FACTSHEET Sustainable Development Goals: health targets DISABILITY¹



Optimizing the health and well-being of people with disabilities is essential to achieving the Sustainable Development Goals (SDGs). Because the experience of disability is universal across the lifespan and impacts all areas of human life, disability is relevant to the implementation of all SDGs. Everyone's health and well-being depends on an adequate standard of living, decently paid work and participation in education and social and community life – all part of the SDGs – but these are areas of life in which people with disabilities are particularly disadvantaged.

The 2030 Agenda for Sustainable Development and its 17 SDGs provide a powerful framework to guide local communities, countries and the international community toward the achievement of disability-inclusive development (1). It pledges to leave no one behind, including people with disabilities and other disadvantaged groups, and has recognized disability as a cross-cutting issue to be considered in the implementation of all of its goals.

- What is meant by disability? The United Nations' Convention on the Rights of Persons with Disabilities (CRPD) of 2007 describes it as an "evolving concept" and says that "persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others" (2).
- Disability is an outcome of an interaction between health conditions (such as cerebral palsy, depression or lung disease), and environmental factors (such as inaccessible transportation, limited social support or air pollution).

¹ Reprinted from Factsheet: Sustainable Development Goals: health targets: disability. Copenhagen: Regional Office for Europe; 2019. The Licensed Materials originate from the WHO/EURO web site: https://www.euro.who.int/__data/assets/pdf_file/0016/420163/Disability-SDG-factsheet. pdf, [access date: 17.11.2020]

- WHO's International Classification of Functioning, Disability and Health (3) provides the scientific basis for this model of disability.
- Disability is a matter of degree, because mental and physical impairments range in severity, from minor to severe. The experience of disability over the life-course is a universal human experience since everyone will experience some limitation in bodily or mental function at some point.
- Disability is diverse not only in extent but also in kind. There are people who live with severe sensory, mobility, communication or cognitive impairments (e.g. people who are blind or deaf, wheelchair users, or children with intellectual disabilities) but there are also people with mild and moderate impairments who need help to keep these impairments from worsening. Finally, as we age, we experience multimorbidities in which several, mild or moderate impairments across many body functions occur together, producing relatively high levels of overall disability (4).
- Leaving no one behind and the commitment to human rights for people with disabilities are guiding principles of the 2030 Agenda (1,5). It recognizes disability as a cross-cutting issue particularly relevant to the SDGs on education, growth and employment; inequality; accessibility of human settlements; and data, monitoring and accountability. People with disabilities were recognized as a primary disadvantaged group for ensuring healthy lives and well-being (1). At the same time, it also recognizes that indicators to monitor all SDGs targets need data that are disaggregated by disability status (6).

Facts and figures



SDG 3.4. Reduce premature mortality from noncommunicable diseases and promote mental health and well-being

Disability is the experience of the day-to-day impact on people's lives of health conditions and impairments in the contexts in which they live. Consequently, good health and well-being is of major concern to people with disability and prevention and treatment are key factors to mitigate the impact of disabilities. People with disabilities have higher health and well-being needs.

- In 2011, WHO produced an overall global estimate of 15% prevalence of disability (7), and an estimate produced in 2015 based on the European Union (EU) Labour Force Survey and the 2012 European Health and Social Integration Survey reported a 14% prevalence rate for citizens aged 15–64 years in the Member States of the EU (8,9).
- The years lived with disability (YLD), and potentially poor health, in the population of the WHO European Region is increasing. Based on Global Burden of Disease data and analysis, the extent of disability at the population level in the Region associated with the health conditions with the highest prevalence has shown a steady increase of 6.3% in the period 2006–2016 (Table 1) (10).

Health condition	Prevalence (thousands)		Prevalence change 2006–2016 (%)	YLD (thousands)		YLD change 2006–2016 (%)
	2006	2016		2006	2016	
HIV/AIDS	1415.9	1961.6	38.5	147.8	192.7	30.4
Neoplasms	10 360.7	12 589.2	21.5	1182.6	1384.4	17.1
Ischaemic stroke	13 236.3	14 287.3	7.9	2330.4	2528.3	8.5
Parkinson's disease	1268.3	1542.8	21.6	145.7	177.2	21.6
Epilepsy	2844.1	2998.8	5.4	800.1	790.0	-1.3
Multiple sclerosis	712.9	828.1	16.2	184.9	213.5	15.5
Schizophrenia	2206.3	2381.4	7.9	1401.8	1510.5	7.8
Alcohol use disorders	20 566.0	20 072.5	-2.4	2044.4	1992.9	-2.5
Opioid use disorders	3260.0	3246.8	-0.4	1346.7	1337.4	-0.7
Major depressive disorder	23 337.0	24 033.3	3.0	4711.6	4838.7	2.7
Chronic kidney disease	42 489.5	49 365.8	16.2	1056.8	1238.6	17.2
Rheumatoid arthritis	3571.2	4043.6	13.2	828.2	936.1	13.0
Gout	6274.7	7129.0	13.6	195.9	222.1	13.4
Psoriasis	12 431.6	13 686.0	10.1	1067.9	1172.8	9.8
Total	143 974.5	158 166.2	9.9	17 444.8	18 535.2	6.3

Table 1. Prevalence and YLD for health conditions associated with severe levels of disability in the WHO European Region (2006–2016)

Notes: Findings based on the 2016 Global Burden of Disease disability weights for the Region excluding Monaco and San Marino.

Source: Institute for Health Metrics and Evaluation, 2019 (10).

- The rates of disability in the Region are also steadily increasing for a number of reasons: increases in noncommunicable and chronic health conditions, non-fatal outcomes of injuries and population ageing (11,12). Indeed, between 2015 and 2030, it is projected that there will be an increase of 23% in the number of people aged 60 years and over and 32.2% in those aged 80 years and over in the Region, which will, in turn, increase the prevalence of disability (13).
- Overall and compared with the rest of the population, people with disabilities have more health-care needs; are more vulnerable to complications, secondary conditions, comorbidities and age-related health conditions; and have higher rates of premature death (7).
- People with disabilities are also more likely to engage in health-risky behaviours such as smoking, drinking and substance abuse (7). Those with mental health problems have a far higher rate of self-injurious behaviour, suicide and additional health problems (7).
- In Switzerland, individuals aged 16–20 years with disabilities were found to be more likely than their counterparts in the general population to engage in three or more health-risky behaviours, such as daily smoking, alcohol misuse, cannabis use, violent acts or antisocial acts (14).
- People with schizophrenia have at least double the risk of developing type two diabetes mellitus compared with those without the condition (15).



SDG 3.8. Achieve universal health coverage

- There is substantial evidence that people with disabilities have poorer access to and uptake of health-care services, which results in greater unmet health needs (7).
- Universal health coverage is particularly important for people with disability since cost is a primary reason for health care being inaccessible.

Even in high-income countries, people with disabilities experience financial barriers to health care (7,16). The greatest financial barriers are outof-pocket expenses, which are increasing and particularly impact people with chronic diseases and disability (17).

- In a 2016 study of countries in Europe, 30% of those with disabilities who needed but could not get health care cited expense as the reason for lack of access (18). There are also wide variations between countries: in Denmark, affordability was cited as an obstacle by only 16% of people with disability, while in Italy the figure was 94% (19).
- Evidence also suggests that people with disabilities are denied access to rehabilitation services based on age: a survey of 70 neurotrauma centres across Europe showed that in 32 centres people aged 65 years and older with brain injury were less likely to be referred to a rehabilitation clinic because of perceived inferior rehabilitation potential in the elderly (20).
- In a 2017 United Kingdom study, people with a severe disability were found to be 4.5 times more likely to face a problem accessing mental health care, primarily because of cost, while those with a mild disability had a 3.6 higher chance of facing difficulties (21). Austerity programmes in countries such as Greece tend to have a disproportionate impact on access to health care for people with disabilities (22).



SDG 1.3. Implement nationally appropriate social protection systems and measures for all and achieve substantial coverage for the poor and the vulnerable

• The aim of social protection policies is to ensure, as a minimum, that all people have access to income security throughout their lives, through access to essential health care, including maternity care; basic income security for children, providing access to nutrition, education, care and any other necessary goods and services; basic income security for people of active (working) age who are unable to earn sufficient income, in particular in cases of sickness, unemployment, maternity and disability; and basic income security for older people (23,24).

• Public expenditure on social protection impacts health equity as it improves financial security for those who are being left behind through disability, unemployment, housing deprivation and social exclusion (23,25).



SDG 3.7, 5.6 and 10.2. Ensure universal access to sexual and reproductive health-care services and health and reproductive rights and promote universal social, economic and political inclusion

- People with disabilities have equal needs to access sexual and reproductive health as those without disabilities and have similar requirements for family planning and childbirth. However, sexual and reproductive health for those with disabilities has received little attention because of misperceptions about people with disabilities and the assumption that they are not sexually active.
 - A United Kingdom study found that females with intellectual disabilities died some 20 years younger, and males 13 years younger, than females and males in the general population. Deaths preventable by good-quality health care were three times more common in people with intellectual disability (26).
 - A Dutch study on sexuality and contraception found that young people with mild intellectual disability did not have access to information about contraception and had increased risk of unwanted pregnancy and related health risks (27).
- People with disabilities face persistent inequality in social, economic and political spheres.
 - \circ Within countries of the EU, there are large inequalities in health and life expectancy associated with disadvantaged groups, such as people with disabilities, due to increased exposure to health risks and disparities in access to high-quality care (17).
 - Nearly 80% of those in the EU with disability report their health as poor or very poor (28). At the same time, they also have poorer access to and uptake of quality health-care services and so greater unmet health needs (7).
 - The extra cost of living with a disability in 31 Member States of the WHO European Region was estimated to range, depending on the meth-

od used (ability to make ends meet or household assets), between 17% (Cyprus) and 99% (Sweden) or 16% (Hungary) and 155% (Norway) (29).

- A 2014 study found that older people with disability in Greece, Italy and Poland had a higher level of unmet care needs when compared with older people with disability in Germany and the United Kingdom (*30*).
- Health service gaps are due to the physical, financial, attitudinal, informational and communication barriers that are faced by people with disabilities when they try to access health-care services (7). For example, when sign language communication is not available, communication barriers between patients with hearing impairments and physicians have been shown to negatively impact the quality of health care, including less use of preventive services.
- There is evidence that access to needed assistive technology, which can improve functioning and prevent secondary health problems, is restricted, even in high-income countries such as Norway and Sweden (*31*).



SDG 8.5. Achieve full and productive employment and decent work for all, including people with disabilities, and equal pay for work of equal value

- The disability-employment gap is the difference in the employment rate between those with and those without a limiting illness or disability. This has either increased or remained stagnant in the WHO European Region (23).
- People with chronic illnesses or disabilities are more vulnerable to being out of work; the average disability-employment gap across WHO European Region is approximately 20%. Disadvantaged groups are more likely to develop chronic illness and disability, which may cause them to leave the labour market. This increases their risk of poverty and further exacerbates health inequities (32).
- Little research has examined the issues faced by chronically ill people and people with disabilities who wish to return to work. Interventions are needed, at the organizational and personal levels, to enable return to work and prevent further exclusion of these vulnerable groups (*33*).

- Many countries have passed legislation to prohibit discrimination against people with disabilities, including those in employment; however, there is little evidence that these laws have improved their employment chances. In contrast, there is evidence that adaptations of the workplace to accommodate people with disability can improve employment chances for disabled people (34).
- Early intervention is more effective, and support should be available as early as possible. A case-management approach addressing underlying health and well-being problems is most effective, especially for the most disadvantaged groups in which individuals and families need assistance in several aspects of life. These interventions are more effective when they coordinate support from employers, health specialists, psychologists, social insurance case workers and other professionals (*35*).



SDG 11.2, 11.3 and 11.7. Provide access to safe, affordable, accessible and sustainable transport systems, enhance inclusive and sustainable urbanization, planning and management and provide universal access to safe, inclusive and accessible, green and public spaces for all, in particular for people with disabilities

People with disabilities are more vulnerable to obstacles when they try to use essential public services and buildings and are less resilient to rapid urbanization, social and economic change and unsafe conditions in cities. All these risks affect the health of people with disabilities.

- Lack of access to public transport is one of the major obstacles that people with disability face for basic mobility, independence and access to needed services (7). This is particularly a problem for older people with disabilities, who need systematic plans to create urban environments that are supportive of, and responsive to, their needs (36).
- People with disabilities require access to outdoor environments and public places, not only for inclusive participation but also to access services and to improve their health (7). Often access is restricted. For example, 52% of the population in the United Kingdom said that a lack of public toilets in their area prevented them from going out as often as they would like (36).

- Access to affordable and accessible housing is a basic prerequisite to maintaining good health. In the EU, 6.9% of people with disabilities aged over 16 years live in severely deprived housing. The lack of indoor sanitation in housing (physically accessible toilet) is a great burden for people with disabilities, especially those with mobility difficulties (28).
- For transport, city planning and access to public buildings for people with disabilities, it is important to promote the use of universal design principles that ensure that products, environments, programmes and services are usable by everyone without the need for adaptation or specialized design (*36*).

Commitment to act

The adoption of the CRPD in 2007 underscored the need to mainstream disability into strategies of sustainable development (Box 1). More recently, the United Nations Department of Economic and Social Affairs and United Nations Enable launched the #Envision2030 initiative to transform the world for people with disabilities (38). In support of this, the United Nations' report on disability and sustainable development goals in 2018 exhaustively described the links between disability and the realization of the 17 SDGs, in particular SDG 3 (39).

Box 1. Leaving no one behind

Achieving the SDGs will involve building on and working in synergy with other international commitments: the United Nations' CRPD, adopted in 2007, provides the mandate to ensure the inclusion and empowerment of people with disability (1). The CRPD follows decades of work by the United Nations to change attitudes about and approaches to disability and ensure that people with disability have the same human rights as everyone else.

Article 25 of the CRPD addresses health and states that "States Parties recognize that persons with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination on the basis of disability" and emphasizes the "right to access to health services for persons with disabilities on an equal basis with others". Article 26 extends the right to high-quality health care to rehabilitation services. Both articles are, therefore, directly linked to SDG 3.

Beyond this obvious link, SDG 3 has strong conceptual and practical links to at least eight other CRPD articles: women with disabilities (Art.6); children with disabilities (Art.7); accessibility (Art.9); right to life (Art.10); risk and humanitarian emergencies (Art.11); respect for home and the family (Art.23); statistics and data collection (Art.31); and international cooperation (Art.32). Within the European Region, all but two countries have ratified the Convention: Tajikistan and Uzbekistan have signed it but have yet to ratify it (37). Nonetheless, people with disabilities continue to experience greater unmet needs and barriers to accessing health services compared with the general population.

WHO's fundamental commitment to act, at the global level, is stated in its Global Disability Action Plan 2014–2021 (40), which was endorsed by all Member States in 2014 (41). The Action Plan represents a significant step towards achieving SDG 3 for people with disabilities: to ensure healthy lives and promote well-being for all at all ages. The Action Plan has three objectives:

- to remove barriers and improve access to health services and programmes;
- to strengthen and extend rehabilitation including community-based rehabilitation, habilitation, assistive technology, assistance and support services; and
- to strengthen the collection of relevant and internationally comparable data on disability and support research on disability and related services.

These objectives are aligned with the implementation of the specific human rights enshrined in the CRPD.

In February 2017, WHO hosted Rehabilitation 2030: a call for action, which highlighted the urgent need to address the profound unmet needs for rehabilitation around the world, and the essential role of rehabilitation for achieving SDG 3 (42). Finally, WHO's commitment in Europe with respect to SDG 3 is clear in its contribution to the United Nations Disability and Development Report, 2018 (39), which sets out an agenda of actions to:

- strengthen national legislation and policies on health care in line with the CRPD;
- identify and eliminate obstacles and barriers to accessibility in health-care facilities;
- improve health-care coverage and affordability for people with disabilities as part of universal approaches to health care;
- train health-care personnel and improve service delivery for people with disabilities;
- empower people with disabilities to take control over their own health-care decisions, on the basis of free and informed consent;
- prohibit discriminatory practices in health insurance and promote health insurance schemes offering coverage for assistive products and rehabilitation services; and
- improve research and data to monitor, evaluate and strengthen health systems to include and deliver for people with disabilities.

Monitoring progress

The United Nations' Economic and Social Council (ECOSOC) has proposed the Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development (43) that can be used to monitor the progress of the implementation of the SDGs for people with disabilities. Doing so, however, will require a major investment in national and European information reporting systems, data collection, storage and analysis.

The preamble to the ECOSOC Global Indicators Framework specifies that data for the indicators need to be disaggregated by disability. This is in line with SDG 17, which concerns the implementation of the SDGs. SDG 17.18 specifically identifies the types of information that need to be collected to monitor the SDGs.

ECOSOC indicators

1.3.1. Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable

4.5.1. Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated

4.a.1. Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking-water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)

8.5.1. Average hourly earnings of female and male employees, by occupation, age and persons with disabilities

8.5.2. Unemployment rate, by sex, age and persons with disabilities

10.2.1. Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities

11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities

11.7.1. Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

11.7.2. Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months

16.7.1. Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups

17.18.1: Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics

Health 2020 core indicator

(1) 12) 2.1.b. Healthy life years at age 65, disaggregated by sex(13) 4.1.a. Life satisfaction, disaggregated by age and sex

General Programme of Work indicators

1.1. Access barriers due to distance

3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases and service capacity and access, among the general and the most disadvantaged population)

5.1 Coverage of essential health services (defined as the average coverage) for women and girls disaggregated by wealth quintile

6.1 Number of older adults 65+ years who are care dependent

6.2 The proportion of people, 65+ years, who live in age-friendly cities and communities

30.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders

30.2 Proportion of persons with severe mental condition who are using services

WHO support to its Member States

The WHO Regional Office for Europe supports Member States to achieve the objectives of the WHO Global disability Action Plan 2014–2021 through the following activities:

- promoting the inclusion of people with disability in universal health coverage, based on the global burden of disease data;
- providing technical guidance for service providers, health professionals and policy-makers to make sure that health services and programmes are accessible and appropriate for people with disabilities;
- promoting capacity-building in community-based rehabilitation programmes; and

• providing technical support to Member States to strengthen their statistical system in order to collect, process and analyse data related to functioning and disability, such as integrating the brief Model Disability Survey into other surveys.

Partners

WHO regularly collaborates and coordinates with partners to contribute to the achievement of optimal health and well-being and the full enjoyment of human rights for all people with disabilities, including:

- Association for the Advancement of Assistive Technology in Europe
- CBM
- Department of Foreign Affairs and Trade of Australia
- European Disability Forum
- Humanity and Inclusion (Handicap International)
- International Committee of the Red Cross
- United Nations Children's Fund
- United Nations Department of Economic and Social Affairs
- United Nations Development Programme
- United Nations Partnership to Promote the Rights of Persons with Disabilities
- United States Agency for International Development

Resources

International Classification of Functioning, Disability and Health (ICF), 2001

http://www.who.int/classifications/icf/en/

World Report on Disability, 2011

http://www.who.int/disabilities/world_report/2011/en/

Global Disability Action Plan 2014–2021, 2015

 $\label{eq:https://apps.who.int/iris/bitstream/handle/10665/199544/9789241509619_eng. pdf; jsessionid=4FAF83641CF351~4A03F567F39685DD8A? sequence=1$

World Report on Ageing and Health, 2015

http://www.who.int/ageing/events/world-report-2015-launch/en/

Model Disability Survey

http://www.who.int/disabilities/data/mds/en/

Key definitions

Functioning

The sum total of all body functions, body structures and domains of activities and participation. A state of functioning is the outcome of the interaction between the intrinsic health state of the individual (a health condition) and that individual's environmental and personal factors (3).

Health conditions

All acute and chronic diseases, disorders, injuries and trauma, as well as life events that create impairments, such as pregnancy, ageing, stress, congenital anomaly or genetic predisposition (3).

Impairment

The loss of or abnormality in a body structure or physiological function (including mental function), where abnormality is used to mean significant variation from established statistical norms (3).

Rehabilitation

Set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment (7).

Universal health coverage

The aspiration that all people can obtain the health services they need, of good quality, without suffering financial hardship when paying for them. Health services cover promotion, prevention, treatment, rehabilitation and palliative care, all levels of service delivery (from community health workers to tertiary hospitals) and services across the life-course (44).

References

- ERF: Transforming our world: the 2030 Agenda for sustainable development. New York: United Nations; 2015 (United Nations General Assembly resolution 70/1; http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, accessed 25 November 2019).
- 2. Convention on the rights of persons with disabilities. New York: United Nations; 2007 (http://www.un.org/disabilities/documents/convention/convopt-prot-e.pdf, accessed 25 November 2019).
- 3. International classification of functioning, disability and health (ICF). Geneva: World Health Organization; 2001 (https://www.who.int/classifications/icf/en/, accessed 25 November 2019).

- 4. World report on ageing and health. Geneva: World Health Organization; 2015 (https://www.who.int/ageing/events/world-report-2015-launch/en/, accessed 25 November 2019).
- A new global partnership: eradicate poverty and transform economies through sustainable development. Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. New York: United Nations; 2013 (https://sustainabledevelopment.un.org/content/documents/8932013-05%20 -%20HLP%20Report%20-%20A%20New%20Global%20Partnership.pdf, accessed 25 November 2019).
- 6. A world that counts: mobilising the data revolution for sustainable development. New York: United Nations; 2014 (https://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf, accessed 25 November 2019).
- 7. World Health Organization, World Bank. World report on disability. Geneva: World Health Organization; 2011 (https://www.who.int/disabilities/world_report/2011/report.pdf, accessed 25 November 2019).
- 8. European comparative data on Europe 2020 & people with disabilities. Leeds: Centre for European Social and Economic Policy; 2017 (Final report for the Academic Network of European Disability Experts; https://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1569&context=gladne tcollect, accessed 25 November 2019).
- 9. Disability statistics: prevalence and demographics. In: Statistics explained [website]. Luxembourg: Eurostat; 2015 (https://ec.europa.eu/eurostat/statistics-explained/pdfscache/34409.pdf, accessed 25 November 2019).
- 10. Global health data exchange [database]. Seattle (WA): Institute for Health Metrics and Evaluation; 2019 (http://ghdx.healthdata.org/gbd-results-tool, accessed 25 November 2019).
- 11. GBD 2015 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. Lancet. 2016;388(10053): 1545–1602.
- Chatterji S, Byles J, Cutler D, Seeman T, Verdes E. Health, functioning, and disability in older adults: present status and future implications. Lancet. 2015;385(9967):563–575.
- World population ageing. New York: United Nations Department of Economic and Social Affairs Population Division; 2015 (https://www.un.org/en/ development/desa/population/theme/ageing/WPA2015.asp, accessed 25 November 2019).
- 14. Surís JC, Michaud PA, Akre C, Sawyer SM. Health risk behaviors in adolescents with chronic conditions. Pediatrics. 2008;122(5):e1113–e1118.

- 15. Stubbs B, Vancampfort D, De Hert M, Mitchell AJ. The prevalence and predictors of type two diabetes mellitus in people with schizophrenia: a systematic review and comparative meta-analysis. Acta Psychiatr Scand. 2015;132(2):144–157.
- 16. Thirteenth general programme of work 2019–2023 [website]. Geneva: World Health Organization; 2018 (https://www.who.int/about/what-we-do/gpw-thirteen-consultation/en/, accessed 26 November 2019).
- 17. Organisation for Economic Co-operation and Development, European Union. Health at a glance: Europe 2016: state of health in the EU cycle. Paris: Organisation for Economic Co-operation and Development; 2018 (http://dx.doi.org/10.1787/9789264265592-en, accessed 25 November 2019).
- 18. Mitra S. Disability, health and human development. New York: Palgrave MacMillan; 2017.
- 19. Mitra S, Findley PA, Sambamoorthi U. Health care expenditures of living with a disability. Arch Phys Med Rehabil. 2009;90(9):1532–1540.
- 20. Cnossen MC, Lingsma HF, Tenovuo O, Maas AIR, Menon D, Steyerberg EW et al. Rehabilitation after traumatic brain injury: a survey in 70 European neurotrauma centres participating in the CENTER-TBI study. J Rehabil Med. 2017;49(5):395–401.
- **21.** Sakellariou D, Rotarou ES. Access to health care for men and women with disabilities in the UK: secondary analysis of cross-sectional data. BMJ Open. 2017;7:e016614.
- 22. Rotarou ES, Sakellariou D. Access to health care in an age of austerity: disabled people's unmet needs in Greece. Crit Public Health. 2017;29(1): 48-60.
- 23. Healthy, prosperous lives for all: the European Health Equity Status Report. Copenhagen: WHO Regional Office for Europe; 2019 (http://www.euro.who. int/en/publications/abstracts/health-equity-status-report-2019, accessed 25 November 2019).
- 24. Social protection floor. Geneva: International Labour Organization; 2019 (https://www.ilo.org/secsoc/areas-of-work/policy-development-and-applied-research/social-protection-floor/lang--en/index.html, accessed 25 November 2019).
- 25. Baker P, Hone T, Reeves A, Avendano M, Millett C. Does government expenditure reduce inequalities in infant mortality rates in low- and middle-income countries? A time-series, ecological analysis of 48 countries from 1993–2013. Health Econ Policy Law. 2018;14(2):249–273.
- 26. Heslop P, Blair PS, Fleming P, Hoghton M, Marriott A, Russ L. The confidential inquiry into premature deaths of people with intellectual disabilities in the UK: a population-based study. Lancet. 2014;383(9920):889–895.
- 27. Dekker A, Safi M, Echteld MA, Evenhuis HM. Sexuality and contraception

in young people with mild intellectual disability; a qualitative study on the basis of 28 interviews. Ned Tijdschr Geneeskd. 2014;158:A8010.

- 28. European Health Interview Survey (EHIS). Luxembourg: Eurostat; 2018 (https://ec.europa.eu/eurostat/cache/metadata/en/hlth_det_esms.htm, accessed 25 November 2019).
- **29.** Antón JI, Braña FJ, de Bustillo RM. An analysis of the cost of disability across Europe using the standard of living approach. SERIES. 2016;7(3):281–306.
- **30.** Bień B, McKee KJ, Döhner H, Triantafillou J, Lamura G, Doroszkiewicz H. Disabled older people's use of health and social care services and their unmet care needs in six European countries. Eur J Public Health. 2013;18;23(6):1032–1038.
- 31. Nordic Cooperation on Disability, Nordic Centre for Rehabilitation Technology. Provision of assistive technology in the Nordic countries. Stockholm: Nordic Cooperation on Disability; 2007 (http://pak.wheelchairnetwork.org/ wp-content/uploads/2018/07/Nordic-Countries-Provision-of-AT-2007.pdf, accessed 25 November 2019).
- 32. Saunders M, Barr B, McHale P, Hamelmann C. Key policies for addressing the social determinants of health and health inequities. Copenhagen: WHO Regional Office for Europe; 2017 (Health Evidence Network (HEN) synthesis report 52; http://www.euro.who.int/__data/assets/pdf_file/0009/345798/HEN52.pdf, accessed 25 November 2019).
- 33. Health, decent work and the economy. Copenhagen: WHO Regional Office for Europe; 2019 (Policy brief; http://www.euro.who.int/__data/assets/pdf_ file/0011/397793/SDG-8-policy-brief_4.pdf?ua=1, accessed 25 November 2019).
- 34. Social and gender inequalities in environment and health. In: Fifth Ministerial Conference on Environment and Health: protecting children's health in a changing environment, Parma, Italy, 10–12 March 2010. Copenhagen: WHO Regional Office for Europe; 2010 (http://www.euro.who.int/__data/assets/pdf_file/0010/76519/Parma_EH_Conf_pb1.pdf, accessed 25 November 2019).
- **35.** Cavill N, Kahlmeier S, Rutter H, Racioppi F, Oja P. Economic analyses of transport infrastructure and policies including health effects related to cycling and walking: a systematic review. Transp Policy. 2008;15:291–304.
- 36. Age-friendly environments in Europe: a handbook of domains for policy action. Copenhagen: WHO Regional Office for Europe; 2017 (http://www.euro. who.int/__data/assets/pdf_file/0011/359543/AFEE-handbook.PDF, accessed 25 November 2019).
- 37. Status of treaties. In: Treaty collection, Chapter IV human rights [website]. New York: United Nations; 2019 (https://treaties.un.org/pages/ViewDetails. aspx?src=TREATY&mtdsg_no=IV-15&chapter=4, accessed 1 December 2019).

- 38. #Envision2030: 17 goals to transform the world for persons with disabilities. New York: United Nations Division for Social Policy and Development; 2015 (https://www.un.org/development/desa/disabilities/envision2030.html, accessed 25 November 2019).
- **39.** Disability and development report: realizing the sustainable development goals by, for and with persons with disabilities. New York: United Nations Department of Economic and Social Affairs; 2018 (https://social.un.org/publications/UN-flagship-report-disability-7June.pdf, accessed 25 November 2019).
- 40. WHO global disability action plan 2014–2021. Better health for all people with disability. Geneva: World Health Organization; 2015 (https://apps.who. int/iris/bitstream/handle/10665/199544/9789241509619_eng.pdf;jsessionid =4FAF83641CF3514A03F567F39685DD8A?sequence=1, accessed 25 November 2019).
- 41. Disability. In: Sixty-sixth World Health Assembly, Geneva, 27 May 2013. Geneva: World Health Organization; 2013 (WHA66.9, http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R9-en.pdf, accessed 25 November 2019).
- 42. Rehabilitation 2030: a call for action. Geneva: World Health Organization; 2017 (https://www.who.int/disabilities/care/Rehab2030MeetingReport2. pdf?ua=1, accessed 25 November 2019).
- 43. Global indicator framework for the Sustainable Development Goals and targets of the 2030 agenda for sustainable development. New York: United Nations; 2018 (https://unstats.un.org/sdgs/indicators/Global Indicator Framework after refinement_Eng.pdf, accessed 25 November 2019).
- 44. Health systems governance for universal health coverage: action plan. Geneva, World Health Organization, 2014 (https://www.who.int/universal_health_ coverage/plan_action-hsgov_uhc.pdf, accessed 25 November 2019).

Coordinated and reviewed by: Dr Amine Lotfi and Dr Bettina Menne (Health and Sustainable Development, WHO Regional Office for Europe)

Authors: Satish Mishra and Manfred Huber (Healthy Ageing, Disability and Long-term Care programme, WHO Regional Office for Europe)

Contributors: The factsheet was produced in collaboration with the WHO Collaborating Centre on Rehabilitation (Centre for Rehabilitation in Global Health Systems, Department Health Sciences & Medicine, University of Lucerne). We would like to thank Viv Taylor Gee for her insightful comments.

Editor: Jane Ward; Layout: Daniela Berretta.