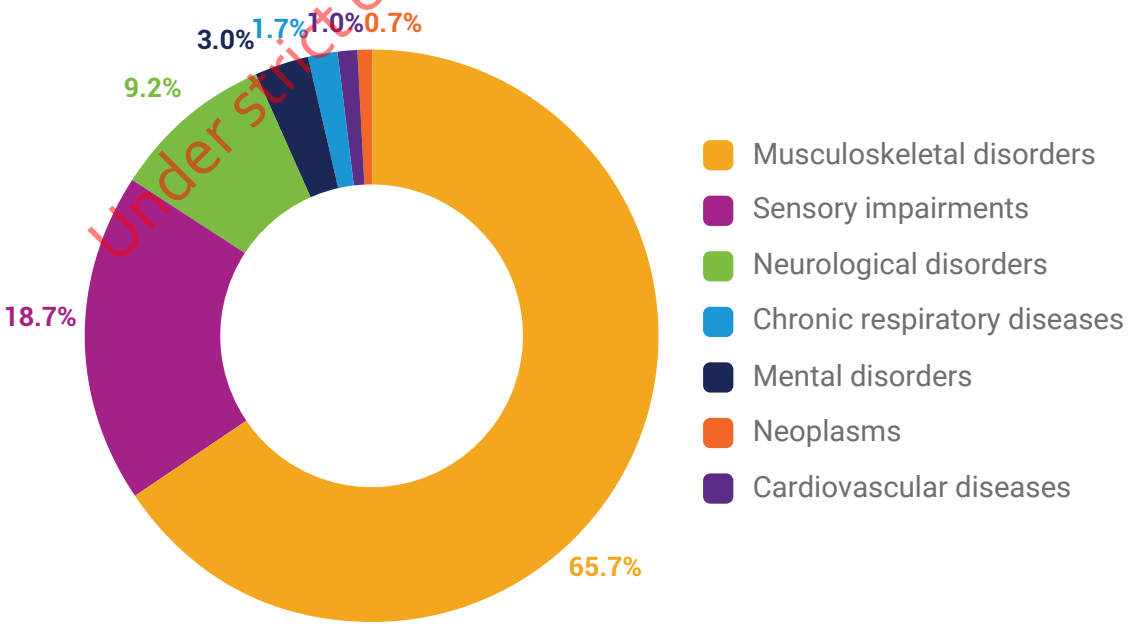
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
1 155 056	1 166 051	23 468 076	23 097 342	12 456 278	6 453 824
2 321 107		46 565 418		18 910 102	
67 796 627					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SAN MARINO

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **33 100 inhabitants**
World Bank classification: **High income**

13 926 people have at least one condition that would benefit from rehabilitation services, contributing to **1 754** years lived with disability.

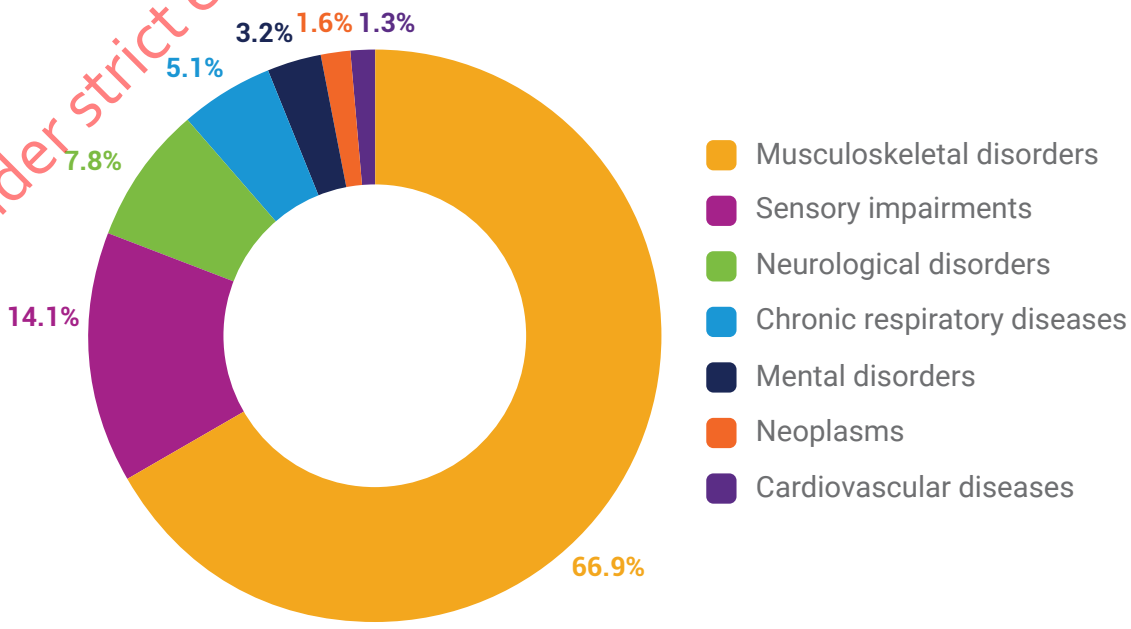
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
220	245	4 387	4 234	2 609	2 231
465		8 621		4 840	
13 926					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SERBIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **8 746 785 inhabitants**
World Bank classification: **Upper middle income**

4 093 212 people have at least one condition that would benefit from rehabilitation services, contributing to **494 610** years lived with disability.

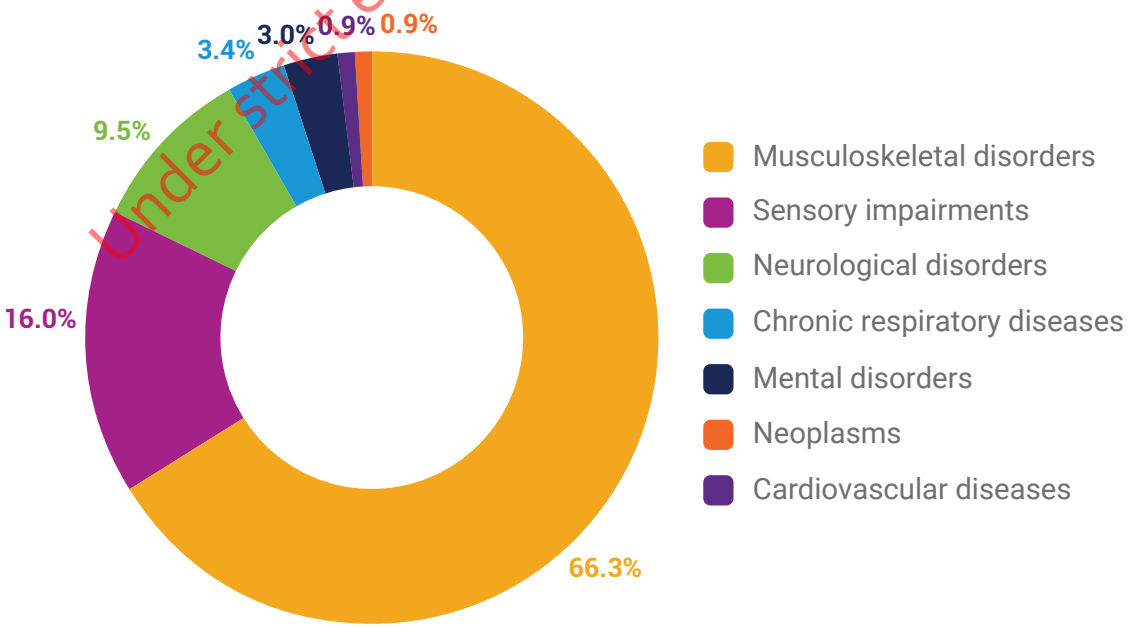
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
66 920	83 057	1 194 920	1 429 791	713 597	604 927
149 977		2 624 711		1 318 524	
4 093 212					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SLOVAKIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **5 437 223 inhabitants**
World Bank classification: **High income**

2 592 879 people have at least one condition that would benefit from rehabilitation services, contributing to **306 474** years lived with disability.

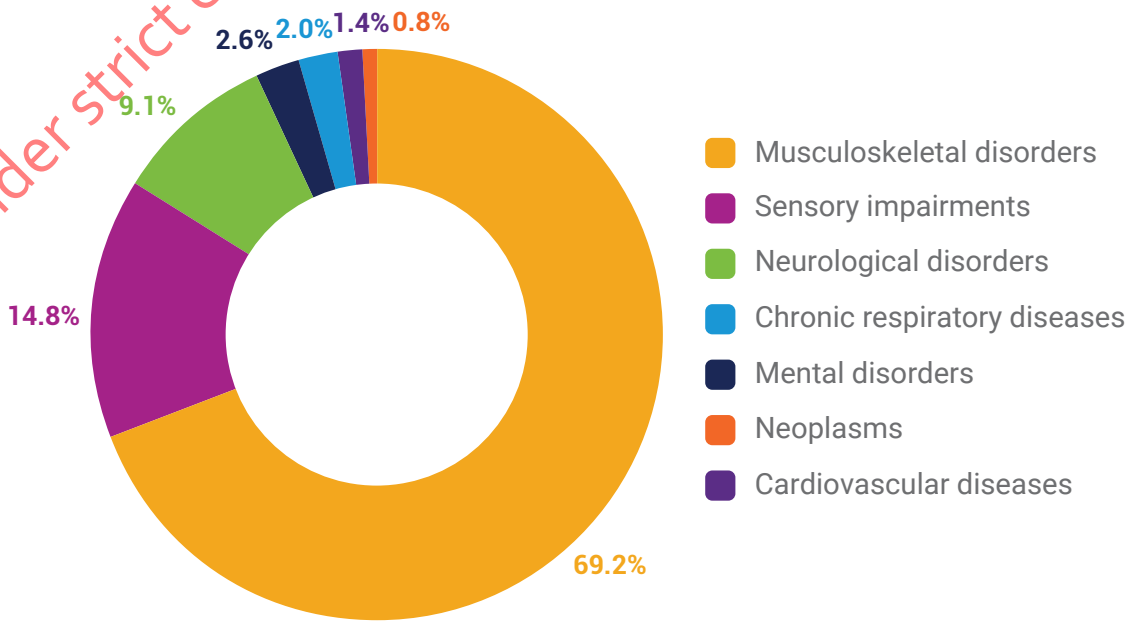
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
37 904	44 407	768 973	1 004 556	426 010	311 029
82 311		1 773 529		737 039	
2 592 879					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SLOVENIA

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **2 074 271 inhabitants**
World Bank classification: **High income**

1 067 632 people have at least one condition that would benefit from rehabilitation services, contributing to **129 942** years lived with disability.

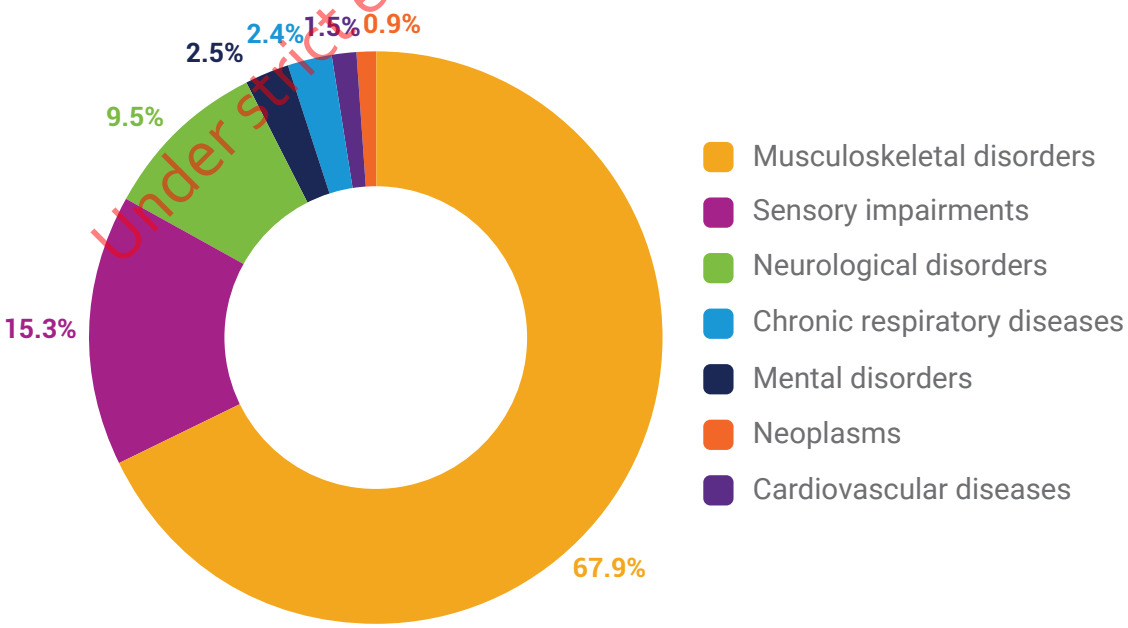
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
14 991	18 008	290 670	386 210	201 249	156 504
32 999		676 880		357 753	
1 067 632					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SPAIN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **46 021 216 inhabitants**
World Bank classification: **High income**

19 742 156 people have at least one condition that would benefit from rehabilitation services, contributing to **2 439 222** years lived with disability.

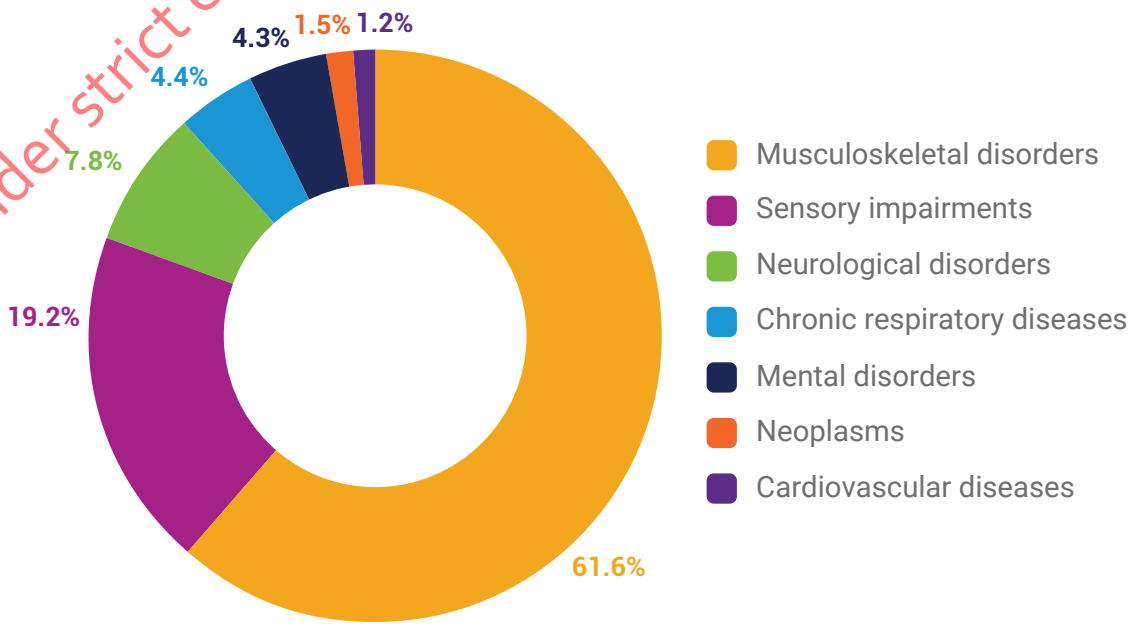
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
336 008	366 313	5 988 080	5 862 416	4 183 501	3 005 838
702 321		11 850 496		7 189 339	
19 742 156					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SWEDEN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **10 222 546 inhabitants**
World Bank classification: **High income**

4 240 877 people have at least one condition that would benefit from rehabilitation services, contributing to **549 408** years lived with disability.

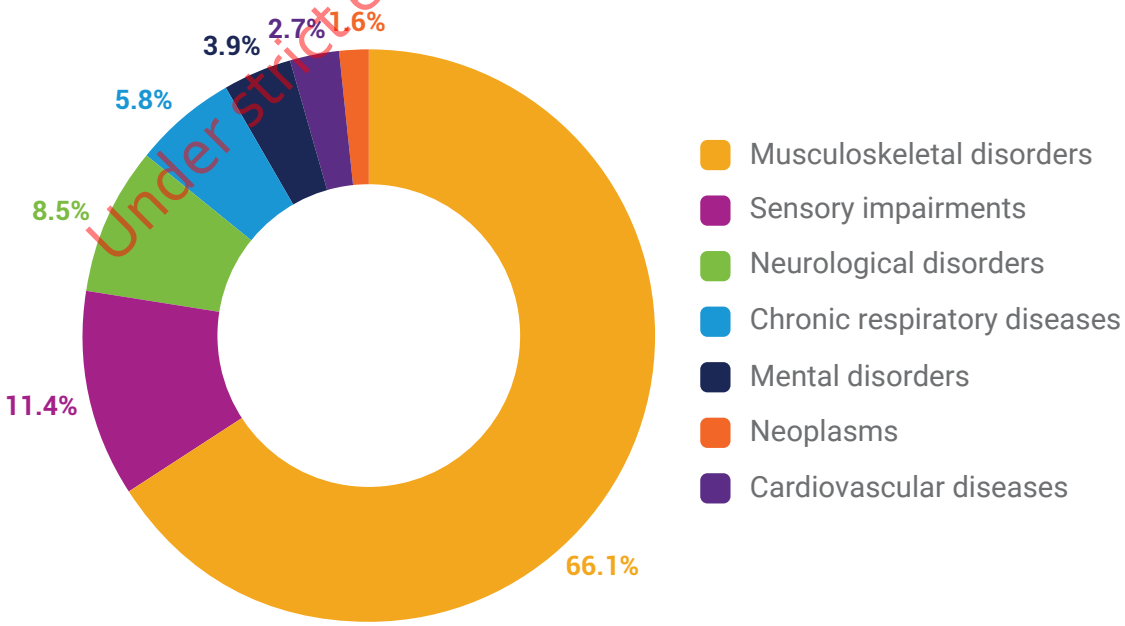
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
7 566	84 700	1 182 114	1 255 710	897 263	745 426
160 364		2 437 824		1 642 689	
4 240 877					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

SWITZERLAND

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **8 775 204 inhabitants**
World Bank classification: **High income**

3 947 377 people have at least one condition that would benefit from rehabilitation services, contributing to **498 127** years lived with disability.

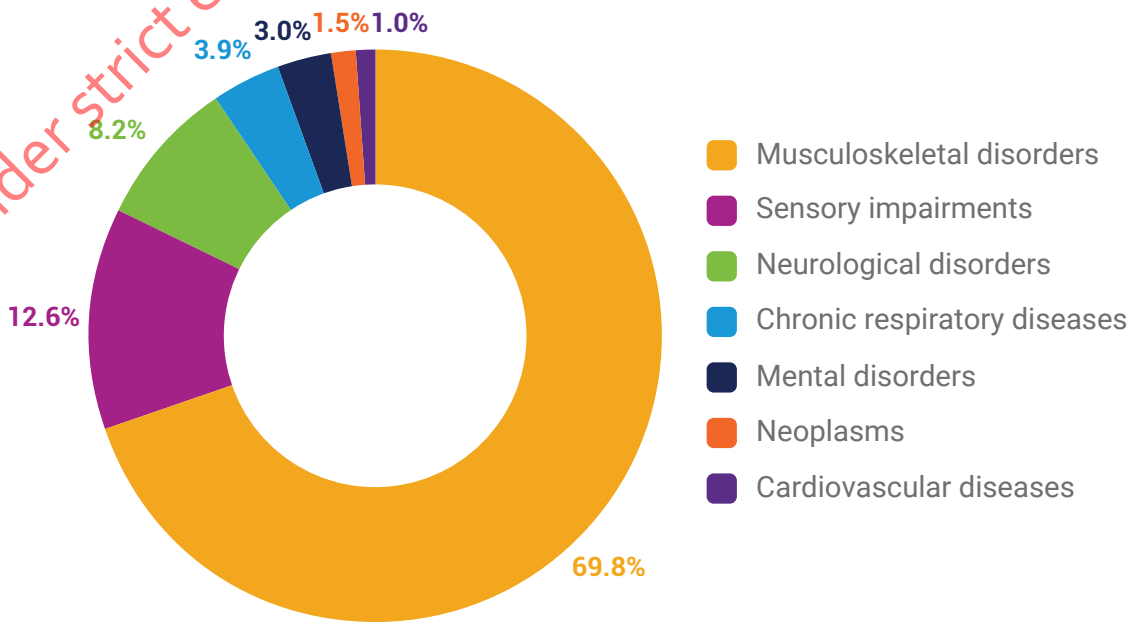
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
59 884	66 324	1 210 591	1 280 595	751 697	578 286
126 208		2 491 186		1 329 983	
3 947 377					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

TAJIKISTAN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **9 492 414 inhabitants**
World Bank classification: **Low income**

2 394 312 people have at least one condition that would benefit from rehabilitation services, contributing to **263 348** years lived with disability.

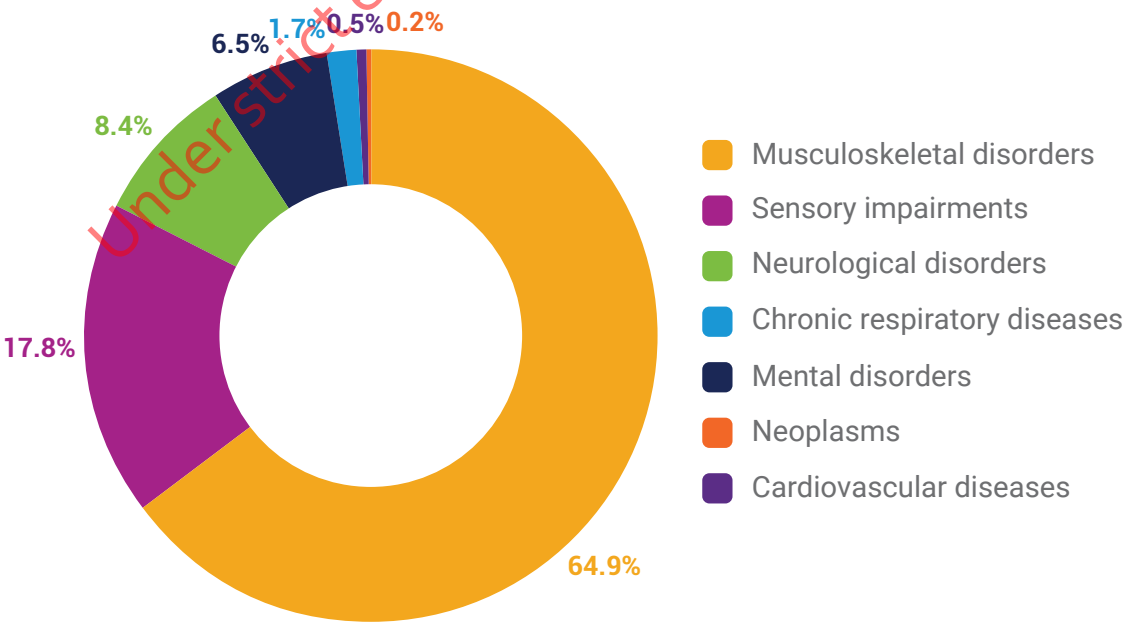
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
121 936	144 110	890 808	1 028 771	109 760	98 927
266 046		1 919 579		208 687	
2 394 312					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

TÜRKIYE

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **81 359 696 inhabitants**
World Bank classification: **Upper middle income**

25 872 100 people have at least one condition that would benefit from rehabilitation services, contributing to **3 279 257** years lived with disability.

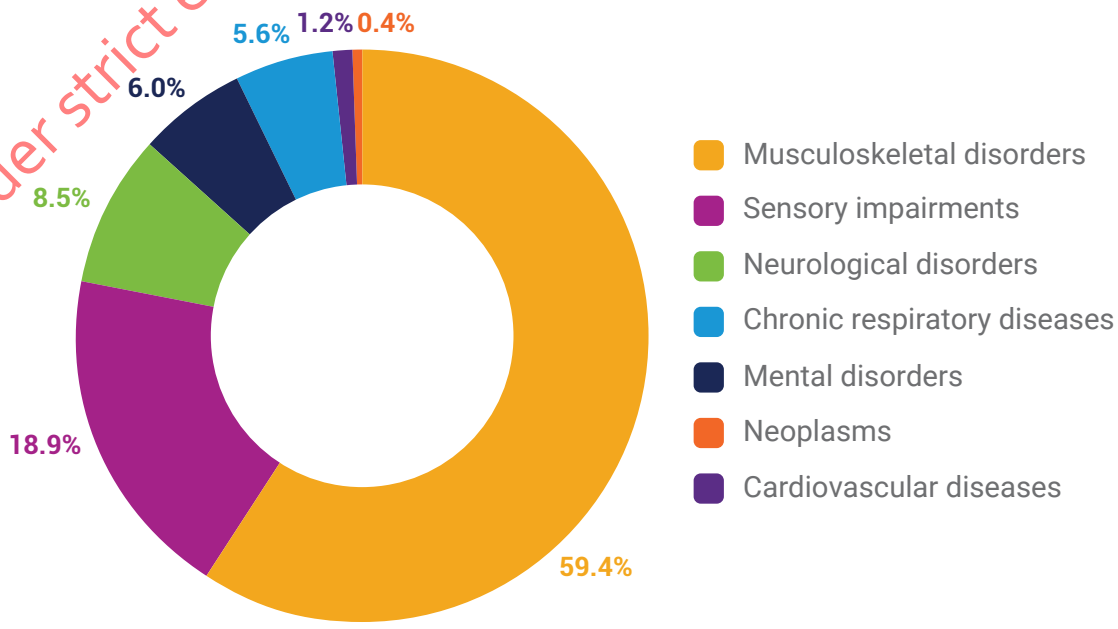
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
569 606	612 553	9 138 006	9 775 243	3 157 185	2 619 507
1 182 159		18 913 249		5 776 692	
25 872 100					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **5 083 081 inhabitants**
World Bank classification: **Upper middle income**

1 442 820 people have at least one condition that would benefit from rehabilitation services, contributing to **157 881** years lived with disability.

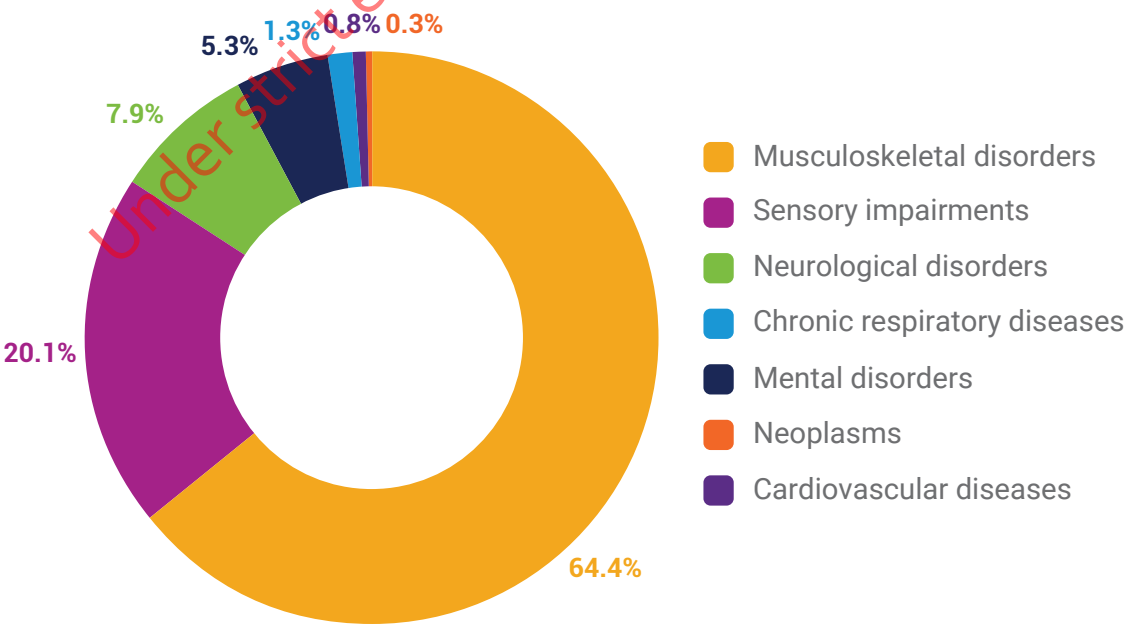
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
54 929	65 095	511 769	609 966	118 579	82 482
120 024		1 121 735		201 061	
1 442 820					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

UKRAINE

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **44 042 432 inhabitants**
World Bank classification: **Lower middle income**

20 844 829 people have at least one condition that would benefit from rehabilitation services, contributing to **2 524 968** years lived with disability.

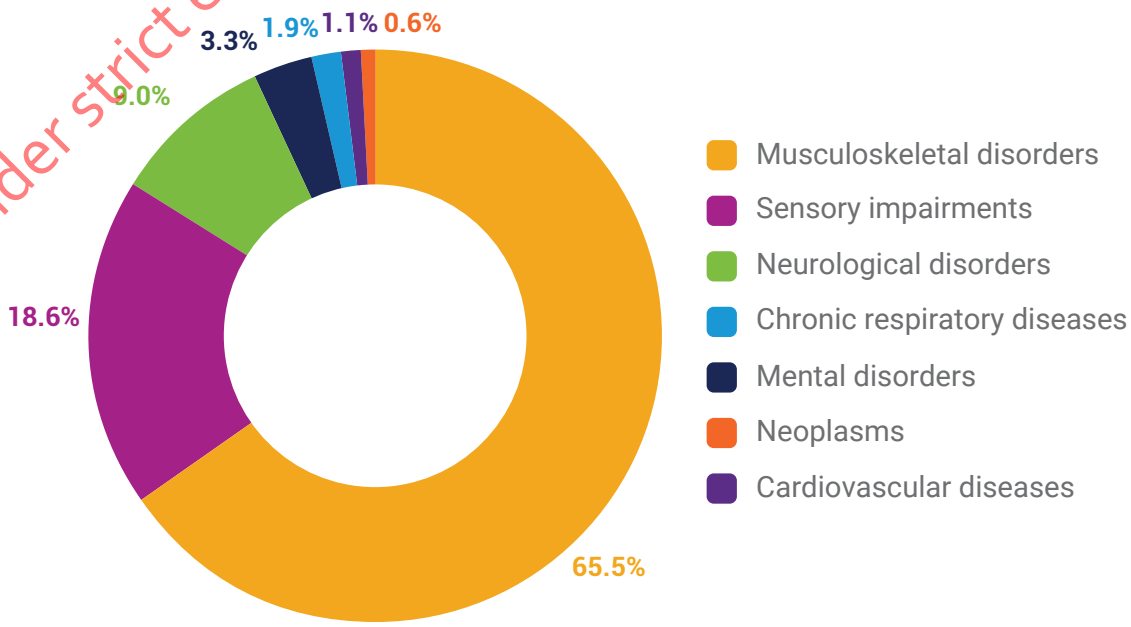
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
299 166	331 374	6 793 912	7 384 164	3 907 313	2 128 900
630 540		14 178 076		6 036 213	
20 844 829					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **67 220 448 inhabitants**
World Bank classification: **High income**

29 018 919 people have at least one condition that would benefit from rehabilitation services, contributing to **3 695 178** years lived with disability.

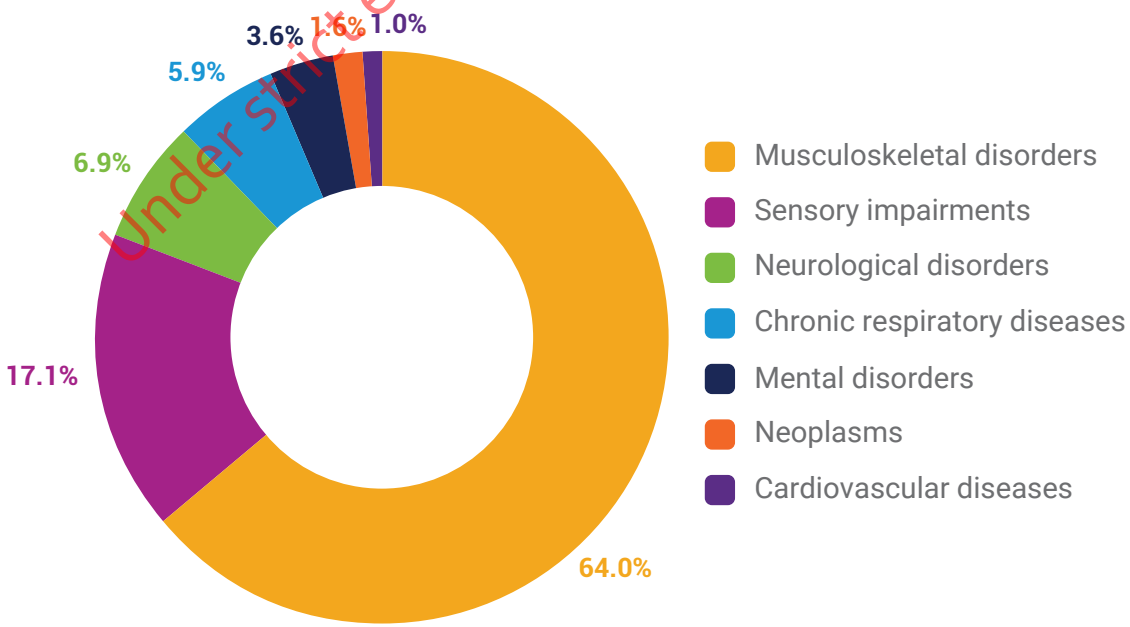
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
552 814	597 879	9 102 076	8 821 960	5 538 425	4 405 765
1 150 693		17 924 036		9 944 190	
29 018 919					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)

UZBEKISTAN

COUNTRY NEED FOR REHABILITATION SERVICES

Total population: **33 677 096 inhabitants**
World Bank classification: **Lower middle income**

8 967 875 people have at least one condition that would benefit from rehabilitation services, contributing to **979 690** years lived with disability.

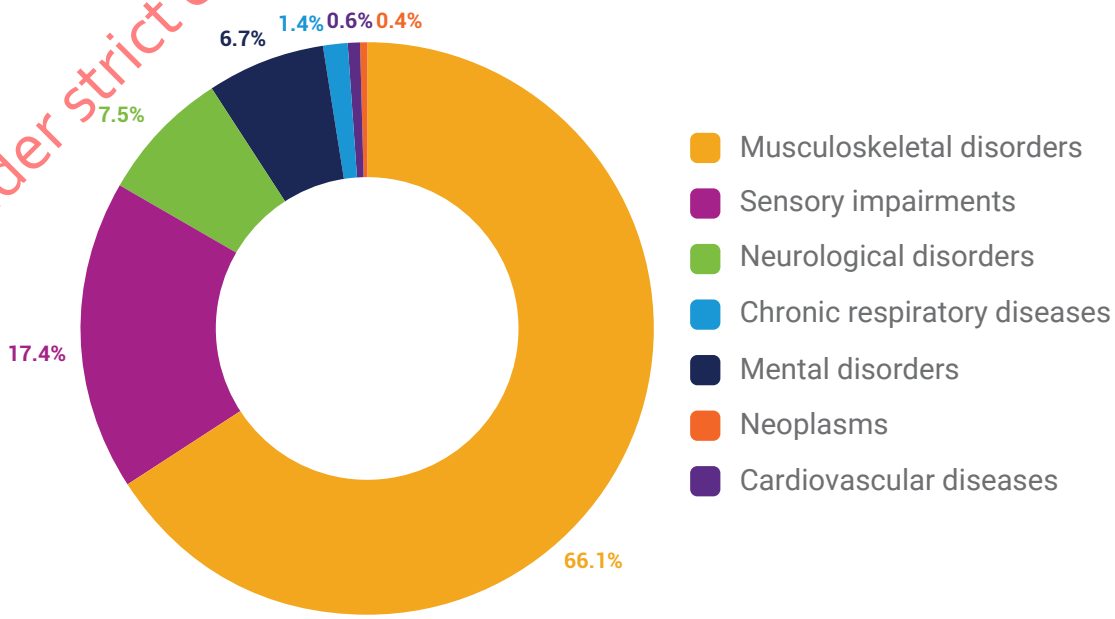
Who?

Prevalence of people with at least one condition that would benefit from rehabilitation services, according to age and sex

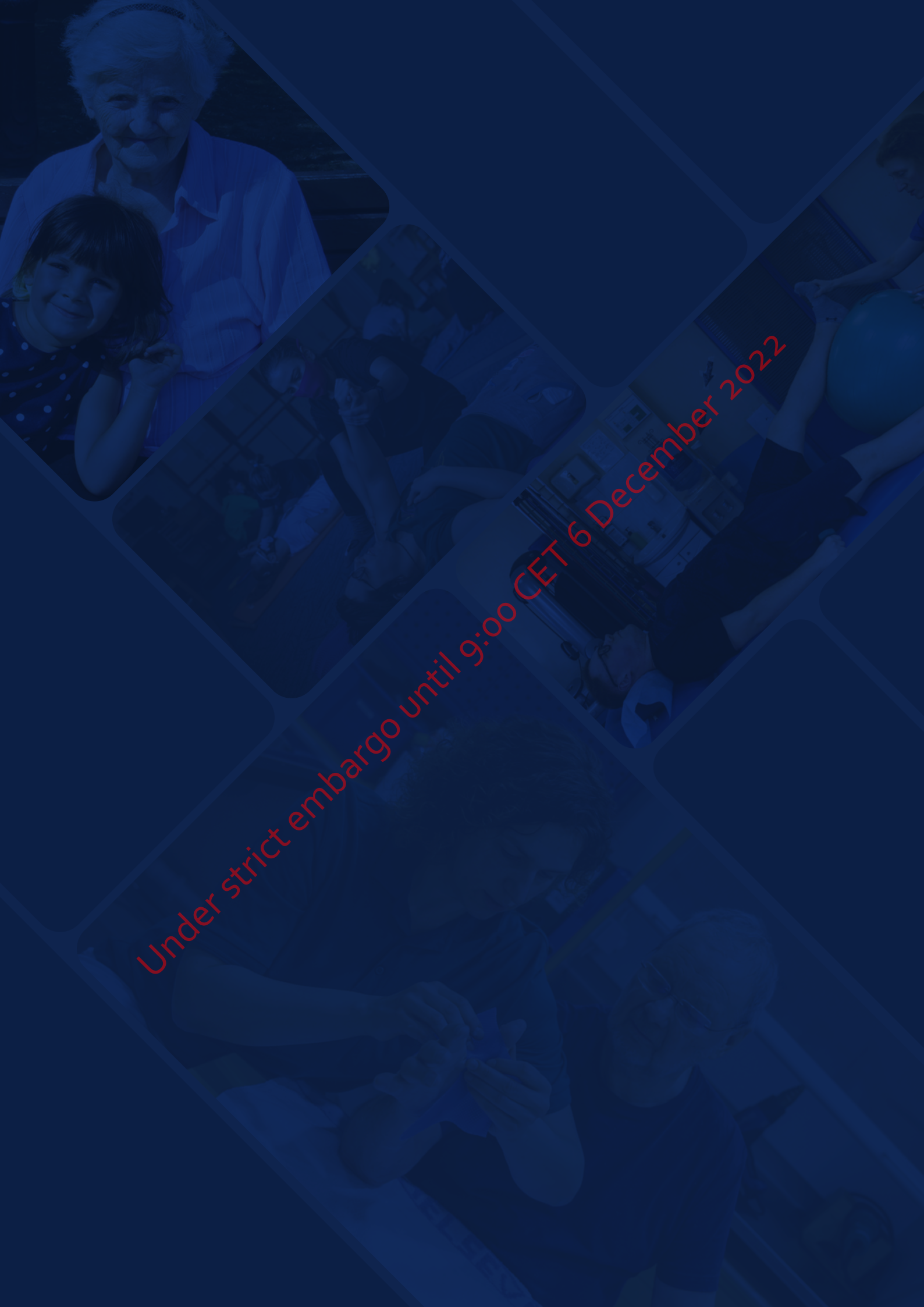
0–14 years		15–64 years		≥65 years	
Female	Male	Female	Male	Female	Male
375 813	454 918	3 421 770	3 848 349	500 973	366 052
830 731		7 270 119		867 025	
8 967 875					

What?

Health conditions contributing to the prevalence of the need for rehabilitation services



All data are from 2019
Data sources: (4, 44)



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