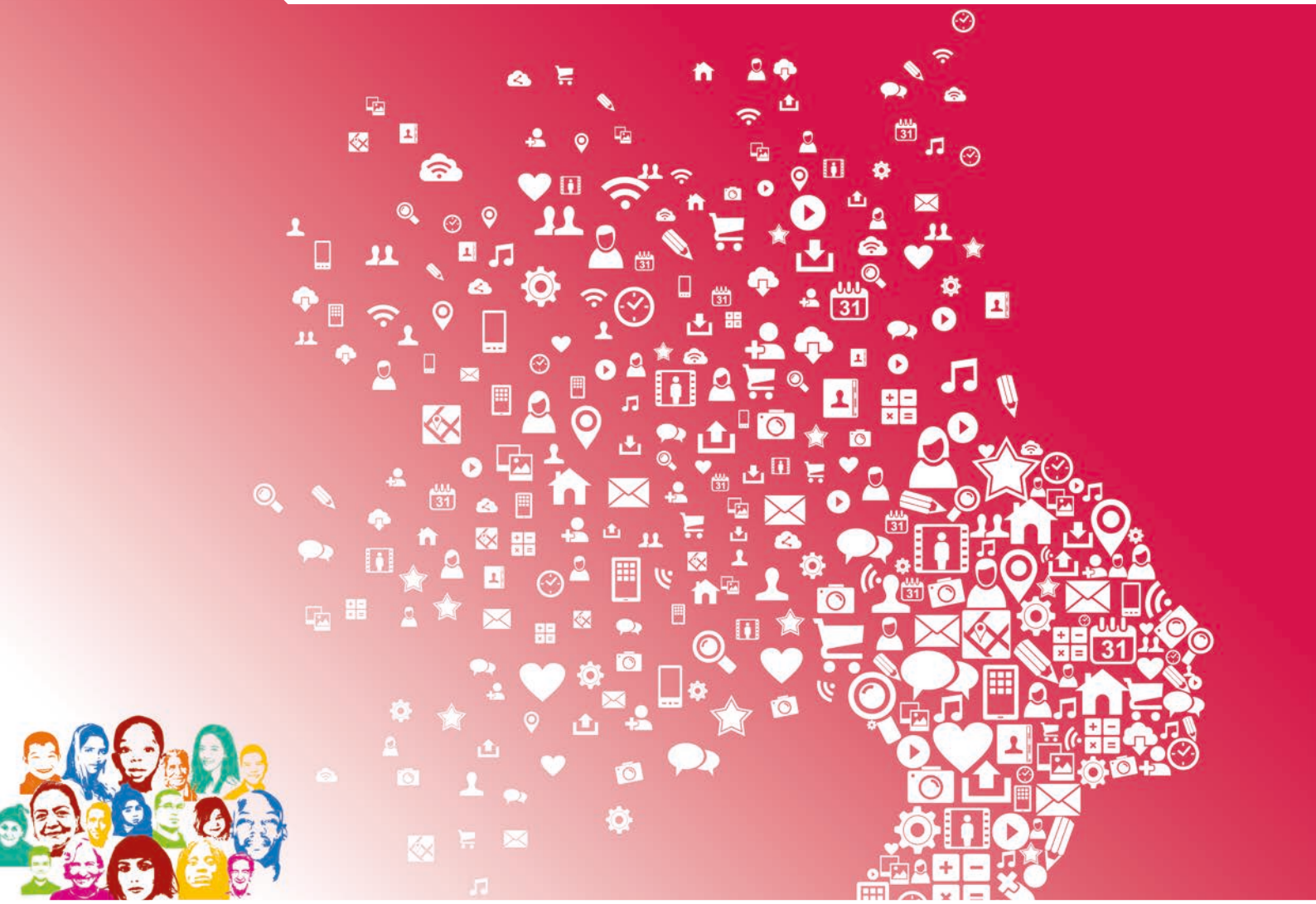
How to Make Societies Thrive? Coordinating Approaches to Promote Well-being and Mental Health



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BETTER POLICIES FOR BETTER LIVES

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Foreword

Good mental health is a vital part of people's well-being. Successful and people-centred strategies to promote good population mental health need to acknowledge that the ability to thrive depends on the broader living conditions experienced by individuals, families and communities. This report applies a "well-being lens" to support the efforts of many of the cross-governmental mental health strategies currently underway in OECD countries. It systematically reviews how people's economic, social, relational, civic and environmental experiences, underpinned by the OECD Well-being Framework, shape and are, in turn, shaped by their mental health; identifies examples of co-benefits, or policy interventions that can jointly improve both mental health and other well-being outcomes; and reviews selected mental health initiatives across OECD countries to highlight different elements of an effective policy ecosystem that supports collaboration across government and beyond. This publication is the second of two reports prepared as part of a special assessment of mental health and well-being in the context of the OECD's broader work on well-being. The first report, *Measuring Population Mental Health,* provided recommendations to national statistical offices and other data producers on how to collect high-quality measures of population mental health, both for ill-health and positive mental health, in a more frequent, consistent and internationally harmonised manner.

The report was prepared by the OECD WISE Centre, under the direction of Romina Boarini. Lara Fleischer led the project and content editing under the supervision of Carrie Exton. The authoring team consisted of Lara Fleischer and Jessica Mahoney. Jessica Mahoney also led the statistical work for this publication, and Muriel Levy conducted analysis for the cross-lagged panel models shown in this report. Manuela Grabosch and Nikita Arora are gratefully acknowledged for the background research that informed various sections of this work, and Silvia Neumeister contributed significantly to an early draft of Chapter 2. Martine Zaïda, with the support of Maéva Labbe-Maalouf and Erin Bush, has provided essential communications support throughout the project. Anne-Lise Faron prepared and formatted the manuscript for publication. Patrick Hamm copy edited the work and Sonia Primot designed the front cover.

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Table of contents

Tables

Figures

Boxes

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Reader's guide

Acronyms and abbreviations used in this report

Table 1. ISO codes for countries and world regions

AUS	Australia	**FIN**	Finland	**LVA**	Latvia
AUT	Austria	**FRA**	France	**MEX**	Mexico
BEL	Belgium	**GBR**	United Kingdom	**NLD**	Netherlands
CAN	Canada	**GRC**	Greece	**NOR**	Norway
CHE	Switzerland	**HUN**	Hungary	**NZL**	New Zealand
CHL	Chile	**IRL**	Ireland	**OECD**	OECD average
COL	Colombia	**ISL**	Iceland	**POL**	Poland
CRI	Costa Rica	**ISR**	Israel	**PRT**	Portugal
CZE	Czech Republic	**ITA**	Italy	**SVK**	Slovak Republic
DEU	Germany	**JPN**	Japan	**SVN**	Slovenia
DNK	Denmark	**KOR**	Korea	**SWE**	Sweden
ESP	Spain	**LTU**	Lithuania	**TUR**	Türkiye
EST	Estonia	**LUX**	Luxembourg	**USA**	United States

Table 2. List of acronyms and abbreviations used in the report

ABC	Act Belong Commit
B4IG	Business for Inclusive Growth
CBT	Cognitive behavioural therapy
CLPM	Cross-lagged panel model
COPD	Chronic obstructive pulmonary disorder
COVID-19	Coronavirus disease of 2019
EBSA	Emotionally-based school avoidance
EEG	Electroencephalogram
EHIS	European Health Interview Survey
EU-SILC	European Union Statistics on Income and Living Conditions survey
EQLS	European Quality of Life Survey
GDP	Gross domestic product
GHQ-12	General Health Questionnaire
GP	General practitioner
HiAP	Health in All Policies
IA	Impact assessment
IPS	Individual Placement and Support
IPV	Intimate partner violence
K-6	Kessler Scale
LBTQI	Lesbian, gay, bisexual, transgender and intersex
MHI-5	Mental Health Inventory
MWIA	Mental well-being impact assessment
NCD	Non-communicable disease

NEET	Young people not in education, employment or training
OECD	Organisation for Economic Cooperation and Development
PISA	Program for International Student Assessment
PHQ-8	Patient Health Questionnaire
PTSD	Post-traumatic stress disorder
RCT	Randomised control trial
SEL	Social and emotional learning
SF-12 / SF-36	Short Form Health Status
SUHI	Surface urban heat island
(S)WEMWBS	(Short) Warwick-Edinburgh Mental Wellbeing Scale
UBI	Universal Basic Income
UKHLS	Understanding Society – United Kingdom Household Longitudinal Study
WHO	World Health Organization
WHO-5	WHO-5 Wellbeing Index

Indicator definitions: Mental health outcomes

Mental health outcomes are defined differently throughout this report, depending on the specific mental health outcome, and specific tool, that is used. This section provides more detailed explanations of each mental health screening tool, divided into sections focused on mental ill-health (encompassing outcomes relating to mental distress and depression) and positive mental health. For more information about tools that can be used to measure population level mental health outcomes, refer to *Measuring Population Mental Health* (OECD, 2023[1]).

Cross-country data on population mental health outcomes remains patchy. Therefore throughout this report, data from existing internationally comparative surveys are used to illustrate the interlinkages between mental health and different well-being domains, details of which can be found in this section. The country coverage is primarily European, given data availability. Similarly, the mental health tools used in this report reflect current availability of internationally harmonised data on mental health, rather than an endorsement of any one mental health screening tool.

Tools to measure symptoms of mental ill-health

Mental Health Inventory (MHI-5) The Mental Health Inventory-5 (MHI-5) is a five-item scale to screen for symptoms of psychological distress. It is drawn from the 38-item Mental Health Inventory (MHI) and included in the 20-item and 36-item versions of the Short Form Health Survey (SF-20 and SF-36) (Berwick et al., 1991[2]; Kelly et al., 2008[3]). The questions tap into both negative and positive affect, with three items focusing on low/depressed mood and two on nervousness/anxiety (although the tool itself is not used to present these aspects separately). The MHI-5 has been found to be a reliable measure of mental health status, and has been validated against both depressive, and to a lesser degree also anxiety disorders (including generalised anxiety and panic disorder) in general population and patient samples in a range of countries (Yamazaki, Fukuhara and Green, 2005[4]; Hoeymans et al., 2004[5]; Elovanio et al., 2020[6]; Gill et al., 2007[7]; Rumpf et al., 2001[8]; Strand et al., 2003[9]; Thorsen et al., 2013[10]). There is some evidence that removing the two anxiety-related items does not reduce the effectiveness of the MHI in detecting depression, although this has not been examined in studies in which a formal diagnosis according to clinical criteria was used as a gold standard (Yamazaki, Fukuhara and Green, 2005[4]).

This report uses the MHI-5 screener tool as it is used in the 2013 and 2018 waves of the European Union Statistics on Income and Living Conditions (EU-SILC) surveys. For the figures in this report, those whose MHI-5 score is less than or equal to 52 are considered to be at risk for mental distress, and those whose score is greater than 52 are not considered to be at risk.

Table 3. MHI-5 Questionnaire with scoring breakdown

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
During the past month, how much of the time:						
1. Have you been a happy person? (reverse coded)	1	2	3	4	5	6
2. Have you felt calm and peaceful? (reverse coded)	1	2	3	4	5	6
3. Have you been a very nervous person?	1	2	3	4	5	6
4. Have you felt downhearted and blue?	1	2	3	4	5	6
5. Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6

Note: All items are added together to provide a total score from 5 to 30, which is then transformed into a variable ranging from 0-100 using a standard linear transformation. Higher values indicate better mental health, with the following cut-off points for various degrees of psychological distress: 68 or less mild, moderate or severe, 60 or less moderate or severe, 52 or less severe.
Source: Kelly, M.J. et al. (2008[3]), "Evaluating cutpoints for the MHI-5 and MCS using the GHQ-12: a comparison of five different methods", *BMC Psychiatry* 8, 10, https://doi.org/10.1186/1471-244X-8-10.

General Health Questionnaire (GHQ-12) The 12-item General Health Questionnaire (GHQ-12) is a measure to detect psychological distress by focusing on affect (negative and positive), somatic symptoms and the functional impairment of respondents. The GHQ-12 has been translated into many languages and extensively validated in general and clinical populations worldwide (particularly against depression and anxiety disorders), including among adolescent samples (Hankins, 2008[11]; Gilbody, 2001[12]; Baksheev et al., 2011[13]). Originally intended as a unidimensional measure, there is some debate about the dimensionality of the GHQ-12, with many factor-analytical studies supporting a range of multidimensional structures (e.g. anxiety and depression, social dysfunction, loss of confidence) (Gao et al., 2004[14]). However, more recent evidence points to these results likely being an expression of method-specific variance caused by item wording, supporting the notion that treating the scale as a unitary construct would minimise bias (Hystad and Johnsen, 2020[15]). The GHQ-12 is subject to copyright restrictions and can thus not be republished in this report.

This report uses the GHQ-12 as it appears in the United Kingdom Household Longitudinal Study (UKHLS), for inclusion in cross-lagged panel models illustrating the bidirectional relationship between selected well-being outcomes and mental distress.

Patient Health Questionnaire (PHQ-9 / PHQ-8) The full Patient Health Questionnaire (PHQ) contains 59 questions, with modules focusing on mood, anxiety, alcohol, eating and somatoform disorders. PHQ-9 is a nine-question survey designed to detect the presence and severity of depressive symptoms, and it directly maps onto the DSM-IV and DSM-5 symptom criteria for major depressive disorder. The PHQ-8 questionnaire removes the final question regarding suicidal ideation. While a one-factor structure for both PHQ-8/9 has been identified, more recent studies support a two-factor model composed of affective and somatic factors (Sunderland et al., 2019[16]). Both instruments have shown acceptable diagnostic screening properties across various population and clinical settings, age groups, and cultures/ ethnicities, in addition to being also a reliable and valid measure of depression severity (Manea, Gilbody and McMillan, 2012[17]; Moriarty et al., 2015[18]; Kroenke et al., 2009[19]; Huang et al., 2006[20]; Kroenke, Spitzer and Williams, 2001[21]; Richardson et al., 2010[22]). The close alignment between the PHQ-8/9 and the DSM make it subject to the same criticism, including a potentially Western-focused construct of depression, relative to longer self-reported scales with less constrained symptom sets (Zimmerman et al., 2012[23]; Haroz et al., 2017[24]).

This report makes use of the PHQ-8, as it appears in the European Health Interview Survey (EHIS). For the figures in this report, those whose PHQ-8 score is greater than or equal to 10 are considered to be at risk for depression, and those whose score is less than 10 are not considered to be at risk. Other scoring conventions are possible (refer to the Notes section of Table 4 below).

Table 4. PHQ-9/8 questionnaire with scoring breakdown

	Not at all	Several days	More than half the days	Nearly every day
Over the last two weeks, how often have you been bothered by any of the following problems:				
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Note: The last item in italics is the question on suicidal ideation that is added for the PHQ-9. Scoring can be done in two ways: (1) via an "algorithm diagnosis" of either major depression or other depression; or (2) via summing all items and applying different cut-off scores for depression severity. In the algorithm diagnosis that adheres to DSM definitions, the first or second item (depressed mood or anhedonia) have to present at least "more than half the days", and combined with at least 5 of the total symptoms or 2 to 4 symptoms also present at this frequency constitutes major depression and other depression, respectively. In the second form of categorization, all items are added together to provide a total score of depression severity, with scores ranging from 0-24 for the PHQ-8 and 0-27 for the PHQ-9: 0-4 none, 5-9 mild depression, 10-14 moderate depression, 15-19 moderately severe depression, 20-24/27 severe depression. A score of ≥10 indeed typically represents clinically significant depression regardless of diagnostic status.
Source: Kroenke et al. (2009[19]), "The PHQ-8 as a measure of current depression in the general population", *Journal of Affective Disorders,* Vol. 114(1-3), pp. 163-73, http://dx.doi.org/10.1016/j.jad.2008.06.026; Kroenke et al. (2001[21]), "The PHQ-9: Validity of a brief depression severity measure", *Journal of General Internal Medicine*, Vol. 16/9, pp. 606-613, http://dx.doi.org/10.1046/j.1525-1497.2001.016009606.x.

Tools to measure positive mental health

WHO-5 Well-being index (WHO-5) The World Health Organization Well-Being Index (WHO-5) is a short questionnaire of 5 questions that focus on a respondent's positive affect. The questionnaire, adapted from the longer WHO/ICD-10 Depression Diagnosis and DSM-IV Depression scale by selecting a subset of positively phrased items, has first been used in a project on well-being measures in primary health care by the WHO Regional Office in Europe in 1998 and since been translated into more than 30 languages (WHO, 1998[25]; Topp et al., 2015[26]). The WHO-5 has been applied as a generic scale for well-being across a wide range of study fields and countries, as a sensitive screening tool for depression as well as an outcome measure in clinical trials (Topp et al., 2015[26]). Studies of younger and elderly persons indicated a unidimensional structure for this scale (Topp et al., 2015[26]).

This report makes use of the WHO-5, as it appears in the 2016 wave of the European Quality of Life Survey (EQLS). For the figures in this report, those whose WHO-5 score is less than or equal to 52 are considered to have poor psychological well-being, and those whose score is greater than 52 are considered to have good psychological well-being. This scoring convention has been used by a number of publications, including Eurofound (Sándor et al., 2021[27]; WHO Collaborating Center for Mental Health, 1998[28]), however other scoring conventions are possible (see notes of Table 5 below).

Table 5. WHO-5 questionnaire with scoring breakdown

	All of the time	Most of the time	More than half the time	Less than half the time	Some of the time	At no time
Over the past two weeks…						
1. I have felt cheerful and in good spirits	5	4	3	2	1	0
2. I have felt calm and relaxed	5	4	3	2	1	0
3. I have felt active and vigorous	5	4	3	2	1	0
4. I woke up feeling fresh and rested	5	4	3	2	1	0
5. My daily life has been filled with things that interest me	5	4	3	2	1	0

Note: All items are added together to provide a total score from 0 to 25, which is then multiplied by 4 to normalise to a 0 (worst possible well-being) to 100 (best possible well-being) score. A cut-off score of less than or equal to 50, or less than or equal to 52 (Sándor et al., 2021[27]), are often used as indicative of reduced well-being, validated in studies using the WHO-5 for the screening of depression and for the predicting patient mortality.
Source: Topp et al. (2015[26]), "The WHO-5 well-being index: A systematic review of the literature", *Psychotherapy and Psychosomatics*, Vol. 84/3, pp. 167-176, http://dx.doi.org/10.1159/000376585.

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) The 14-item WEMWBS scale was developed with funding from NHS Health Scotland in 2005 to measure mental well-being (conceived of as "both feeling good and functioning well"), taking the Affectometer 2 instrument as starting point (Warwick Medical School, 2021[29]). Some studies confirmed a unidimensional structure for WEMWBS, while others identified three residual factors relating to affective well-being, psychological functioning or eudaimonia, and social relationships (Shannon et al., 2020[30]; Koushede et al., 2019[31]). A shorter, 7-item version of the scale, the SWEMWBS is also available, focusing slightly less on affect (Stewart-Brown et al., 2009[32]). (S)WEMWBS has been validated in various populations and among different subgroups including adolescents, clinical samples and ethnic minority samples, has been translated into more than 25 languages and validated in Norwegian, Swedish, Italian, Dutch, Danish, German, French and Spanish. Both scales have been shown to be sensitive to changes that occur in mental wellbeing promotion and mental illness treatment and prevention projects (Koushede et al., 2019[31]). Both instruments can distinguish mental well-being between subgroups, but the SWEMBS has been found to be less sensitive to gender differences compared to the longer version (Koushede et al., 2019[31]; Ng Fat et al., 2017[33]).

The cross-lagged panel models included in this report use SWEMWBS as a measure of psychological flourishing (see section on the cross-lagged panel model below for further details).

Table 6. (S)WEMWBS questionnaire with scoring breakdown

	None of the time	Rarely	Some of the time	Often	All of the time
Over the last two weeks…					
1. I've been feeling optimistic about the future	1	2	3	4	5
2. I've been feeling useful	1	2	3	4	5
3. I've been feeling relaxed	1	2	3	4	5
4. I've been feeling interested in other people	1	2	3	4	5
5. I've had energy to spare	1	2	3	4	5
6. I've been dealing with problems well	1	2	3	4	5
7. I've been thinking clearly	1	2	3	4	5
8. I've been feeling good about myself	1	2	3	4	5
9 I've been feeling close to other people	1	2	3	4	5
10. I've been feeling confident	1	2	3	4	5
11 I've been able to make up my own mind about things	1	2	3	4	5
12 I've been feeling loved	1	2	3	4	5
13 I've been interested in new things	1	2	3	4	5
14 I've been feeling cheerful	1	2	3	4	5

Note: Items in italics represent the 7-item shorter version of the scale (SWEMWBS). For the 14-item scale, all items are summed, yielding a total score ranging from 14-70. For the 7-item scale, raw scores are transformed into a 7-35 metric score (see conversion table here: https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/using/howto/swemwbs_raw_score_to_metric_score_conversion_table.pdf).For both scales, higher scores indicate greater levels of positive mental health. (S)WEMWBS scores approximate to a normal distribution, permitting parametric analysis. For categorical scoring, cut-off points for high, average and low mental well-being can be generated using two approaches: (1) a statistical approach putting the cut-off point at +/- one standard deviation, placing approximately 15% of the sample into high well-being and 15% into low well-being categories; or (2) a benchmarking approach against validated measures of depression, e.g. a score of 41-44 as indicative of possible/mild depression and a score of >41 as indicative of probable clinical depression, using the Center for Epidemiologic Studies Depression Scale (CES-D) as benchmark. WEMWBS is protected by copyright. Those wishing to use WEMWBS can obtain a licence to do so. Please go to https://warwick.ac.uk/wemwbs/using for information on the type of licence you will require and details on how to apply. A free of charge "non-commercial" licence is available to public sector organisations, charities, registered social enterprises and to researchers employed in Higher Education Institutions. Any further enquiries can be directed to wemwbs@warwick.ac.uk.
Source: Warwick-Edinburgh Mental Well-being Scale (WEMWBS) © NHS Health Scotland, University of Warwick and University of Edinburgh, 2006, all rights reserved; Warwick Medical School (2021[29]), *The Warwick-Edinburgh Mental Wellbeing Scales – WEMWBS,* https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/.

Indicator definitions: Well-being outcomes

Figures throughout this report show the share of the population in OECD countries who experience some form of a well-being deprivation, spanning the full range of dimensions of the OECD Well-being Framework, disaggregated by mental health outcome: the overall population, those at risk for poor mental health, and those not at risk for poor mental health. The mental health outcome categories vary depending on the type of mental health tool used (refer to the above section). Well-being deprivations are binary categories, for example: those who are unemployed, who live below the poverty line, who are lonely, who do not feel safe walking alone at night, who feel excluded from society, etc. The following tables in this section provide more information on how each deprivation is constructed, along with a brief introduction to the data sources.

European Union Statistics on Income and Living Conditions (EU-SILC)

The European Union Statistics on Income and Living Conditions (EU-SILC) survey has been conducted annually since 2003 in affiliated European countries. The core module primarily focuses on income, employment and housing outcomes, however each year a rotating ad-hoc module is implemented to conduct a deep-dive on a specific topic. In 2013 and 2018, the ad-hoc module focused on well-being, and

included the five questions comprising the Mental Health Inventory (MHI-5) screening tool for mental distress (see Table 3 above for more information).

The well-being deprivations (and in some cases, resilience factors, meaning above a threshold of well-being in a given dimension) described in Table 7 below all come from the 2018 EU-SILC survey, with the exception of those marked by an asterisk (*), which come from the 2013 survey wave. The ad hoc well-being modules in 2018 and 2013 have overlapping question sets, but they are not identical to one another, therefore some indicators included in 2013 were not repeated five years later. Not all of the indicators in the below table come from the ad-hoc module; many of those relating to material conditions are included in the core module and are thus collected annually.

There are 26 OECD member states with EU-SILC data in this report: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Table 7. Well-being deprivation and resilience variable definitions from the EU-SILC survey

Well-being dimension	Variable	Deprivation definition
Income and wealth	Receive any benefits	Received at least one of the following the year prior: unemployment benefits, disability benefits, survivors' benefits, sickness benefits, family and child allowances, housing allowances, education allowances, or other social exclusion allowances.
	Difficulty making ends meet	Report ability to make ends meet with "with great difficulty," "with difficulty", or "with some difficulty."
	Financially secure	Report ability to make ends meet “fairly easily”, “easily” or “very easily”.
	Bottom quintile household income	Household net disposable income is defined as the sum of all household members' gross personal income components, minus all taxes, social insurance contributions and inter-household transfers.
	At risk of severe material deprivation	Inability to afford / presence of arrears for any four of the following nine items: (1) has arrears on mortgage or rent payments, utility bills, hire purchase installments, or other loan payments, (2) afford paying for one week's annual holiday away from home, (3) afford a meal with meat, chicken, fish (or veg equivalent) every second day, (4) afford unexpected financial expenses, (5) afford a telephone (including a mobile phone), (6) afford a colour TV, (7) afford a washing machine, (8) afford a car, (9) able to continue keeping the home adequately warm.
	Receive disability benefits	Received a non-zero, positive sum of disability benefits the year prior. Disability can be either physical or mental impairments that inhibit one from employment. Disability benefits include: disability pensions (for those below the standard retirement age), early retirement because of inability to work, care allowances, economic integration of the handicapped. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
Work and job quality	Long hours worked	Work more than 49 hours per week in both a main job and additional jobs, combined. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Dissatisfied with job	Report a score of less than 5 on a scale from 0 (not at all satisfied with their job) to 10 (completely satisfied). For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Temporary contract	Have a work contract of limited duration. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Unemployed	Spent over half of the previous year in unemployment, defined as not employed during the reference period, available and actively seeking work.
	Employed	Spent over half of the previous year in employment, including both full- and part-time employment. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Bottom decile gross wage	The bottom decile of gross (neither taxes nor social contributions have yet been extracted at source) employee cash or near cash income. For this indicator, outcomes are only considered for

Well-being dimension	Variable	Deprivation definition
		the population considered to be a part of the labour force (those between 16 and 64 years-old), who are full-time workers.
	Unable to work	Spent over half of the previous year disabled and/or unfit to work. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Self-reported early retirement	Spent over half of the previous year retired, and are under the age of 65.
	Self-reported underemployment	Work fewer than 30 hours per week and give the reason for this lower number of hours worked as due to being "underemployed" (self-reported). For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
Housing	Rents home	Rent home at either a prevailing/market rate, or at a reduced rate.
	No Internet at home	Do not have an Internet connection for personal use at home, either because it is unaffordable, or for other reasons.
	Noise from neighbors or street	Report having problems with noise from neighbors or from outside / the street.
	Problems with accommodation	Have at least two of the following problems: (1) leaking roof, damp walls/floors/foundation, or rot in window frame or floor; (2) inability to keep home adequately warm; (3) lack a bath or shower in dwelling; (4) lack indoor flushing toilet for sole use of the household).
	Housing cost overburden	Spend more than 40% disposable household income on housing costs (either rent, or mortgage costs – including both principal repayment and mortgage interest).
	No housing cost overburden	Households that are not overburdened by housing costs (refer to above definition).
	Overcrowded accommodation	This indicator follows the OECD Housing database definition, which is as follows. A household is considered as living in overcrowded conditions if less than one room is available in each household: for each couple in the household; for each single person aged 18 or more; for each pair of people of the same gender between 12 and 17; for each single person between 12 and 17 not included in the previous category; and for each pair of children under age 12. Rooms refer to bedrooms, living and dining rooms.
	Dissatisfied with accommodation*	Report a score less than 5 on a scale from 0 (not at all satisfied with accommodation) to 10 (completely satisfied).
Knowledge and skills and educational attainment	Low education (full pop)	Highest level of education attained is less than primary, primary or lower secondary (ISCED levels 0-2), full population (all ages).
	High education (full pop)	Have obtained tertiary or above levels of education (ISCED levels over 2), full population (all ages).
	Low education (young people)	Highest level of education attained is less than primary, primary or lower secondary (ISCED levels 0-2), limited to those currently aged 25 to 34.
Environmental quality	Pollution, grime or other environmental factors	Report that pollution, grime or other environmental factors (e.g., smoke, dust, unpleasant smells, polluted water), in the area close to where the household lives, are a problem.
	Live in an area free of pollution, etc.	Report that none of the above are problems in the area close to where the household lives.
	Dissatisfied with recreational and green areas*	Report a score less than 5 on a scale from 0 (not at all satisfied) to 10 (completely satisfied); respondents are asked to rate their satisfaction with recreational or green areas in the space where they live, which is defined as areas close to their residence.
Safety	Don't feel safe walking alone at night*	Report feeling "very unsafe" or "a bit unsafe" when walking alone at night.
	Crime, violence or vandalism in the area	Report that "yes" the household has a problem with crime, violence or vandalism in the area in which they live.
	Live in an area free of crime	Report that "no" the household does not have a problem with crime, violence or vandalism in the area.
Work-life balance	Dissatisfied with commute time*	Report a score less than 5 on a scale from 0 (not at all satisfied with commuting time) to 10 (completely satisfied).
	Dissatisfied with time use	Report a score less than 5 on a scale from 0 (not at all satisfied with the amount of time they have to do things they like doing) to 10 (completely satisfied).
	Satisfied with time use	Report a score greater than 5.
	No time or money for	Do not regularly participate in a hobby or leisure activity either because of inability to afford to, or

Well-being dimension	Variable	Deprivation definition
	leisure activities	for other reasons.
Social connections and social capital	Dissatisfied with personal relationships	Report a score less than 5 on a scale from 0 (not at all satisfied with personal relationships) to 10 (completely satisfied).
	Could receive no non-material help from others	Report that "no" to the *possibility* (whether actual help is currently needed or not) of asking for and receiving moral help or services from relatives, friends, neighbours or other people they know.
	Feel lonely	Felt lonely "all of the time" or "most of the time" over the past four weeks.
	Rarely or never lonely	Felt lonely "a little of the time" or "none of the time" over the past four weeks.
	Live alone	Live alone (respondent is sole household member).
	Could receive no material help from others	Report that "no" to the *possibility* (whether actual help is currently needed or not) of asking for and receiving material help (e.g., money, consumer goods, etc.) from relatives, friends, neighbours or other people they know.
	Do not see friends and family monthly	Do not get together with friends, family, or relatives for a drink or meal at least once a month, either because of inability to afford it, or for other reasons.
	No trust in others	Report a score less than 5 on a scale from 0 (do not trust other people at all) to 10 (completely trust).
	Have trust in others	Report a score greater than 5.
Civic engagement	Feel excluded from society	Report a score greater than 5 on a scale from 0 (not at all feel excluded from society) to 10 (feel completely excluded).
	No trust in the police	Report a score less than 5 on a scale from 0 (do not trust the police at all) to 10 (completely trust).
	No trust in the legal system	Report a score less than 5 on a scale from 0 (do not trust the legal system at all) to 10 (completely trust).
	No trust in politics	Report a score less than 5 on a scale from 0 (do not trust the political system at all) to 10 (completely trust).

Source: OECD categorisations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[34]), (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions.

European Health Interview Survey

The European Health Interview Survey (EHIS) collects data on health status and determinants for citizens of EU countries. All of the figures in this report use data from the second wave of data collection in 2014.

EHIS includes the eight individual questions that make up the Patient Health Questionnaire (PHQ-8) to measure risk for major depressive disorder (refer to Table 4 for more information). Table 8 below lists the different well-being deprivations that are included in this report.

There are 22 OECD member states with EHIS data in this report: Austria, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Sweden and the United Kingdom.

Table 8. Well-being deprivation variable definitions from the EHIS survey

Well-being dimension	Variable	Deprivation definition
Health and healthy behaviours	Long-standing health problems	Report having a long-standing health problem (i.e., suffer from any illness or health problem of a duration of at least 6 months).
	Daily activities limited	State being "severely limited" or "limited but not severely" in daily activities because of a health problem.
	Never exercise	Report never engaging in physical activities (including doing sports, fitness or recreational (leisure) physical activities that cause at least a small increase in breathing or heart rate for at least 10 minutes continuously).
	Low back disorder	Report having suffered from a low back disorder or other chronic back defect in the past 12 months.
	Poor health	Report their health is "bad" or "very bad" in general.
	Severe bodily pain	Report having suffered from "very severe" or "severe" bodily pain over the past 4 weeks.
	High blood pressure	Report having suffered from high blood pressure in the past 12 months.
	Neck disorder	Report having suffered from a neck disorder or other chronic neck defect in the past 12 months.
	Arthrosis	Report having suffered from asthma (including allergic asthma) in the past 12 months.
	Allergy	Report having suffered from an allergy (such as rhinitis, eye inflammation, dermatitis, food allergy or other allergies, but excluding allergic asthma) in the past 12 months.
	Smoke every day	Report smoking tobacco daily.
	Urinary incontinence	Report having suffered from urinary incontinence in the past 12 months.
	Obese	Have a body mass index (BMI) >= 30.
	Rarely eat fruit	Report eating fruit "less than once a week" or "never".
	Diabetes	Report having suffered from diabetes in the past 12 months.
	Asthma	Report having suffered from asthma (including allergic asthma) in the past 12 months.
	Coronary heart disease	Report having suffered from coronary heart disease or angina in the past 12 months.
	Bronchitis	Report having suffered from bronchitis in the past 12 months.
	Kidney problems	Report having suffered from kidney problems in the past 12 months.
	Rarely eat vegetables	Report having suffered from urinary incontinence in the past 12 months.
	Stroke	Report having suffered from a stroke in the past 12 months.
	Heart attack	Report having suffered from a myocardial infarction (heart attack) in the past 12 months.
	Cirrhosis	Report having suffered from cirrhosis of the liver in the past 12 months.

Source: OECD categorisations based on *European Health Interview Survey* (EHIS) wave 3 data (Eurostat, n.d.[35]) (database), https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:European_health_interview_survey_(EHIS).

European Quality of Life Survey

The European Quality of Life survey (EQLS) is, unlike EU-SILC and EHIS, not conducted by national statistical offices, but administered by Eurofound to monitor quality of life indicators in Europe. The data used in this report come from the 2016 round of data collection. The survey includes the World Health Organization (WHO-5) affect-based measure of positive mental health (see Table 5 for more information). Table 9 below lists the well-being deprivations that are included in this report.

There are 24 OECD member states with EQLS data in this report: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Türkiye and the United Kingdom.

Table 9. Well-being deprivation variable definitions from the EQLS survey

Well-being dimension	Variable	Deprivation definition
Income and wealth	Receive any benefit	Anyone in the household received at least one of the following over the past 12 months: unemployment benefits, disability benefits, retirement pension, family and child allowances, housing allowances, or other social assistance.
	Difficulty making ends meet	Report ability to make ends meet with "with great difficulty," "with difficulty, or "with some difficulty."
	Severe material deprivation	A household is considered at risk for severe material deprivation if it cannot afford two of the following six items: (1) Keeping your home adequately warm (2) Paying for a week's annual holiday away from home (3) Replacing any worn-out furniture (4) A meal with meat, chicken, fish every second day if you wanted to (5) Buying new, rather than second-hand, clothes (6) Having family or friends for a drink or meal at least once a month.
	Receive child or family benefits	Anyone in the household received child, family or care allowances over the past 12 months.
	Receive unemployment benefits	Anyone in the household received unemployment benefits over the past 12 months.
	Have arrears for paying bills	Household has been in arrears (unable to pay as scheduled) at any time in the past 12 months, for: utility bills, such as electricity, water or gas.
	Receive disability benefits	Anyone in the household received unemployment benefits or disability pension over the past 12 months.
	Have arrears for telephone expenses	Household has been in arrears (unable to pay as scheduled) at any time in the past 12 months, for: telephone, mobile or Internet connection bills.
	Have arrears for formal loans and credit	Household has been in arrears (unable to pay as scheduled) at any time in the past 12 months, for: payments related to consumer loans, including credit card overdrafts.
	Have arrears for rent	Household has been in arrears (unable to pay as scheduled) at any time in the past 12 months, for: rent or mortgage payments for accommodation.
	Have arrears for informal loans	Household has been in arrears (unable to pay as scheduled) at any time in the past 12 months, for: payments related to informal loans from friends or relatives not living in your household.
Work and job quality	Do not work preferred amount of hours	Those who work either more, or fewer, hours per week than their stated preference. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Work more than preferred hours	Those who work more hours per week than their preferred stated amount. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Perceived lack of job options	Those who state it would be "very unlikely" or "rather unlikely" for them to find a job of a similar salary, were they to lose or quit their job (asked only to those in paid work). For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Work long hours	Those who work more than 49 hours per week, in both a main job and additional jobs, combined. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Temporary contract	Have a temporary contract, which includes: a fixed term contract of less than 12 months, a fixed term contract of 12 months or more, a temporary employment agency contract, an apprenticeship or other training scheme, no written contract, or other. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Dissatisfied with job	Report a score of less than 5 on a scale from 1 (not at all satisfied with their job) to 10 (completely satisfied). For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Perceived sense of job insecurity	Those who think they are "very likely"" or "rather likely" to lose their job within the next 6 months. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Unemployed	Unemployed (constructed variable by Eurofound). For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	Work fewer than preferred hours	Those who work fewer hours per week than their preferred stated amount. For this indicator, outcomes are only considered for the population considered to be a part of the labour force

Well-being dimension	Variable	Deprivation definition
		(those between 16 and 64 years-old).
	Unable to work	Unable to work due to long-term illness or disability (constructed variable by Eurofound). For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
Housing	Rents home	Rent home, either from social, municipal or non-profit housing provider, or from a private landlord or company.
	Perceived shortage of space in home	Report that "yes", their accommodation has a shortage of space.
	Difficult to access recycling services	Report it is "very difficult" or "rather difficult" to access recycling services, including collection of recyclables (in terms of physical access, distance, opening hours, etc.).
	Difficult to access grocery stores	Report it is "very difficult" or "rather difficult" to access grocery shops or supermarkets (in terms of physical access, distance, opening hours, etc.).
	Dissatisfied with housing	Report a score of less than 5 on a scale from 1 (not at all satisfied with their accommodation) to 10 (completely satisfied).
	Problems with accommodation	Report having at least two of the following problems: (1) house has rot in windows, doors or floors; (2) house has damp or leaks in walls or roofs; (3) house lacks an indoor flushing toilet; (4) house lacks a bath or shower; (5) house lacks facilities (heating or cooling) to keep house a comfortable temperature.
	Feel likely will be necessary to move due to affordability	Those who have report that it is "very likely" or "likely" they will need to leave their accommodation within the next six months due to affordability.
Health and healthy behaviours	Used GP services	Used GP, family doctor or health centre services in the past 12 months.
	Chronic illness	Report "yes" to having any chronic (defined as lasting 6 months or more) physical or mental health problems, illnesses or disabilities.
	Used hospital services	Used hospital or medical specialist services in the past 12 months.
	Daily activities limited	Those who report their daily activities are "severely" or "to some extent" limited by their chronic (defined as lasting 6 months or more) physical or mental health problems, illnesses or disabilities.
	Dissatisfied with health services	Report a score of less than 5 on a scale from 1 (not at all satisfied with health services in the country) to 10 (completely satisfied).
	Poor general health	Report their health is "bad" or "very bad" in general.
	Used emergency services	Used emergency healthcare services in the past 12 months.
	Used online medical consultation services	Used medical consultations online or by telephone in the past 12 months.
Knowledge and skills and educational attainment	Low education (full pop)	Highest level of education attained is less than primary, primary or lower secondary (ISCED levels 0-2), full population (all ages).
	Low education (young people)	Highest level of education attained is less than primary, primary or lower secondary (ISCED levels 0-2), limited to those currently aged 25 to 34.
Environmental quality	Pollution in area	Those who report "major" or "moderate" problems with either air quality or litter/rubbish on the street in the area (defined as the immediate area of the respondent's home).
	Difficult to access green space	Report "very difficult" or "rather difficult" to access recreational or green areas.
Safety	Feel unsafe walking alone in neighbourhood after dark	Those who "strongly disagree" or "disagree" with the statement, "I feel safe when I walk alone in this area after dark."
	Feel unsafe at night	Those who "strongly disagree" or "disagree" with the statement, "I feel safe when I am at home alone at night."
Work-life balance	Difficult to concentrate on work because of family responsibilities	Those who find it difficult to concentrate at work because of family responsibilities "every day" or "several times a week".
	Unhappy with amount of time spent on care for disabled adults	Those who report wishing they could spend either more time, or less time, caring for disabled or inform family member, neighbours or friends.
	Difficult to fulfill family responsibilities	Those who find it difficult to fulfil family responsibilities because of the amount of time spent on the job "every day" or "several times a week".
	Working hours do not fit	Those who report their working hours fit "rather not well" or "not well at all" with family or social

Well-being dimension	Variable	Deprivation definition
	with family/social commitments	commitments outside of work.
	Long hours in unpaid work	Work more than 60 hours per week, of which at least 30 hours are unpaid work. For this indicator, outcomes are only considered for the population considered to be a part of the labour force (those between 16 and 64 years-old).
	No time to do things I enjoy	Those who "strongly agree" or "agree" with the statement, "In my daily life, I seldom have time to do the things I really enjoy."
	Unhappy with amount of time spent on childcare	Those who report wishing they could spend either more time, or less time, caring for children or grandchildren.
	Spend more time on childcare than partner	Report spending "more time than my partner does" looking after children.
	Too tired after work for household chore	Those who come home from work too tired to do some of the household jobs that need to be done "every day" or "several times a week".
	Difficult to combine work with care	Report it is "very difficult" or "rather difficult" to combine paid work with care responsibilities.
	Unhappy with amount of time spent on hobbies	Those who report wishing they could spend either more time, or less time, on their own hobbies or interests.
Social connections and social capital	Contact family infrequently	Those who contact (see in person, or talk on the phone) family members or relatives less than 1-3 times a month, or never do.
	Contact friends infrequently	Those who contact (see in person, or talk on the phone) friends or neighbours less than 1-3 times a month, or never do.
	Dissatisfied with family life	Report a score of less than 5 on a scale from 1 (not at all satisfied with family life) to 10 (completely satisfied).
	Unable to get help from others	Those who answer "yes" to fewer than three of the following forms of help that one could receive from friends, family or a service provider/institution: (1) help around the house if you fall ill; (2) support if you need advice about a serious personal or family matter; (3) help when looking for a job; (4) support if you were feeling depressed and needed to talk to someone, and (5) if you needed to raise funds for an emergency situation.
	Do not feel close to people in neighbourhood	Those who "strongly disagree" or "disagree" with the statement, "I feel close to the people in the area where I live."
	Live alone	Live alone (respondent is sole household member).
	Feel lonely	Report feeling lonely "all of the time", "most of the time" or "more than half of the time" over the past two weeks.
	No trust in others	Report a score of less than 5 on a scale from 1 (you can't be too careful) to 10 (most people can be trusted).
Civic engagement	Perceived corruption in the education sector	Report a score of greater than 5 on a scale from 1 (education sector is not at all corrupt) to 10 (completely corrupt).
	Feel left out of society	Those who "strongly agree" or "agree" with the statement, "I feel left out of society."
	No trust in the police	Report a score of less than 5 on a scale from 1 (do not trust the police at all) to 10 (trust completely).
	Perceived corruption in hospitals	Report a score of greater than 5 on a scale from 1 (hospitals are not at all corrupt) to 10 (completely corrupt).
	No trust in the government	Report a score of less than 5 on a scale from 1 (do not trust the government at all) to 10 (trust completely).
	No trust in the legal system	Report a score of less than 5 on a scale from 1 (do not trust the legal system at all) to 10 (trust completely).
	Do not volunteer	Did not engage in unpaid voluntary work over the past 12 months.

Source: OECD categorisations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[36]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

Cross-lagged panel model: Further information

This report contains figures depicting visual representations of cross-lagged panel models (CLPM), which are used to examine the reciprocal relationships between different dimensions of well-being and mental health outcomes (Mayer, 1986[37]; Selig and Little, 2013[38]). CLPMs are commonly used in behavioural and psychological research to infer longitudinal relations between variables (Saeri, Cruwys and Sibley, 2018[39]; Yu et al., 2015[40]).The aim of these analyses is to offer a more holistic perspective of the relationships between well-being and mental health by evaluating bidirectional relationships between different dimensions of well-being and population mental health outcomes, over time.

Data source

The CLPMs in this report use data from Understanding Society: The United Kingdom Household Longitudinal Study (UKHLS), which provides nationally representative, high-quality longitudinal panel data. UKHLS consists of a stratified and clustered general population sample (GPS) of randomly selected respondents from approximatively 30 000 households. The first wave was conducted from 2009-11, with respondents re-interviewed annually (the latest wave for which data were available for this report is wave 10, 2019-21). Only 52% of the GPS sample were still participating after six years. Attrition was reported to be greatest among the youngest age groups, men, the Black population, people on lower incomes and in the Greater London area. No strong association was found between the attrition rate and health status for the GPS sample (Lynn and Borkowska, 2018[41]). Data collection is conducted face-to-face via computer aided personal interviews with additional self-completion instruments. Comprehensive descriptions of the techniques and methodology used are published elsewhere (Berthoud et al., 2009[42]), as are sampling methodologies (ISER, n.d.[43]).

Different balanced panel sub-sample datasets were used to analyse the bidirectional relationships between mental health and different well-being indicators, depending on data availability for each pair of outcomes considered. That is, the maximum number of survey waves available for each mental health outcome and well-being indicator were used, resulting in different sample sizes for different models.

Outcome variables

Two contrasting indicators of mental health were examined to better understand the potential differences in well-being relationships to positive mental health vs. mental ill-health, both measured on a continuous scale. The General Health Questionnaire 12 (GHQ-12) is used to measure mental distress, ranging from 0 (the least distressed) to 12 (the most distressed). The short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS) captures positive mental health, with scores ranging from 7 (worst mental health outcome) to 35 (best possible outcome). Data for the GHQ-12 are available across all 10 waves, while data for the SWEMWBS are only available in waves 1, 4, 7 and 10.

Model design

CLPMs estimate the relationship between both mental health and a well-being indicator over time as well as the reciprocal temporal association between mental health and a well-being indicator, allowing for autoregressive and cross-lagged pathways. The models estimate the effect of one variable on the other, while controlling for levels of the outcome variable in the previous wave ("stability" effect). A simultaneous equation model that allows for autoregressive effects and cross-lagged effects between mental health outcomes (MH_{it}) and well-being indicators (WB_{it}) at each measure point (*t* = 1, …, 10) may be written as:

$$MH_{it} = \alpha_t MH_{i,t-1} + \beta_t WB_{i,t-1} + X_i + \upsilon_{i,t} \quad (1)$$

$$WB_{it} = \delta_t WB_{i,t-1} + \gamma_t MH_{i,t-1} + X_i + \nu_{i,t} \quad (2)$$

where *t* represents an occasion or survey wave, *i* represents an individual, α_t and δ_t are autoregressive parameters, β_t and γ_t are cross-lagged parameters, $MH_{i,t-1}$ and $WB_{i,t-1}$ are the lags of one time unit for mental health and well-being outcomes, respectively, X_i is a vector of control variables that vary over individuals but not over time, and $\upsilon_{i,t}$ and $\nu_{i,t}$ are the residuals (assumed to be normally distributed and correlated).

The autoregressive parameters are included to account for the stability of the constructs over time: the closer these autoregressive parameters are to one, the more stable the rank order of individuals is from one occasion to the next. Applying this to a mental health outcome, the closer the mental health autoregressive parameter is to one, the more that previous mental health outcomes influence current mental health. The cross-lagged parameters investigate reciprocal causal effects between well-being and mental health outcomes in this model. The relative effects of the mental health and well-being variables γ_t on each other can be directly compared by standardising β_t and γ_t, which can then be used to determine causal predominance, or comparing the impact of previous experience of mental ill-health on a current well-being outcome (say, unemployment) with the impact of previous unemployment on current mental ill-health.

The models shown in this report are the simple CLPMs described above, with standardised coefficients, for ease of interpretation. However CLPMs are estimated based on aggregating between- and within-person variance, therefore as a robustness check random-intercept cross-lagged panel models (RI-CLPM) to isolate the within-person from between-person variation in models with continuous dependent variables were also estimated. The findings were more-or-less in line with those of the CLPMs, and thus are not shown in this report.

Estimation and model fit

The two equations of the CLPM are estimated simultaneously and are adjusted for the complex sample design of UKHLS data including weighting, clustering and stratification at household level (residential addresses) (Lynn, 2009[44]).

First, unconstrained models (non-stationary models), allowing the magnitude of the autoregressive and cross-lagged effects to vary over survey waves were run, followed by a stationary model constraining lagged structural and autoregressive paths to be equal over each survey wave. In this report results from the stationary CLPM models are reported for simplicity, and because the improvement in model fit between stationary and non-stationary was often minimal.

In models with continuous dependent variables (i.e., household income, which is not shown in this report), full-information maximum likelihood (FIML) was used to reduce potential bias introduced by missing data. FIML is a more efficient way of dealing with missing data than listwise or pairwise deletion or similar response pattern imputation (Enders, Bandalos and And Bandalos, 2001[45]). In models with binary dependent variables (i.e., respondent smokes tobacco; respondent is unemployed), the Weighted Least Square Mean and Variance (WLSMV) is used.

The relative strengths of cross-lagged relationships are compared using standardised coefficients. In stationary models, the unstandardised coefficients are constrained to be equal over time, but standardised coefficients vary across waves. Consequently, when presenting results, we report standardised coefficients for the effects between the first two waves of data used.

Model fit was assessed by the Comparative Fit Index (CFI) and the Root-Mean-Square Error of Approximation (RMSEA). Fit is considered acceptable if CFI ≥0.90 and RMSEA ≤0.08, and good if CFI ≥0.95 and RMSEA ≤0.06. (Brown, 2015[46]; Hu and Bentler, 2009[47]; Chen et al., 2008[48]). All analyses were performed using Mplus and the R "MplusAutomation" package (Hallquist and Wiley, 2018[49]).

Assumptions and limitations to interpretation

As with any estimation, CLPMs require a number of assumptions in order to infer causality. For instance, it is assumed that time-invariant covariates have a constant effect across time, which may not necessarily be the case (Mund, Johnson and Nestler, 2021[50]). Additionally, neither models control for time-varying variables. A few additional points to be mindful of when interpreting or comparing results from the models in this report:

- Differences in the strength of cross-lagged effects across mental health outcomes could be due to the mental health outcomes used measuring different underlying constructs (for example, SWEMWBS also contains questions related to general life satisfaction and social connectedness).
- It may not be surprising to see attenuated effects or less/non-significant effects when using SWEMWBS as the mental health outcome since SWEMWBS data are only available every three years, meaning the model estimates the effects of three-year rather than one-year lags.

Executive summary

Mental health is essential for people's broader well-being…

Mental health plays a central role in people's lives and is intrinsically tied to many other aspects of people's wider well-being. The COVID-19 pandemic brought renewed attention to its importance, as direct health impacts and lost lives combined with social isolation, loss of work and financial insecurity all contributed to a significant worsening of people's mental health. In the meantime, new threats to mental health, such as the cost-of-living crisis and climate change, have emerged or become more salient. Already well before 2020, it was estimated that half of the population will experience a mental health condition at least once in their lifetime and the economic costs of mental ill-health amounted to more than 4% of GDP annually. On the other hand, positive mental health, or having high levels of emotional and psychological well-being, is increasingly being recognised as a policy target in its own right by governments across the OECD.

… but the incentives for government sectors beyond health to improve it are often weak

Successful and people-centred strategies to promote good population mental health need to acknowledge that the ability to thrive depends on the broader living conditions experienced by individuals, families and communities. The recognition that these strategies hence need to involve a range of sectors across all of government is nothing new. Indeed, calls for comprehensive "health in all policies" approaches, which systematically integrate (mental) health considerations into policies across sectors, have been renewed at both national and international levels in recent years. Yet in practice, coalition-building with other sectors remains limited and often not implemented at scale. Some of the most commonly cited difficulties include the fact that inter-departmental task forces dealing with mental health are often time limited and lack decision-making power; furthermore, aspects such as accountability or plans for monitoring and evaluation of partnerships are often absent from high-level strategy documents, and resource constraints remain a challenge.

Moving from "mental health *in* all policies" towards "mental health *for* all policies"

The OECD Well-being Framework has, for more than a decade, pioneered a multidimensional approach to measuring the outcomes that matter for people, the planet and future generations. Drawing on this conceptual framework and longstanding work of the organisation on integrated approaches to mental health, this report uses a "well-being lens" to underscore the reciprocal relationships between mental health and the outcomes typically under the responsibility of non-health government departments. Ultimately, recognising which policies under their mandate can or are already contributing to improving mental health as well as their own objectives can benefit the government's broader policy goals, thus facilitating a move towards a "mental health *for* all policies" mindset.

Mental health shapes and is shaped by many aspects of life

Mapping the relationship between mental health and people's economic, social, relational, civic and environmental experiences reveals that those with worse mental health outcomes also fare far worse in most other aspects of their well-being. For instance, compared to the general population, those at risk of mental distress are nearly twice as likely to be at the bottom of the income distribution, to be unemployed, or to be dissatisfied with the safety and availability of green spaces in their neighbourhoods. They are also more than twice as likely be unhappy with how they spend their time and to report low trust in other people, and their risk for feeling lonely is more than four times higher. Conversely, protective factors – such as being financially secure, being in good physical health, living in a safe and clean living environment, and having healthy social relationships – can provide resilience against poor mental health outcomes and support good emotional and psychological well-being.

Policies can deliver mental health and well-being co-benefits

There are several options for "win-win" policies that can jointly improve both mental health and other policy goals. Based on the evidence of the strong interlinkages between mental health and other well-being outcomes, and existing policy practices underway in OECD countries, this report identifies a range of illustrative examples of such co-benefits. More known practices cover aspects such as increased access to social assistance programmes, integrating mental health service provision into unemployment services, encouraging employers to prioritise mental health at work, or school-based interventions and the incorporation of social and emotional learning in curricula. More recent innovations for mental health promotion include the expansion of social prescribing programmes, the recognition of the value of unpaid work, interventions to tackle racism and discrimination, prioritising social connectedness as an explicit policy target, and accounting for the mental health costs of climate change (and the benefits of climate action).

Collaboration across stakeholders requires new ways of working

Successful implementation of such "win-win" policies across sectors requires adequate resources, incentives and working arrangements that enable all relevant stakeholders to contribute. This report also reviews selected mental health initiatives across OECD countries to demonstrate how policy makers have in practice been aligning action across government agencies; redesigning policy formulation to address the joint factors influencing mental health through impact evaluation; refocusing efforts towards the promotion of positive mental health; and connecting with societal stakeholders, including those with lived experience, youth, civil society and researchers.

Lessons learned first show the importance of clearly defining mental health goals (i.e. what it is that should be improved, and who can contribute), for instance through using multidimensional frameworks to point out interlinkages and establish coordination with other sectors; formulating concrete implementation plans; or explicitly monitoring positive mental health. Second, intersectoral collaboration and partnership building – be it between different government agencies, levels of government or when supporting community actors – take resources, including time, to do well, and can be supported by a move away from short-term project cycles. Third, strategic grantmaking seems to be a promising approach for allocating funds to mental health promoting activities, including at the local level, that do not traditionally fall under the remit of the health sector. Lastly, provisions for impact evaluations should be integrated into programme design from the outset to improve learning and build the evidence base on successful interventions.

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1. Applying a well-being lens to mental health

Good mental health is a vital part of people's well-being, and a range of government departments, beyond health, can contribute to and benefit from addressing the upstream determinants of mental health. This overview chapter sets out the different elements of the "well-being lens" that this report employs to inform mental health strategies. First, the OECD Well-being Framework is used to systematically review how people's economic, social, relational, civic and environmental experiences shape and are, in turn, shaped by their mental health. Second, based on this evidence, examples of co-benefits, or policy interventions that can jointly improve both mental health and other well-being outcomes, are identified. Third, selected mental health initiatives across OECD countries are reviewed to highlight different elements of an effective policy ecosystem that supports collaboration across stakeholders.

1.1. Mental health is a topical and cross-cutting issue

Mental health plays a central role in people's lives and is intrinsically tied to many other aspects of people's wider well-being. The importance of mental health to the ability of individuals – and societies – to thrive is not a new insight: OECD research estimates that half the population will experience some form of mental health condition at least once over their lifetime, and that the economic costs of this amount to at least 4% of annual GDP (OECD, 2021[1]). Still, the necessity of good mental health, and the costs of ill-health, have only been further underscored by the COVID-19 pandemic, which exacerbated pre-existing vulnerabilities and exposed new risk factors for mental health, as the population dealt with not only the direct health impacts of the virus, but also financial insecurity, job loss, disruptions to education and increased social isolation. Data from 15 OECD countries reveal that over a quarter of the population showed symptoms indicating risk for major depressive disorder in 2020 and 2021; for those countries with comparable pre-pandemic data, the share of the population at risk for depression more than doubled (OECD, 2021[1]).

Momentum has also been building in recent years to shift the conversation away from the sole prevention of mental *ill*-health and onto the promotion of *positive* mental health, or high levels of emotional and psychological well-being (OECD, 2023[2]). Indeed, good mental health can boost people's resilience to stress, help them realise their goals and actively contribute to their communities. Positive mental health is increasingly being recognised as a policy target in its own right by health and other government agencies across the OECD, be it through the development of regularly monitored indicators of population positive mental health, dedicated guidance on how to improve it, or funding mechanisms that explicitly target resilience factors for mental health promotion.

Evidence on the powerful ways in which people's economic, social, relational and environmental living conditions interact with mental health makes it clear that effective mental health promotion, prevention and treatment strategies need to involve government sectors beyond health. Renewed calls for collaborative "health in all policies" approaches that systematically integrate and articulate (mental) health considerations into policy making across sectors have been growing. For instance, at the European level, following steers from the European Parliament and the outcomes of the Conference on the Future of Europe, in June 2022 the European Commission launched the "Healthier Together" initiative to reduce the burden of non-communicable diseases, including mental health, by taking a "health in all policies" approach. This was followed in 2023 by the new "A comprehensive approach to mental health" strategy, which factors mental health considerations into EU and national policies (European Commission, 2022[3]; European Commission, 2023[4]). The OECD has also long been calling for a society-wide response to mental health, including in the *2015 OECD Council Recommendation on Integrated Mental Health, Skills and Work Policy* (OECD, 2015[5]), and surrounding workstreams (Box 1.1). Additionally, the 2021 OECD *COVID-19 and Well-being: Life in the Pandemic* report included, among its policy recommendations, a cross-government focus on mental health promotion and prevention (OECD, 2021[6]).

Box 1.1. Integrated approaches to mental health policy at the OECD

This report builds on existing work at the OECD in mental health policy, and in particular, long-standing calls for integrated approaches to mental health promotion. The 2012 publication, *Sick on the Job? Myths and Realities about Mental Health and Work*, underscored the cost of mental ill-health to not only individuals, but to employers and the economy more broadly, demonstrating that policy makers should place greater emphasis on integrating those experiencing mental ill-health back into the workplace, and on supporting them once there (OECD, 2012[7]). Ten dedicated country reviews of mental health and work policies, conducted between 2013 and 2018, underscored the broader education, health, welfare and labour market policy challenges arising from mental ill-health (OECD, n.d.[8]). This work was further

built upon in *Fit Mind, Fit Job: From Evidence to Practice in Mental Health and Work,* which expands the evidence base on the social and economic costs of mental ill-health and calls for integrated policy responses (OECD, 2015[9]).

These publications helped to pave the way for the 2015 *OECD Recommendation of the Council on Integrated Mental Health, Skills and Work Policy* (OECD, 2015[5]). The Council Recommendation, adopted by all OECD member states, acknowledges that the costs of mental ill-health are wide-ranging, and that the promotion of good mental health involves agencies beyond the health sector. It endorses a set of policy guidelines to better integrate mental health considerations into (physical) health, education, employment and social service systems. In 2021, *Fitter Minds, Fitter Jobs: From Awareness to Change in Integrated Mental Health, Skills and Work Policies* reviewed progress achieved in the policy areas covered by the Recommendation five years after its adoption (OECD, 2021[10]).

OECD work has also underscored the importance of broad and multi-sectoral efforts towards strengthening care and services for mental health conditions, in particular in *Making Mental Health Count: The Social and Economic Costs of Neglecting Mental Health Care* (Hewlett and Moran, 2014[11]) and *A New Benchmark for Mental Health Systems: Tackling the Social and Economic Costs of Mental Ill-Health.* The latter publication develops a comprehensive framework for understanding countries' mental health performance, focusing on accessible, high-quality and person-centred services, good prevention and promotion, an integrated and multi-sectoral approach, strong governance and leadership, and a focus on innovation (OECD, 2021[1]). This work demonstrates that enduring weaknesses in mental health care provision in OECD countries have direct and indirect economic costs, in terms of years lived in ill-health, as well as productivity losses. The *Benchmarking* publication includes a series of indicators which have been used to assess countries' mental health system performance, and can be used in years to come to their track progress and policy impacts. Going forward, as part of the workstream on best practices in public health, the OECD is also assessing the effectiveness, efficiency and potential for transferability of candidate best practice and promising practices in mental health promotion and prevention, for publication in 2024.[1]

Note: 1. This work covers multiple types of interventions including suicide prevention, improving mental health literacy, making mental health services more easily accessible, actions based in schools and workplaces, and those targeting front-line players such as school teachers, nurses and midwives.

1.2. Moving from mental health *in* all policies to mental health *for* all policies

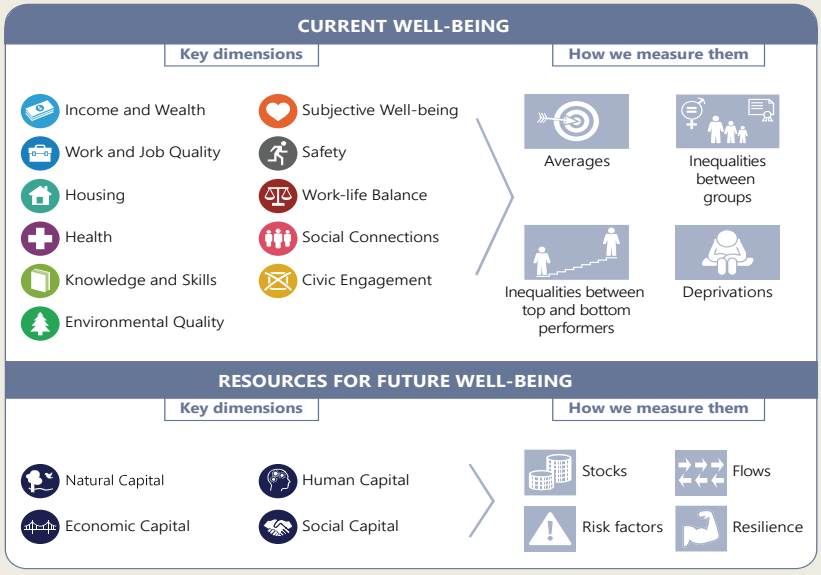
How to Make Societies Thrive? Coordinating Approaches to Promote Well-being and Mental Health is the second of two reports that form a broader project on well-being and mental health. The first report, *Measuring Population Mental Health*, provided recommendations to data producers on how to collect population mental health outcomes, both for ill-health and positive mental health, in an internationally comparable way (OECD, 2021[12]). *How to Make Societies Thrive?*, on the other hand, highlights the wide-ranging drivers of mental health, underscoring the important roles that different sectors – beyond health – play in this field. Indeed, previous "health in all policies" approaches have often not met their full potential and integration with other sectors remains limited and often not implemented at scale. This is partly because the asymmetry built into the "health in all policies" concept makes coalition-building difficult: it has often focused on improving outcomes for the health sector, thereby seeming to imply that other sectors must adjust their priorities accordingly (McLaren, 2022[13]; Greer et al., 2023[14]; Lundberg, 2020[15]).

Box 1.2. The OECD Well-being Framework

The OECD Well-being Framework is a broad outcome-focused tool to measure human and societal conditions and assess whether life as a whole is getting better for people living in OECD countries. It includes both current well-being in the "here and now", which focuses on living conditions and inequalities at the individual, household and community levels, and systemic resources needed to sustain well-being in the future.

The Well-being Framework underpins the OECD *How's Life?* report series and a wide range of other work related to well-being (OECD, 2020[16]). Since its launch in 2011, more than two-thirds of OECD countries have developed some form of national framework or strategic plan with a multidimensional well-being focus (OECD, 2023[17]).

Figure 1.1. The OECD Well-being Framework



Source: OECD (2020[16]), *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, https://doi.org/10.1787/23089679.

The OECD Well-being Framework takes a multidimensional approach to measuring the outcomes that matter for people, the planet and future generations (Box 1.2). Drawing on this Framework as a conceptual basis, Chapters 2-4 of this report systematically review how people's economic, social, relational, civic and environmental experiences shape and are, in turn, shaped by their mental health.[1] This evidence is used to outline examples of policy interventions that can jointly improve both mental health and other well-being outcomes in order to make the case that integrating mental health considerations can also benefit the goals of other sectors and government's broader policy goals. The multidimensional nature of the OECD Well-being Framework also allows for building on the current areas of the *Council Recommendation on Integrated Mental Health, Work and Skills Policy* to expand its focus so as to encompass both positive components of mental health as well as additional dimensions, including economic insecurity, social connections, housing, work-life balance and the environment. Many of these concerns are directly relevant to current challenges faced by governments, such as climate change, the cost-of-living crisis and the future of work.

Implementing and sustaining such co-benefits or "win-win" policies requires resources, incentives and working arrangements that enable all relevant stakeholders to contribute to tackling the upstream

determinants of mental health. Chapter 5 hence reviews selected mental health initiatives across OECD countries to illustrate how policy makers have been aligning action across government agencies; redesigning policy formulation to address the joint factors influencing mental health; refocusing efforts towards the promotion of positive mental health; and connecting with societal stakeholders beyond government, including those with lived experience, youth, civil society and researchers.

Mapping the relationship between mental health and other well-being outcomes

This report takes three thematic clusters of the dimensions within the OECD Well-being Framework to analyse how outcomes in each intersect with mental health: the **material conditions** that shape people's economic options (i.e. income and wealth, work and job quality, housing, economic capital) (Chapter 2); the **quality-of-life factors** that encompass what people know and can do, and how healthy their places of living and the environment are (i.e. knowledge and skills, health, human capital, environmental quality and natural capital/climate change) (Chapter 3); and **community relations** that include how safe, connected and engaged people are, and how and with whom they spend their time (i.e. safety, work-life balance, social connections, civic engagement, social capital) (Chapter 4).

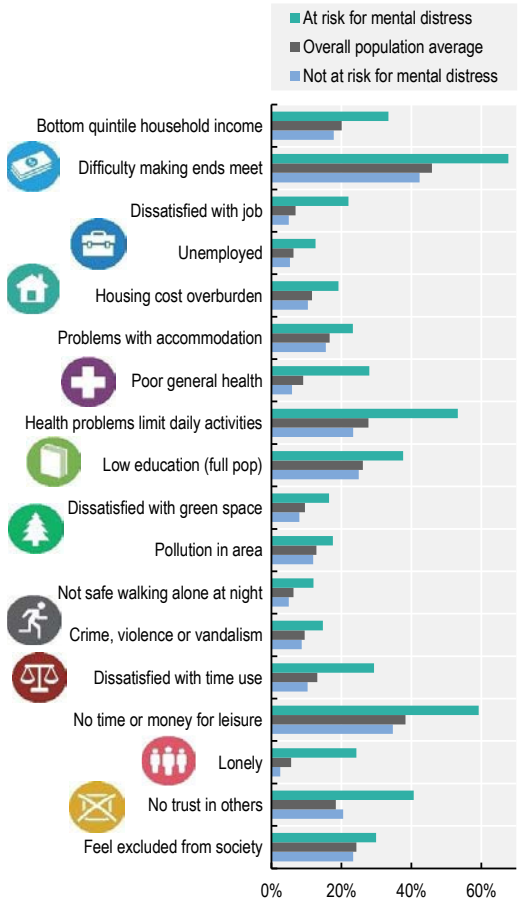
For each dimension, the following steps are systematically applied:

- using cross-sectional microdata for several OECD countries, associations between outcomes in a specific well-being dimension and both mental ill-health and positive health are determined;
- a literature review, relying on systematic reviews and meta-analyses whenever possible, is used to unpack the causal mechanisms underlying these associations, and help understand which policy levers might be used to target them;
- examples of existing policy interventions that have a demonstrated ability to improve both mental health and outcomes in a specific (or multiple) well-being dimension(s) are outlined, drawing on existing country practice and OECD work when relevant.

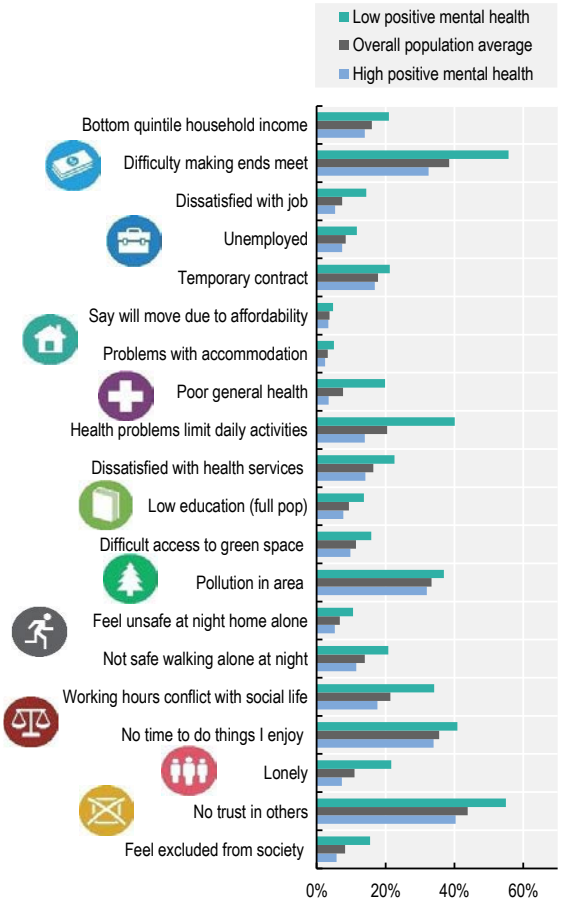
Microdata analysis for European OECD countries shows that, regardless of whether considering risk for mental distress (Figure 1.2, Panel A), or low levels of positive mental health (Panel B) – people with worse mental health outcomes fare far worse in every domain of the OECD Well-being Framework. For instance, compared to the general population, those at risk of mental distress are nearly twice as likely to be at the bottom of the income distribution, to be unemployed, or to be dissatisfied with the safety and availability of green spaces in their neighbourhoods. They are also more than twice as likely be unhappy with how they spend their time and to report low trust in other people, and their risk for feeling lonely is more than four times higher. Conversely, protective well-being factors – including being financially secure, being in good physical health, living in a safe and clean-living environment, and having healthy social relationships – can provide resilience against poor mental health outcomes. Multiple regression analysis suggests that each well-being area remains a significant independent protective factor against mental distress even when controlling for other well-being outcomes, a range of demographic factors and country context (i.e., country fixed effects) (Table 1.1).[2]

Figure 1.2. Poor mental health and deprivations in other well-being outcomes go hand-in-hand

Panel A: Well-being deprivations for those at risk for mental distress, those not at risk, and overall population average, OECD 26, 2013 & 2018



Panel B: Well-being deprivations for those at risk for low positive mental health, those with high positive mental health, and overall population average, OECD 24, 2016



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average. Exact question phrasing varies across questionnaires, therefore please reference the *Reader's Guide* for the specifics of question formulation.

Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[18]), (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[19]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

StatLink https://stat.link/8p92lz

Table 1.1. Multiple regression results for protective well-being factors against the risk of mental distress

	Dependent variable: MHI-5 score from 0 (most at risk for mental distress) to 100 (least at risk)										
											All domains
Financially secure (no difficulty making ends meet)	9.57*** (0.58)										3.92*** (0.27)
Employed		4.43*** (0.58)									1.41*** (0.23)
Spend less than 40% of household income on housing costs			6.18*** (0.41)								0.78** (0.34)
Good general health				14.62*** (0.56)							9.12*** (0.44)
High (tertiary and above) education					3.13*** (0.30)						0.04 (0.24)
Live in area free of pollution, grime or other environmental problems caused by traffic or industry						4.46*** (0.39)					1.53*** (0.38)
Live in an area free of crime, violence or vandalism							5.44*** (0.31)				1.78*** (0.16)
Satisfied with time use								11.64*** (0.45)			7.11*** (0.29)
Rarely or never lonely									19.95*** (1.03)		15.54*** (0.95)
Have trust in others										8.31*** (0.37)	3.36*** (0.16)
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country Fixed Effects (FE)	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	333 257	333 257	333 257	333 257	333 257	333 257	333 257	333 257	333 257	333 257	333 257
R^2	0.09	0.05	0.05	0.15	0.04	0.04	0.05	0.11	0.22	0.08	0.34

Note: Controls include sex, age and age-squared. Standard errors are displayed in parentheses and are clustered at the country level. Refer to the *Reader's Guide* for full details of indicator definitions. While high education is not significant in the model with all controls, having only primary education remains a significant predictor of mental distress in an alternative model using well-being risk factors.
Source: OECD calculations based on the 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[18]), (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions.

Identifying co-benefits for mental health and well-being

Building on the evidence of these interlinkages, Chapters 2-4 each conclude with examples of "win-win" policies that can promote better mental health at the same time as supporting better outcomes in other domains of well-being. A short description of these, along with the government agencies that may be involved in their implementation, is shown in Table 1.2. The policy examples draw from existing OECD research where relevant, including the reports covered in Box 1.1, but also pull in external evidence and new examples for previously under-explored areas of intervention, for example, relating to the environment, social connections, work-life balance and civic engagement. Importantly, these are not policy *recommendations* that are ranked in terms of either importance or size of expected impacts. Rather, they serve to provide instructive examples for which evidence (on mental health impacts, or very probable pathways) exists, and to spur further policy action in agencies not necessarily involved in mental health promotion thus far.

Many of the more known practices for such "win-win" policies are in the realm of people's material conditions. For instance, a range of social benefits, including direct monetary schemes – cash transfers, debt relief, pensions – or in-kind social assistance or social insurance schemes – health care, unemployment or workers' compensation benefits, maternity care – that can help recipients escape the cycle of poverty can have a positive impact on mental health outcomes. Despite the positive effects of social benefits, many individuals with mental health conditions do not apply for benefits available to them. While some of this may be due to stigma, a lot is attributable to complex application processes, long and involved eligibility assessments, or falling through the cracks of the system if working in the gig or informal economy. Policy makers can use lessons from behavioural economics to systematically assess social protection programmes to reduce the cognitive burden of accessing them and to build fault tolerance into them. Other examples of policies that several OECD countries have piloted and that have been found to both improve employment outcomes (including likelihood of being employed, productivity, job satisfaction and retention) and mental health include integrating mental health service provision into unemployment services, as well as guidance, regulation and financial incentives to encourage employers to prioritise mental flourishing at work. In the area of housing conditions, *Housing First* policies have shown promise to get those in need into homes right away, without preconditions, not only to diminish homelessness, but also to alleviate symptoms of mental distress.

More recent innovations for mental health promotion that focus on policy areas that have not received as much attention for their links to mental health so far are also featured in this report. For example, social prescribing is an emerging practice in several OECD countries in which health professionals connect patients to non-health-related support provided by community organisations (e.g. debt advice and financial planning workshops, arts and sports activities, walking groups). There is positive evidence that social prescribing can both improve patient (mental) health outcomes, reduce health care usage and costs, and revitalise community organisation infrastructure. Or, the topic of social connections, despite its central importance for mental health and broader well-being, often does not have a dedicated policy home. However, since the onset of COVID-19, several OECD countries have created or are in the process of developing dedicated loneliness strategies. This report also highlights climate change as a significant emerging risk factor for mental health, and among other things argues that disaster preparedness and emergency response systems should be strengthened and include mental health services for survivors, and that mental health costs should be integrated into existing accounting approaches to the non-financial impacts of climate change. Conversely, many climate change mitigation policies, including active transportation, energy-saving measures, community environmental stewardship programmes and green urban infrastructure, have been found to also synergistically improve mental health outcomes. Many other examples of co-benefits in other policy areas can be found throughout this report, as outlined in Table 1.2.

Table 1.2. Overview of policy examples that simultaneously improve aspects of well-being and foster good mental health outcomes

Domain of well-being	Policy intervention	Relevant for agencies responsible for….
Income and wealth (Box 2.1)	Increase access to social assistance programmes, while decreasing the cognitive burden of enrolment	Social policy and service provision, financial departments responsible for debt relief and targeted inflation support measures
	Universal and unconditional schemes to improve quality of life and reduce stigma of social service use	Social policy and service provision
	Increase access to affordable mental health care through new technology and expansion of community services	Health care and social policy
Work and job quality (Box 2.2)	Integrate mental health service provision into unemployment services through Individual Placement and Support (IPS) programmes	Employment promotion, adult and continuing education, health care
	Encourage employers to prioritise mental flourishing at work	Employment and labour, corporate affairs
	Extend social protection schemes to platform workers	Social policy, employment, and labour
Housing (Box 2.3)	Housing First as strategy to tackle homelessness and help alleviate mental distress	Housing and social policy
	Integrate mental health considerations into housing design guidelines	Housing, social policy, healthcare, environment and urban planning
	Create supportive and inclusive neighbourhoods to promote connectedness and psychological well-being	Housing, social policy, health care, sports and culture, environment and urban planning, law enforcement and safety
Physical health (Box 3.1)	Better integrate physical and mental health care	Health care
Healthy behaviours and human capital (Box 3.1)	Encourage physical activity to promote good mental health	Health care, sports and culture, education, employment and labour, environment, urban planning, transport
Knowledge and skills (Box 3.2)	Promote school-based interventions for mental health prevention and promotion	Education, health care
	Incorporate social and emotional learning into curricula	Education, sports and culture
Educational attainment and human capital (Box 3.2)	Promote life-long learning	Education, including adult and continuing education, sports and culture, employment
Environmental quality (Box 3.3)	Expand options to engage in ecotherapy and green social prescribing	Health care, environment and conservation, urban planning, conservation
	Increase access to and availability of green spaces	Urban planning, environment, transport, sports and culture
Climate change and natural capital (Box 3.3)	Strengthen response to climate disasters and foster resilience	Emergency response, health care, social policy, environment, housing, urban planning
	Highlight the mental health costs of climate change, and the benefits of climate action, in environmental accounting and cost-benefit analyses	Budgeting, health care, environment, urban planning, transport, housing, social policy
Safety (Box 4.1)	Improve neighborhood safety and resulting time-space inequalities (variation in the ability to use the neighborhood space fully and at all times for mental health protecting activities such as sport and socialising)	Urban planning, transport law enforcement, social policy, healthcare, environment
	Address intimate partner violence and improve support for survivors	Law enforcement, justice, social policy, health care, statistics, education
	Tackle the roots of discrimination and racism	Justice, health care, education, employment and labour
Work-life balance (Box 4.2)	Promote work-life balance for all groups	Employment and labour, corporate conduct, transport, urban design
	Reduce the unpaid work gender gap	Employment and labour, taxation, family policy, social policy
	Recognise the value of unpaid work	Statistics, economy, social policy,

		education
Social connections and social capital (Box 4.3)	Make improving social connectedness an explicit policy priority	Central government target setting, social policy, local development
	Expand support for existing social connection interventions, for example, into existing community and government service structures (e.g. social prescribing) or by increasing opportunities for social contact (e.g. creating public civic and green spaces)	Urban planning, health care, social policy, housing, education, sports and culture
	Strengthen the evidence base on effective and scalable interventions for different population groups	Social policy, healthcare, family and youth policy, sports and culture, education
Civic engagement (Box 4.4)	Ease participation and representation in politics of those with lived experience of mental ill-health	(Civic) education, parliaments, voting and participation
	Address political stress, or concerns about polarisation, as an emerging mental health risk factor	Health care, education, sports and culture, urban planning

Note: For more in-depth explorations of each topic area, with detailed references, refer to the policy boxes found throughout Chapters 2, 3 and 4. An extended, more detailed version of this overview table can be found in the accompanying StatLink below.

StatLink https://stat.link/n30q27

Taking a well-being approach to mental health policy design

Successful implementation of such win-win policies needs to be supported by a broader ecosystem that provides the resources, incentives and working arrangements that enable all relevant stakeholders to contribute to the shared goal of tackling the determinants of mental health upstream. The final chapter of this report illustrates some of the challenges and opportunities associated with integrated approaches to mental health policy through a series of case studies of mental health initiatives across the OECD. In doing so, the chapter applies the characteristics of well-being policy approaches more generally to mental health.[3]

The nine case studies considered in Chapter 5 come from different countries across the OECD and include overarching mental health strategies, agencies focusing on mental health system oversight, or specific programmatic activities.[4] Their experiences provide a useful set of preliminary insights into the different elements of policy ecosystems that can help realise well-being and mental health co-benefits, and in doing so, enlarge the evidence base on good practices in coordinated mental health policy design. General themes emerge, showing how in taking a well-being approach countries have been shifting policy practices and are trying to realign mental health action across government agencies; redesign policy formulation to address the joint determinants of mental health; refocus efforts towards the promotion of positive mental health; and reconnect with societal stakeholders beyond government, including those with lived experience, youth, civil society and research institutions (Table 1.3).

Table 1.3. How are countries realigning, redesigning, refocusing and reconnecting for better mental health outcomes?

Insights from selected mental health initiatives, per the key characteristics of well-being approaches

	Realign: Whole-of-government Approach	Redesign: Well-being determinants for prevention	Refocus: Emphasis on positive mental health	Reconnect: Building broad partnerships
Goal	Involve collaborations across multiple government departments	Policy content reflects the (joint) social, economic, environmental and relational determinants of mental health	Address both deprivations in mental health and promote human flourishing	Collaborate with people with lived experience, communities and non-governmental actors
Case study insights	● Broader multidimensional frameworks can provide the mandate for agencies to contribute to common goals ● Implementation plans that address intersectoral collaboration, alongside performance evaluation metrics, can concretely support delivery ● Successful cross-sectoral collaboration requires sufficient resources (e.g. time and financing), but can facilitate participation and relationship building ● Independent oversight agencies and funding schemes for broader well-being activities at the local level represent new models for realigning	● Each of the case studies promote some examples of interventions that target outcomes beyond mental health, in addition to those outlined in Chapters 2-4 of the report ● Mental health and broader well-being impact assessments can help agencies think about the impacts of their policies, but need to be designed in a user-friendly manner	● Publishing data on positive mental health can help to put it on the agenda ● Strategies and funding mechanisms are increasingly explicitly targeting mental health promotion	● The majority of mental health strategies have a participatory element, and ideally this continues beyond the planning stage ● Knowledge brokering is an essential part of reconnecting ● The depth of partnerships matters for impact

Source: Refer to Chapter 5 for further details.

Several cross-cutting lessons across these insights are noteworthy: first, explicitly defining mental health goals (i.e. what it is that should be improved, and who can contribute) can help different agencies and stakeholders to focus their actions. Examples of this in practice include using multidimensional frameworks to inform mental health plans and to point out interlinkages with other sectors; formulating concrete implementation plans; or defining and monitoring positive mental health. Second, intersectoral collaboration, partnership building and knowledge brokering – be it between different government agencies, different levels of government or when supporting community actors – take resources, including time, to do well. In several of the case studies, there was a conscious move away from short-term project cycles to multi-year processes, in order to allow for relationships to form and management capacity to be built and to give space for experimentation with programme design. Third, strategic grant making by a public health agency seems to be a promising approach for allocating funds for activities that target (mental) health determinants upstream, including into areas not traditionally under the remit of the health sector. And, lastly, provisions for impact evaluations should be integrated into programme design from the beginning. Close cooperation with academia, as has already been started in several of the featured initiatives, could be a promising avenue. Going forward, the approach of examining country efforts around realigning, redesigning, refocusing and reconnecting could be extended beyond the small sample of nine case studies to all OECD countries and both to the area of population mental health improvement and to other policy areas that can benefit from a coordinated well-being approach.

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Notes

[1] Previous and ongoing examples of OECD work that apply the OECD Well-Being Framework to specific policy areas include the well-being impacts of the COVID-19 pandemic (OECD, 2021[6]), the built environment (OECD, forthcoming[23]), action on climate change (OECD, 2019[22]), transport strategies for net-zero (OECD, 2022[21]) and the opportunities and risks of the digital age (OECD, 2019[20]).

[2] Since the relationship between the mental health outcomes and the various well-being outcomes shown in this table is bidirectional, the regression coefficients shown in this table should not be interpreted as causal due to endogeneity. Chapters 2-4 of this report hence rely on a literature review that focuses on causal methods, as well as further analysis using a cross-lagged panel model to better understand some of the relationships. Refer to the *Reader's* Guide for further details on the cross-lagged panel model.

[3] The OECD has previously summarised well-being policy approaches in terms of four "Rs": *realigning* policy practice across government silos, *redesigning* policy content from a more multidimensional

perspective, *refocusing* policies towards the outcomes that matter most to people and *reconnecting* people with the public institutions that serve them (OECD, 2021[6]).

[4] The case studies cover the Act Belong Commit Programme (Australia, Denmark, Faroe Islands, Finland, Norway), the Western Australian Mental Wellbeing Guide, the Mental Health Promotion Innovation Fund and the Positive Mental Health Surveillance Indicator Framework in Canada, Finland's National Mental Health Strategy and Programme for Suicide Prevention 2020-30, New Zealand's Mental Health and Wellbeing Commission (*Te Hiringa Mahara*), the Programme for Public Health Work in Municipalities in Norway, Sweden's upcoming National Policy for Mental Health and Suicide Prevention, and the Public Service Boards in Wales.

2. Risk and resilience factors for mental health and well-being: Material conditions

People's mental health and the material conditions that shape their lives and livelihoods today and into the future – in particular income, debt, macro-economic shocks; work and job quality; and housing – are intricately linked. Poor material conditions lead to the onset or worsening of mental health outcomes, while at the same time, those experiencing mental ill-health are more likely to suffer worse financial, labour market and housing outcomes. Policy interventions that can simultaneously improve mental health and move people out of poverty include: increasing the affordability and ease-of-access to a range of social services; better integrating mental health and employment services; and providing public housing that meets the needs of those experiencing mental ill-health.

Income and wealth, work and job quality, as well as housing and neighbourhood amenities make up the material conditions that shape households' well-being. Each of these well-being dimensions is influenced by, and in turn influences, mental health outcomes. Deprivations in material conditions can lead to worsening mental health and the development of specific conditions, such as anxiety and/or depression, while policy interventions to support financial, employment and housing resilience can bolster positive mental health and lead to improved outcomes for those with psychological symptoms. It is not just people's current material conditions that matter: systemic aspects of economic capital – which include macroeconomic phenomena such as income inequality, aggregate levels of household and public debt, business cycles and inflation – also directly influence population mental health.

2.1. Income, wealth and broader macroeconomic conditions

Low income and poor mental health often co-occur. OECD research has shown that, across member countries, people with severe mental health conditions are 83% *more likely* to live in low-income households than would be expected if those with mental health challenges were evenly placed across the income distribution. Conversely, those without a condition are 12% *less likely* (OECD, 2021[1]). Systematic reviews have shown that people with the lowest incomes are 1.5 to 3 times as likely to report symptoms of depression, anxiety or other common mental health conditions, as compared to those with the highest incomes (Ridley et al., 2020[2]; Lund et al., 2018[3]). Income poverty is also associated with higher rates of deaths of despair.[1] Suicide attempts are more common in low-income households (Sareen et al., 2011[4]). In the United States and Australia, low-income individuals are more likely to use opioids, and in the United States the risk for opioid overdose is significantly higher for individuals who are diagnosed with depression and have been prescribed opioids (OECD, 2019[5]); overdose deaths are also more heavily concentrated in poor areas (Kneebone and Allart, 2017[6]).

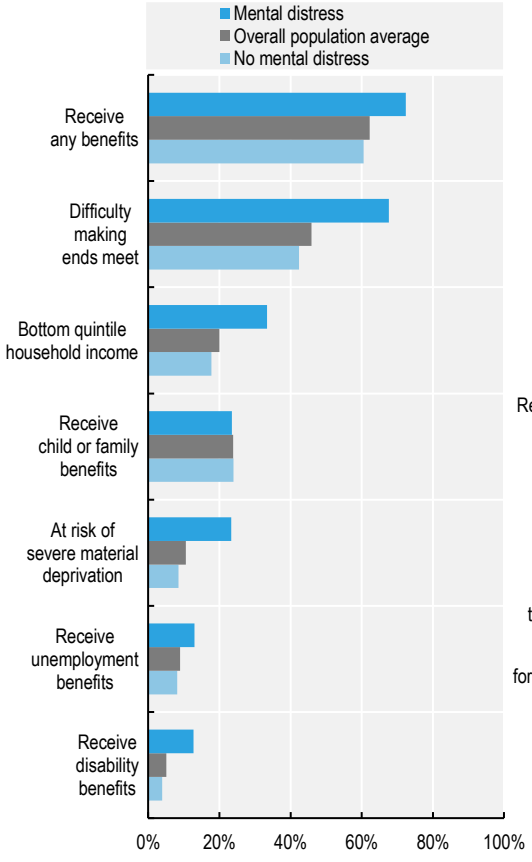
In addition to determining what people can afford today, having a sufficient disposable income helps to smooth consumption and build future wealth, which then allows for long-term investment in economic and human capital (e.g. in property, education and health). It also functions as a backstop against future unforeseen events (e.g. accidents, illness, unemployment) and can act as a safeguard against some of the risk factors for poor mental health. At the same time, poor mental health can hinder one's ability to shore up financial resources to invest in the future. A society's broader macroeconomic circumstances, which affect the sustainability of economic well-being, set the conditions for people to thrive and feel mentally well. It is important for policy makers interested in improving mental health via these channels to keep in mind that income, wealth and the macroeconomic environment are directly amenable to policy intervention, for instance, via taxation, social services and monetary policies (Box 2.1).

Both mental ill-health and positive mental health are strongly associated with income and wealth outcomes (Figure 2.1). Generally speaking, people at risk for poor mental health are more likely to experience lower income and wealth outcomes, compared to those not at risk. The relative gaps between those at risk for poor mental health and those not at risk (whether using mental distress (Panel A) or low levels of positive mental health (Panel B) as the mental health outcome measure of interest) are largest for people receiving disability payments, i.e. those who are unable to work due to health problems. This is perhaps unsurprising, given that these individuals suffer from the confluence of both health (mental and physical) and material deprivations. Large gaps also exist when considering financial constraints (being at risk for material deprivation, having difficulty making ends meet) and being in debt (those with worse mental health are twice as likely to report being in arrears for various expenses).

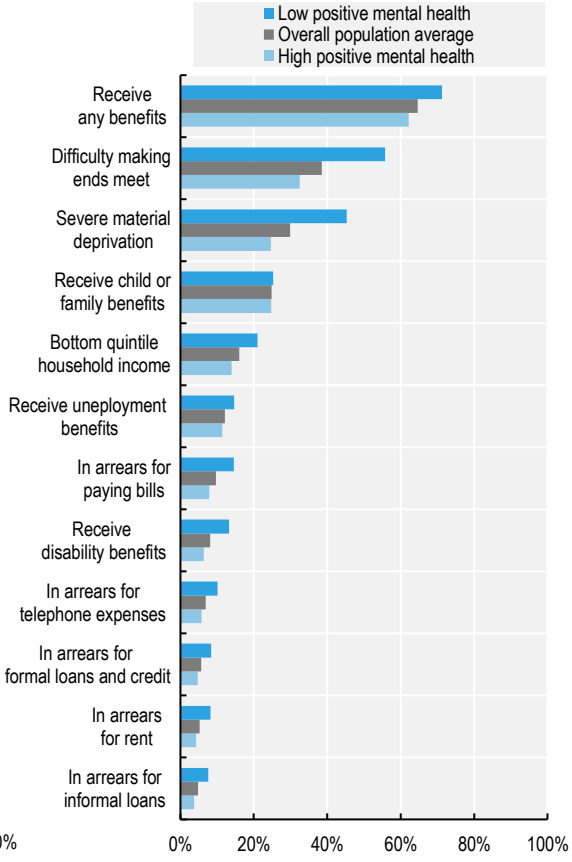
In the case of low vs. high levels of positive mental health (Panel B), there are distinct gaps when measuring the share of people who fall in the bottom quintile of the income distribution. However, these gaps are smaller than those for perceived financial instability: this suggests that the absolute level of income matters less for a person's positive mental health than one's perceived ability to get by. For mental ill-health (Panel A), the opposite is true: relative gaps in mental distress are larger for low household income than for reported difficulties in making ends meet.

Figure 2.1. Both mental ill-health and positive mental health are closely related to income and wealth status

Panel A: Share of those with a range of income and wealth deprivations, by those at risk for mental distress, those not, and the overall population, OECD 26, 2018



Panel B: Share of those with a range of income and wealth deprivations, by those at risk for low positive mental health, those with high positive mental health, and the overall population, OECD 24, 2016



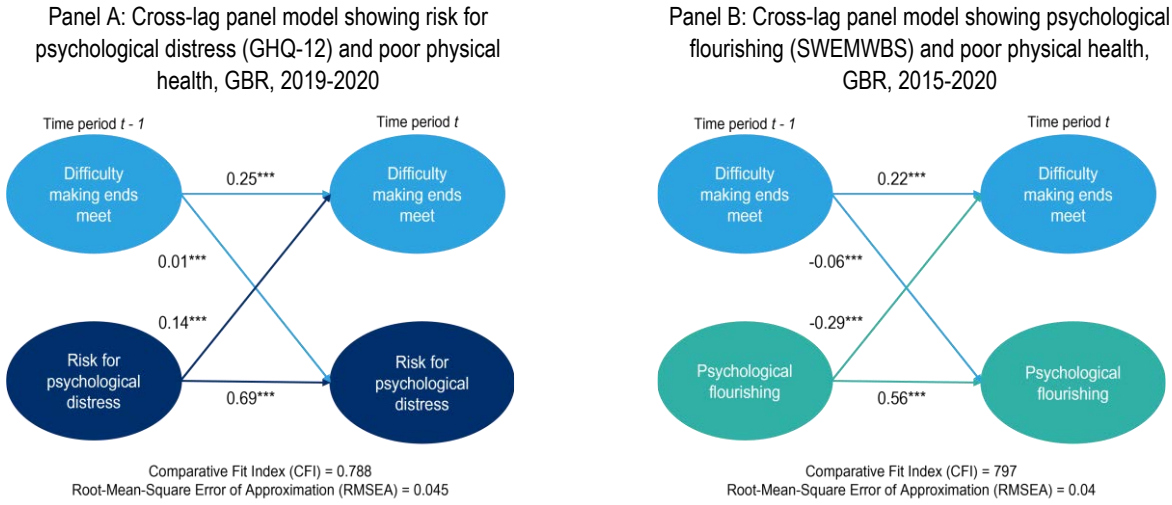
Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.

Source: Panel A: OECD calculations based on the 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[7]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[8]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

StatLink https://stat.link/mgyr9o

The mechanisms underpinning these associations are complex, and move in both directions, often simultaneously. Using data from the United Kingdom, the bidirectional relationship between income and mental health is illustrated in the cross-lagged panel model below (Figure 2.2). Cross-lagged panel models are useful to illustrate how the causal relationship between two variables – here, mental health outcomes and experiencing difficulty making ends meet – moves in both directions simultaneously. As is shown here, the impacts of mental health on financial insecurity are significant in both directions; however, the negative impact of previous mental ill-health on current financial insecurity is much larger than the impact of previous financial insecurity on current mental ill-health.

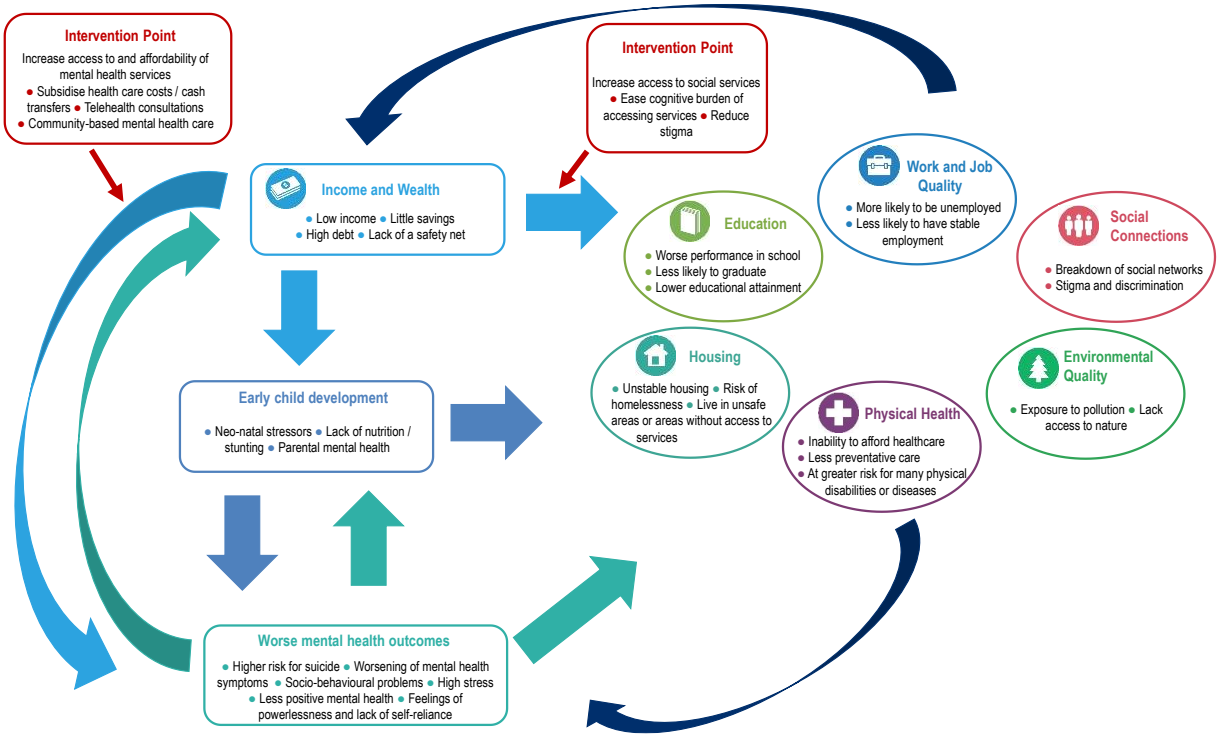
Figure 2.2. Previous experience of poor mental health is a predictor for current financial precarity – and vice versa, though not as strongly



Note: The model is adjusted for the following time-invariant covariates: age, sex, education, ethnicity, urban/rural. Coefficients are standardised. Difficulty making ends meet is defined as those reporting they are finding it "very difficult" or "quite difficult" to manage financially. The data included come from waves 9 and 10 (Panel A) and waves 7 and 10 (Panel B) of the UKHLS survey; the waves are different across panels due to data limitations. GHQ-12 measures psychological distress on a scale from 0 (least distressed) to 12 (most distressed). SWEMWBS measures positive mental health, ranging from 9.5 as low psychological well-being to 35 as mental flourishing. All analyses were performed using Mplus and the R "MplusAutomation" package. More details on the models can be found in the *Reader's Guide*.
Source: University of Essex (2022[9]), *Understanding Society: Waves 1-11, 2009-2020 and Harmonised BHPS: Waves 1-18, 1991-2009. [data collection].*, 5th Edition. UK Data Service., https://www.understandingsociety.ac.uk/.

The two-way relationship between income poverty and mental health is often described as a cyclical vicious circle: worse mental health inhibits one's ability to shore up financial resources or find employment opportunities, while at the same time the chronic stress and instability of monetary poverty can lead to the onset or perpetuation of mental disorders (WHO, 2014[10]; WHO, 2022[11]; Clark and Wenham, 2022[12]). Each process exacerbates the other, worsening outcomes across all dimensions of well-being. These mechanisms are described in Figure 2.3 below, and in more detail in the following sections, along with possible intervention points to break the cycle between material deprivation and mental ill-health. Interventions include breaking down barriers to the access of mental health care services by increasing affordability and expanding the types of services available and making social service systems more user-friendly to encourage up-take (Box 2.1).

Figure 2.3. The relationship between low income and mental health outcomes is cyclical



Note: A stylised depiction of the cyclical relationship between poverty, well-being deprivations and poor mental health outcomes. Potential policy interventions are noted in red.

Poor mental health makes it harder to escape from monetary poverty

Mental health can influence income both directly and indirectly, as the presence of specific conditions inhibits one's ability to shore up financial resilience and tempers educational attainment and labour market participation, lowering lifetime earnings. A national cohort study in Finland found that being diagnosed with a mental health disorder[2] between the ages of 15 and 25 is associated with significantly lower earnings and income over the subsequent three decades, primarily as a result of lower education and greater likelihood of experiencing unemployment (Hakulinen et al., 2019[13]). Research in the United States suggests that people with serious mental illnesses earn around USD 16 000 less than their peers with no such conditions, totalling more than USD 190 million for society as a whole over a 12-month period, primarily due to worse employment outcomes (e.g. higher likelihood of unemployment and lower earnings when employed) (Kessler et al., 2008[14]). Workers with mental health conditions are more likely to have higher rates of absence and to be less productive while on the job (OECD, 2021[1]) (see also Section 2.2 on work and job quality), in part because of increased fatigue, an inability to concentrate and less motivation (Ridley et al., 2020[2]).

The cognitive and behavioural changes stemming from mental illnesses can themselves impact earnings potential, beyond poor job performance. Poverty in and of itself can lead to deficiencies in cognitive functioning: research has shown that cognitive performance declines in times of more acute income poverty, which researchers theorise is due to the fact that the mental resources needed to deal with poverty concerns lead to less brain space for other tasks (Mani et al., 2013[15]). These issues can compound for those experiencing both poverty and mental health conditions. Those with mental ill-health may be more likely to avoid making active choices, to excessively ruminate over options or to avoid risk-taking (Gotlib and Joormann, 2010[16]) – all of which may lead to their ending up with lower income and worse economic outcomes. These cognitive impacts make quotidian choices and activities mentally taxing, and potentially

paralysing for those with mental health conditions (Ridley et al., 2020[2]), which then perpetuates the cycle of poverty. Policies designed to target, or to include, those with poor mental health need to account for diminished cognitive functioning, for example by decreasing the cognitive burden of signing up for social benefits (Box 2.1).

Just like poverty itself, poor mental health can lead to social isolation, as a result of the stigma and discrimination surrounding a range of conditions (Pescosolido et al., 2013[17]). Those with mental ill-health may be excluded from social networks: in addition to loneliness and social isolation leading to the worsening of existing symptoms (see Chapter 4), the breakdown in social connections can mean less access to informal networks that provide employment and earnings opportunities (Ridley et al., 2020[2]). There can be more direct impacts on employment and income (Sharac et al., 2010[18]). For example, a study in New Zealand found that job seekers reported losing out on job offers after disclosing their mental health history to prospective employers; hired individuals felt discriminated against in the workplace by colleagues; and those seeking loans reported discrimination from financial institutions, in the form of rejected applications for mortgages or insurance policies or being charged higher fees or premiums (Peterson et al., 2007[19]).

Experiencing mental illness also has direct financial implications in terms of out-of-pocket health expenditures: not only directly, through the need for mental health care, but also because mental illnesses often co-occur with other physical health conditions that necessitate treatment (Scott et al., 2016[20]). Conversely, access to treatment can both alleviate symptoms of a mental disorder as well as improve material outcomes. Indeed, a systematic review of 39 clinical trials conducted in lower- and middle-income countries found that pharmacological and/or psychosocial treatment interventions can improve patients' economic outcomes, too (Lund et al., 2018[3]) (see Box 2.1 for policy interventions that can increase access to and affordability of treatment).

Income declines, monetary poverty and debt can cause a deterioration in mental health outcomes

The causal relationship moves in the other direction as well, with falls in income leading to worsened mental health. Income declines can lead to an increased risk for the onset of mental disorders, including a range of incident mood disorders, anxiety and substance use (Sareen et al., 2011[4]). Evidence from Great Britain found that, over a seven-year period, income reductions were associated with an increased risk for symptoms of depression, primarily due to financial strain and its associated stress (Lorant et al., 2007[21]). In severe cases, financial shocks can lead to suicide: a natural experiment in Indonesia found that a reduction in agricultural output and income due to excessive rainfall led to increased rates of depression and suicide (Christian, Hensel and Roth, 2019[22]).[3] This relationship between poverty and an elevated risk for suicide has been observed in a number of countries (Bantjes et al., 2016[23]), particularly in the aftermath of negative economic shocks, including recessions and unemployment (Haw et al., 2015[24]).

The impacts of income status and income changes are most acute for the most socio-economically disadvantaged: those earning lower incomes are less able to access health-promoting goods and services and are less able to maintain a feeling of control or security over their lives (Thomson et al., 2022[25]). Low-income households were particularly hard-hit by the COVID-19 pandemic, in that they were more likely to lose their jobs, suffer financial difficulties and suffer health risks – both increased exposure to the virus, and worse outcomes, including death, once contracting it. This helps to explain why symptoms of depression and anxiety, which were higher in general in 2020, were especially so among those experiencing financial difficulties, across OECD countries (OECD, 2021[26]).

It is not just the objective fact of lost income that hurts mental health; perceived economic insecurity can be detrimental to a range of mental health outcomes (Stiglitz, Fitoussi and Durand, 2019[27]). Evidence from panel datasets in the United Kingdom, Canada and Australia has shown the strong links between economic insecurity and mental distress (Rohde et al., 2016[28]; Watson and Osberg, 2017[29]). Work from

Eurostat shows that an inability to cover unexpected costs leads to significant declines in positive mental health, even after controlling for a range of objective measures, including income and employment status (Eurostat, 2016[30]; Stiglitz, Fitoussi and Durand, 2019[27]). Research has found links between food insecurity and risk for depression, stress and anxiety (Pourmotabbed et al., 2020[31]; ESRC Centre for Society and Mental Health, 2022[32]), in part due to the shame associated with needing to use food banks and having to ask for assistance (Pollard, 2022[33]). Fuel poverty is also linked to lowered life satisfaction (Davillas, Burlinson and Liu, 2022[34]; ESRC Centre for Society and Mental Health, 2022[32]). Furthermore, findings from the United Kingdom show that that fear or stress over the possibility of future risks to economic security can lead to even greater declines in mental health than actual instances of volatility in ones' economic circumstances (Kopasker, Montagna and Bender, 2018[35]).

Debt is a particularly strong predictor for poor mental health outcomes (ESRC Centre for Society and Mental Health, 2022[32]). A systematic review of 65 studies reports a significant positive relationship between debt and a range of mental health conditions, including depression, substance use (alcohol, drug use) and suicidal ideation (Richardson, Elliott and Roberts, 2013[36]). Another systematic review finds a strong relationship between unpaid financial obligations and heightened risk for depression and suicidal ideation (Turunen and Hiilamo, 2014[37]). The risk increases with the amount of debt: even after adjusting for income and other socio-demographic characteristics, the likelihood of developing a mental health condition increases with the size of one's debt (Jenkins et al., 2008[38]; Meltzer et al., 2013[39]). This is due mainly to the chronic worry and stress associated with debt and financial obligations, which leads to deteriorating mental health, the onset of specific disorders and an increased risk of substance use (smoking, alcohol consumption, drug use) to self-medicate (Richardson, Elliott and Roberts, 2013[36]).

Conversely, income increases can lead to better mental health (Thomson et al., 2022[25]; Shields-Zeeman and Smit, 2022[40]). An experimental study in the United States found that income injections – in the form of casino profits – to households in American Indian reservations were associated with reductions in anxiety (Wolfe et al., 2012[41]). The effect of income increases seems to be largest when individuals move out of poverty (Thomson et al., 2022[25]). For example, increases in social security payments have been shown to decrease depressive symptoms for elderly women in low-income households (Golberstein, 2015[42]). In the context of COVID-19, swift government interventions – such as direct cash transfers and the extension of social benefits – helped to sustain OECD average household income levels, which likely prevented even further deteriorations in mental health (OECD, 2021[26]). While income injections can improve mental health, research has consistently shown that the effects of income shocks on mental health are asymmetric. That is, a fall in income will result in a greater deterioration in mental health than a rise in income of the same value will improve mental health: this is true for both mental ill-health and positive mental health (Thomson et al., 2022[25]; Clark, d'Ambrosio and Zhu, 2020[43]; Boyce et al., 2018[44]). This suggests limits to the efficacy of government intervention once an income loss has already occurred, and it shows the importance of building resilience to prevent income losses from happening in the first place.

Monetary poverty impacts a range of other well-being dimensions beyond those to do with material conditions – such as social connections, environmental quality and safety – which can themselves impact mental health (Figure 2.3) (Public Health England and UCL Institute of Health Equity, 2017[45]). For example, the stress and social marginalisation of poverty can lead to a breakdown in social networks, social isolation and loneliness, which can themselves trigger depression (Walker, 2014[46]). Furthermore, individuals experiencing monetary poverty are more likely to be exposed to crime, experience trauma, and feel unsafe or insecure in their homes, all of which can harm mental health (Ridley et al., 2020[2]) (see also Chapter 4).

Experiencing the adverse effects of poverty in early childhood is particularly detrimental to long-term cognitive development and mental health (OECD, 2021[47]; Ridley et al., 2020[2]). These relationships begin in utero: the mental health of the mother can impact the foetus, with mothers experiencing higher levels of mental distress leading to a higher likelihood of birthing infants who exhibit behavioural problems later in childhood (OECD, 2021[47]). One study found in-utero exposure to maternal stress, measured as the

mother experiencing the death of a close relative while pregnant, led to an increased likelihood of the usage of behavioural medication (e.g. to treat ADHD) during childhood, and anti-anxiety medication and antidepressants in adulthood (Persson et al., 2018[48]). More particular to poverty, research has established a link between brain development and the stressors of living in a low-income environment as an infant and young child. The exposure to chronic stressors including loud noises, chaotic living environments, exposure to interpersonal conflicts among family members and physical violence combine and can contribute to cognitive, emotional and behavioural delays (Blair and Raver, 2016[49]). Given how formative the early years are, maternal health care and early childhood interventions are among the most effective for long-term positive outcomes (Box 2.1).

While the relationship between low income and mental health is well established, there are diminishing returns to positive mental health as one's income increases. Studies of lottery winners have shown that positive income shocks lead to increases in life satisfaction (Boarini et al., 2012[50]; Gardner and Oswald, 2006[51]; Oswald and Winkelmann, 2019[52]), however, there is a limit to the extent to which income can improve mental health. The well-known Easterlin Paradox shows that, at a national cross-sectional level, higher GDP is associated with higher life satisfaction; however, when looking at trends over time, rising GDP does not lead to a concurrent rise in life satisfaction (Easterlin, 1974[53]). Life satisfaction is particularly sensitive to an individual's *relative* position in the income distribution – that is, it is not the level of income received and/or lost that affects life satisfaction so much as one's movement around a given reference point, as defined by the income and wealth of an individual's family, friends and community members (Clark and Senik, 2010[54]; Boarini et al., 2012[50])

Broader macro-economic circumstances can directly impact mental health

On a broader societal level, it is not just levels but also the *distribution* of income that can influence mental health. OECD research has shown that the public cares about inequality: four out of five adults believe that income inequality in their country is too great, and inequality has been steadily growing over the past three decades (OECD, 2021[55]). This distaste for inequality can, however, move beyond just a statement of preferences, and lead to an increased societal prevalence of mental health conditions. A systematic review of 26 studies found a significant positive relationship between income inequality at a country level and the population prevalence of depression (Patel et al., 2018[56]). A similar review pointed to a positive relationship between income inequality and the prevalence of common mental ill-health conditions, especially depression (Ribeiro et al., 2017[57]).[4] Countries with high income inequality may also be at risk for higher incidence rates of more severe mental health disorders, such as schizophrenia (Burns, Tomita and Kapadia, 2014[58]). The causal mechanisms are theorised to be a combination of the psychological stress brought about by inequality, anxiety relating to one's relative socio-economic status, and the erosion of social capital in highly unequal societies, which results in the deterioration of trust and social networks (Patel et al., 2018[56]; Delhey and Dragolov, 2014[59]).

The booms and busts of the business cycle, and the economic uncertainty this brings, also matter for population mental (ill-)health. Periods of economic recession have been associated with a higher prevalence of mental health problems, including mental disorders and suicidal ideation (Frasquilho et al., 2016[60]). Evidence suggests a pro-cyclical relationship between the business cycle, psychological well-being and suicides, largely due to spikes in unemployment, economic uncertainty and identity disturbance (Chang and Chen, 2017[61]; Godinic, Obrenovic and Khudaykulov, 2020[62]; Claveria, 2022[63]). The relationship to suicide is also apparent when measuring economic conditions through changes in aggregate consumption (Korhonen, Puhakka and Viren, 2017[64]). A 2020 report on material insecurity and mental distress in the United Kingdom found that the two are closely linked, with those lacking savings much more likely to experience a range of anxiety-related symptoms (Clark and Wenham, 2022[12]).[5]

Life satisfaction has been shown conclusively to be negatively correlated with macroeconomic shock factors such as declining (or negative) real GDP growth, falling employment rates and inflation (Welsch

and Kühling, 2015[65]; Gonza and Burger, 2017[66]; Dolan, Peasgood and White, 2008[67]). As at the individual level, such impacts are asymmetric: that is, the loss in life satisfaction engendered by a given decline in real GDP per capita will be much greater than the gain that would be brought about by an identical increase (Beja, 2017[68]; De Neve et al., 2018[69]). Volatility in the credit cycle and stock market shows similar negative impacts on individual happiness (Li, Zhong and Xu, 2020[70]; Tonzer, 2017[71]). The larger relative impact of negative shocks, coupled with general distaste for volatility, underscore the importance of stable, even if lower, economic growth for population mental health.

Interest rates and inflation impact mental health, which provides a lever for policy makers to target population mental health interventions. When Central Bank interest rates rise, there is a heightened risk of psychiatric morbidity among those with a high debt burden (Boyce et al., 2018[44]). Conversely, inflation can reduce the real value of a debt; however, inflation is not typically associated with better mental health outcomes, but rather with lowered life satisfaction (Dolan, Peasgood and White, 2008[67]), and the declines are highly heterogeneous, depending on where one is on the income distribution (Prati, 2022[72]). Following the financial and labour market disruptions caused by the COVID-19 pandemic, and the Russian invasion of Ukraine, inflation has risen dramatically across OECD countries: in June 2022, inflation had risen to 10.3% on average, which marked the highest price increase since June 1988 (OECD, 2022[73]). This inflation has led to a fall in real household income (OECD, 2022[73]). When inflation is high, poorer households are the most vulnerable to declines in purchasing power and feel the impact of rising prices most acutely (The Economist, 2022[74]). Inflation has also directly impacted mental health through rising stress and anxiety. A July 2022 poll in the United States found that almost 90% of Americans felt anxious about rising levels of inflation (American Psychiatric Association, 2022[75]; Citroner, 2022[76]). In the United Kingdom between May and June of the same year, 77% of adults reported feeling worried about rising prices; this survey also showed that worry over inflation was correlated with higher levels of anxiety (What Works Wellbeing, 2022[77]). This is a global phenomenon: a June 2022 Ipsos poll across 27 countries found that inflation was the number one global concern, for the third month in a row (Ipsos, 2022[78]). To help alleviate the burden of inflation on the vulnerable, the OECD has recommended short-term, targeted fiscal policies. For example, to help households cover higher energy prices, means-tested transfers to those in need can be used – to last only for the duration of price pressures – rather than untargeted tax breaks on energy or price controls, which can have high fiscal costs (OECD, 2022[79]).

Box 2.1. Policy focus: Income and wealth interventions that also improve mental health outcomes

Increasing access to social assistance programmes while decreasing the cognitive burden of enrolment

In 2015, the OECD Council adopted the *OECD Recommendation of the Council on Integrated Mental Health, Skills and Work Policy*; a framework that sets out policy guidelines to prioritise and develop a whole-of-government approach to improving outcomes for individuals experiencing mental ill-health. The Recommendation calls for integrating health, education, employment and social service efforts to better address mental ill-health. Between one-third and one-half of social benefit recipients have experienced a mental health condition; for those receiving benefits in the long-term, the share is even higher (OECD, 2021[1]). Therefore, social benefits and social protection schemes are a key policy lever for addressing mental health, and indeed the bulk of the studies included in systematic reviews of the relationship between mental health and income – and the positive mental impacts of leaving poverty – look at welfare policies as the primary mechanism for improving mental health (Thomson et al., 2022[25]).

A range of social benefits, including direct monetary schemes – cash transfers, debt relief, pensions – or in-kind social assistance or social insurance schemes – health care, unemployment or workers' compensation benefits, maternity care – that can help recipients escape the cycle of poverty can have a positive impact on mental health outcomes (WHO, 2022[11]). A few specific examples with proven benefits for mental health, which have already been implemented in some OECD member states, include the following:

- *Unconditional cash transfers* can improve a range of quality-of-life indicators (see subsection below) (WHO, 2022[11]).
- *Breathing Space* is a debt management initiative launched by the Treasury in England and Wales whereby debtors who are receiving mental health crisis treatment can request respite from creditor action (lasting as long as the crisis treatment, plus 30 days) (Gov.UK, 2021[80]).
- *Maternity leave benefits* can improve maternal mental health in both the short- and long-term, with the reduction in the risk for later-in-life depressive symptoms for the mother rising in line with the generosity of the policy (defined as a combination of length of leave and the percentage of past wages that are replaced while on maternity leave) (Avendano et al., 2015[81]). Improved maternal health during pregnancy also has long-term positive impacts on the child's physical and mental health (OECD, 2021[47]; Ridley et al., 2020[2]).

Despite the positive effects of social benefits, many individuals with mental health conditions do not apply for, or take advantage of, the benefits available to them. While some of this may be due to stigma, a lot is attributable to bureaucratic red tape: complex application processes, long and involved eligibility assessments, or falling through the cracks of the system if working in the gig or informal economy (WHO, 2022[11]). These psychological barriers – termed "sludge" (as in, the opposite of a behaviour nudge) – can significantly inhibit access to services (Thaler, 2018[82]). Policy makers can use lessons from behavioural economics to systematically assess social protection programmes to reduce the cognitive burden of accessing them and to build fault tolerance into them. Examples include cutting cognitive costs, including burdens on time and attention, by providing assistance in filling out forms or designing smarter defaults and planning prompts; creating flexibility by leaving room for error (i.e. not overly penalising an individual for incorrectly filling out a form or missing a deadline); providing regular and timely reminders to reduce the likelihood of absence or delay due to forgetfulness; and reframing processes to empower users (Daminger et al., 2015[83]; Mani et al., 2013[15]). One practical example of this is automatic enrolment in pension schemes: when switching to an opt-out (as opposed to opt-in)

model, researchers found that employees with mental health conditions were more likely to participate (Arulsamy and Delaney, 2020[84]).

Universal and unconditional schemes to improve quality of life and reduce the stigma of social service use

Universal programmes – which are meant for the population as a whole, rather than a targeted sub-set – can be useful in reducing the stigma attached to social service use. Universal Basic Income (UBI) schemes are one such example of this type of programme. UBI is an umbrella term for programmes that provide recipients with a regular cash transfer, without any preconditions or requirements: i.e. recipients do not need to submit to drug testing, to be actively employed or seeking employment or to use the funds for any specific purchase. The idea is to provide people with ownership over their own financial decisions, with the assumption that they themselves are best placed to make economic decisions for their households. UBIs are distinct from unconditional cash transfers, in that they are designed for the population, rather than for a specific sub-set.

While UBIs contain the word "universal" in their name, in practice existing research has focused on pilot programmes that are only implemented in a segment of the population – typically low-income households, sometimes randomly selected as a part of a research study – and often as top-ups to existing benefits that, even when summed together, are still insufficient as a sole means of income. Multiple OECD countries have implemented some form of UBI programme, with varying transfer amounts and degrees of integration into existing benefit schemes.

Unconditional cash transfers – which, as discussed above, are similar in some respects to UBIs but are targeted to specific recipients, rather than implemented universally – can benefit a range of well-being outcomes. Such schemes have been consistently shown to decrease poverty and increase educational attainment (Hasdell, 2020[85]) – which, as this chapter and the next show, are intricately related to mental health outcomes. In terms of mental health in particular, some studies show that such programmes can lead to a decrease in hospitalisation for mental health-related reasons (Marinescu, 2018[86]), reduce the risk of psychological distress, stress, anxiety and worry, and boost self-esteem and happiness (Owusu-Addo, Renzaho and Smith, 2018[87]; Samuel, 2019[88]). However, other evidence suggests that unconditional cash transfers can increase the risk of worse mental health, as people feel socially stigmatised for participating (Hasdell, 2020[85]). Conversely, if everyone is included, there is less of a sense of being singled out (Hoynes and Rothstein, 2019[89]). This suggests that universality is an important component of UBIs that should be examined further, especially when considering mental health as an important outcome of interest.

Some degree of caution is warranted when considering the overall economic effects of UBIs. Researchers, including at the OECD, have warned that truly universal UBI schemes may have unintended negative consequences, in that the tax increases required to adequately fund them could lead to significant income redistribution by directing much larger shares of transfers to childless, non-elderly, non-disabled households than existing programmes, and more to middle-income rather than poor households, resulting in greater overall poverty (OECD, 2017[90]; Hoynes and Rothstein, 2019[89]). If UBIs prove to be untenable, future research could focus on the efficacy of unconditional cash transfers targeted to specific populations in need – in this case, low-income households in which some or all household members may be dealing with physical and mental health challenges – coupled with campaigns to combat stigma.

Increasing access to mental health care through new technology and expansion of community services

Affordability remains one of the primary reasons for which many who need mental health care services are unable to access them. Even before the COVID-19 pandemic – which has only increased demand

for services – 67% of working-age adults in OECD countries with mental distress who wanted mental health care reported having difficulties accessing it (OECD, 2021[91]).

One potential avenue for reducing strain on the system is through the use of telehealth solutions and online counselling. OECD research has found that telemedicine can be an effective way to improve mental health outcomes: cognitive behavioural therapy conducted remotely has been found to be equally as effective as face-to-face treatment for conditions such as obsessive-compulsive disorder, insomnia and excessive consumption of alcohol, as well as in reducing the symptoms of depression and anxiety (Oliveira Hashiguchi, 2020[92]). Remote therapy, especially for those with mild or moderate symptoms, can be more cost-effective than in-person treatment (OECD, 2021[1]). Many OECD member states introduced telehealth options for mental health care during the pandemic when in-patient services were disrupted by the influx of COVID-19 patients. These programmes were created as a stop-gap emergency measure, so more work needs to be done to integrate them into existing health care systems (OECD, 2021[1]), as, pre-pandemic, many insurance systems would not reimburse telehealth expenses (Oliveira Hashiguchi, 2020[92]).

Telehealth is unlikely to be appropriate in all cases, and therefore greater resilience must be built into mental health care systems to increase capacity and flexibility, while simultaneously reducing costs. The World Health Organization advocates for a system of "community-based care", in which individuals receive treatment or counselling outside of psychiatric hospitals: for example, in a primary care clinic, via a social service office or in a local community mental health centre. Community-based care models have been shown to be a less costly approach to mental health care (OECD, 2021[91]). Furthermore, not only does this approach expand access by providing more physical locations where treatment is available, individuals are able to remain in their own homes and communities and maintain their social support networks. Community-based care can also help to reduce the stigma surrounding mental illness by keeping mental health service users in the community, rather than segregating them. It has also been shown to improve overall quality-of-life outcomes (WHO, 2022[11]). All OECD countries have either already transitioned to a community-based care model or have identified the shift as a policy priority. However, some are further along in the transition than others, and in some places significant barriers remain: for example, the need for structural changes to insurance and fee schedules, and stigma towards mental ill-health (OECD, 2021[91]). Integrating community concerns into mental health care, and having the buy-in of community leaders, can be especially important in building psychological resilience in the population (see Box 3.3 for a discussion of how this plays out in the context of climate change).

For additional policy examples in the area of income and wealth, including improving benefits systems to make them more accessible to people with mental ill-health, see *Fit Mind, Fit Job* (OECD, 2015[93]).

2.2. Work and job quality

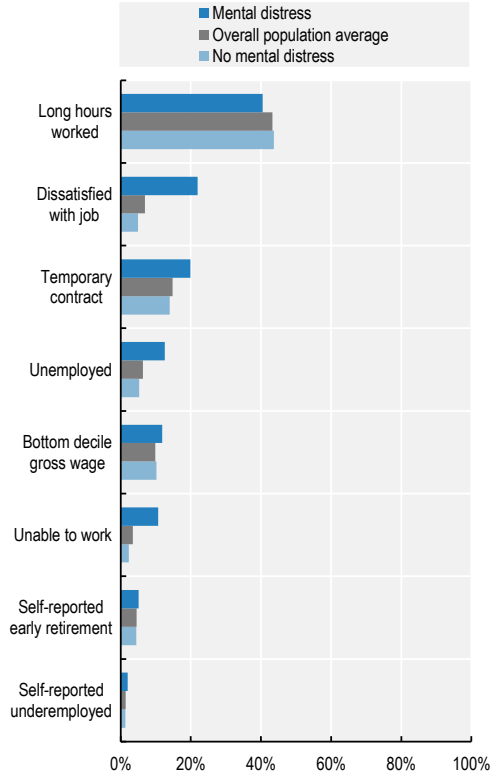
Mental health is linked to a range of labour market outcomes, including both the quantity and quality of jobs. Those with a mental health condition are less likely to be employed, and when they are, are more likely to earn less and collect more working-age social benefits. Previous OECD work has estimated that the costs of poor mental health can be as high as 4% of GDP, when accounting for lowered productivity, higher absences, and increased spending on social services and health care (OECD, 2021[1]). These findings led to the adoption of the 2015 *Recommendation of the Council on Integrated Mental Health,* which promotes a "mental-health-in-all-policies" approach to better integrate mental health services in education, workplace and social service systems (Box 2.2).

The relationship between poor mental health and worse labour market outcomes is illustrated in Figure 2.4. When measuring employment deprivations, the largest relative gaps between those with better and worse

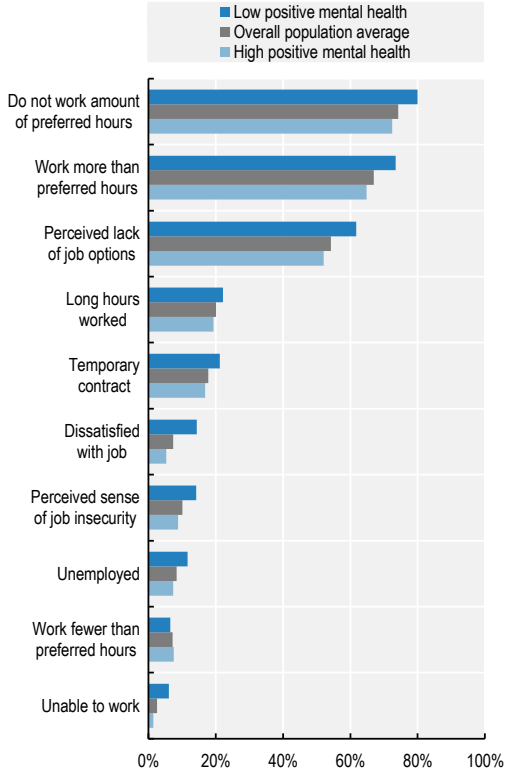
mental health outcomes are for being unable to work due to a permanent disability; those with poor mental health outcomes are also much more likely to report being unemployed, feel insecure in their employment or have a temporary contract. The relative gaps are smaller when looking at wages and earnings: for example, 12% of those at risk for mental distress report earnings in the bottom decile of the survey sample, compared to 10% of those not at risk. This suggests that looking at earnings only is insufficient to understand the relationship between work and mental health: poor working conditions, and unstable contracts, are more likely to be negatively related to mental health outcomes.

Figure 2.4. Worse mental health outcomes are associated with greater likelihood of being unemployed or on disability or of being employed in lower quality jobs

Panel A: Share of those with a range of employment deprivations, by those at risk for mental distress, those not, and the overall population, OECD 26, 2018



Panel B: Share of those with a range of employment deprivations, by those at risk for low positive mental health, those with high positive mental health, and the overall population, OECD 24, 2016



Note: The figure displays findings for the working-age population only (ages 15 to 64). For employment quality indicators (hours worked, satisfaction with job, wage levels, contract type, etc.), the sample is restricted to those who report being engaged in full-time or part-time paid work. In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.

Source: Panel A: OECD calculations based on the 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[7]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[8]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

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Unemployment worsens both mental ill-health and life satisfaction

Unemployment can lead to the onset of specific mental health conditions, or the worsening of pre-existing symptoms. Systematic reviews have shown that those who are unemployed – especially those who are unemployed for a long period of time – are more likely to develop depression and anxiety disorders (OECD, 2021[1]; McGee and Thompson, 2019[94]; Paul and Moser, 2009[95]) and have mortality rates 1.6 times higher than the employed (Herbig, Dragano and Angerer, 2013[96]). Research from the United States found that when county-level unemployment rates increased by one percentage point, emergency department visits for opioid overdoses increased by 7% and fatalities from opioid overdoses by 3.6% (Hollingsworth et al., 2017[97]).

Unemployment – and the financial instability it brings – is a stressful situation, and prolonged stress has been shown to negatively impact mental health (Wilson and Finch, 2020[98]). Losing one's job can lead to lower self-esteem and greater feelings of helplessness, which social psychologists have demonstrated lead to anxiety and self-doubt, and eventually, depression (Diette et al., 2012[99]). Some studies have shown that better-educated employees who find themselves unemployed are particularly at risk for these negative emotions (Goldsmith and Diette, 2012[100]). Evidence shows that these feelings compound, and for this reason, prolonged unemployment can be worse for mental health than shorter periods of job loss (Wilson and Finch, 2020[98]; Goldsmith and Diette, 2012[100]). In addition to the psychological burden of unemployment, it also entails a loss of earnings, which can hurt financially and lead to debt, which in turn negatively impacts mental health (refer to the previous section). These negative impacts can persist over the life course: a number of studies have found that youth unemployment is associated with poor mental health (nervous and depressive symptoms, sleeping problems) later in life (Strandh et al., 2014[101]).

A study in Sweden examining the negative impact of unemployment found that the gaps in mental distress between the employed and unemployed could be partially explained by a lack of economic and social resources among the latter group (Brydsten, Hammarström and San Sebastian, 2018[102]).[6] There is evidence that social services can help to mitigate these negative effects: a meta-analysis found that the negative mental health impacts of unemployment were lower in countries with more developed unemployment protection systems (Paul and Moser, 2009[95])

There is some evidence suggesting that the causal relationship is true in the opposite direction as well, with individuals experiencing severe mental health conditions being more likely to find themselves unemployed. A longitudinal study in the United States found that young people who experienced severe mental distress earlier in their lives were 32% more likely to be unemployed over the subsequent decade (Egan, Daly and Delaney, 2016[103]). A separate study in Sweden showed that the presence of mental ill-health at age 18 for males born between 1950 and 1970 predicted a higher likelihood of being unemployed in 2003: alcohol and drug dependence in adolescence had the strongest effect (Lundborg, Nilsson and Rooth, 2014[104]).

Unlike mental ill-health, the causal relationship between life satisfaction and unemployment appears to move in one direction (Boarini et al., 2012[50]). There is a considerable literature showing that unemployment leads to significant drops in life satisfaction, which persist even when controlling for loss of income (OECD, 2013[105]; Boarini et al., 2012[50]; Arampatzi et al., 2019[106]).[7] This likely reflects the causal mechanisms seen in the relationship between mental health conditions and unemployment described above: losing one's job leads to feelings of low self-esteem and helplessness, independent of income loss. The negative effects of unemployment can spill over to the next generation: a cross-sectional study of young children across North America, Europe and the Middle East found that parental unemployment was associated with significant drops in children's life satisfaction (Hansen and Stutzer, 2022[107]).

Institutional policies can safeguard individuals against blows to their well-being in times of crisis. Preliminary evidence has shown that countries with higher unemployment replacement rates and stronger employment protection policies experienced greater life satisfaction during and immediately following the

2007-08 Great Financial Crisis (Boarini et al., 2012[50]). For instance, Iceland experienced significant negative macroeconomic shocks during the crisis yet saw little change in aggregate life satisfaction. This was likely because the country's unemployment benefits and policies are relatively generous and provided people with a sense of stability, purpose and community involvement, all of which tempered the negative effects of unemployment (Gudmundsdottir, 2013[108]).

In addition, the impact of unemployment on life satisfaction can be context-dependent. Unemployment's effects on an individual's life satisfaction are closely linked to one's peer reference group. A study using German data found that national aggregate unemployment has a small negative effect on life satisfaction for those who are *employed*, but no negative effects for those who are themselves *unemployed*. This is likely because in the context of wide-scale unemployment one feels less isolated or stigmatised by one's lack of employment (Clark, Knabe and Rätzel, 2008[109]).

While employment can serve as a resilience factor for mental health, the type and quality of employment matter

Being employed can be a protective factor against mental health conditions. Systematic reviews have found that employment is associated with better physical health, better overall mental health and lower likelihood of having depression (Van Der Noordt et al., 2014[110]). Re-entering the workforce can lead to improved mental and physical health, with stronger impacts for the more highly educated (Schuring, Robroek and Burdorf, 2017[111]).

However, being employed is not in itself a sufficient safeguard for mental health, and the quality of the job matters – while "good" jobs can be protective, "bad" jobs are associated with worse mental health outcomes (Grzywacz and Dooley, 2003[112]).[8] Those with mental ill-health are more likely to earn less, and work fewer hours than those who are not at risk for mental distress. Within the OECD employed population, individuals with mental health conditions earn on average 83% of what an individual without a mental health condition does; workers with mental health conditions are also more likely to work part-time (OECD, 2021[1]). These outcomes are not necessarily deprivations – someone with a mental health condition may choose to work fewer hours, or choose a lower paying job, to minimise work stress and have a healthier work-life balance to better handle their symptoms (OECD, 2021[1]). In fact, the OECD recommends flexible return-to-work models for individuals who have been absent due to a mental health condition, enabling employees to work shorter hours as they re-integrate themselves into the labour market. While a number of countries have introduced some form of part-time return options, there is still work to be done to better implement these programmes and expand access to them (OECD, 2021[1]; 2021[91]).

However, when part-time or temporary contracts are not the result of a deliberate choice, they can contribute to worse physical and mental health outcomes (Virtanen et al., 2005[113]), including lowered positive mental health (OECD, 2013[105]). Temporary work can be associated with depression and fatigue if the position is perceived as having poor working conditions (e.g. a noisy working environment, lack of support, compensation or lack thereof for overtime hours, lack of job training) or lacking stability (Hünefeld, Gerstenberg and Hüffmeier, 2019[114]). Workers in the gig economy, who are often piecing together income from a variety of low-paying tasks across platforms, are at risk for greater mental distress, primarily due to financial insecurity (Glavin and Schieman, 2022[115]; Gross, Musgrave and Janciute, 2018[116]) (Box 2.2). Job instability has been linked to a range of mental health conditions, including a heightened risk for suicide (Min et al., 2015[117]). Furthermore, suicide risk is higher for lower-skilled workers (Milner et al., 2013[118]) – those with mental ill-health are more likely to have lower levels of education and come from lower-income households, and thus make up a larger proportion of the low-skilled worker population. When considering positive mental health, the experience of job insecurity or labour market risk for those already employed exhibits a greater impact on life satisfaction than does the experience of actual unemployment (Clark, Knabe and Rätzel, 2008[109]).

Beyond job stability, employment in a position with low psychosocial job quality can lead to worse mental health. A national longitudinal study in Australia found that young people entering these types of jobs – characterised by lack of control, little support from co-workers or managers, high demands and complexity, job insecurity and unfair pay – saw significant declines in their mental health. Conversely, improved psychosocial job quality can promote mental health (Milner, Krnjacki and LaMontagne, 2017[119]). A separate study in Canada found similar patterns, with psychosocial work stressors associated with the likelihood of employee burnout, stress and cognitive strain (Shahidi et al., 2021[120]).

The relationship can move in the opposite direction, in that people experiencing mental ill-health are less productive at work, which can then lead to worse labour market outcomes. People experiencing mental ill-health symptoms may take more time off as a result of their condition (absenteeism), or they may be less efficient in completing tasks while at work (presenteeism) (OECD, 2021[1]). Evidence shows that employees with conditions such as depression or anxiety have poorer work performance (Plaisier et al., 2010[121]). For example, employees with depression may struggle to manage their time and have poorer interpersonal skills and less of an ability to complete physical tasks – all of which contribute to presenteeism (OECD, 2021[1]; Adler et al., 2006[122]). Mental health trainings in the workplace can teach managers how to help employees manage presenteeism by developing tailored work plans to manage workload and reduce stress (OECD, 2021[1]) (Box 2.2).

Box 2.2. Policy focus: Work and job quality interventions that also improve mental health outcomes

The 2015 *OECD Recommendation of the Council on Integrated Mental Health, Skills and Work Policy* reaffirmed OECD member states' commitment to a multi-sectoral, integrated approach to mental health care. Subsequent OECD publications, including *Fitter Minds, Fitter Jobs: From Awareness to Change in Integrated Mental Health, Skills and Work Policies* (2021[1]) and *A New Benchmark for Mental Health Systems: Tackling the Social and Economic Costs of Mental Ill-health* (2021[91]) have outlined what countries are doing in terms of implementing integrated approaches and have set policy recommendations for how to better integrate employment and mental health systems, among others. The first two policy examples below are discussed in greater detail in (OECD, 2021[1]) and (OECD, 2021[91]).

Integrating mental health service provision into unemployment services through Individual Placement and Support (IPS) programmes

One way of integrating services across employment and health sectors is the Individual Placement and Support (IPS) programme. IPS, which is the programme with the greatest evidence base to date, has been piloted by eight OECD countries so far (OECD, 2021[91]).[1] It uses a multidisciplinary team – including both employment and mental health specialists – to work with jobseekers to find employment and provide the support they need to develop the skills and training to remain in the job. IPS differs from other models of employment support in that those with mental health conditions enter employment directly and are immediately supported by the programme as they begin to work; they are not given a separate vocational training prior to entering the labour market, which can lead to segregation and less effective job retention outcomes (Metcalfe, Drake and Bond, 2018[123]). IPS has been found to be more effective than prevocational training at assisting those with mental health conditions to obtain jobs and remain in them (Crowther et al., 2001[124]; OECD, 2021[1]).

While IPS has been piloted by a number of OECD member states, only England has included it in a national plan thus far. This may be in part because IPS is resource-intensive – requiring the participation of many specialists across disciplines – which makes national scale-up either very difficult, or

unfeasible. In addition, IPS in its current form focuses primarily on individuals with severe mental ill-health, and misses a segment of the unemployed population who have less severe forms of mental distress but may nevertheless still benefit (OECD, 2021[1]). One way of addressing this is to scale up current forms of IPS to include these individuals. Another avenue is to provide mental health training for existing unemployment service staff. A recent OECD survey found that 16 member states provided mental health training to unemployment staff or counsellors, but of those only one (Korea) indicated that the professionals received "a lot" of training (OECD, 2021[91]).

Encouraging employers to prioritise mental flourishing at work

Since the 2015 recommendations were published, many OECD countries have added measures of psychological distress or stress to national occupational health and safety guidelines. As is outlined in OECD (2021[1]), the policies differ across countries but include:

- Required annual manager-employee "stress checks", which are then linked to health services: i.e. if during such a meeting the employee is deemed to be at risk, they can be referred to a physician (Japan)
- Toolkits for employers, including evaluation instruments and how-to guides, to promote healthy workplaces and minimise psychological distress (Colombia)
- National voluntary guidelines to help employers promote mentally healthy workplaces (Canada).

OECD recommendations for improving general health in the workplace have focused on how governments can encourage employers to develop such schemes by regulation, financial incentives, guidelines and certification and award schemes (OECD, 2022[125]).

Other OECD work has sought to promote mentally healthy workplaces by engaging with businesses directly. Business for Inclusive Growth (B4IG) is a strategic initiative between the OECD and 35 large global corporations. Each member signs a pledge to pursue inclusive growth strategies by, among other things, creating supportive workplaces. Member countries have pledged to promote positive mental health at work by reducing stigma and actively supporting employee mental well-being through training and empowerment workshops, access to counselling services and self-directed learning experiences, among others (OECD, 2020[126]).

In 2022, the World Health Organization and the International Labour Organisation jointly published recommendations for best practices to prevent mental ill-health and promote good mental health in the workplace. The publication highlights a number of concrete policy recommendations, based on an extensive evidence-based literature review, tailored to different levels of interventions: organisation-level (e.g. contract type, workload, flexible working conditions), manager-level (e.g. mental health training), employee-level (e.g. mental health training, mental health awareness and literacy) and individual-level (e.g. stress management, physical health promotion, etc.) (WHO, 2022[127]).

Extending social protection schemes to platform workers

A growing number of individuals in OECD countries – up to 3% of the labour force – are a part of the gig economy, earning income by performing services relating to transport, delivery or household chores via digital labour platforms (Lane, 2020[128]). Platform work is considered a form of self-employment; therefore, these workers are typically not eligible for most social protection policies. The COVID-19 pandemic shone a spotlight on these vulnerabilities. Platform workers often performed essential services and thus had to continue working throughout the pandemic, often without sufficient Personal Protective Equipment. They also experienced significant income losses, either because of a lowered demand for certain types of gig work (e.g. transport) or because of an inability to work after having been

exposed to the virus (OECD, 2020[129]). The stress and instability of gig economy work can lead to worsened mental health even in non-COVID times; the global pandemic compounded these risks.

Realising the vulnerability of these workers, many OECD country governments enacted emergency measures to ensure that gig economy workers could also benefit from cash transfers and unemployment benefits; however, many of these interventions were temporary. Governments should maintain this momentum moving forward, to strengthen occupational safety and health regulations for platform workers and to extend social protection schemes – including unemployment, maternity/paternity, health or pension benefits (Lane, 2020[128]). This will not only provide stability in gig economy workers' financial and labour market outcomes but will also indirectly improve their mental health outcomes as well.

For additional policy examples in the area of work and job quality – including fostering employment-oriented mental health care systems, preventing workplace stress, improving mental health training and support structures at work, and managing return-to-work policies for those with mental health conditions – see *Fit Mind, Fit Job* (OECD, 2015[93]).

Note: 1. Countries include: Australia, Denmark, Ireland, Italy, the Netherlands, Norway, New Zealand and the United Kingdom (England only).

2.3. Housing and neighbourhoods

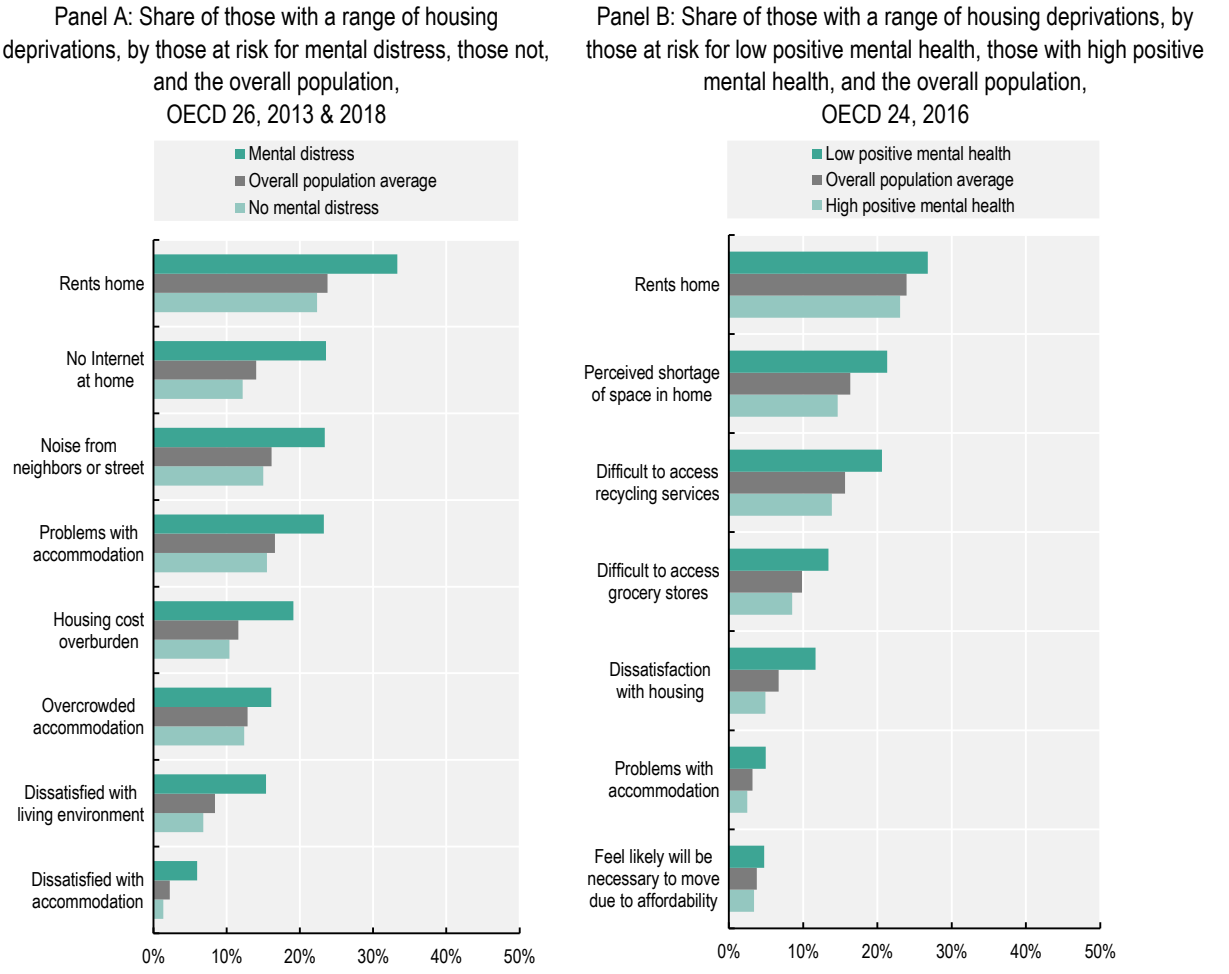
Housing provides residents with shelter, safety and privacy. Housing is the basis of a stable and secure life, but it entails more than a mere physical structure: housing includes the neighbourhoods and communities in which people live and the amenities to which they have access. Adequate and affordable housing has been recognised as a human right since 1948 (United Nations, 2022[130]), and it is existentially important in order for people to live well and feel well – both physically and mentally. Mental health outcomes are deeply entwined with both people's ability to procure housing, as well as the quality of the housing and neighbourhood in which they live (Figure 2.5).

Figure 2.5. The key tenets of housing and neighbourhoods as they relate to mental health

Note: Adapted from (HSE, 2012[131]), refer to Table 1.
Source: HSE (2012[131]), *Addressing the Housing Needs of People using Mental Health Services*, Health Service Executive, https://www.hse.ie/eng/services/publications/mentalhealth/housingdocument.pdf.

Figure 2.6 illustrates the relationship between mental health outcomes and a series of housing deprivations.[9] For all housing characteristics, those at risk for mental distress (Panel A) or with low levels of positive mental health (Panel B) are more likely to report experiencing deprivations. The largest relative gaps in outcomes between those at risk for poor mental health and those not at risk are apparent when it comes to subjective indicators of housing deprivation: being dissatisfied with one's accommodation and being dissatisfied with one's living environment. However, these are closely followed by gaps in objective housing quality conditions: living in a structure with damp, rot or mould; living in a noisy or polluted area; or living in an area where it is difficult to access services such as grocery stores.

Figure 2.6. Those with worse mental health are more likely to report problems of unaffordable housing or poor-quality housing and dissatisfaction with living space



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.

Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[7]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[8]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

StatLink https://stat.link/5b10qg

Mental health conditions can increase the likelihood of becoming homeless, while the stress of homelessness can worsen mental health outcomes

There is a strong link between homelessness and mental ill-health. Getting accurate estimates of the prevalence of homelessness is challenging, due to differences in definitions and data collection methodology; however, recent estimates suggest that around 2.1 million people are homeless across OECD countries for which data are available (OECD, 2021[26]). Conducting surveys of the homeless population presents a number of challenges, but the efforts undertaken within individual OECD countries yield an alarmingly high prevalence of mental health conditions: up to 67% of the homeless population in Madrid had some form of mental health condition (Vázquez, Muñoz and Sanz, 1997[132]); 70% in Melbourne had some type of lifetime diagnosis (Herrman et al., 1989[133]); around 60% in Denmark had a registered psychiatric disorder; while between 35% and 50% had a substance abuse diagnosis (Nielsen et al., 2011[134]). In almost all cases, substance use – especially alcohol – conditions are most common (Schreiter et al., 2017[135]). Rates of schizophrenia and personality disorders are also significantly higher in the homeless population than in the general population (Koegel, Burnam and Farr, 1988[136]; Ayano, Tesfaw and Shumet, 2019[137]). In the United States, in areas where data are captured, the homeless die deaths of despair at significantly higher rates: in Los Angeles County, the homeless are 35 times more likely than the general population to die from drug or alcohol overdoses and eight times more likely to die from suicide (Fuller, 2022[138]), and across four states,[10] the homeless have an elevated risk of opioid overdose as compared to low-income individuals in housing (1.8% compared to only 0.3%) (Yamamoto et al., 2019[139]).

A history of mental health conditions – including depressive episodes, psychiatric problems, substance use and previous suicide attempts – have been shown to increase the risk of homelessness (Nilsson, Nordentoft and Hjorthøj, 2019[140]; Moschion and van Ours, 2022[141]). Adverse childhood experiences including exposure to violence, abuse and family instability, can lead to socio-emotional difficulties, mental distress and an increased risk of homelessness (Sullivan, Burnam and Koegel, 2000[142]; Liu et al., 2021[143]). Traumatic incidents in childhood can also fragment family structures, leading to decreased social support and social networks, which in turn hurts education and employment prospects (Liu et al., 2021[143]). It is usually not the existence of a mental health condition on its own that leads to homelessness, but rather the confluence of mental ill-health and a range of other risk factors, including poverty, low education and poor physical health (refer to Section 2.1, and Chapters 3 and 4) (Sullivan, Burnam and Koegel, 2000[142]).

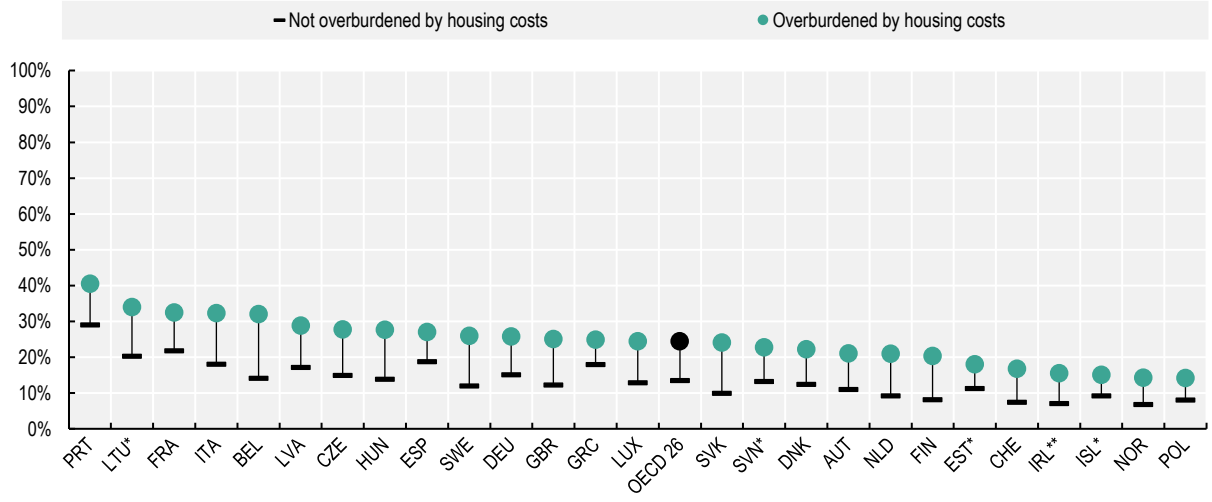
However, some evidence suggests the relationship moves in both directions: the experience of homelessness can also lead to the onset of mental health conditions, or the worsening of existing symptoms. In terms of direct pathways, those experiencing homelessness are less able to access services to treat pre-existing mental health conditions, which can lead to further deterioration of mental health (OECD, 2015[144]). Indirectly, homelessness is an inherently stressful and unstable experience, and research shows that the prolonged experience of elevated stress levels can lead to anxiety and depression (Hammen et al., 2009[145]; Jay Turner and Beiser, 1990[146]; Zhang et al., 2015[147]). Additionally, individuals who are homeless are more likely to experience direct stressors such as violence and assault, the trauma of which can increase the likelihood of developing a mental health condition (Riley et al., 2020[148]; Meinbresse et al., 2014[149]) (see also Chapter 4 for a discussion of how safety and violence impact mental health outcomes). A study conducted in the United States found that previous experience of homelessness was associated with higher levels of substance use, a higher likelihood of having some form of psychiatric distress, and lower self-reported likelihood of recovery from a mental illness (Castellow, Kloos and Townley, 2015[150]). The negative impacts of homelessness on mental health are not unique to adults: a meta-analysis of twelve studies in the United States found that homeless school-age children were two to four times more likely to have mental health conditions requiring clinical evaluations than were non-homeless, poor children (Bassuk, Richard and Tsertsvadze, 2015[151]). Conversely, a study in Australia found that previous experience of homelessness had no effect on the likelihood of experiencing future depressive episodes; however, among men, homelessness did lead to an increased likelihood of anxiety disorders (Moschion and van Ours, 2022[141]).

Housing unaffordability and instability are significant drivers of severe mental health conditions

Even for those who are able to secure accommodation, unaffordable housing and the instability of housing tenure can negatively influence mental health. As Section 2.1 showed, poverty and indebtedness can trigger or worsen pre-existing mental health symptoms: housing debt in particular can influence mental health as negatively as marital breakdown or job loss (Taylor, Pevalin and Todd, 2007[152]). In 26 European OECD countries, 24% of those overburdened by housing costs (defined as spending at least 40% of household income on housing) are at risk for mental distress, compared to only 14% who spend less (Figure 2.7). Both those who rent and those who own their own homes can suffer the risks of housing unaffordability. Mortgage delinquency is associated with an increased likelihood of developing depressive symptoms (Alley et al., 2011[153]), and losing one's home through foreclosure is associated with an increased likelihood of experienced symptoms of major depressive disorder and generalised anxiety disorder (Mclaughlin et al., 2012[154]).

Figure 2.7. People spending more than 40% of household income on housing face a higher risk of mental distress

Share of the population at risk for mental distress, OECD 26, 2018



Note: The figure compares the mental health outcomes of those who are overburdened by housing costs (using the OECD definition of those who spend more than 40% of their household income on housing costs) and those who are not. ** indicates there are between 100 and 299 observations per country/category; * indicates there are between 300 and 499 observations. Countries in which categories have fewer than 100 observations are dropped from the figure.

Source: OECD calculations based on the 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[7]), (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions.

StatLink https://stat.link/vjb82d

Housing tenure – whether one owns or rents – can also affect both mental ill-health and positive mental health. Evidence from Australia shows that, for those in the lower 40% of the income distribution, renters experienced declines in mental health in the face of unaffordable housing, whereas owners facing similar levels of unaffordability saw no significant changes (Mason et al., 2013[155]).[11] In the United Kingdom, renters reported higher rates of distress across a range of mental health indicators[12] as compared to home owners (Clark and Wenham, 2022[12]). In terms of positive mental health, studies across a number of OECD countries have found that owning a home is associated with improved life satisfaction – especially for lower-income households (Zumbro, 2014[156]; Ruprah, 2010[157]; Stillman and Liang, 2011[158]). The improved mental health outcomes of home ownership may be due to higher levels of resilience to financial

shocks and higher net wealth or to some degree of social prestige associated with owning one's home, or may simply be due to socio-economic compositional differences in the sample of renters vs. homeowners (Mason et al., 2013[155]). The first channel can be addressed through measures to make housing more affordable, so that renters are also able to weather negative financial shocks and feel secure that their housing costs will remain at an affordable share of their total gross income.

During the COVID-19 pandemic, governments reacted swiftly to ease the financial burden of housing and prevent evictions and mortgage foreclosures from occurring in the midst of mandatory quarantine and lockdown procedures. Emergency responses included suspending eviction procedures, rent and mortgage forbearance and a moratorium on utility payments. While useful and important in the short-term, in the long-term these policies can have adverse effects on housing prices. For example, rental market restrictions during the pandemic prevented renters in vulnerable homes from losing housing at a time when they may have lost income or job opportunities. However in the long-run, these restrictions can prevent residential mobility, which depresses investment in housing, decreases the housing supply and eventually leads to higher housing prices (OECD, 2020[159]).

OECD research has focused on the need to improve the affordability of housing, and it has highlighted three key policy recommendations that governments can implement to put deflationary pressure on housing prices (OECD, 2021[160]):

1. Remove mortgage relief interest: makes home ownership less financially desirable compared to renting, which can help to lower house prices and potentially lessen the social prestige attached to ownership in certain markets.
2. Decentralise land-use decision-making processes: enables greater flexibility and responsiveness to fluctuations in demand, which can reduce housing prices significantly.
3. Ease rental market regulations: allows for greater investment in, and supply of, housing stock, in areas with more flexible land-use regulation, which can then keep housing prices proportionate to incomes.

The conditions of people's residential space are important for their mental health

Mental health is not only associated with the presence or absence of housing: poor quality housing is associated with worse mental health outcomes. A review of multiple research studies finds that overall housing quality (metrics include structural condition, maintenance, upkeep) is related to psychological well-being (Evans, Wells and Moch, 2003[161]). Poor quality housing can lead to concerns about safety (e.g. fire hazards) and sanitation (e.g. garbage and waste removal), which can lead to higher stress and anxiety. Living in an overcrowded dwelling, with little privacy or personal space, can also negatively impact mental health (Guite, Clark and Ackrill, 2006[162]). The lockdowns associated with COVID-19 highlighted the importance of housing quality and exacerbated the negative psychological impacts of the pandemic for those living in cramped, low-quality settings (OECD, 2021[26]). A European cross-country study found that overcrowding, lack of access to outdoor facilities and living alone contributed to higher levels of loneliness, anxiety and lower life satisfaction (Keller et al., 2022[163]). Similarly, survey data from Italy collected during the first COVID-19 lockdown period show that, regardless of housing size, the poor quality of indoor housing is associated with moderate to severe symptoms of depression (Morganti et al., 2022[164]).

Children and infants are particularly vulnerable to living in poor quality housing. A large-scale programme in Mexico to replace dirt floors with cement floors found that the programme was associated with significant improvements in children's health (less diarrhoea, parasitic infections and anaemia and increased cognitive functioning); this in part explains the finding that adults reported greater satisfaction with housing and lowered rates of stress and depression (Cattaneo et al., 2009[165]). Similarly, children who are exposed to significant amounts of lead at a young age, such as lead paint or contaminated drinking water, may suffer from a range of physical abnormalities and cognitive deficiencies, including: colic, anaemia, central

nervous system problems, shortened attention span, increased proclivity to disruptive behaviour, and reduced intelligence (Bellinger, Stiles and Needleman, 1992[166]; Nilsson, 2009[167]; WHO, 2010[168]).

The relationship between housing and positive mental health is less well studied, but the evidence that does exist suggests that higher-quality accommodation is associated with greater satisfaction with housing and, in turn, overall satisfaction with life (Boarini et al., 2012[50]). A study in the United Kingdom found that excessive noise in the neighbourhood, and living in a dwelling that is damp, has rot, poor lighting and no garden access, and is subject to vandalism are all predictors of lower life satisfaction (Fujiwara and HACT, 2013[169]).

The conditions of people's residential space are important for their mental health

The social and physical context in which housing is located may affect its impacts on mental health. Results from a lottery experiment in the United States show that families living in public housing who were randomly selected to be relocated to middle-class suburban neighbourhoods showed more improvements in their mental health, as compared to families who were relocated to similar quality houses in low-income neighbourhoods (Katz, Kling and Liebman, 2001[170]). The researchers speculate that a primary mechanism for this outcome is that the new housing was located in safer neighbourhoods. Indeed, there is ample evidence showing that living in unsafe areas, with high levels of violent crime and/or vandalism, is associated with higher levels of mental ill-health and lower levels of life satisfaction (Guite, Clark and Ackrill, 2006[162]; Fujiwara and HACT, 2013[169]) (see also Chapter 4 in the section on safety). Living in neighbourhoods with ample access to green spaces – including gardens and parks – is also associated with better mental health (Guite, Clark and Ackrill, 2006[162]) (see also Chapter 3 for an extended discussion on environmental quality and mental health).

Neighbourhoods and housing units are also important venues for social interaction; living in areas that promote social exclusion and isolation can lead to worsened mental health. This may be particularly true for residents of high-rise buildings that do not have communal areas; lack of play areas for young children can negatively affect the mental health of stay-at-home mothers who then feel more isolated (Evans, Wells and Moch, 2003[161]). Similarly, parents' perceptions of neighbourhoods being non-supportive is generally associated with a child being diagnosed with a mental disorder.[13] However, the number of reported mental disorders varies substantially with the child's demographic and psychosocial characteristics; disorders are more pronounced for children with adverse experiences or whose parents suffer from poor mental health themselves (Dahal, Swahn and Hayat, 2018[171]).

Neighbourhoods also serve as important information networks. A study using social housing data in Denmark found that exposure to unemployed peers increases an individual's probability of remaining unemployed – and that these effects are stronger for low-skilled, low-educated individuals (Poquillon and Boje-Kovacs, 2018[172]). The reverse is also true: exposure to employed neighbours leads to higher income and greater probability of finding a job. Similar neighbourhood-peer effects for employment outcomes have been found in the United States: children who move to higher income, less segregated neighbourhoods are more likely to be employed as young adults (Chyn, 2018[173]; Clampet-Lundquist and Massey, 2008[174]). Research from France has shown that neighbourhood local effects are a key determinant of unemployment duration in the Paris area (Gobillon, Magnac and Selod, 2011[175]). These findings are important for developing policies to improve mental health given the strong impacts of poverty and labour market outcomes on mental health outcomes (refer to the previous sections of this chapter).

Subjective assessments of housing and neighbourhoods impact positive mental health in particular: it matters both how people perceive their own homes, as well as how their homes are perceived by others. Housing is often seen by residents as a status symbol of who they are and what they have accomplished, and thus the quality and aesthetics of housing and neighbourhoods are directly related to positive mental health (Bond et al., 2012[176]). Housing conditions and neighbourhood quality are both signals to the outside of residents' overall economic and societal situations. Residents of public housing or those residing in impoverished neighbourhoods can feel stigmatised by prospective employers, school authorities and the police (Rosenbaum, Reynolds and Deluca, 2002[177]; Wutich et al., 2014[178]).

Box 2.3. Policy focus: Housing interventions that also improve mental health outcomes

Housing First as a policy to get those in need into homes right away, without preconditions, not only to diminish homelessness, but also to potentially alleviate symptoms of mental distress

Housing First is a policy initiative designed to put homeless people into housing immediately, without any preconditions. This differs from other housing policies in that recipients are not required to pass a drug test or prove they are searching for employment in order to qualify. In this way, those needing housing are immediately put in permanent housing, rather than transitioning through a series of temporary residences (OECD, 2020[179]). Once placed, treatment options for substance abuse are voluntary rather than compulsory. The theory is that the stability brought about by permanent housing will help alleviate stress, and, by making treatment optional, improve adherence and give recipients a greater sense of ownership and empowerment over their recovery process (Housing First Europe, n.d.[180]; Greenwood et al., 2020[181]).

Finland implemented its *Housing First* initiative in 2008, and between 2010 and 2018 saw homelessness decline by 39% (OECD, 2020[179]; Kaakinen, 2019[182]). Its success in diminishing homelessness has encouraged other countries to adopt and/or continue the programme: to date, 13 OECD countries have begun national programmes, and eight have set up sub-national initiatives (OECD, 2020[183]).[1] Many randomised control trials (RCTS) have found *Housing First* to increase housing retention, especially among homeless people experiencing mental health conditions (Kertesz and Johnson, 2017[184]; Aubry et al., 2016[185]). Interventions within the *Housing First* context to improve social interactions – both supported employment and social skills trainings – have been found to be effective in improving cognitive functioning (Killaspy et al., 2022[186]). Other research has also found that the programme leads to improved physical and mental health outcomes, including overall quality of life and community functioning (Chung et al., 2018[187]; Aubry et al., 2016[185]; Greenwood et al., 2005[188]). Evidence in some regions, however, is more mixed for the mental health impacts (Eide, 2020[189]; O'Flaherty, 2019[190]). A study in the United States found that *Housing First* recipients with a history of substance use continued to have high levels of substance use after being housed, though use rates – while high – declined slightly (Edens et al., 2011[191]).

Integrate mental health concerns into affordable and subsidised housing

Special considerations can be made to accommodate the needs of people with mental health conditions so as to offer them different forms of public housing. Social housing staff should be trained as mental health-first responders, to better identify those within the housing system whose symptoms may be worsening, or who have become at risk for distress, and to aid those in the midst of a mental health crisis. They can in this way refer people to other social services available to mental health service users, including the health care system, as needed (OECD, 2021[91]; Jung, Jaime and Lee, 2021[192]).

Research has shown that social housing can bolster mental health by reducing stressors related to housing quality, by, for example, providing timely maintenance and repairs (Holding et al., 2020[193]). A

study in New Zealand found that people who were placed in social housing had higher overall well-being, primarily because of improved housing quality – less mould, less overcrowding and higher perceived condition of the home. However, this rise in well-being was accompanied by a deterioration in feelings of safety (SIA, 2018[194]). This underscores the importance of focusing not just on the accommodation itself, but also its place in the larger community and surrounding area.

In 2017, Ireland's Health Service Executive released Housing Design Guidelines with recommendations for policy makers, local housing authorities, urban planners, architects and carers for how to create affordable, well-designed spaces for mental health service users who wish to live independently (HSE, 2016[195]; Plouin et al., 2021[196]). The guidelines emphasise the importance of not just the housing structure and its living spaces, but also broader integration into the local community, ensuring that those with mental health conditions are not socially isolated, are close to nature and green spaces, and have sufficient access to goods and services. The recommendations include:

- Ensuring that the ***choices*** of those with mental health conditions are respected
- Involving mental health services users in the ***design*** of livings spaces and layouts
- Creating spaces that improve and support the ***cognitive skills*** of those with mental ill-health, including familiar products and appliances that are easy to use, well-defined task areas and low maintenance properties
- Fostering an environment that will support ***physical health***
- Accounting for important ***social factors***, such as location of the home, ensuring safety and security, and better social integration
- Improving ***environmental factors*** such as colour in the home and an abundance of natural light, which can be particularly mood-improving for those with mood and anxiety conditions

Supportive and inclusive neighbourhoods to promote connectedness and psychological well-being

The area in which people live – both the physical environment and the community – have impacts on their mental health. Urban planners can improve mental well-being by creating neighbourhoods that take a holistic approach to fostering well-being. Housing based in communities that are safe and secure, have ample green spaces and areas for physical activity and/or play, and enable members of the community to interact with one another (including across social classes), will provide its residents with psychological benefits (Evans, Wells and Moch, 2003[161]).

Resilient community design involves many aspects of well-being beyond housing, including physical and mental health, healthy behaviours, environmental quality, safety and social connections. The Centre for Urban Design and Mental Health, a thinktank that has published urban design case studies for cities across four continents, has created a framework of urban planning to maximise overall well-being, designed around the following themes (McCay et al., 2017[197]):

- *Green spaces*: Areas covered with vegetation include parks, gardens, rivers and so on. These spaces provide positive mental health benefits and can encourage physical activity and exercise. (Refer to Box 3.3 for more details on environmental quality policy interventions.)
- *Active spaces*: Spaces that facilitate exercise, be it through alternative modes of transportation (bike lanes, better pedestrian access), outdoor gyms or parks with running paths. (Refer to Boxes 3.2 and 3.3 for more details on policy interventions to facilitate physical activity.)
- *Safe spaces*: Safety and perceptions of safety are important determinants of mental health; therefore, urban spaces need to provide residents with a sense of security. (Refer to Box 4.1 for more details on safety policy interventions.)

- *Pro-social spaces*: Urban areas that encourage interactions between different groups of people who may not otherwise interact with one another, to strengthen feelings of interconnectedness and community. (Refer to Box 4.3 for more policies that promote social connections).

These types of living environments can bolster positive mental health, even for those not currently experiencing mental distress. Importantly, if those with more severe symptoms of mental ill-health require specialised housing, those units should be adequately integrated into the community so as not to increase the stigma and isolation surrounding mental ill-health (HSE, 2012[131]; Plouin et al., 2021[196]).

Note: 1. Member states with national programmes include: Canada, Chile, the Czech Republic, Denmark, Finland, France, Ireland, Japan, Luxembourg, New Zealand, Norway, Portugal and the United States. Sub-national (regional or municipality) programmes exist in: Australia, Austria, Germany, Iceland, the Netherlands, Poland, Sweden and the United Kingdom (England).

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Notes

[1] The term “deaths of despair”, coined by Case and Deaton (2017[199]), refers to fatalities from suicide, acute alcohol abuse or drug overdose.

[2] Mental disorders considered in the study include: schizophrenia, alcohol or substance abuse, and depressive, anxiety, bipolar or mood disorders.

[3] Refer to Chapter 3 for examples of how climate change is causing more frequent extreme weather events, which are leading to deteriorations in mental health.

[4] However, both reviews also discuss studies that found negative or negligible relationships between income inequality and mental health problems.

[5] Distress indicators are individual questions pulled from the GHQ-12 and the SF-12 (refer to the *Reader’s Guide* for more information about each mental health screening tool), and include: losing sleep; can’t make decisions; under strain; depressed; feeling worthless; lacking happiness; achieving less; taking less care; downhearted; social life suffering; lacking calm; lacking energy.

[6] These resources include low income and financial strains (lack of economic resources) and not belonging to a social network, and thus not having a sense of feeling cared for or belonging (lack of social resources).

[7] While there is a significant negative relationship between life satisfaction and unemployment, the link between being in employment and life satisfaction is less clear: individuals who are not employed, but are not unemployed (e.g. those who are retired, students, full-time parents, etc.) have comparable levels of life satisfaction to the employed (Boarini et al., 2012[50]; Blanchflower and Oswald, 2011[198]). Furthermore, the literature exploring the link between unemployment and other measures of positive mental health – such as affect and eudaimonia – is sparse. One study of German jobseekers found that unemployment had no effect on affect or eudaimonic measures of mental health, but did lead to a reduction in reported life satisfaction (Lawes et al., 2022[200]).

[8] In the report, the researchers designated “good” jobs as those that are both economically good (provides an income above a given threshold, provision of insurance or benefits, job stability) and psychologically good (supported at work, low job demands, etc.), while “bad” jobs are the opposite (income below a given threshold, lack of benefits, lack of stability, etc.)

[9] The relationship between homelessness and mental health is not shown in Figure 2.6, largely due to data constraints: the data used in this report to illustrate the relationship between mental health outcomes and well-being deprivations are drawn from household surveys, which by definition include only those living in a (non-institutional) housing structure.

[10] The study was conducted in 2014 using data from Florida, Maryland, Massachusetts and New York.

[11] In the study, housing is considered “unaffordable” if either monthly rent or mortgage payments exceed 30% of gross household income. The study focused on low-income households, in the bottom 40% of the national income distribution.

[12] Refer to endnote 5 above for more information on each distress indicator.

[13] The designation of “non-supportive” vs. “supportive” neighbourhoods depends on the extent to which respondents agree with a series of statements, including how much people in the neighbourhood help one another, look out for one another’s children, can count on others in the neighbourhood, and can trust that others would assist their child were their child to be playing outside and became scared or hurt.

3. Risk and resilience factors for mental health and well-being: Quality of life

The relationship between mental health outcomes and a range of quality-of-life indicators – spanning the domains of physical health; knowledge, skills and educational attainment; and environmental quality and natural capital – is often bidirectional. Well-being deprivations are associated with an elevated risk for mental ill-health and lower positive mental health, while a higher quality of life serves as a resilience factor for better mental health outcomes. Examples of interventions available to policy makers include better integrating physical and mental health services; promoting physical activity; establishing school-based interventions and lifelong learning programmes; funding eco-therapy and green interventions and promoting green cities; and a better accounting of the mental health costs of climate change, and the benefits of climate action.

Quality of life encompasses the areas beyond material conditions that enable individuals to live enriched, fulfilled lives. It includes outcomes such as robust physical health, the acquisition of knowledge and skills and having access to a clean and healthy living environment. In addition to these outcomes, which shape life today, ensuring the sustainability of quality of life into the future means it is important to build up human capital (e.g. healthy behaviours today to ensure long-term health into the future; educational attainment) and natural capital (e.g. combatting climate change through reduced emissions, limiting biodiversity loss). All of these areas shape, and many are in turn shaped by, mental health outcomes.

3.1. Physical health and healthy behaviours

Both physical and mental health are integral components of overall well-being and are highly correlated (OECD, 2020[1]; 2013[2]). Poor physical and mental health outcomes often co-occur: there is a wide evidence base showing the close association between poor mental health outcomes and cardiovascular diseases, diabetes, chronic obstructive pulmonary disease (COPD), musculoskeletal disorders, asthma, arthritis, cancer and HIV/AIDS (Naylor et al., 2012[3]; Fenton and Stover, 2006[4]; NICE, 2010[5]; Sheehy, Murphy and Barry, 2006[6]). The relationship is bidirectional (OECD, 2021[7]; Ohrnberger, Fichera and Sutton, 2017[8]): that is, having poor physical health can lead to the development of specific mental health conditions, or lower levels of positive mental health, and at the same time, having low levels of mental health can lead to the onset of a range of physical health problems. The interaction between poor physical health and poor mental health can lead to increased morbidity and premature mortality (OECD, 2021[7]). OECD evidence has shown that individuals with a diagnosis of schizophrenia or bipolar disorder face a higher risk of death as compared to the general population (OECD, 2021[7]). Other research has shown that people with mental health problems can be up to four times as likely to die prematurely, primarily from issues such as cardiovascular disease (Naylor et al., 2012[3]). These strong interlinkages underscore the need for better integration between the provision of physical and mental health care services (refer to Box 3.1 for more).

The strong links between physical and mental health are illustrated in Figure 3.1 below, which shows the prevalence of a range of health deprivations for those at risk for poor mental health compared to the general population and to those not at risk. Panel A uses a measure of mental ill-health (those at risk for major depressive disorder) in 22 European OECD countries, while Panel B uses low levels of positive mental health in 24 European OECD countries. For both mental ill-health and positive mental health, the largest gaps in outcomes by mental health outcomes occur for self-reported physical health: for example, those at risk for depression are more than seven times as likely to report poor physical health. The prevalence of having a long-term illness, or physical problems that limit one's daily activities, also shows large gaps by mental health status. Panel A shows that certain medical conditions – such as having had a stroke, heart problems, liver or kidney problems – are more likely to be reported by those at risk for major depressive disorder.

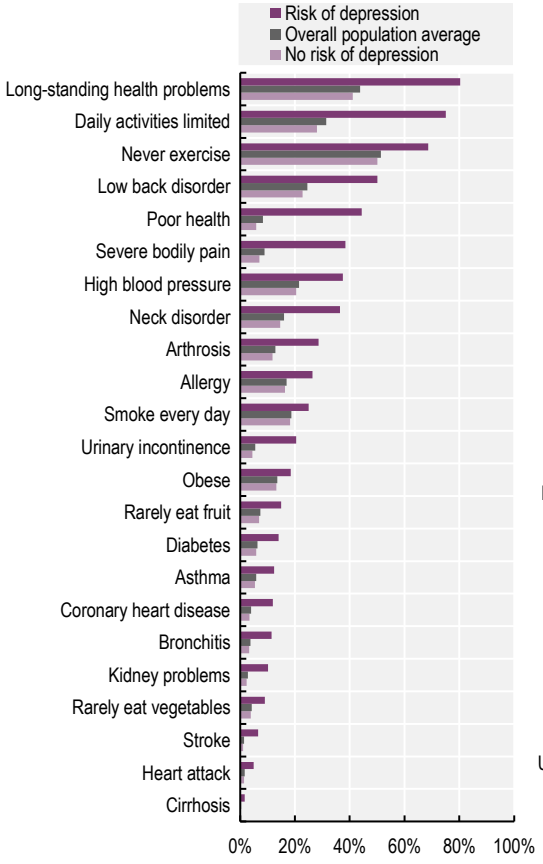
Physical and mental health outcomes are interlinked, and poor outcomes in one area can lead to poor outcomes in the other

Having worse physical health can lead to worse mental health outcomes. Research has shown that people experiencing long-term, chronic illnesses are two to three times as likely as the general population to experience poor mental health (Naylor et al., 2012[3]). Research from the World Health Organization has found that type 2 diabetes is associated with a 60% increased risk for depression, and having chronic obstructive pulmonary disorder (COPD) is associated with an up to 20% increased likelihood of exhibiting symptoms of anxiety disorders (OECD, 2021[7]; Cohen, 2017[9]). Diabetic patients with co-morbid depression have worse biological (e.g. worse glycaemic control) and psycho-social practices (e.g. less adherence to treatment, less physical activity, poorer dietary habits) that can worsen their symptoms and

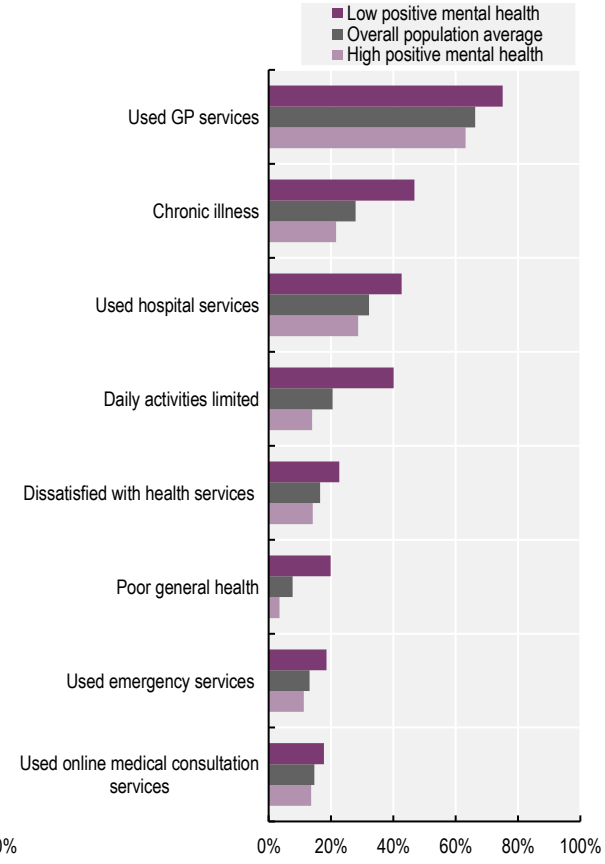
lead to worse physical health outcomes (Fenton and Stover, 2006[4]). Physical health conditions such as COPD can result in patients becoming more socially isolated or require them to stop doing activities that bring them joy, which can in turn cause depression (NICE, 2010[5]). Among the population of people diagnosed with rheumatoid arthritis, those who feel the disease will last indefinitely, or who feel helpless to manage their symptoms and the disease course, are more likely to develop symptoms of depression (Sheehy, Murphy and Barry, 2006[6]).

Figure 3.1. Poor physical health is strongly associated with both an elevated risk for major depressive disorder and low positive mental health

Panel A: Share of those with physical health and health behaviour deprivations, by those at risk for depression, those not, and the overall population, OECD 22, 2014



Panel B: Share of those with physical health deprivations, by those at risk for low positive mental health, those with high positive mental health, and the overall population, OECD 24, 2016



Note:: In Panel A, risk of major depressive disorder is defined using the Patient Health Questionnaire-8 (PHQ-8) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the Reader's Guide for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.

Source: Panel A: OECD calculations based on European Health Interview Survey (EHIS) wave 3 data (Eurostat, n.d.[10]) (database), https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:European_health_interview_survey_(EHIS); Panel B: OECD calculations based on the 2016 European Quality of Life Surveys (EQLS) (Eurofound, n.d.[11]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

This relationship also exists for positive mental health: research conducted by the Office for National Statistics (ONS) in the United Kingdom has found that populations experiencing poor physical health outcomes experienced significant drops in all facets of positive mental health – life evaluation, eudaimonia and affect balance – as compared to the general population. Another study found significant drops in happiness before and after the onset of a physical disability (OECD, 2013[2]), and specific conditions such as the experience of a heart attack or stroke have also been demonstrated to reduce positive mental health (Boarini et al., 2012[12]). Within the realm of positive mental health, affect has a stronger relationship to physical health outcomes than do measures of eudaimonia or life evaluation. This may be because having a physical health condition does not so much impact an individual's perception of how satisfied they are with their life (life evaluation) or how much meaning they draw from it (eudaimonia) as it does the amount of negative feelings they experience on a daily basis (Boarini et al., 2012[12]).

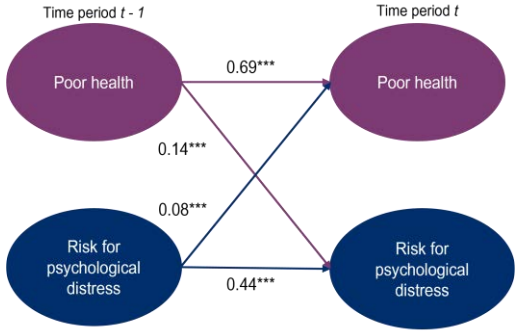
The presence of a mental health condition can also heighten one's risk for a physical health condition. People with mental health conditions can be at almost twice the risk for developing physical health problems, including obesity, diabetes and cardiovascular disease (OECD, 2021[7]). A 15-year-long study found that baseline risks for depression, worry and general mental distress could predict future gastrointestinal disorders and hyperimmunity illness (encompassing conditions such as arthritis and asthma) (Vogt et al., 2011[13]). A separate evidence review found that depression can increase the risk of the onset of coronary artery disease and ischaemic heart disease by up to 100%, and that chronic stress can have real impacts on the cardiovascular, nervous and immune systems that result in a range of diseases (Naylor et al., 2012[3]). There are biological underpinnings to this relationship: conditions such as depression and anxiety can result from hypothalamic-pituitary-adrenal (HPA)-axis disregulation, causing a chronic influx of inflammatory factors to enable a stress response. Chronic exposure to inflammatory factors can then contribute to other inflammation disorders, including cardiovascular disease (Iob, Kirschbaum and Steptoe, 2020[14]; Nettis, Pariante and Mondelli, 2020[15]). Another potential explanation is that having a mental health condition may diminish a patient's ability to adhere to a treatment plan or manage their symptoms: for example, patients with depression have higher rates of re-hospitalisation for cardiovascular disease as compared to those without depression (OECD, 2021[7]). Additionally, psychiatric medications can have a range of indirect physical health effects, with antipsychotic medications in particular associated with cardiovascular and metabolic side effects (OECD, 2021[7]).

Conversely, high levels of positive mental health can provide resilience to future health risks. Individuals with higher levels of positive mental health are more likely to be physically healthy, and both affect and life evaluative measures of positive mental health have been shown to be associated with better long-term health and life expectancy (OECD, 2013[2]). This is true for specific physical health conditions, and not just general self-reported assessments of health: for example, there is a link between psychological well-being – and optimism, in particular – and better cardiovascular health (Boehm and Kubzansky, 2012[16]). Research has found that individuals with high levels of positive affect are less likely to become ill when exposed to a cold virus, and even when infected, recover more quickly than those with low affect (OECD, 2013[2]; Pressman and Cohen, 2005[17]).

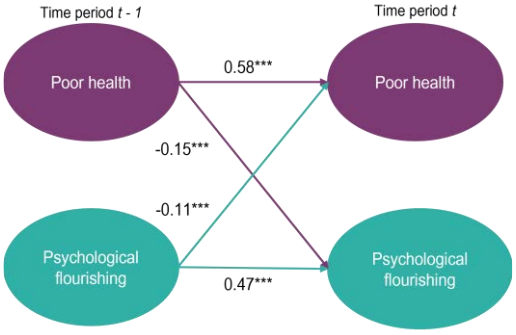
The two-way relationship between physical and mental health is illustrated in the cross-lagged panel models shown in Figure 3.2 below. Cross-lagged panel models show that the causal relationship between two outcomes (here, mental health vs. physical health) moves in both directions simultaneously, with each outcome influencing the future trajectory of the other. Panel A shows that previous experience of psychological distress is associated with a greater likelihood of current poor health, and conversely, that previous experience of poor health is associated with a greater current risk of psychological distress. This general pattern is repeated in Panel B, which shows positive mental health. In both cross-lagged panel models, the effect of previous physical health on current mental health is stronger than the effect of previous mental health on current physical health: however, the impacts in both directions are significant.

Figure 3.2. There is a reciprocal relationship between physical and mental health

Panel A: Cross-lag panel model showing risk for psychological distress (GHQ-12) and poor physical health, GBR, 2019-2020



Panel B: Cross-lag panel model showing psychological flourishing (SWEMWBS) and poor physical health, GBR, 2015-2020



Note: The model is adjusted for the following time-invariant covariates: age, sex, education, ethnicity, urban/rural. Coefficients are standardised. Self-reported health is measured on a 5-point Likert scale ranging from 1 (excellent) to 5 (poor). Data included come from waves 9 and 10 (Panel A) and waves 7 and 10 (Panel B) of the UKHLS survey; waves are different across panels, given data limitations. GHQ-12 measures psychological distress on a scale from 0 (least distressed) to 12 (most distressed). SWEMWBS measures positive mental health, ranging from 9.5 as low psychological well-being to 35 as mental flourishing. All analyses were performed using Mplus and the R "MplusAutomation" package. More details on the models can be found in the *Reader's Guide*.
Source: University of Essex (2022[18]), *Understanding Society: Waves 1-11, 2009-2020 and Harmonised BHPS: Waves 1-18, 1991-2009 [data collection]*, 5th Edition. UK Data Service, https://www.understandingsociety.ac.uk/.

Healthy lifestyle behaviours can improve future physical and mental health

The health choices that individuals make today impact their quality of life in the future. At a societal level, healthy behaviours – such as lowering obesity through increasing physical activity and healthy eating habits; minimising alcohol consumption; and preventing tobacco use – shore up human capital and reduce costs to society as a whole.

Given the benefits of physical activity to a range of physical and mental health outcomes, promoting it is one effective way of boosting population mental health (Box 3.1). Physical activity, which along with healthy eating habits,[1] lessens the risk for obesity, also has a strong relationship with mental health (OECD, 2021[7]; Ohrnberger, Fichera and Sutton, 2017[8]). Exercising can lead to mood improvement, better self-esteem, and lower levels of anxiety, worry and stress (OECD, 2021[7]). At the same time, individuals with mental health conditions are less likely to exercise: for example, those diagnosed with major depressive disorder are half as likely to exercise regularly (where "regularly" is defined according to official guidelines) as compared to the general population (WHO Regional Office for Europe, 2019[19]). Lack of (motivation to) exercise can in part be the by-product of depressive symptoms, which then creates a cyclical decline. Exercise and increased physical activity can improve the mood and slow the cognitive decline of people who have been diagnosed with a range of mental health conditions, including depression, schizophrenia and dementia. In these same patient populations, increased physical exercise can help prevent the onset of other diseases, such as diabetes and obesity (WHO Regional Office for Europe, 2019[19]). However, it should be noted that medications for more severe psychotic disorders can have strong side effects – including sedation – that make exercise difficult (Iasevoli et al., 2020[20]).

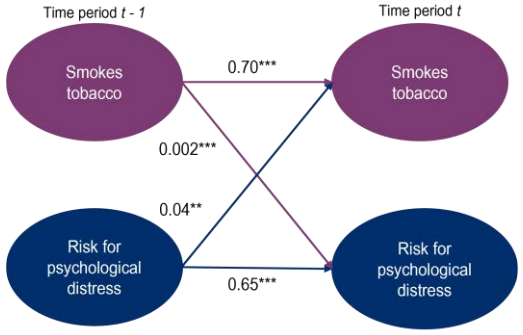
Drinking alcohol to excess, or experiencing alcoholism, often occurs alongside symptoms of depression and/or anxiety. Excess alcohol consumption can worsen symptoms and the trajectory of comorbid conditions such as depression, and in the extreme can lead to death or suicide (Sullivan, Fiellin and O'Connor, 2005[21]). Alcohol-dependent individuals often cite their drinking as a way of self-medicating symptoms of sadness, depression, anxiety or worry. While some research does indeed show the prevalence of comorbidities in alcohol dependence and specific mental health conditions (Cox et al., 1990[22]; Winokur, 1983[23]), other work has shown that the consumption of alcohol in and of itself can lead to the development of anxiety and depressive symptoms. In these instances, symptoms of mental health conditions will abate as consumption decreases (Schuckit, 1996[24]). In other cases, antidepressants can be an effective treatment for those experiencing alcohol dependency and depressive episodes (Sullivan, Fiellin and O'Connor, 2005[21]). Care should be taken, however: some anti-depressants can worsen depressive symptoms and/or suicidal ideation if consumed alongside alcohol (Mayo Clinic, 2017[25])

Individuals with mental health conditions smoke tobacco at higher rates than the general public, and they are also more susceptible to morbidity and mortality from smoking-related illnesses such as cardiovascular disease, respiratory diseases and cancer (Lawrence, Mitrou and Zubrick, 2009[26]). Longitudinal studies conducted in the United States and Australia found that adults who had been diagnosed with a mental health disorder (including schizophrenia, anxiety disorders or depression) were almost twice as likely to smoke; conversely, smokers are more likely to have a diagnosed mental health condition. Among smokers, those with a mental health condition smoke more cigarettes per day compared to those without. Researchers are divided as to the causal direction of the relationship, but generally agree that there are factors moving in both directions. One theory is that mental ill-health can lead to smoking as a form of self-medication (Khantzian, 1997[27]): depressive and anxiety symptoms in teenagers have been found to be predictors to taking up smoking in subsequent years (Lawrence, Mitrou and Zubrick, 2009[26]). Similarly, smoking may be perceived as alleviating the side effects of certain psychotropic drugs (Desai, Seabolt and Jann, 2001[28]). However, although nicotine may provide temporary relief, experts have found that smoking tobacco can lead to higher overall levels of anxiety and stress in the long-term (Picciotto, Brunzell and Caldarone, 2002[29]). A large-scale study in the United Kingdom found evidence supporting a causal link between smoking behaviour and the onset of schizophrenia and depression. A possible explanation is that the nicotine in cigarettes disrupts dopamine and serotonin transmission in the brain; this type of neurotransmission dysfunction is linked with both schizophrenia and depression (Wootton et al., 2020[30]). Another theory is that the impact of nicotine on the dopaminergic system of the brain may help to improve cognitive delays and/or the negative symptoms of schizophrenia, resulting in improved clarity and in part explaining some of the self-medication theories (Ding and Hu, 2021[31]).

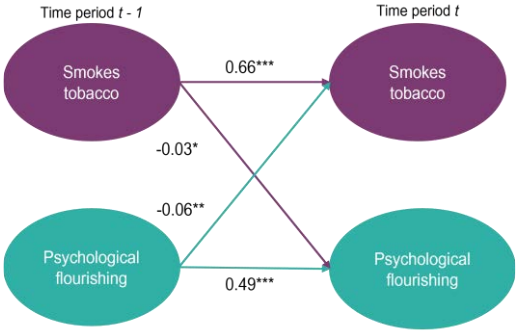
The bidirectional relationship between smoking and mental health is illustrated in Figure 3.3 below. Unlike physical health outcomes (Figure 3.2), the magnitude of the correlations is smaller, though still significant. Previous experience of poor mental health (both psychological distress, shown in Panel A, as well as low levels of positive mental health, shown in Panel B) is associated with the current likelihood of smoking. The reverse relationship is also significant (previous experience of smoking impacts current mental health), although the influence of mental health on smoking is at least twice as strong as vice versa.

Figure 3.3. The influence of mental health on smoking behaviour is stronger than vice versa

Panel A: Cross-lag panel model showing risk for psychological distress (GHQ-12) and smoking, GBR, 2019-2020



Panel B: Cross-lag panel model showing psychological flourishing (SWEMWBS) and smoking, GBR, 2015-2020



Note: Model is adjusted for the following time-invariant covariates: age, sex, education, ethnicity, urban/rural. Coefficients are standardised. Smokes tobacco is defined as those answering "yes" to the question, "Do you smoke cigarettes?" Data included come from waves 9 and 10 (Panel A) and waves 7 and 10 (Panel B) of the UKHLS survey; waves are different across panels given data limitations. GHQ-12 measures psychological distress on a scale from 0 (least distressed) to 12 (most distressed). SWEMWBS measures positive mental health, ranging from 9.5 as low psychological well-being to 35 as mental flourishing. All analyses were performed using Mplus and the R "MplusAutomation" package. More details on the models can be found in the *Reader's Guide*.

Source: University of Essex (2022[18]), *Understanding Society: Waves 1-11, 2009-2020 and Harmonised BHPS: Waves 1-18, 1991-2009 [data collection]*, 5th Edition. UK Data Service, https://www.understandingsociety.ac.uk/.

Box 3.1. Policy focus: Physical health interventions that also improve mental health outcomes

Better integration of physical and mental health care

Given the strong interlinkages between physical and mental health outcomes, it is important that health services are integrated. This entails both the provision of mental health services in primary care settings (i.e. better training in mental health care for general practitioners) as well as routine physical health checks for those experiencing a mental health condition.

In 2015, the OECD Council published the *OECD Recommendation of the Council on Integrated Mental Health, Skills and Work Policy* under which member states affirmed their commitment to a multi-sectoral, integrated approach to mental health care (OECD, 2015[32]; 2021[7]; 2021[33]). This approach engages all stakeholders involved in population mental health – not just those working in physical health care, but also in social policy, labour and education. However, as a part of the implementation plan there are examples of specific policies to better integrate physical and mental health care (OECD, 2021[33]). These include:

- Expanding the size of the mental health care workforce
- Shifting from hospital- to community-based mental health service provision (see also Box 2.1)
- Increasing the availability and access to digital technologies in the mental health sphere, including: apps to promote mental health through strengthening skills relating to mindfulness, self-managing and resilience; telehealth services for those experiencing mental distress; and electronic cognitive behavioural therapy (eCBT) for those with mild to moderate mental health conditions

- Increasing the capacity of general practitioners to identify, treat and/or refer those with mental health conditions
- Including routine physical health checks for mental health service users, for example, by updating clinical guidelines, adding physical health care to individual care plans, and/or better liaising services in inpatient settings (OECD, 2021[7]).

Encouraging physical activity to combat mental ill-health

Increased physical activity has been shown to improve affect and mood, improve symptoms for those dealing with mental health conditions – especially depression and anxiety – and provide resilience to future physical health threats – both non-communicable diseases (NCDs) such as diabetes and obesity, but also viruses such as the common cold. Recent work from the OECD provides examples of policy options to increase population physical activity (OECD/WHO, 2023[34]):

- Setting-specific programmes in:
  - ***Schools***: Educate students on the importance of engaging in physical activity and implement well-designed physical education classes. The latter have benefits beyond physical health and are associated with improved socio-developmental skills and better school performance.
  - ***Workplaces***: Incentivise the reduction of sedentary behaviour throughout the workday and promote more active modes of transport for commuting to work (e.g. cycling, walking).
  - ***Health care system:*** Interventions for health care workers include advising patients on the benefits of physical activity through counselling or behavioural prescribing.
- Increasing access to, and the affordability of, sports facilities.
- Implementing urban design, environment and transport policies to facilitate the ease of physical activity. This includes interventions such as creating green spaces (parks, hiking trails), blue spaces (beaches, swimming areas) and new transit infrastructure (bike lanes, walking paths and sidewalks).
- Communication and information campaigns to broadcast the benefits of physical activity to the broader public. One such campaign is the World Health Organization's *Global Action Plan on Physical Activity* from 2018-2030. It calls on countries to decrease physical inactivity among the adult and adolescent populations by 15% to help lessen the burden of non-communicable diseases and to improve population mental health conditions (WHO Regional Office for Europe, 2019[19]).

For additional policy examples in the area of physical health, refer to *Fit Mind, Fit Job* (2015[35]).

3.2. Knowledge and skills and educational attainment

Knowledge and skills encompass the cognitive abilities gained over a lifetime. Those with mental health conditions tend to perform worse in school and have lower levels of educational attainment than do the general population – however, in comparison to physical health, the causal mechanisms behind these relationships are less well studied. Performance in school and eventual educational attainment are highly correlated with other well-being outcomes, including socio-economic status, the educational attainment of one's parents, and the home environment. As this and the previous chapter have shown, each of these correlates are themselves predictors of poor mental health, and themselves shape mental health outcomes.

Because mental health conditions typically first present themselves during early adolescence – 50% of mental health problems are established by age 14 (Kessler et al., 2005[36]) – and because all young people spend a significant amount of time in schooling, school-based interventions can be a particularly effective way of promoting mental health. However, educational spaces are not just for young people: in fact, the act of learning in and of itself has been shown to be a form of promoting positive mental health and providing psychological resilience, making adult lifelong learning a good way to foster positive mental health (Box 3.2).

The interplay between mental health and school performance

Both mental ill-health and positive mental health are associated with poorer academic performance. Students with mental health conditions are 35% more likely to have repeated a grade and are at greater risk for dropping out of school early (OECD, 2021[7]). Lower levels of life satisfaction have also been shown to be associated with higher rates of truancy and early drop-out (OECD, 2017[37]). At the onset of the COVID-19 pandemic and the two years following, millions of students across the OECD had their schooling disrupted as the majority of primary, secondary and tertiary institutions switched to remote learning. The hardest hit were students from low socio-economic households, who do not have quiet places to study and do not have Internet or computers at home, and – importantly – whose parents may not be able to support their learning to make up for the lack of in-person support from teachers (OECD, 2021[38]). As this and the previous chapters have shown, young people and residents from households with these characteristics are more at risk for poor mental health outcomes, through income, labour market and housing channels, thus the pandemic likely exacerbated the loss of learning and poor school performance for these groups.

Having poor mental health can make it more difficult for students to perform well in school. Adolescents with clinically diagnosed depression have been found to perform less well in school, and have lower levels of educational attainment, than do their peers without a diagnosis (Asarnow et al., 2005[39]); the same is true for students with symptoms (as opposed to diagnoses) of depression or behavioural issues. One potential pathway is that students with depression are more likely to skip classes or turn in incomplete assignments, both of which are associated with lower grades (Duncan, Patte and Leatherdale, 2021[40]). Students with mental health conditions are also more likely to have lower levels of academic self-efficacy: more likely to feel overwhelmed by workloads, to be restless and unable to focus, and to engage in procrastination behaviours (Grøtan, Sund and Bjerkeset, 2019[41]). Depression is associated with disrupted sleep patterns and poorer sleep quality (Pandi-Perumal et al., 2020[42]); fatigue makes it difficult to focus on schoolwork and perform well academically. Some research has found links between depression and dysfunction in the parietal cortex, which inhibits visuospatial processing and mathematical abilities (Nelson and Shankman, 2016[43]).

An outcome for mental ill-health that is particular to the school setting is anxiety relating to school performance and schoolwork. OECD research has shown that 15-year-old students with high levels of anxiety about schoolwork, homework and tests perform less well on tests in science, mathematics and reading (OECD, 2017[37]). High levels of anxiety surrounding academic performance can disrupt complex working memory processes, which then lead to worse performances on tests and assessments (Owens et al., 2012[44]).

At its extreme, school-related anxiety can result in school refusal, also known as emotionally-based school avoidance (EBSA) or school phobia. Distinct from truancy, in these instances children and adolescents remain at home due to overwhelming feelings of emotional distress relating to school attendance (Heyne et al., 2012[45]; Hornby and Atkinson, 2002[46]; Thambirajah, Grandison and De-Hayes, 2008[47]). The causes of school refusal are varied, and can stem from anxiety relating to school assignments (West Sussex County Council, 2022[48]), but also to a stressful or unstable home life (Hersov, 1960[49]; Hornby and Atkinson, 2002[46]), underlying mental health conditions including anxiety or mood disorders (Heyne et al., 2012[45]), genetics or neurobiological processes (Hornby and Atkinson, 2002[46]), and/or being the

victim of bullying behaviours (Astor et al., 2002[50]). School refusal is associated not only with worse academic performance, but can also hamper socio-emotional growth, and may be associated with mental health challenges later in life (Heyne et al., 2012[45]). Furthermore, school refusal is often a symptom of underlying mental health conditions; although school-based interventions can be an effective way of promoting mental flourishing in young people (Box 3.2), students who avoid school – and who may most need these services – cannot, by definition, access these programmes. Research has shown that cognitive behavioural therapy can be an effective way of getting these students back into school (West Sussex County Council, 2022[48]; Hornby and Atkinson, 2002[46]), sometimes in combination with medication, family therapy and additional school supports (Heyne, 2022[51]).

The relationship between mental health and academic achievement can also move in the opposite direction, with poor performance in school exacerbating, or causing, mental health conditions. Performing poorly in school is associated with low levels of self-esteem; low self-esteem is associated with greater risk for mental distress, including suicidal ideation, poorer physical health and criminality in adulthood (Trzesniewski et al., 2006[52]; Nguyen et al., 2019[53]). Evidence has shown that children with reading problems are more likely to develop higher levels of depressive symptoms (Maughan et al., 2003[54]); adults with reading challenges are also more likely to have symptoms of depression and lower self-esteem (Eloranta et al., 2019[55]).

However, the link between positive mental health and knowledge acquisition is less clear, with findings suggesting that emotionally balanced students – as opposed to those with extreme emotions, either positive or negative – perform better in school. When using subjective measures of academic performance, rather than objective (i.e. test scores), research shows a positive association with life satisfaction (OECD, 2017[37]; 2019[56]). Yet although some literature has shown that academic achievement can predict higher levels of future life satisfaction, OECD research shows that high- and low-achieving students have similar levels of life satisfaction (OECD, 2017[37]; 2019[56]). Using the 2018 PISA reading scores, OECD researchers found that reading scores were highest for 15-year-old students who were “somewhat” or “moderately” satisfied with their lives, while the extreme ends of the distribution – both very satisfied and very unsatisfied with life – had poorer reading scores (Figure 3.4, Panel A). The relationship between affect and reading skills follows a similar pattern (Figure 3.4, Panel B). Students who report few negative feelings (rarely or sometimes feeling scared, afraid, miserable or sad) had higher reading scores than did both students who never felt negative feelings and those who always did (OECD, 2019[56]).

Peer behaviour – especially bullying and social isolation – are also major risk factors for both mental health and learning outcomes. Grade repetition can disrupt a student’s social group, thereby removing an important resilience factor for positive mental health (OECD, 2021[33]): research has shown that youths who feel isolated at school are more likely to subsequently develop depression or substance use behaviours (OECD, 2017[37]; Kochel, Ladd and Rudolph, 2012[57]; Rigby and Cox, 1996[58]). Bullying at school not only can impact educational outcomes, but also can lead to an increased likelihood of children developing symptoms of anxiety, depression and eating disorders; these negative impacts can persist into adulthood (OECD, 2017[37]). Bullying is associated with worse outcomes for both the victims and the perpetrators. Adolescents who self-reported bullying behaviour were more likely to have low self-esteem (Rigby and Cox, 1996[58]); those engaging in bullying behaviour are also more likely to engage in certain kinds of substance use, including alcohol consumption and drug use (Morris, Zhang and Bondy, 2006[59]; Radliff et al., 2012[60]) (refer to Box 3.2 for information on anti-bullying interventions).

Figure 3.4. Students who are more emotionally balanced perform better on reading tests than do students who report more extreme emotions – either negative or positive

Note: Panels A and B, taken from (OECD, 2019[56]), refer to Figure III.11.6 and Figure III.12.3, respectively. Panel A shows the difference in performance on reading assessments for students who report being "not satisfied", "somewhat satisfied", "moderately satisfied" or "very satisfied" with life; each group is compared to all of the others combined. Results control for students' and schools' socio-economic characteristics. Panel B shows the change in reading performance for students who report feeling each emotion "always", "sometimes" or "rarely". Each group is compared to the group of students who report "never" feeling each emotion.
Source: OECD (2019[56]), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/acd78851-en.

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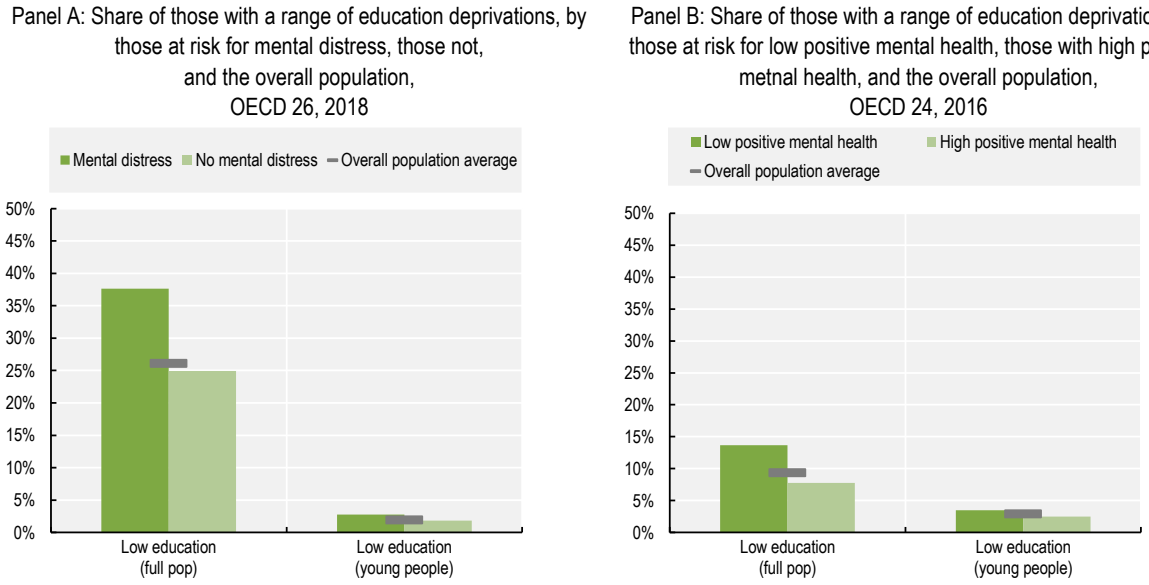
Mental health and lifetime educational attainment

There is a negative correlation between mental health outcomes and educational attainment: those diagnosed with a mental health condition, or at risk for poor mental health, are less likely to pursue higher education and are less likely to pursue adult education or workplace training. Participation in lifelong learning or adult skills training programmes is influenced by learning attitudes shaped in adolescence (OECD, 2021[61]); because those with poor mental health have worse educational experiences as young

people – more likely to drop out, less likely to perform well in school – they are also less likely to continue pursuing educational opportunities, even informal ones, as an adult. This relationship can be seen in Figure 3.5, which shows the prevalence of low educational attainment (defined here as having less than a secondary degree) for those with and without poor mental health.

Figure 3.5. Those at risk for poor mental health are more likely to have lower levels of educational attainment, and the differences increase with age



Note: On the left, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. On the right, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.
Source: Panel A: OECD calculations based on the 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[62]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[11]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

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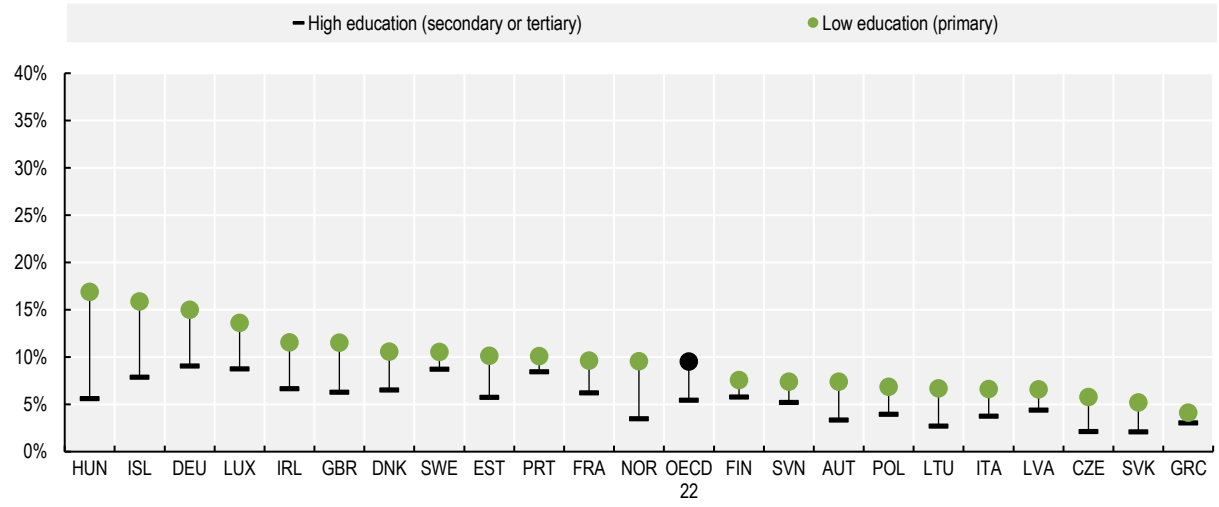
The relationship between mental ill-health and educational attainment is well established. For example, those with lower levels of education are more likely to report chronic depression (OECD, 2021[7]). Data from 22 European OECD countries show those with less than a secondary degree have a four percentage point greater risk for major depressive disorder, as compared to those with a secondary or tertiary degree (Figure 3.6). Educational attainment is highly correlated with socio-economic status: those coming from lower-income households, with parents who themselves have lower levels of education, are less likely to excel in school, more likely to fail to graduate, and less likely to achieve a tertiary degree. Multiple studies have shown that adolescents with depressive symptoms, or who engage in substance use such as cannabis and tobacco, are more likely to work in jobs that require lower degree accreditation, and they are more likely to neither be in employment, education nor training (NEET) (Minh et al., 2021[63]; Baggio et al., 2015[64]). Depressive symptoms can lead to school burnout, with affected adolescents either dropping out of school early or choosing not to pursue higher education (Salmela-Aro, Savolainen and Holopainen, 2009[65]; Tuominen-Soini and Salmela-Aro, 2014[66]).

Figure 3.6. Having less than a secondary degree is associated with a greater risk for major depressive disorder

Share of the population at risk for major depressive disorder, by educational attainment, OECD 22, 2014



Note: The figure compares the mental health outcomes of those with low levels of education (defined as primary only) and those with high levels of education (defined as secondary or tertiary).
Source: OECD calculations based on *European Health Interview Survey* (EHIS) wave 3 data (Eurostat, n.d.[10]) (database), https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:European_health_interview_survey_(EHIS).

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Longitudinal research has shown that the relationship is bidirectional, in that low educational attainment can lead to depression. A study in the United States found that at the age of 40, those with lower levels of education were more likely to be depressed than those with higher levels of education, driven primarily by educational aspirations and expectations. Those who in adolescence had low expectations but high aspirations were particularly at risk for later-in-life depression (Cohen et al., 2020[67]). Other research has shown that respondents with higher subjective social status – relating to their self-reported place in social hierarchies, on indicators of wealth, education level and employment – had a lower likelihood of having a range of mental health conditions (Scott et al., 2014[68]); however, the evidence here cannot disentangle subjective assessments of education from those of material conditions (income, employment).

The relationship between positive mental health and educational attainment is less direct. OECD research has shown a strong positive correlation between life satisfaction and education level; however, this relationship becomes insignificant once other factors (such as income, physical health, social trust) have been controlled for (OECD, 2013[2]; Boarini et al., 2012[12]). This suggests that educational attainment may primarily impact positive mental health through its effects on other aspects of well-being (Boarini et al., 2012[12]). Even still, other research has shown that the act of learning can itself bolster mental health, especially for adults: participating in lifelong learning programmes can strengthen adults' psycho-social resources and improve their mental health (OECD, 2021[38]). This is true for both formal job accreditation programmes, as well as for informal learning and taking leisure and interest courses (Box 3.2).

Box 3.2. Policy focus: Knowledge and skills interventions that also improve mental health outcomes

School-based interventions for mental health prevention and promotion

Schools are particularly well suited for mental health prevention and promotion programmes. Many mental health conditions first exhibit in adolescence (Kessler et al., 2005[36]), when outcomes can be significantly improved through early diagnosis and treatment. Furthermore, a range of evidence shows that interventions earlier in a child's life have long-lasting impacts, therefore an early focus on healthy mental habits can lead to long-term positive outcomes. And finally, all young people spend a significant amount of their time in education, making schools a particularly appropriate venue for promoting socio-emotional learning (OECD, 2021[7]).

While the exact form of mental health interventions can vary, a few examples of school-based initiatives to promote mental health include:

- *Anti-bullying programmes*: Bullying, and cyber-bullying, can have detrimental impacts on students' mental well-being, and lead to poorer performance in school (OECD, 2018[69]; OECD, 2017[37]). The KiVa anti-bullying programme, which was designed in Finland but has since been used in pilot studies in a number of OECD countries, including the United Kingdom, Estonia, Italy, the United States and New Zealand, has been shown to successfully decrease bullying, victimisation, and symptoms of anxiety and depression among students through online and in-person lessons and targeted actions for those involved in bullying (OECD, 2021[7]).
- *Mental health awareness campaigns:* These campaigns, which are designed to raise mental health literacy among young people and to reduce stigma, are some of the most common school-based initiatives. They are typically universal, in that all students receive the same programming regardless of their baseline risk for mental distress. Preliminary findings have suggested the programmes are effective in raising student self-esteem and increasing help-seeking behaviours, and they are largely viewed by the teachers implementing the programmes as a positive experience (Punukollu, Burns and Marques, 2019[70]). However, more rigorous research designs are needed to fully investigate whether the outcomes are significant and long-lasting (Salerno, 2016[71]). The mental health of teachers also matters – a study in the United States found that primary school teachers at risk for depression were less effective at maintaining a learning environment in their classrooms, with lower level learners most impacted (Mclean and Connor, 2015[72]). Most OECD countries currently have some form of mental health awareness and anti-stigma programme in place in school systems: in a 2020 OECD survey, 20 out of 29 countries reported that teachers receive some form of mental health training (OECD, 2021[7]).
- *Cognitive behavioural therapy (CBT)*: CBT combines aspects of behavioural and cognitive psychology to challenge cognitive beliefs to enable people to better regulate their emotions and develop coping strategies to solve problems and face adversity. School-based CBT, administered by either school staff or external providers, has been found to be an effective way to decrease symptoms of both depression and anxiety among young people (Kavanagh et al., 2014[73]; Werner-Seidler et al., 2017[74]).

Incorporate social and emotional learning, resilience and the ability to thrive into national curricula

Beyond the specific school-based interventions outlined in the above section, school systems can directly integrate social and emotional learning (SEL) into the national curricula. Broadly speaking, SEL focuses on building up young peoples' skill sets in recognising and managing their emotions so as to build and maintain positive relationships, enable responsible decision making and an ability to deal

effectively with interpersonal conflicts (Durlak et al., 2011[75]). Evidence-based reviews of SEL have found that these programmes can improve students' mental health, attitudes towards themselves and peers, and self-confidence. They can also help to prevent bullying, aggression and conflict, and may in some instances improve academic performance. In the long-term they are associated with crime reduction, improved labour market outcomes and lifetime earnings (Barry, Clarke and Dowling, 2017[76]).

As a part of its 2017 Mental Health Strategy, and overall Getting it Right for Every Child (GIRFEC) approach, the Scottish government has strengthened its provision of personal and social education (PSE) in local authority schools. The goal is to provide children and young people with the necessary tools to enable their physical, mental, social and emotional health to flourish. Schools are encouraged to tailor the curricula to local contexts, in consultation with the students themselves (Scottish Government, 2019[77]; Healthy Schools Scotland, 2022[78]).

Lifelong learning

Engaging adults in lifelong learning has been shown to have a range of positive mental health outcomes. Lifelong learning can take many forms. It may take place in a training facilities – such as a school, training centre or the workplace – and be the result of a formal – i.e. an accreditation process – or informal – i.e. non-accreditation process, such as a series of conversations with colleagues or peers (OECD, 2021[61]). Alternatively, lifelong learning can take the form of leisure and interest courses (Duckworth and Cara, 2012[79]). Continuously learning new skills can be beneficial for one's career, keeping individuals competitive in a changing and evolving labour market. Lifelong learning can also be an important part of the just transition, by reallocating labour and addressing skills gaps to new green jobs (OECD, 2021[38]).

However, the benefits of these programmes go beyond mere skills acquisition and a greater likelihood for employment. Adults who participate in these programmes are more likely to have higher self-esteem, a stronger sense of identity and improved social integration, all of which promotes mental resilience in the face of potential adverse shocks (OECD, 2021[38]; Manninen et al., 2014[80]; Hammond, 2004[81]). A study in the United Kingdom found that non-accredited learning is better for mental health than accredited learning: the former can lower the risk for depression and increase life satisfaction and feelings of self-efficacy, while the latter has no significant effects (Duckworth and Cara, 2012[79]).[1] These programmes can be particularly impactful for at-risk groups, including those with lower levels of education or the elderly (OECD, 2021[38]). Learning and cognitive activities have been shown to be neuro-protective for elderly populations against cognitive decline and/or dementia (Reynolds, Willment and Gale, 2021[82]); participation in learning activities can also promote social interaction, thereby preventing loneliness and protecting against depression (Kotwal et al., 2021[83]). Those with the lowest levels of education often see the largest benefits from these programmes, including seeing positive changes in motivation. Lifelong learning can therefore be a way of improving both mental health and learning outcomes (Manninen et al., 2014[80]).

For additional policy examples in the area of knowledge and skills, including easing the school-to-work transition for young people experiencing mental ill-health, see *Fit Mind, Fit Job* (2015[35]).

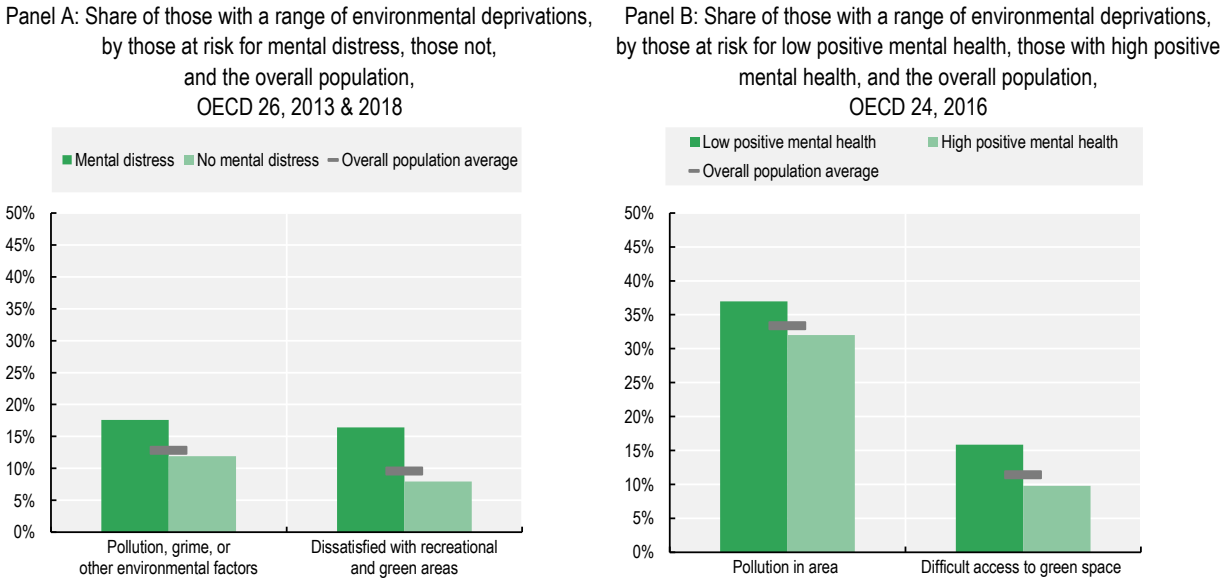
Note: 1. It is worth noting that other research using a different dataset from England found an opposite pattern: risk of depression was lowered only when participants in learning were doing so for a qualification. Learning without obtaining a qualification had no impact on depression risk (Jenkins, 2012[84]).

3.3. Environmental quality and natural capital

The relationship between our mental well-being and the environment is well established, with improved mental health outcomes associated with greater access to clean air and more time spent in nature (Bratman et al., 2019[85]). With a larger share of the population living in urban areas,[2] ensuring equitable access to unpolluted natural spaces is all the more important in promoting positive mental health (Frumkin et al., 2017[86]). Figure 3.7 illustrates that those with worse mental health outcomes – both in terms of mental ill-health as well as positive mental health – are more likely to live in neighbourhoods with pollution (Panels A and B) and are less likely to have access to green spaces (Panel B), or to be satisfied with them (Panel A).

The implications of climate change – huge losses in biodiversity, ever increasing extreme weather events – loom large over all domains of well-being, with mental health no exception. Aside from putting a strain on already limited mental health care systems and exacerbating a range of mental health conditions, climate change has also given rise to new forms of ill-health, with terms such as "eco-anxiety" coined to capture this unique form of distress.

Figure 3.7. People with worse mental health outcomes are more likely to live in polluted areas and have worse access to, and be less satisfied with, green spaces



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.
Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[62]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[11]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

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Air and noise pollution can worsen mental health, especially in children

There is a growing literature showing that exposure to air pollution, especially at a young age, can lead to future mental health problems. Prolonged exposure to high levels of air pollution has been shown to be a risk factor for a range of mental health conditions, including depressive disorders, anxiety disorders, substance use, alcohol or tobacco dependence, psychotic disorders and suicidal ideation (Petrowski et al.,

2021[87]; King, 2018[88]; Shin, Park and Choi, 2018[89]; Vert et al., 2017[90]; Pun, Manjourides and Suh, 2017[91]).[3] A longitudinal study in the United Kingdom found that children who were exposed to high levels of traffic-related pollution at a young age were more likely to develop mental health conditions (including substance use, alcohol or tobacco dependence, and thought disorder symptoms such as hallucinations and delusions) in early adulthood (Reuben et al., 2021[92]). A study in Sweden found similar patterns, showing that young children who live in areas with higher concentrations of pollution are more likely to receive psychiatric medication (Oudin et al., 2016[93]).

High levels of air pollution can also adversely affect positive mental health (OECD, 2013[2]; Boarini et al., 2012[12]), and these impacts persist. Past exposure to fine particulate matter can negatively impact life satisfaction years later; evidence does not suggest that people adapt to high levels of pollution (Menz, 2011[94]). Conversely, low levels of air pollution are associated with higher levels of positive mental health – higher life satisfaction, greater self-esteem and more stress resilience (Petrowski et al., 2021[87]).

Although the strong correlation between air pollution and mental health outcomes has been established, the causal pathways are still being explored. It is hypothesised that air pollution impacts mental health outcomes through a range of biological and social channels. On the first, fine particulate matter has been shown to cause a range of physical health problems (OECD, 2021[95]), including to the cardiovascular and respiratory systems. There is a significant and growing literature outlining the ways in which air pollutants affect brain health and function, via pollutant-induced inflammation, stress hormones and oxidative stress (Thomson, 2019[96]). Inflammatory responses have been linked to certain psychiatric conditions, including depressive and anxiety symptoms and behaviours, therefore the neuroinflammatory response to O_3 or $PM_{2.5}$ exposure may in some cases be a contributing factor to the onset or worsening of certain mental health disorders (Zundel et al., 2022[97]). Similarly, other evidence has suggested that the interaction of certain genes with heavy metal air pollutants is linked to the development of conditions such as schizophrenia (King, 2018[88]). Air pollution can also affect behaviour: people who live in heavily polluted areas are less likely to spend time outside, or engaging in physical activity (Bos et al., 2014[98]), both of which are protective factors for mental health. Similarly, within an urban environment, air pollution is often worse in lower socio-economic neighbourhoods where residents are more likely to be poor and have worse employment outcomes and housing conditions (Brunekreef, 2021[99]; Kerr, Goldberg and Anenberg, 2021[100]) – all of which contribute to poor mental health (see Chapter 2).

It is not just air pollution that harms mental health; noise pollution is associated with worse health outcomes – both physical and mental – including sleep disruption, hypertension, hearing problems, cognitive impairment, heart disease and mental health conditions (WHO Regional Office for Europe, 2018[101]). In terms of psychological effects, studies on populations of industrial workers have found that those employed in workplaces with high levels of noise experienced nausea, headaches and mood changes, including feeling argumentative, anxious and/or depressed (Stansfeld and Matheson, 2003[102]). Some studies have found direct associations between psychiatric hospital admission rates and living in areas with high rates of aircraft noise (Abey-Wickrama et al., 1969[103]; Meecham and Smith, 1977[104]); however, this relationship is not always replicated in other studies (Stansfeld and Matheson, 2003[102]). There is also a robust literature on the negative impacts of noise pollution on positive mental health, showing that it reduces life satisfaction and happiness (Fujiwara and Lawton, 2020[105]; van Praag and Baarsma, 2005[106]); a study using data from 28 European countries found that the monetary value required to compensate individuals for the burden of living in an area with severe noise pollution is around EUR 172 per month (Weinhold, 2013[107]).

Access to nature serves as a resilience factor for mental health

Green spaces (an area covered in vegetation, such as parks, gardens, fields, forests) and blue spaces (lakes, ponds, oceans and water features such as city fountains) can serve as protective factors for mental health. Research in a number of OECD countries has established a relationship between living in areas

with less green space and a range of mental health conditions including depression, anxiety and general distress, even after controlling for socio-demographic characteristics such as sex, age, education and income (Astell-Burt and Feng, 2019[108]; Alcock et al., 2014[109]). For example, a large-scale Danish study found that children who lived in neighbourhoods with low levels of green space were over 50% more likely to develop a range of psychiatric disorders (including depressive disorders, mood disorders, substance use, eating disorders, etc.) as adults, even when controlling for other known risk factors (Engemann et al., 2019[110]).

Time spent in nature is a protective factor for mental health, with positive mental health associated with greater access to, and use of, green spaces. People who spend more time in nature, or who have easy access to green or blue spaces, have higher levels of psychological and emotional well-being, less stress and higher positive affect (Mayer et al., 2008[111]; Crouse et al., 2021[112]; Crouse et al., 2018[113]; Astell-Burt and Feng, 2019[108]; Bratman, Olvera-Alvarez and Gross, 2021[114]; White et al., 2021[115]). Experiences during pandemic lockdowns and/or social distancing policies further underscored these relationships: evidence from England, France and Japan showed that people who were able to spend time in nature, or who had views of green spaces, were significantly happier and had higher levels of life satisfaction, even after controlling for socio-demographic and lifestyle differences (OECD, 2021[38]). For children and young people, some research has shown that, when integrated into areas around schools, nature may play a role in buffering against stress and potentially improving cognitive functioning and academic performance (Fyfe-Johnson et al., 2021[116]; Tallis et al., 2018[117]; Dadvand et al., 2015[118]).

Longitudinal studies unpacking the relationship between mental health and nature suggest that moving to areas with more green space can improve mental health outcomes in the long term (Alcock et al., 2014[109]). Other research has shown that a walk in nature can improve emotional regulation, increase positive affect, decrease negative affect and relieve symptoms of stress and anxiety (Bratman et al., 2015[119]; Korpela et al., 2018[120]; Berman et al., 2012[121]), and that prolonged time spent in nature can alleviate the burden of mental health conditions such as PTSD, mood disorders and chronic stress (Summers and Vivian, 2018[122]) (Box 3.3). One study fitted participants with EEG devices to monitor their emotions during a walk in nature; it found that they were more likely to experience meditative brain waves and less frustration-related emotions, as compared to participants who walked through non-natural spaces (for example, a shopping mall) (Aspinall et al., 2015[123]).

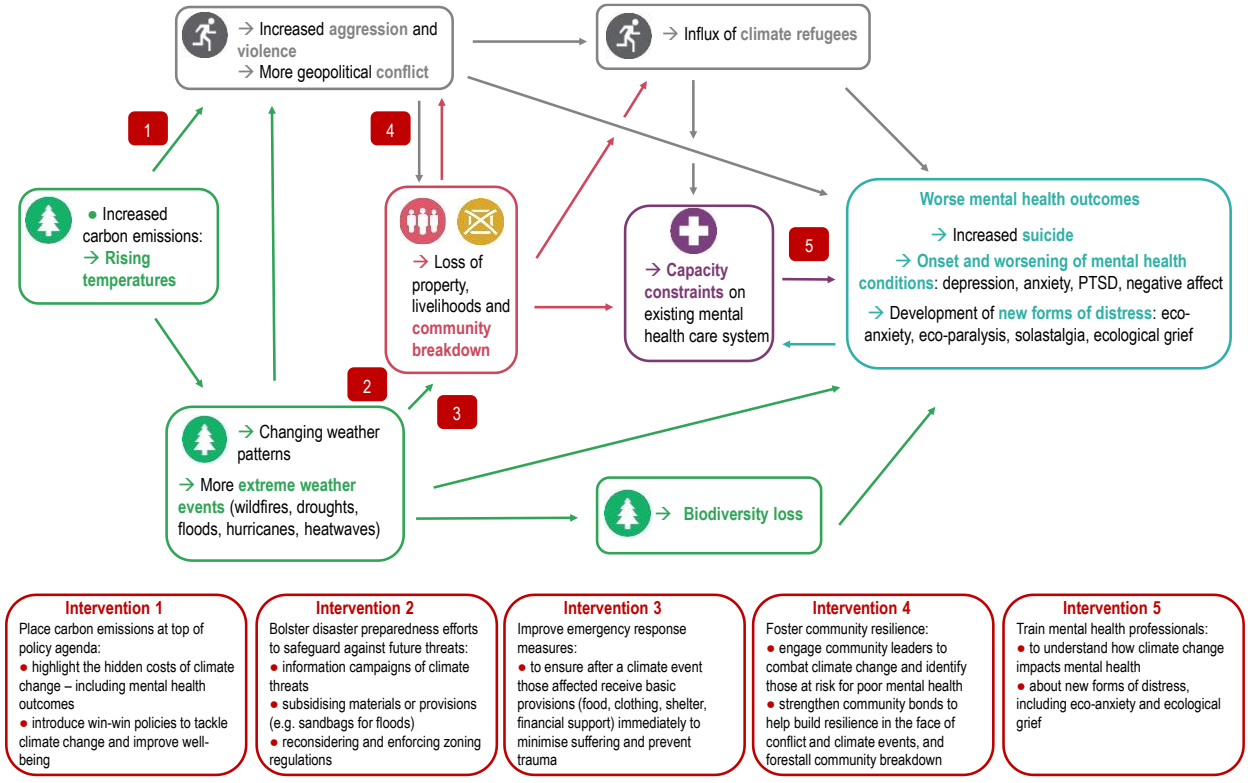
As with air and noise pollution, the causes of these effects are likely to be a combination of physiological and psycho-social factors. Studies have linked positive mental health outcomes resulting from time spent in nature to feelings of connectedness with nature (White et al., 2021[115]), the inducement of awe (Anderson, Monroy and Keltner, 2018[124]) and the perceived restorativeness of natural settings (Hartig and Mang, 1991[125]). Other research has demonstrated that exposure to nature improves cognitive function through the restoration of directed attention (Kaplan, 1995[126]) and the reduction of stress through psychophysiological mechanisms (Ulrich et al., 1991[127]). Time spent in nature can also improve physical health, both directly and indirectly. On the former, research has shown that exposure to nature may enhance immune function (Kuo, 2015[128]) and can shorten recovery periods following surgery (Ulrich, 1984[129]). More indirectly, green spaces are likely to be less polluted and have more attenuated heat island effects[4] than built-up urban spaces: the reduction of pollution (air and noise) and lowered heat levels can lead to improved mental health outcomes (Frumkin et al., 2017[86]). In terms of psycho-social pathways, access to natural areas can affect human behaviour. People with greater access to green space are more likely to exercise, and those with access to public parks are more likely to interact with members of their community, thereby experiencing less loneliness and a greater sense of social connection, all of which are protective factors (What Works Wellbeing, 2021[130]). Access to green space is often not equitable across ethnic, racial or socio-economic groups (OECD, 2021[38]; Dai, 2011[131]); lack of access to the benefits associated with natural spaces can then further widen these existing inequalities.

Climate change and mental health

Climate change is already affecting all aspects of well-being. Unless considerable action is taken to significantly mitigate temperature rise, it will continue to harm ecosystems, communities and livelihoods as heatwaves, wildfires, droughts and other extreme weather events increase in frequency; oceans warm and sea levels rise; and biodiversity plummets. A relatively new literature has emerged, highlighting the ways in which climate change is harming population mental health. This occurs through a range of channels: by exposing a larger number of people to traumatic events that exacerbate existing conditions or increase the risk for the development of a future condition; by therefore straining existing mental health care systems; and through the emergence of new forms of mental distress, including eco-anxiety, eco-paralysis, ecological grief and solastalgia.

Climate change thus affects mental health through direct and indirect pathways, each of which offer opportunities for potential policy interventions (Box 3.3); these channels are illustrated in Figure 3.8 below. As temperatures rise, the frequency of extreme weather events has been increasing, including droughts and desertification, heatwaves, wildfires, flooding, and hurricanes, among others. These climate disasters cause the loss of property, damage to crops and livestock, food and water insecurity and job losses, which can lead to economic insecurity, food insecurity, community breakdowns and fuel forced migration.

Figure 3.8 The devastation wrought by rising temperatures and increasingly common traumatic climate events is worsening mental health and straining system capacity



Source: Adapted from Lawrance et al. (2021[132]), *Climate Change and the Environment*, Grantham Institute, https://www.imperial.ac.uk/grantham/publications/all-publications/the-impact-of-climate-change-on-mental-health-and-emotional-wellbeing-current-evidence-and-implications-for-policy-and-practice.php.

Both the first and second-order effects of these climate events are damaging mental health. Climate disasters can also harm ecosystems and lead to biodiversity loss: humans have been found to report

higher mental well-being in more biodiverse areas (Cox and Gaston, 2018[133]; Fuller et al., 2007[134]), and awareness of biodiversity gains may positively contribute to mood and affect (White et al., 2020[135]). Both the immediate and long-term effects of climate change destabilise the systems and conditions that are necessary to ensure good mental health and overall well-being. Furthermore, many of the most vulnerable communities have the greatest exposure to climate threats: in this way, climate change compounds pre-existing inequalities in well-being outcomes (Lawrance et al., 2022[136]).

As a larger share of the population experiences traumatic weather events, more and more people are developing symptoms of post-traumatic stress disorder (PTSD), depression, anxiety and substance use (Lawrance et al., 2021[132]; Berry et al., 2018[137]; Hayes, Berry and Ebi, 2019[138]; Clayton et al., 2017[139]). Prolonged exposure to smoke from wildfires has been linked to heightened symptoms of anxiety, depression and decreased motivation, alongside physical health impacts such as respiratory issues (Humphreys et al., 2022[140]; OECD, 2023[141]). Wildfires also lead to severe air pollution, which as the preceding section showed has its own adverse impacts on mental health via systemic inflammation (Health Canada, 2022[142]). The physiological experiences of climate events – e.g. heat, smoke inhalation – lead to direct mental health challenges. Moreover, the flow-on effects on climate events can cause more trauma and stress, which in the long term can have severe consequences. A number of studies have found a relationship between rising temperatures and suicides, with some analyses estimating a 1% increase in the overall number of suicides for each degree Celsius increase above a designated threshold (Lawrance et al., 2021[132]; Burke et al., 2018[143]): evidence from India links elevated suicide rates to temperature rises, specifically during the agricultural growing season, as the rising heat lowers crop yields (Carleton, 2017[144]). Suicide and suicidal ideation can also increase in the aftermath of floods, hurricanes and wildfires (Hayes, Berry and Ebi, 2019[138]).

In addition to exposing the population to new mental health risks, extreme weather events can also worsen symptoms for those already experiencing a mental health condition. For example, in the United States, veterans with a mental health condition were 6.8 times more likely to suffer from exacerbated mental ill-health after Hurricane Katrina compared to veterans with no pre-existing mental health conditions (Dodgen et al., 2016[145]). In the aftermath of such an event, mental health services are likely to be disrupted, meaning those needing treatment may not have access to medical professionals or needed medication: all the more so if they are forced to migrate to a new area (Lawrance et al., 2021[132]; Berry et al., 2018[137]). Heat is also an important factor: a study in Canada found that people with schizophrenia were at three times higher risk of mortality than those without during the 2021 extreme heat event in Western North America (Lee et al., 2023[146]). Some psychoactive medicines may become ineffective during heatwaves (Hayes, Berry and Ebi, 2019[138]). Conversely, medications for some mental health conditions may impede the body's ability to regulate its own temperature, which in the most severe cases, can result in death (Lawrance et al., 2021[132]).

Rising temperatures themselves are linked to increased violence and geopolitical conflict through their effect on mood and cognition. There is a robust literature showing that violent crimes increase in hotter months (Field, 1992[147]; Horrocks and Menclova, 2011[148]; Ranson, 2014[149]). A study in Los Angeles found that violent crime increased by 5.7% on days when temperatures reached or exceeded 30ºC (Heilmann and Kahn, 2019[150]). To contextualise this, climate modelling suggests that by 2050 the number of extreme heat days (defined as temperatures exceeding 35ºC) in Los Angeles County will triple or quadruple (Sun, Walton and Hall, 2015[151]): the implications for rising violence are concerning. One theory is that more people are out on the streets and interacting with one another – thus increasing the chances that any one interaction could turn violent (Field, 1992[147]). However, behavioural experiments have shown that hot temperatures can cause mood changes, leading individuals to become angrier and more aggressive (Almås et al., 2019[152]). Indeed, higher temperatures are associated with both increased road rage and greater use of profanity on Twitter (Kenrick and Macfarlane, 1986[153]; Baylis, 2020[154]).

High temperatures also disrupt sleep: disrupted sleep patterns or poor sleep quality are associated with a range of mental health conditions including affective disorders, addiction and schizophrenia, and some

research suggests that prolonged experience of sleep disorders can contribute to the onset of mental health disorders (Lawrance et al., 2022[136]; Lõhmus, 2018[155]). Heat can also directly impact cognitive functioning: research from the United Kingdom finds that foetal exposure to high temperatures is associated with diminished cognitive functioning in adulthood (Bhalotra et al., 2022[156]), and evidence from China suggests high temperatures are associated with worse performance on cognitive assessments (Zhang, Chen and Zhang, 2022[157]). Exposure to heat is often inequitable. Research across major cities in the United States found that members of racial or ethnic minority groups live in areas with higher surface urban heat island (SUHI) intensity than do non-Hispanic white Americans (Hsu et al., 2021[158]). Other research has shown that in cities globally, within an urban area, the poorest neighbourhoods are those with the highest heat intensity (Chakraborty et al., 2019[159]). One way to address future inequalities in heat exposure is to increase access to urban green space: a study from *The Lancet* suggests that a 30% increase in tree coverage in European cities would have reduced premature deaths stemming from higher temperatures in 2015 by as much as one third (Iungman et al., 2023[160]).

There is growing evidence that climate events – including extreme heat, flooding or drought – may influence geopolitical conflicts, in addition to individual violent interactions (Burke, Hsiang and Miguel, 2015[161]). Extreme climate events can lead to crop failure, internal migration and rising food prices, which contribute to lack of trust between the population and government (Kelley et al., 2015[162]). Higher temperatures have also been found to be linked to an increase in terrorist attacks (Craig, Overbeek and Niedbala, 2019[163]). Conflict and violence have a devastating impact on mental health: service provision is greatly disrupted, and those experiencing trauma are at risk for developing PTSD and other serious mental health conditions (see Chapter 4 for a longer discussion on violence, safety and mental health).

As droughts, floods, fires and heatwaves make more areas uninhabitable, people will leave to find new inhabitable spaces, either within their own countries – the internally displaced population – or by crossing national borders. In 1995, climate refugees totalled around 25 million individuals worldwide; within the next few decades that number may increase eight-fold, reaching as high as 200 million by 2050 (Myers, 2002[164]; Lawrance et al., 2021[132]). This number may be an under-estimate, as climate indirectly affects refugee populations through increased conflict. For example, research has uncovered a connection between severe droughts Syria experienced in 2011, agricultural disruption and failure, increased political unrest and the onset and subsequent worsening of the civil war (Kelley et al., 2015[162]). This conflict has already displaced just under 14 million people over the past decade (UNHCR, 2022[165]).

This huge increase in climate refugees will greatly increase the pressure on existing mental health care systems, which are already strained. Prior to the COVID-19 pandemic, 67% of working-age adults in OECD countries with mental distress who wanted mental health care reported having difficulties accessing it (OECD, 2021[7]). The pandemic further strained systems: in early 2020, mental health care services were disrupted to free up resources and space for COVID patients. And in the years since the pandemic, the population's mental health has worsened, with rates of reported depression and anxiety symptoms spiking, especially among young people (OECD, 2021[38]). Therefore, systems that are already struggling to serve the population will be further burdened by rising rates of a range of mental health conditions, as more and more people experience extreme and traumatic weather events (Berry et al., 2018[137]).

Climate change has also brought about conversations on new types of mental health conditions, with some of the more common terms including eco-anxiety, eco-paralysis, ecological grief and solastalgia (Table 3.1). While there is disagreement as to whether these terms encapsulate truly new classifications of psychiatric disorders (Berry et al., 2018[137]), their use is becoming more common and accepted as policy makers recognise the growing concern of populations regarding the impacts of climate change on their lives and livelihoods (Clayton et al., 2017[139]; Health Canada, 2022[142]; Lawrance et al., 2021[132]). These feelings are brought about not only by personal fear of experiencing climate-related traumatic events, but also by the sheer scale of the problem, which can make individual action feel ineffective, and which is compounded by the lack of coordinated effort to find solutions on the part of national governments and the international community.

Table 3.1. Climate change has led to the introduction of new terms to describe its impact on population mental health

Term	Definition
Eco-anxiety	Eco-anxiety (or climate anxiety) refers to the anxiety people experience that is triggered by awareness of ecological threats facing the planet due to climate change (Albrecht, 2011[166]; Albrecht, 2012[167]).
Eco-paralysis	Eco-paralysis refers to the complex feelings of not being able to do anything grand enough to mitigate or stop climate change (Koger, Leslie and Hayes, 2012[168]).
Solastalgia	Solastalgia refers to the distress of bearing witness to ecological changes in one's home environment due to climate change; conceptualised as feeling homesick when a person is still in their home environment (Albrecht, 2011[166]; Albrecht, 2012[167]).
Ecological grief	Ecological grief (or eco-grief) refers to distress related to ecological loss or anticipated losses related to climate change. These losses may relate to land, species, culture, or lost sense of place and/or of cultural identity and ways of knowing. Eco-grief can include loss and trauma related to specific hazards such as climate-related flooding or wildfires, or slow-onset climate change impacts such as rising global temperatures, drought, melting permafrost and sea-level rise (Cunsolo and Ellis, 2018[169]).

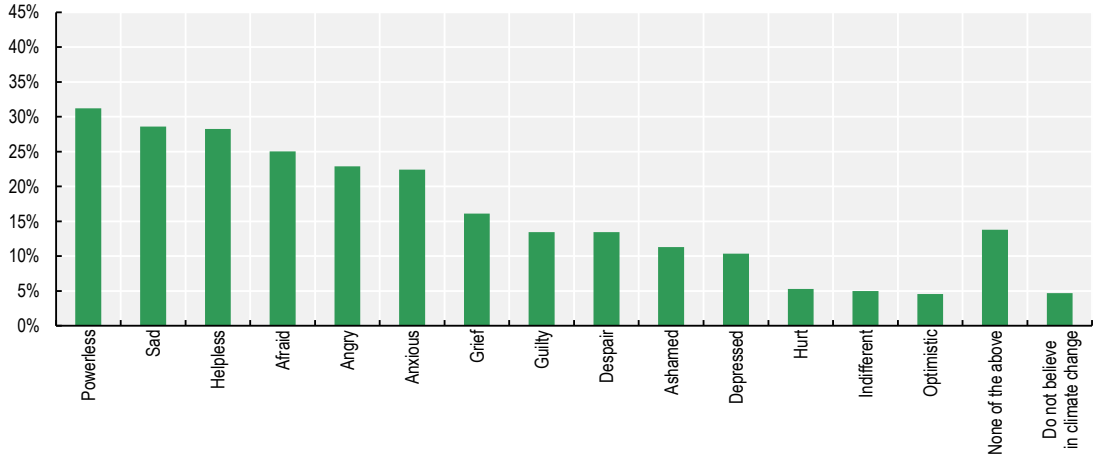
Note: Taken directly from (Health Canada, 2022[142]), refer to Table 4.1.
Source: Health Canada (2022[142]), *Health of Canadians in a Changing Climate — Advancing our Knowledge for Action*, https://changingclimate.ca/health-in-a-changing-climate/.

Results from a 2022 survey of 12 OECD countries show that 31% of respondents feel powerless in the face of climate change, and more than a fifth also feel sad, helpless, afraid, angry and anxious (Figure 3.9, Panel A). Some studies suggest that youth may be particularly susceptible to eco-anxiety, with more and more young people ranking climate change as the most important issue facing society (Ojala, 2018[170]; Bell et al., 2021[171]). A study published in *The Lancet* found that over 60% of young people from six OECD countries felt sad or afraid because of climate change (Hickman et al., 2021[172]).[5] Data from the above mentioned online survey of 12 OECD countries show that older people are just as likely as younger people to feel very or extremely worried that climate change is a threat (Figure 3.9, Panel C). However, younger people aged 18 to 24 are more likely to be emotionally affected – reporting higher rates of feeling fear, anxiety, guilt, shame and depression than do those over the age of 65 (Figure 3.9, Panel D). As a recent report authored by young people from 15 countries worldwide states, they are particularly affected in that they will live with the implications of climate change for the rest of their lives: by definition, a longer time exposure to high stress events. They also feel more vulnerable given their lower incomes and lowered likelihood of being in positions of authority that enable them to enact desired solutions (Diffey et al., 2022[173]).

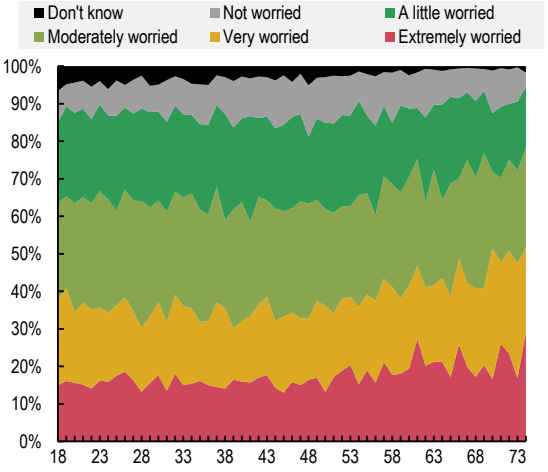
Not only do these negative emotions relay mood and affect-based changes, but they also interfere with peoples' everyday lives. An international study from 25 countries found that negative feelings towards climate change were associated with insomnia and poor self-reported mental health (Ogunbode et al., 2021[174]). The *Lancet* study referenced above found that around 30% of respondents in six OECD countries reported that their climate-related feelings negatively affected their daily lives; while alarmingly high – almost one-third of youth – this number pales in comparison to the responses in lower-income, non-OECD countries such as the Philippines and India, where over 70% of young people reported being negatively impacted by feelings towards climate change on a daily basis. These countries are already facing a greater burden of extreme climate events – from droughts, heatwaves, flooding and hurricanes – and thus provide a grim prediction for the coming mental health impacts globally.

Figure 3.9. Over one-third third of people feel powerless in the face of climate change; older people are just as likely feel that it is a threat, but younger people are more emotionally affected

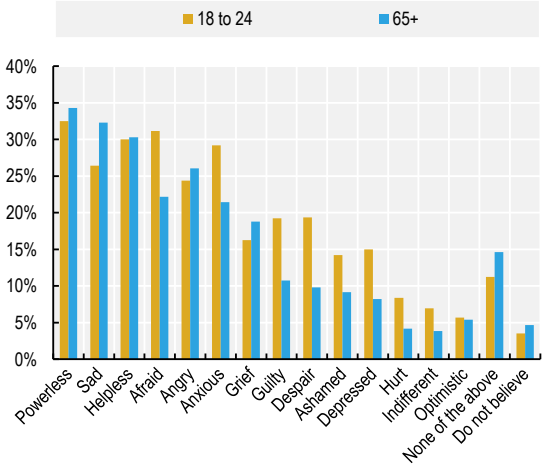
Panel A: The share of respondents who report feeling ... in the face of climate change, OECD 12, 2022



Panel B: Share of respondents who are … worried that climate change threatens people and the planet, OECD 12, 2022, by age



Panel C: The share of respondents who report feeling ... in the face of climate change, OECD 12, 2022, by age cohort



Note: OECD 12 refers to Belgium, France, Germany, Ireland, Italy, Japan, Mexico, Spain, Switzerland, Turkey, the United Kingdom and the United States. Sample sizes were 2 000 respondents in each country, and data weighted post-hoc to be representative of the general population in terms of gender, age, region and occupation.

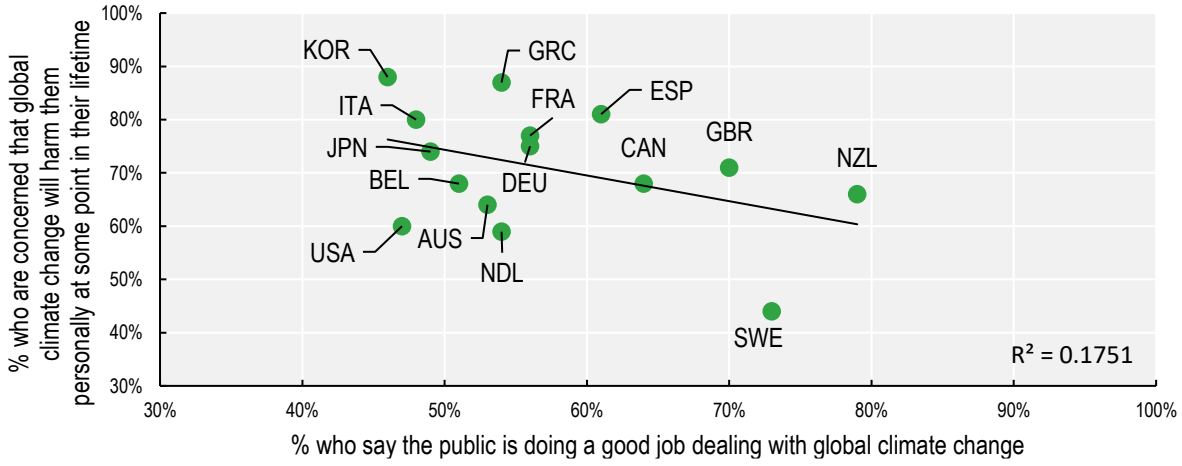
Source: OECD calculations based on AXA (2023[175]), *Toward a New Understanding: How we strengthen mind health and wellbeing at home, at work and online*, AXA Group, https://www.axa.com/en/about-us/mind-health-report.

StatLink https://stat.link/q4fjsx

Oftentimes, feelings of eco-anxiety and distress may not be directly linked to the fact of climate change, but rather to perceived inaction in the face of it. Indeed, the sheer scale of the problem can be overwhelming and make the situation feel hopeless ("eco-paralysis"). The *Lancet* study found that mental distress was worse for young people when they felt government response was inadequate. These findings are echoed in data from the Pew Research Center, which surveyed respondents in 17 countries about perceptions surrounding climate change (Bell et al., 2021[171]). There is a slight negative correlation between the perception that the public is doing a good job dealing with climate change and concern that climate change will cause personal harm during one's lifetime (Figure 3.10).

But in the same way that climate change is a risk multiplier, climate action can be an opportunity multiplier. On an individual level, focussing on positive developments to inspire hope, partaking in actions (even if small-scale) that can incrementally make an impact, and building personal and community resilience by engaging with community groups and supporting climate solutions can help alleviate feelings of eco-anxiety and related concepts of distress (Clayton et al., 2017[139]; Koger, Leslie and Hayes, 2012[168]).

Figure 3.10. In countries where people feel the public is doing a good job dealing with global climate change, a lower share of the population reports feeling concerned that climate change will harm them personally at some point in their life



Source: Bell et al. (2021[171]), *In Response to Climate Change, Citizens in Advanced Economies Are Willing To Alter How They Live and Work*, Pew Research Center, https://www.pewresearch.org/global/2021/09/14/in-response-to-climate-change-citizens-in-advanced-economies-are-willing-to-alter-how-they-live-and-work/.

StatLink https://stat.link/tanxje

Governments play a key role in both shoring up resilience to future climate events and building up emergency response systems to minimise their traumatic impacts on populations. However, the most effective way that governments can address climate change is by putting the mitigation of carbon emissions at the top of the policy agenda (Box 3.3). One way of doing this is to highlight the many hidden costs, including aspects of well-being such as mental health, that are not typically associated with climate change. In identifying "win-win" policies to simultaneously improve well-being and stop the rise of global temperatures, policy makers will need to ensure that the transition to a green economy is a "just" one, in which low-income workers and households do not bear the financial and social cost of restructuring the economy (OECD, 2017[176]).

Box 3.3. Policy focus: Environmental interventions that also improve mental health outcomes

Ecotherapy and green social prescribing

Research has shown that people are more likely to have positive emotions and feel less stress and anxiety when they are in nature. In addition, a number of studies have shown that exposure to nature – even if only images of landscapes and vegetation – can improve physical health outcomes and speed up recovery processes after medical procedures.

Ecotherapy is the practice of using time spent in nature to improve mental and physical health outcomes. It can be useful for those with existing mental health conditions or as a way to build resilience for those without a specific condition. Outdoor adventure and wilderness therapy has been explored as a complementary approach to treating post-traumatic stress disorder for military veterans; preliminary evidence shows it can also be useful as a treatment for adolescents with behavioural problems (Summers and Vivian, 2018[122]; Littman et al., 2021[177]). Healing gardens and horticultural therapy can be used to reduce stress, improve mood and prevent cognitive decline, especially in the elderly (Summers and Vivian, 2018[122]).

Policy makers can support ecotherapy through specific forms of social prescribing. Social prescribing is a policy intervention in which primary care providers link patients to social interventions (see Box 4.3 for more examples in the context of improving social connections). One variant, so-called "green social prescribing", or "Nature Rx", involves nature-based interventions. In these types of programmes, health workers prescribe a series of nature-based activities to individuals, including walking or cycling outdoors, participating in a community garden or conservation efforts including planting trees (Gov.UK, 2020[178]; NHS England, n.d.[179]). These activities not only benefit mental health but can also foster stronger social ties and community resilience. Currently, a team of researchers based in England is conducting an impact evaluation of the country's green social prescribing programme, which was rolled out in the early months of the COVID-19 pandemic to improve mental health outcomes (NIHR, 2021[180]). Forms of green social prescribing have been used in Canada, Japan and New Zealand (World Economic Forum, 2022[181]).

Building green, connected cities to promote mental well-being

Building resilient communities to foster population mental health encompasses a range of well-being dimensions, including housing, safety, social connections and environmental quality. Nature provides a range of benefits to individuals, including some that are intangible – such as cultural practices, sense of place and traditional ecological knowledge – in addition to the many tangible benefits described in Section 3.3 above. One way these benefits can be operationalised is through "psychological ecosystem services", a conceptual framework that provides an accounting of natural features, the ways in which individuals and communities are exposed to nature (proximity, duration), and the characteristics of the experience (interaction, dose), which may vary depending on individual- or population-level characteristics. This conceptual model demonstrates a set of ways in which policy makers can take the natural environment into account when incorporating environmental factors into the mental health considerations involved in urban planning (Bratman et al., 2019[85]).

Another framework for building resilient communities is that of the Centre for Urban Design and Mental Health, which highlights four types of spaces that are important for an urban plan that maximises psychological well-being (McCay et al., 2017[182]): green spaces, active spaces, safe spaces and prosocial spaces (refer to Box 2.3 for an extended discussion of each). City planners can create green spaces, and thereby improve urban mental health by designing areas that mitigate pollution (air, water, noise), encourage physical activity and expand the presence of natural spaces. Specific actions might include: improving pedestrian access and building bike lines to discourage vehicular traffic and promote

healthier ways to commute; strengthening zoning regulations to separate heavy industry from residential areas; and increasing urban vegetation through more parks, trees, hedges, green walls and greenery systems (King, 2018[88]). These actions all contribute to increasing the walkability of urban areas – i.e. the ability of an individual to fulfil all of their needs within walking distance of their residence – which has been shown to be positively associated with mental well-being (Li et al., 2021[183]). Green and blue space development in urban environments also has the added benefit of increasing social interactions; bringing together people from different socio-economic backgrounds and thereby strengthening community relations and social capital; and encouraging physical activity and healthy eating habits, among other effects (What Works Wellbeing, 2021[130]).

Strengthening government service systems, including and beyond mental health services, to better respond to climate disasters and foster resilience among the population

Climate change-induced natural disasters are already happening with increased frequency. To deal with this, policy makers should invest in well-designed disaster preparedness and emergency response systems. This, coupled with the expansion of affordable mental health care services, can help to minimise some of the negative impacts that climate change is already having on mental health outcomes.

Disaster preparedness entails governments taking preventative steps to safeguard communities from future climate threats (Lawrance et al., 2021[132]). Examples include public information campaigns on how to minimise fire damage to a home (clearing away brush, creating a fire line, etc.), subsidising or providing materials (non-flammable siding to a house; sandbags in areas prone to flooding) or strengthening zoning regulations to prevent the construction of new homes in areas known to be at risk for climate events.

Once a traumatic climate event has occurred, well-coordinated responses can help minimise the indirect mental health impacts of the experience. Those affected are less likely to develop severe symptoms of mental health conditions in the months and years following if they are quickly put into clean, safe housing; receive some form of financial assistance; have their children enrolled in new schools in the area in which they are resettled; and are given medical care (Lawrance et al., 2021[132]; Clayton et al., 2017[139]). Similarly, it is important to ensure the sustainability and continuity of mental health care in emergency response management, as the mental health needs of affected communities will persist, or even increase, following climate events (Health Canada, 2022[142]).

The capacity of current mental health care systems is insufficient to deal with the needs of those at risk for mental ill-health, and this strain will only increase as continuing climate change leads to worsening mental health outcomes. Furthermore, many are currently unable to access needed mental health services due to financial constraints (refer to Chapter 2). Expanding mental health care services and subsidising costs for low-income vulnerable communities should be prioritised so as to not fall further behind increasing demand. Furthermore, mental health professionals should be educated on the climate-specific nature of certain mental health conditions or symptoms: how rising temperatures can have psychological outcomes, including increased risk for suicide or aggressive/violent tendencies; the ways in which heat can interact with psychotropic medications, making them less effective; and the nuances of new forms of distress, encompassing eco-anxiety and ecological grief (Lawrance et al., 2021[132]).

A key component of any approach to fostering resilience and preventative measures is community engagement. Involving community leaders in disaster preparedness and emergency response, along with identifying mental health threats, is crucial to create stronger, more resilient communities. It is also important to better identify what unique vulnerabilities exist at the local level, to better prepare for climate shocks (Lawrance et al., 2021[132]).

In Canada, Health Canada has developed a capacity-building programme to strengthen the ability of the health sector to respond to the impacts of climate change. Through its efforts, the programme – HealthADAPT – aims to support the health and well-being of all Canadians. Over the first phase of the project, Health Canada invested CAD 3.5 million in initiatives with 10 health authorities in five provinces and territories. Programmes include the development of climate change health adaptation plans, and conducting climate and health vulnerability assessments to map the risks specific to the local context and identify members of the community with particularly heightened exposure to climate events (Government of Canada, 2022[184]).

Highlighting the hidden costs of climate change – including mental ill-health – through innovative environmental accounting and well-being cost benefit analyses

To truly address climate change, rather than merely react to its impacts, governments need to make it a top policy goal. Tackling climate change is an enormous challenge; because it impacts all aspects of life, some experts have argued that a systems approach is needed (Berry et al., 2018[137]). The OECD has promoted a well-being approach to climate mitigation, by addressing the synergies and trade-offs between mitigation and a range of well-being goals. By way of example, reducing air pollution and greenhouse gas emissions not only cuts CO_2 emissions from a climate change mitigation perspective, but it also reduces fine particulate matter and other chemicals in the atmosphere that negatively impact health. Accounting for the health benefits of emission reduction leads to a different calculation of the overall costs and benefits of a given intervention (OECD, 2019[185]).

This same process should account for the mental health impacts of climate change when weighing cost-effective policy options. Currently, the costs of ever deteriorating mental health – and the strains it will place on health care systems – are not included in projections of the costs of climate change to society. There are currently approaches to account for non-financial costs of climate change, and mental health outcomes can be incorporated into each.

- One approach is to highlight the *number of lives* saved due to a reduction in emissions, through a combination of improved physical health and the reduction of extreme weather events. By providing a specific figure, the true human toll of climate change becomes more concrete to the public (Climate Impact Lab, 2020[186]).
- Another, similar approach is to publicise the *social cost of carbon*, which includes a range of factors, including declining agricultural productivity, rising energy costs and negative outcomes for physical health (Carleton and Greenstone, 2022[187]; Forest Research, 2022[188]).

Both of these metrics should account for mental health outcomes – more lives saved due to improved mental health, lowered suicide rates, etc. – and higher social costs for carbon, given the mental health toll and increased spending on health care. The WHO provides an instructive example: the organisation recently released a technical document outlining a framework for the quantification and valuation of health co-benefits to climate action, including mental health considerations (WHO, 2023[189]).

In addition to highlighting costs, governments can present “win-win” policy options that both address climate change and promote psychological flourishing. Many have not yet done so: a 2021 WHO report found that of 95 countries (including 15 OECD countries) surveyed, only nine had included mental health considerations in their national health and climate change plans (WHO, 2021[190]). One example of how this might be addressed is the Canadian government’s recent work in highlighting climate change mitigation policies that will also synergistically improve mental health outcomes (Health Canada, 2022[142]). Examples highlighted in the report include:

- *Active transportation* (walking, jogging and biking) is a form of physical activity that will reduce emissions, while also improving one’s mood and reducing the risk for depression.

- *Community environmental stewardship programmes* can improve environmental outcomes at the local level, while simultaneously improving social connections and community engagement, which have a positive impact on mental health.
- *Green infrastructure* construction can reduce urban heat islands, thus improving physical and mental health outcomes.

When drafting these win-win policies, it will be important for policy makers to monitor their distributional effects on the population so as to prevent the burden of the green transition from falling on the most vulnerable. For example, workers in sectors that could be vulnerable to climate-related economic restructuring can end up displaced or find themselves without the skills or expertise required for new environmental or socially sustainable jobs (OECD, 2017[176]). For this reason, providing job training and upskilling will be particularly important throughout the transition (OECD, 2021[38]). Similarly, the shift away from fossil fuels needs to account for where the cost burden falls. Rising energy costs can be particularly regressive, in that low-income households shoulder a disproportionate burden; however, policies in G20 countries have shown that it is possible to offset these costs with the targeted recycling of carbon tax revenues, for example (OECD, 2017[176]).

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Notes

[1] A study on healthy eating habits found that those who eat more portions of fruits and vegetables have better positive mental health outcomes and are less likely to have symptoms of mental distress (Blanchflower, Oswald and Stewart-Brown, 2013[192]).

[2] In OECD countries, the urban population grew 13% between 2000 and 2015 (OECD, 2020[191]).

[3] The literature on the link between depression and/or anxiety and air pollution is vast, but the findings are mixed. While a number of papers do find a correlation between the two (Petrowski et al., 2021[87]; King, 2018[88]; Shin, Park and Choi, 2018[89]; Vert et al., 2017[90]; Pun, Manjourides and Suh, 2017[91]), others find little evidence of a significant relationship (Petrowski et al., 2021[87]; King, 2018[88]; Vert et al., 2017[90]).

[4] Urban heat islands are urban areas that exhibit significantly higher temperatures than surrounding rural areas, as a result of human industry and its impact on the landscape (e.g. covering natural surfaces with pavement and infrastructure, which retain heat).

[5] The study surveyed young people aged 16 to 25 in ten countries around the world, including six OECD countries (Australia, Finland, France, Portugal, the United Kingdom and the United States), to gauge their feelings on climate change and their perceptions as to how well governments are responding.

4. Risk and resilience factors for mental health and well-being: Community relations

The quality of people's relationships with each other, their community and their public institutions can influence, and in some cases be influenced by, their mental health. Well-being deprivations in these areas – including feeling and being unsafe in one's neighbourhood, home or society; an inadequate work-life balance; loneliness and social isolation; and poor motivation to participate in civic engagement – are all linked to an elevated risk for mental ill-health and lower positive mental health. Conversely, doing well in these areas can promote good mental health. Examples of interventions available to policy makers to make improvements in these areas include integrating safety and social connectedness considerations into urban design, making better social connectedness an explicit policy priority, tackling the gender gap in unpaid work, and expanding the representation of those with lived experience of mental ill-health in politics.

Community relations encompass how safe people are and feel, with whom and how people spend their time, and how they relate to one another and their institutions. These factors are intrinsically vital for fulfilled and connected lives and can contribute to achieving other material and quality-of-life aspirations as well. There is a strong, and in some cases bidirectional, link between good mental health and good community relations.

4.1. Safety

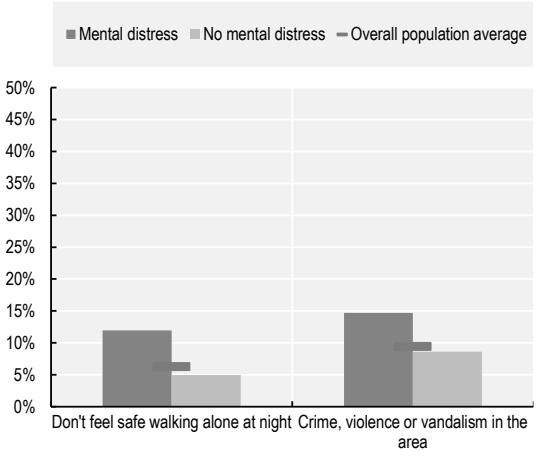
Being safe is about being free from harm – whether that comes in the form of crime, conflict, violence or natural disasters. This section focuses on people's safety and its effect on mental health in the spaces where they spend most of their time (their neighbourhoods and homes, including violence committed by intimate partners), as well as on experiences of discrimination. The impact of natural disasters on mental health in the context of climate change is discussed in Chapter 3.

Crime in one's community is an important contextual predictor of residents' mental health. Associations between neighborhood-level crime and self-reported symptoms of mental ill-health (such as psychological distress, depression and anxiety) as well as the use of mental health services (including for conditions such as psychosis, schizophrenia and PTSD) have been confirmed in ecological, cross-sectional and longitudinal studies (Bhavsar et al., 2014[1]; Weisburd et al., 2018[2]; Beck et al., 2017[3]; Astell-Burt et al., 2015[4]; Dustmann and Fasani, 2016[5]; Baranyi et al., 2020[6]; Baranyi et al., 2021[7]). For instance, longitudinal evidence using administrative crime records from Scotland shows that increases in local area crime are associated with a higher risk of self-reported mental health conditions as well as with rising antidepressant and antipsychotic prescriptions, among both people who remained in the area and those who moved out (Baranyi et al., 2020[8]). Exposure to neighborhood crime, particularly to violent offenses, is also linked to lower positive mental health. Based on police records from 1994-2012 in Germany, a 1% increase in local area crime frequency resulted in a 0.04 standard deviation decrease in life satisfaction and made residents both worry more frequently and be more concerned about crime in general. This effect was driven almost exclusively by violent crimes: property and other crimes had no significant impact on life satisfaction (Krekel and Poprawe, 2014[9]). Similarly, in Australia, while both self-reported experiences of physical violence and property crimes negatively affected the positive mental health of respondents (as measured by the SF-36 mental well-being scale), the decline in well-being associated with physical violence was ten times larger (Mahuteau and Zhu, 2016[10]).

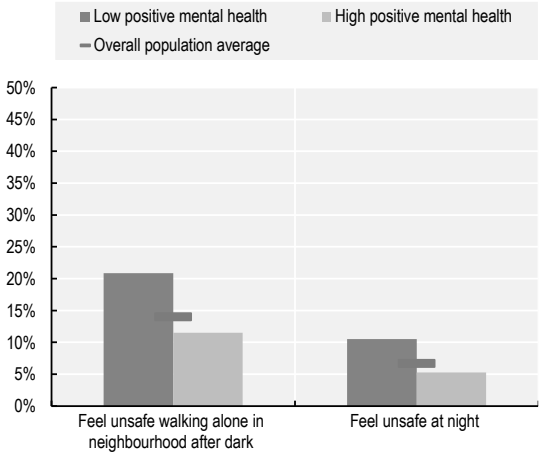
In most OECD countries, violent crime occurs relatively rarely (OECD, 2020[11]). However, beyond officially recorded crime in one's neighborhood, an individual's *perceived* risk of crime and being vulnerable to it also matter for mental health. Fear of crime has been linked to increased anxiety, somatisation, psychological distress and depressive symptoms (Wilson-Genderson and Pruchno, 2013[12]; Pietsch and Aarons, 2012[13]; Morrall et al., 2010[14]; White et al., 1987[15]; Green, 2002[16]). A systematic review of 63 studies on the links between neighborhood crime and mental health found stronger associations between mental ill-health and perceived rather than reported crime, and data from New Zealand pointed to a significant effect of increased fear of crime, but not of actually recorded crime rates, on mental well-being (Pearson and Breetzke, 2014[17]; Baranyi et al., 2021[7]). The links between feeling safe and mental health are illustrated in Figure 4.1 below, which shows the share of those reporting feeling unsafe in a range of situations for people at risk of poor mental health compared to both those not at risk and the general population. People experiencing mental distress (Panel A) and low levels of positive mental health (Panel B) are more likely to feel unsafe at night and to believe that their neighbourhoods are more affected by crime, violence and vandalism.

Figure 4.1. Living in neighbourhoods perceived as unsafe is associated with a higher risk for mental distress and with lower levels of positive mental health

Panel A: Share of those reporting safety deprivations, by those at risk for mental distress, those not, and the overall population, OECD 26, 2013 & 2018



Panel B: Share of those reporting safety deprivations, by those at risk for low positive mental health, those with high positive mental health, and the overall population, OECD 24, 2016



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.
Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[18]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[19]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

StatLink https://stat.link/glzqvj

The physical and social features of living spaces impact mental health both directly and indirectly

Multiple pathways explain the link between neighbourhood safety and mental health. Most directly, becoming a victim of and witnessing crime – first- or second-hand – increases the risk of developing mental disorders, particularly PTSD and depression (Fowler et al., 2009[20]; Lorenc et al., 2012[21]; Meyer, Castro-Schilo and Aguilar-Gaxiola, 2014[22]). An Australian study found that the mean impact of experiencing physical violence on mental well-being is well over that of losing one's job, though smaller than experiencing the death of a spouse or sustaining a serious personal illness (however, past the median of the mental well-being distribution, the impact of violent crimes is very close to that of these two negative life events) (Mahuteau and Zhu, 2016[10]). The effect of violence extends across the whole life course, with well-established connections between experiences of abuse in childhood and lifelong (mental and physical) health outcomes (Moffitt, 2013[23]; Metzler et al., 2017[24]). More broadly, constantly feeling vulnerable and being afraid for one's safety can be considered a chronic environmental stressor with substantial cumulative effects on mental health (Lorenc et al., 2012[21]).

Neighborhood safety also affects mental health indirectly. Individuals with fear of crime experience greater "time-space" inequalities, or variation in the ability to use the neighborhood space fully and at all times for mental health protecting activities such as sport and socialising (Pearson and Breetzke, 2014[17]; Stafford, Chandola and Marmot, 2007[25]; Won et al., 2016[26]). Fearful residents are more likely to exercise less, see friends less often and participate in fewer social activities compared with less fearful ones (Loukaitou-Sideris and Eck, 2007[27]; Carver, Timperio and Crawford, 2008[28]). In addition, fear of crime can decrease community trust and cohesion and lead to individual withdrawal, contributing to a progressive decline in

the social and physical environments, which further impacts on mental health and general well-being (Skogan, 1986[29]; Vanderveen, 2006[30]).

Experiences and perceptions of neighborhood safety do not affect everyone in a society equally. People with lower-economic status are more likely to live in degraded neighborhoods and are disproportionately affected by violence (CDC, 2021[31]). In addition, women more generally, particularly low-income mothers, older people and people with mental health disorders are more likely to experience time-space inequalities and hence are more vulnerable to the mental health consequences of feeling unsafe (Pain, 2000[32]; Campbell, 2005[33]; Whitley and Prince, 2005[34]). And, specific features of the environment, such as sidewalk quality, especially matter for the safety perceptions of (older) adults with functional limitations (Velasquez et al., 2021[35]).

Experiencing mental ill-health itself can also influence exposure to crime

In the opposite causal direction, people's mental health can also impact exposure to crime. People with mental health conditions, particularly serious ones, are at greater risk of being victimised (Choe, Teplin and Abram, 2008[36]; Maniglio, 2009[37]; Teplin et al., 2005[38]; Dean et al., 2018[39]). For instance, a study of Londoners found that nearly 45% of people with severe mental ill-health reported experiencing crime in the past year, and, compared to those without, people with severe mental ill-health were three times more likely to be a victim of any crime and five times more likely to be a victim of an assault. Compared to the general population, they were also significantly more likely to report that the police had been unfair or disrespectful (Pettitt et al., 2013[40]). Experiencing mental ill-health can additionally increase perceived vulnerability and hence fuel a disproportionate fear of crime (Whitley and Prince, 2005[34]). Lastly, there is evidence that having a diagnosis of substance use disorder, schizophrenia spectrum disorder, bipolar disorder or personality disorder increases the risk of perpetrating violence more generally (Fazel et al., 2018[41]). It is important to note that the vast majority of people with mental health conditions are not violent (and are more likely to experience than to commit violence), and the odds of people with mental health conditions perpetrating offences such as intimate partner violence are lower than those for people without but with other historical drivers (e.g. having experienced violence in childhood) (Oram et al., 2022[42]; Varshney et al., 2016[43]; Desmarais et al., 2014[44]).

Deep dive: Intimate partner violence and mental health

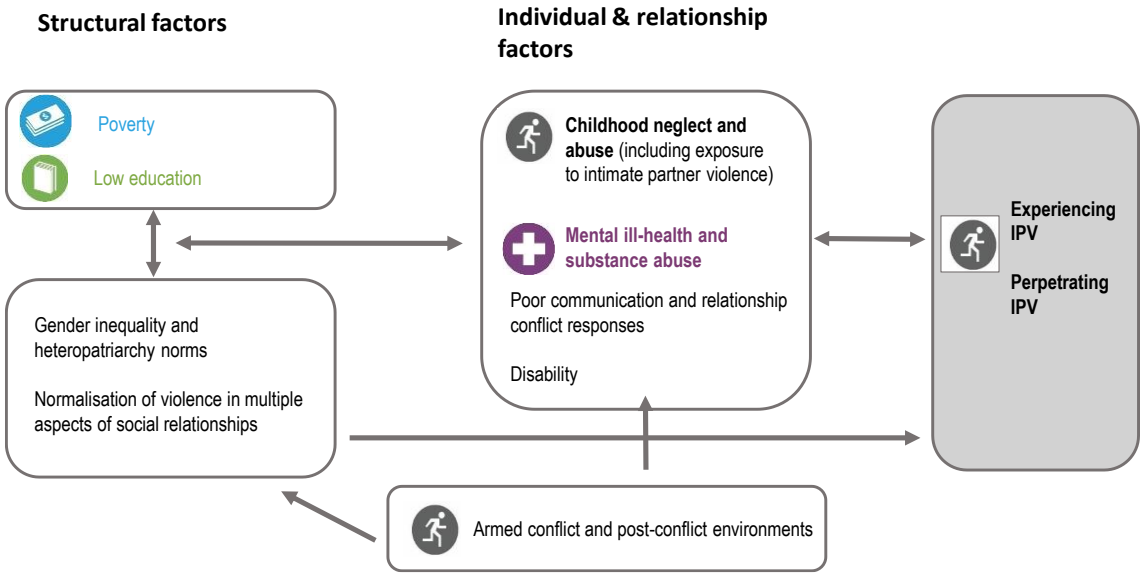
Intimate partner violence (IPV), the most common form of violence worldwide, is a specific risk to personal safety, with substantial mental health consequences. IPV includes any behaviour perpetrated against a current or former intimate partner that causes physical, psychological or sexual harm, including physical violence, emotional abuse, sexual violence, and controlling and coercive behaviours (Oram et al., 2022[42]). The vast majority of victims are women, although high rates of IPV are also experienced by sexual and gender minorities, people with disabilities, migrants and people from marginalised ethnic or racial groups (Oram et al., 2022[42]; Peitzmeier et al., 2020[45]; Brownridge, 2008[46]; Terrazas and Blitchtein, 2022[47]).[1] Accordingly, 21 out of 37 OECD countries adhering to the OECD Gender Recommendation list violence against women as one of the three most urgent gender equality issues in their country (OECD, 2020[48]). Indeed, a 2014 survey of European countries found that around 13 million women had experienced physical violence in the 12 months prior to being surveyed, and 33% had experienced physical and/or sexual violence since they were 15 years old (European Union Agency for Fundamental Rights, 2014[49]). Concerningly, only 14% of victims surveyed reported their abuse to the police (European Union Agency for Fundamental Rights, 2014[49]).

Although women can be violent towards their partners (of any gender), and sexual and gender minorities, as mentioned above, also experience high rates of IPV, the majority of IPV worldwide, as estimated by police records and surveys, is committed by men against women (Sardinha et al., 2022[50]; Oram et al., 2022[42]; Scott-Storey et al., 2023[51]). The effects of gender inequality and heteropatriarchy on social norms

and behaviour are thus key to understand and address IPV (Oram et al., 2022[42]). Alongside other structural factors such as poverty and educational outcomes, these can affect the individual-level risk factors (e.g. mental ill-health, substance abuse, adverse childhood experiences due to parental stress, poor conflict responses) that make experiencing and perpetrating IPV more likely (Figure 4.2).[2] Conflict and post-conflict periods can further intensify these drivers. Indeed, rates of intimate partner violence in complex emergency settings and among refugee populations are estimated to be higher than among the general population (Stark and Ager, 2011[52]); intimate partner violence also intensified in 2020 during the COVID-19 pandemic (OECD, 2021[53]).

Figure 4.2. A complex set of risk factors can lead to intimate partner violence

Drivers of intimate partner violence (IPV)



Source: Adapted from Oram, S. et al (2022[42]), "The Lancet Psychiatry Commission on intimate partner violence and mental health: Advancing mental health services, research, and policy", *The Lancet Psychiatry Commission,* 9(6), https://doi.org/10.1016/S2215-0366(22)00008-6.

Exposure to IPV, whether in adulthood or in childhood (and even in utero), increases the likelihood of developing a range of mental health conditions. Anxiety, depression, substance use disorder, PTSD, personality disorders, psychosis, self-harm and suicidality are all more common among people who have experienced IPV than among those who have not (Dillon et al., 2013[54]). These associations exist across the lifespan, up until old age, and last long after abuse has stopped, and there is evidence that IPV experience is related to more persistent mental health challenges (Exner-Cortens, Eckenrode and Rothman, 2013[55]; Warmling, Lindner and Coelho, 2017[56]; Brown et al., 1994[57]). While all forms of IPV are damaging to mental health (including technology-enabled IPV), chronic exposure and combined abuse – in particular involving sexual violence – is associated with the highest levels of harm (Potter et al., 2021[58]). Children who are exposed to IPV (either themselves or by witnessing it) also face increased risks of anxiety, depression, and worse behavioural and educational outcomes (Vu et al., 2016[59]; Flach et al., 2011[60]; Fry et al., 2018[61]). For example, a nationally representative study of German children aged 0-3, conducted by the National Centre for Early Prevention (NZFH) as part of the Federal Initiative for Early Childhood Intervention Networks and Family Midwives, found that socio-emotional problems in children were twice as likely to be reported by parents from families affected by intra-family violence, compared to families not experiencing it (Liel et al., 2020[62]). The same study also estimated that a child had been threatened or injured by a parent as a result of IPV in up to 3% of interviewed families (Liel et al., 2020[62]).[3]

Pathways for the link between IPV exposure and mental ill-health include biological stress responses, self-medication with substances to cope with the consequences of abuse, and restricted help-seeking and decision-making options (Oram et al., 2022[42]). In children in particular, experiencing or exposure to IPV can lead to difficulties coping with other stressors throughout life, such as neurodevelopmental impairments, and these children run a high risk for revictimisation in adulthood due to a lower sense of self-worth and not knowing what a healthy relationship looks like (Oram et al., 2022[42]; Anderson et al., 2016[63]).

At the same time, people who are experiencing mental health conditions may be more vulnerable to IPV in the first place. When it comes to victimisation, estimates from interviews with psychiatric patients suggest that the frequency of IPV exposure is up to three times higher among people with mental health disorders than among the general population (Khalifeh et al., 2015[64]). Moreover, a systematic review of longitudinal evidence points to an increased risk of first-time IPV exposure for women going through depressive symptoms compared to those who are not – possibly because abusers assume they are less able to protect themselves, particularly during active episodes (Devries et al., 2013[65]).

In some cases, mental ill-health can also be associated with a higher relative risk of perpetrating IPV. According to a systematic review of cross-sectional studies, the odds of having ever been physically violent to a partner were two to three times higher for individuals diagnosed with depression, generalised anxiety disorder, panic disorder and substance use disorder than in those without such diagnoses (Oram et al., 2014[66]).[4] Substance use, of alcohol in particular, increases the risk of being violent more generally as well as towards intimate partners, potentially by affecting neurochemical systems that lead to aggressive behaviour or by alcohol itself preventing effective communication (Yu et al., 2019[67]; Pihl and NS Hoaken, 2004[68]). Regardless, the vast majority of people experiencing mental ill-health are not violent, and they are more likely to be victims than perpetrators of IPV. Moreover, other environmental and historical drivers (e.g. problems in a partnership, or having experienced IPV in the past) are stronger explanatory factors for IPV than mental disorders (Oram et al., 2022[42]).

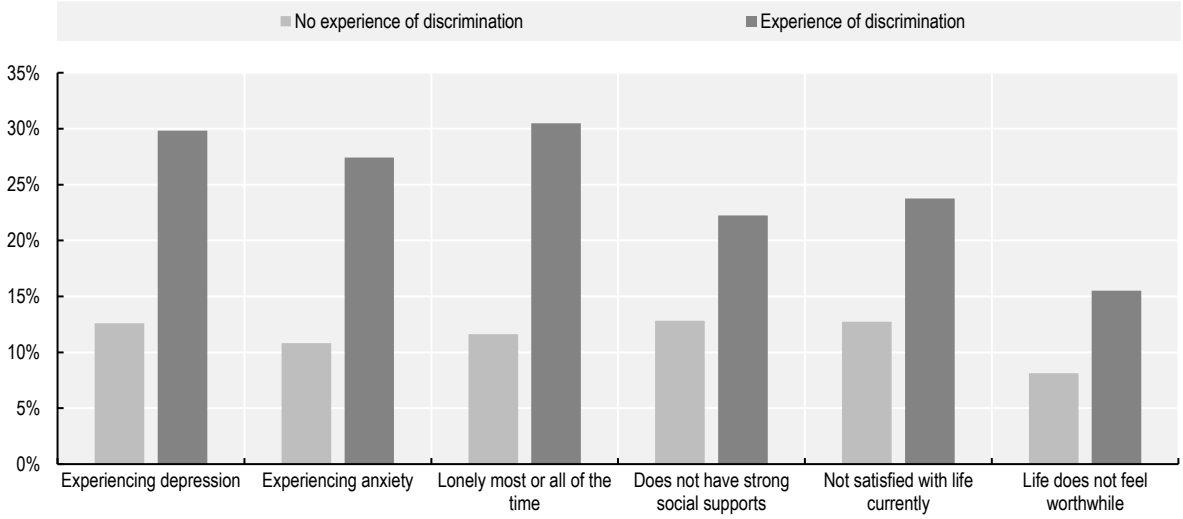
Deep dive: Discrimination and mental health

Part of feeling safe also includes freedom from discrimination, and there is well-documented evidence of the negative mental health consequences associated with discrimination. Experiencing discrimination has been linked particularly to depression, but also to anxiety, lower positive mental health and adverse changes in personality (e.g. neuroticism) for women, older adults, LBTQI individuals and people belonging to racial and ethnic minority groups (Williams and Williams-Morris, 2000[69]; Hnilica, 2011[70]; Kelaher, Ferdinand and Paradies, 2014[71]; Conlin, Douglass and Ouch, 2019[72]; Priest et al., 2017[73]; Vargas, Huey and Miranda, 2020[74]; Marx, 2021[75]; Williams and Etkins, 2021[76]; Wallace, Nazroo and Bécares, 2016[77]). Indeed, a study in 12 OECD countries showed that people who said they experienced discrimination in the past year were also more likely to report having mental health conditions and worse social and subjective well-being outcomes (Figure 4.3). The same study also suggests that one in four people overall, and one in two of those who self-identify as being part of a minority, had been subject to discrimination.

The frequency of individuals' experience of discrimination matters for how their mental health is impacted. According to a systematic review, being exposed to multiple forms of discrimination (e.g. racism and heterosexism) is associated with a higher risk for depression symptoms (Vargas, Huey and Miranda, 2020[74]). Evidence on racial and ethnic minority groups in Australia also suggests the volume of discrimination experienced, rather than the type of incident, matters most for mental health (Ferdinand, Paradies and Kelaher, 2015[78]). However, discrimination in some contexts (shops, employment, interactions with government – each of which are critical settings for guaranteeing social inclusion, income opportunities and access to services) was particularly associated with high psychological stress (Ferdinand, Paradies and Kelaher, 2015[78]).

Figure 4.3. Experiencing discrimination is linked to worse mental health outcomes

Share of people who experienced mental health and well-being deprivations, by self-reported experience of discrimination in the past year, OECD 12, 2022



Note: OECD 12 refers to Belgium, France, Germany, Ireland, Italy, Japan, Mexico, Spain, Switzerland, Turkey, the United Kingdom and the United States. Sample sizes were 2 000 respondents in each country, and data weighted post-hoc to be representative of the general population in terms of gender, age, region and occupation.
Source: OECD calculations based on AXA (2023[79]), *Toward a New Understanding: How we strengthen mind health and wellbeing at home, at work and online*, AXA Group, https://www.axa.com/en/about-us/mind-health-report.

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The pathways through which discrimination impacts mental health are immediately biological and operate through larger social structures. The majority of evidence thus far has focused on racial discrimination. A growing body of literature, including lab studies, shows that experiencing racial discrimination causes neurobiological stress responses (e.g. chronically elevated cortisol levels, elevated heart rate and blood pressure). These in turn can affect a person's immune system and metabolism, but also mood and cognitive functioning (Berger and Sarnyai, 2015[80]). Taking a broader view, structural racism that is embedded in institutions and policies also strongly affects the determinants of mental health inequalities (Williams and Etkins, 2021[76]). First, cultural racism in media and societal norms can lead to the internalisation of stereotypes (which has been associated with increased distress and substance use), stereotype threat[5] (which can cause anxiety and impaired decision-making), and unconscious bias by service providers (which can affect the quality of services received). Stigma and discrimination in health-care settings specifically can lead to affected individuals having less access to or receiving worse quality care (e.g. improper diagnoses[6] and treatment[7]), contributing to further disengagement and to people not seeking treatment until their conditions have further deteriorated (MIND UK, 2019[81]; Medina-Martínez et al., 2021[82]; Rivenbark and Ichou, 2020[83]). Second, residential segregation based on race can lead to limited access to opportunities and resources, higher exposure to environmental stressors in one's neighborhood, and truncated social mobility – all of which, as highlighted in the various sections in this report, are well-being drivers of mental health. Lastly, exclusionary immigration policies and discrimination in the criminal justice system, including racialised incarceration, have direct negative effects on the mental health of affected individuals (Williams and Etkins, 2021[76]).

Box 4.1. Policy focus: Safety interventions that also improve mental health outcomes

Improving neighbourhood safety and time-space inequalities

Place-based interventions that address the safety of residents could be integrated into urban design and community development strategies. In particular, there is evidence that interventions tackling some of the features of the built environment that are negatively associated with safety, such as renovating abandoned buildings, greening vacant lots, and improving street connectivity and lighting, can successfully decrease actual crime rates and improve feelings of security (Garvin, Cannuscio and Branas, 2013[84]; Hohl et al., 2019[85]; Kondo et al., 2018[86]). The Centre for Urban Design and Mental Health's principles of crime prevention through environmental design (CPTED) include (The Centre for Urban Design and Mental Health, 2022[87]):

- Natural access control: Design that makes public routes clear and includes features that discourage access to private spaces, such as placement of entrances, fences and hedges, etc.
- Natural surveillance: Design that increases the visibility of the location, so that people feel like they can be seen, and victims would be able to call for help, such as ensuring that windows overlook pedestrian areas, using appropriately angled lighting to illuminate faces (as opposed to bright light that causes glare and shadows) and avoiding sight-limiting features
- Territorial reinforcement: Design that clearly demarcates public and private spaces
- Balance: Design choices that are safe but do not reduce action opportunities and residents' sense of agency

In addition to crime prevention, providing comprehensive public transport that incorporates considerations for traffic safety, including for residents who want to walk and cycle, can encourage spatial and temporal movement for all, especially older people. Another form of safety is navigational safety, particularly for people with dementia, which can be supported by including design features that maintain clear landmarks as environmental cues for navigation (World Resources Institute, 2015[88]).

Lastly, a well-being approach to preventing violence would not only involve urban design principles, but also invest in community social capital to address some of the risk factors that increase susceptibility to violence in the first place. Relevant areas of intervention here include increasing neighbourhood access to services, such as health care, substance use support and child protective services, and community-first public safety approaches that pair law enforcement with social workers and trained civilians in cases related to mental health, substance use and homelessness (Sebastian et al., 2022[89]).

Address intimate partner violence (IPV) and improve support for survivors

The recent OECD report *Supporting Lives Free from Intimate Partner Violence,* building on the outcomes of the 2020 OECD High-Level Conference on Ending Violence Against Women, has identified priority actions to address IPV effectively (OECD, 2020[48]; OECD, 2023[90]), including:

- Improving integrated services, including mental health support, for both survivors and perpetrators of IPV. This involves coordination of service providers such as health, justice, housing and social protection across governmental and non-governmental providers
- Creating survivor-centric justice pathways that are open, consistent and effectively monitored
- Shifting heteropatriarchy norms for both women and men by investing in early-age education, conducting information campaigns that emphasise positive masculinity, and examining patriarchal norms that also underpin law enforcement and the justice system
- Improving data collection on IPV prevalence

Tackle the roots of discrimination and racism

Research indicates that interventions designed to prevent the occurrence of discrimination in the first place, particularly in interactions with government services and in employment settings, have more potential to improve mental health in affected communities than do interventions that work with individuals in response to their experience, after the fact (Ferdinand, Paradies and Kelaher, 2015[78]). For example, studies have shown that LGBTI+ populations in the United States have higher self-reported health, lower levels of mental distress and lower prevalence rates for psychiatric conditions in states have that have extended protections to the LGBTI+ community (Raifman et al., 2018[91]; Hatzenbuehler, Keyes and Hasin, 2009[92]; Gonzales and Ehrenfeld, 2018[93]).

Tackling discrimination and racism, including in its structural forms, is a complex endeavour that will involve interventions across all levels of government service provision, including criminal justice, (mental) health care and medical education, and that might also include the exploration of relevant restorative justice models (WHO, 2017[94]; Paradies et al., 2009[95]; Williams and Etkins, 2021[76]). An example of efforts already underway in OECD countries is Canada's *Building a Foundation for Change: Anti-Racism Strategy* (2019-22) (Government of Canada, 2019[96]). The Federal Anti-Racism Secretariat, within the Department of Canadian Heritage, coordinates efforts across Canadian governments and civil society to implement the Strategy, focusing on:

- Improving coordination and sharing innovative approaches across governments to improve outcomes for minority groups and to identify policy gaps.
- Implementing an Anti-Racism Action Plan, which provides funding to local, regional and national initiatives that reduce employment barriers, promote social participation and improve access to justice for ethnic and religious minorities and Indigenous people. In addition, funding was increased for existing capacity-building programmes and public awareness campaigns.
- Building the evidence base: the Secretariat works with Statistics Canada and the Centre for Gender, Diversity and Inclusion Statistics to enhance the collection of disaggregated data on people's ethnic identities, impact measurement and performance reporting. This includes oversampling ethnic minorities in the General Social Survey to enable more detailed analysis of well-being.

Upcoming work of the OECD Observatory on Social Mobility and Equal Opportunity will explore policy options and good practices to address discrimination in member countries (OECD, 2022[97]).

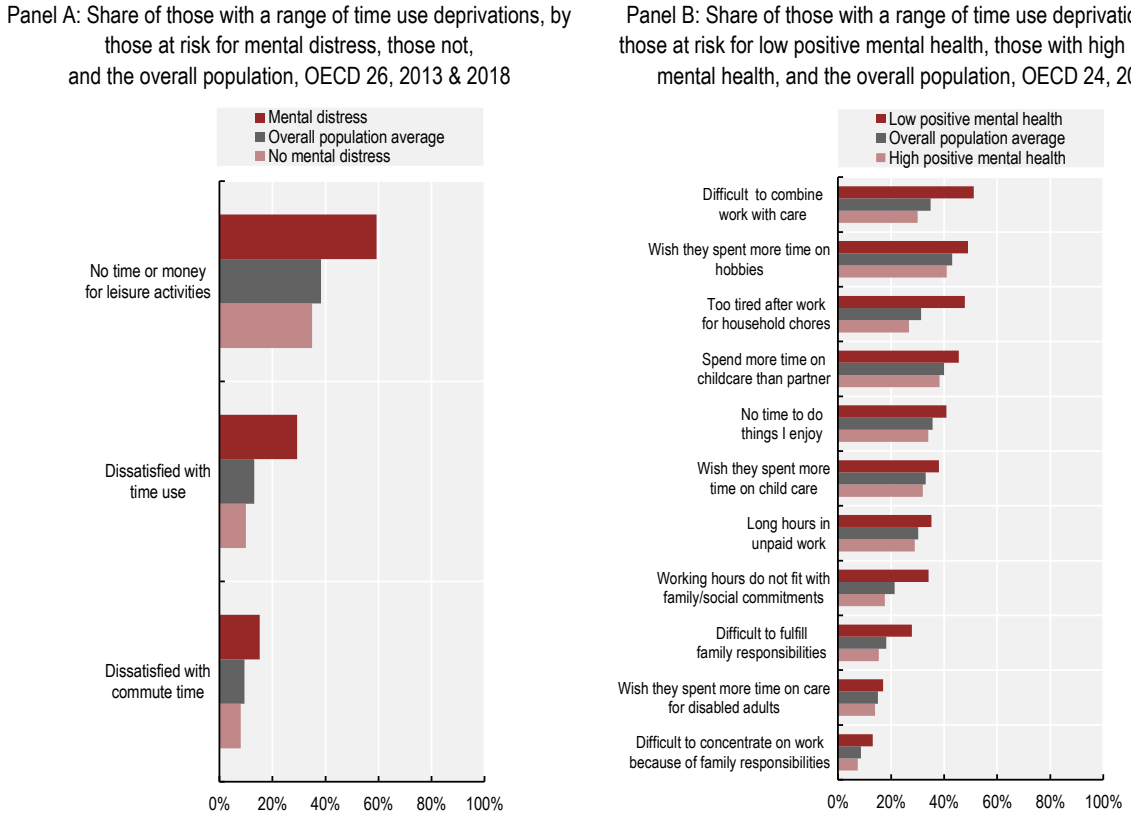
4.2. Work-life balance

Work-life balance is about being able to combine family commitments, leisure and work, including both paid and unpaid work. People need time to access support services, build close relationships, exercise, work, play, care and consume – all activities that are fundamental to (mental) health.

An inadequate work-life balance tends to go hand in hand with worse mental health outcomes. Compared to those in good mental health, people at risk of mental distress are three times more likely to be dissatisfied with how their time is spent (Figure 4.4, Panel A), and people with low positive mental health are almost twice as likely to report conflict between work demands and social/family commitments (Figure 4.4, Panel B). They are also more likely to report being unhappy with their commuting time, wish they would have more time for things they enjoy, are more tired after work, and find it more difficult to combine work requirements with care, family and social obligations. In terms of care obligations, people with low positive mental health are also more likely to spend long hours in unpaid work and to spend more time on childcare

than their partners (Figure 4.4). These findings point to the direct impacts of (paid and unpaid) work demands on stress and time-poverty.

Figure 4.4. People experiencing mental distress and those with low positive mental health are more dissatisfied with how they (have to) spend their time



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.
Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[18]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[19]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

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Time is a resource that people need for good mental health

Time scarcity can be considered as one of the social determinants of health inequalities, and it has been linked to worse mental health outcomes both directly and indirectly. First, the experience of time pressure itself is associated with emotional exhaustion, as an acute affective response, which for some individuals can then translate into more chronic symptoms of depression and lower life satisfaction. This evidence is often drawn from studies using experience sampling or day reconstruction methods, where participants record their thoughts, feelings and behaviours during different activities throughout their days, as well as from cross-sectional and longitudinal research (Kahneman et al., 2004[98]). For instance, a small-sample study of accountants in the United States found that mood and emotional exhaustion fluctuated with periods of high work demand (Teuchmann, Totterdell and Parker, 1999[99]). In a nationally representative survey of workers, also in the United States, self-reported time pressure was significantly associated with

symptoms of depression, particularly for women who were also facing housework, while income and supportive co-worker relationships acted as protective factors for mental health even in times of pressure (Roxburgh, 2004[100]). Importantly, though, too much free time is also not desirable from a mental health perspective: a recent large-scale study of Americans indicated that having too little time was indeed linked to lower positive mental health, due to stress. The benefits of free time for positive mental health started to level off at about two hours per day, and began to decline after five, because of a declining sense of productivity (Sharif, Mogilner and Hershfield, 2021[101]). This suggests that in cases where people find themselves with excessive amounts of free time (e.g. retirement, or having left or lost a job), individuals may benefit from spending their days with purposeful activities and new routines.

Focusing again on lack of time, the more indirect pathway through which time scarcity affects mental health functions via the prevention of beneficial activities and behaviours. These include less time available for socialising, active leisure, self-care and adequate sleep and an increase of unhealthy behaviours, such as eating poorly and not exercising in response to stress (Strazdins et al., 2011[102]; Lathia et al., 2017[103]; Banwell et al., 2005[104]; Morin et al., 2021[105]; Pigeon, Pinquart and Conner, 2012[106]). For instance, poor quality sleep is both a symptom of and a risk factor for poor mental health. Sleep disruption is a common feature of conditions that include depression, PTSD, bipolar disorder and schizophrenia (Khurshid, 2018[107]; Harvey, Talbot and Gershon, 2009[108]; Nutt, Wilson and Paterson, 2008[109]). At the same time, sleeping six hours or less a night has been associated with significantly increased odds of frequent mental distress; and systematic reviews have found that individuals with insomnia were two to five times more likely to develop depression than those without (Blackwelder, Hoskins and Huber, 2021[110]; Baglioni et al., 2011[111]).

Spending extensive time working can have mental health consequences

Work is one of the main activities people spend their time on, and there are many mental health benefits that can come with employment, particularly with high-quality jobs (see Chapter 2). One of the components of job quality with direct impacts on work-life balance is working time. In the OECD's Well-being Dashboard, workers routinely working more than 50 hours per week are considered to face long hours, since they are likely to be left with very few hours (one or two per day) for other activities after commuting, unpaid work and basic needs (such as sleeping and eating) are taken into account (OECD, 2020[11]).[8] Most studies that have examined the relationship between long working hours and mental health also typically apply a range of 40-60+ hours per week.

Spending excessive hours at work has implications for people's recovery, depletion and self-regulation, and it has been linked to fatigue, stress, impaired sleep and even suicidal ideation (Choi, 2018[112]; Yoon et al., 2015[113]; Tsuno et al., 2019[114]). For instance, several large-scale epidemiological studies found significant adverse effects of long working hours on depression, anxiety, sleep conditions and coronary heart disease (The Lancet Regional Health - Western Pacific, 2021[115]; Ganster, Rosen and Fisher, 2018[116]; Weston et al., 2019[117]). Workers' socio-economic status plays a suppressing role in this relationship: on the one hand, people with higher levels of education tend to work comparatively longer (paid) hours and face higher rates of time poverty (OECD, 2020[11]; Strazdins et al., 2016[118]). On the other hand, they are more likely to have access to mental health-protecting features of work, including job autonomy and time flexibility, opportunities for learning and higher earnings (Ng and Feldman, 2008[119]; Virtanen et al., 2012[120]; Valcour, 2007[121]). Indeed, several studies find that the health consequences of long hours are worse for workers from lower socio-economic backgrounds (Kivimäki et al., 2015[122]; Yoon et al., 2015[113]).

The mental health impacts of unpaid work in particular are highly gendered

Paid work is not the only aspect of work that matters for mental health – unpaid work, including domestic tasks and care work for children and adults, has equally been linked to negative outcomes, including

insomnia, exhaustion, lower life satisfaction, anxiety and depression (Ganster, Rosen and Fisher, 2018[116]). This particularly applies to individuals who face a double burden of paid and unpaid work, which leaves little time for recovery and can increase role conflict and role overload (Janzen and Kelly, 2012[123]).

Unpaid work is a gendered issue not only in terms who "does the work", but also in terms of through which pathways mental health is impacted. Women carry the main burden of unpaid work to begin with: in OECD countries, they work on average 25 minutes/day more than men, with long hours in unpaid work driving most of the gender differences in total working hours (Figure 4.5). In addition, among employed adults, unpaid labour is negatively associated with women's mental health, but not necessarily with men's (McEwen, 2008[124]; Honda et al., 2014[125]; Peristera, Westerlund and Magnusson Hanson, 2018[126]; Seedat and Rondon, 2021[127]; Ervin et al., 2022[128]). Moreover, the burden of employment and unpaid work, having children at home, and inequity in couple relationships have been identified as risk factors for women's mental health, whereas fatherhood can be protective for men's (Cabezas-Rodríguez, Utzet and Bacigalupe, 2021[129]).

Figure 4.5. The main burden of unpaid work in OECD countries is carried by women

Panel A: Total time spent working (paid and unpaid), difference between women and men aged 15-64, minutes per day, latest available year

Panel B: Amount of time women work more than men in unpaid work, and amount of time they work less in paid work, minutes per day, latest available year

Note: The latest available year refers to 2018 for the United States; 2016 for Japan and the Netherlands; 2015 for Canada; 2014-15 for Luxembourg, Türkiye and the United Kingdom; 2014 for Korea; 2013-14 for Greece and Italy; 2012-13 for Belgium, Germany and Poland; 2010-11 for Norway; 2010 for Sweden; 2009-10 for Estonia, Finland, France, Hungary, New Zealand and Spain; 2008-09 for Austria; 2006 for Australia; and 2005 for Ireland. Data have been normalised to 1 440 minutes per day: in other words, for those countries for which daily time use did not sum up to 1 440 minutes, the missing or extra minutes (around 30-40 minutes usually) were proportionally distributed across all activities. Data refer to the population aged 15-64, except for Australia (aged 15 and more) and New Zealand (12 and more). Due to methodological differences in data collection, the OECD average excludes Colombia and Mexico. Data for the OECD average also exclude Chile, Colombia, the Czech Republic, Denmark, Iceland, Israel, Latvia, Lithuania, Portugal, the Slovak Republic, Slovenia and Switzerland due to the lack of recent data (2005 or after).

Source: OECD (2020[11]), *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, https://doi.org/10.1787/9870c393-en.

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The nature of specific domestic and care tasks, their distribution among household members, and unequal social norms can help explain why women's mental health is disproportionally affected by unpaid work. First, task distribution is unequal: men often do less time-sensitive, high-schedule-control household jobs, such as outdoor or maintenance tasks, which might be more enjoyable and possibly protective; while women (particularly those without financial resources to outsource) are more likely to have to engage in repetitive, time-consuming and physically-demanding work (Ervin et al., 2022[128]; Seedat and Rondon, 2021[127]). Second, women carry the greater mental load of household labour, for instance when it comes to scheduling and distributing tasks among other household members; one hour of unpaid work can hence be considered cognitively denser for women and might not be directly comparable to one hour of men's time (Tao, Janzen and Abonyi, 2010[130]; Milkie, Wray and Boeckmann, 2021[131]). Third, in terms of broader social norms, there tend to be fewer expectations on men when it comes to unpaid labour, so that men who contribute more than the norm tend to be highly praised (Carlson et al., 2016[132]). Relatedly, higher levels of objective stress for women may translate into higher levels of perceived stress compared with men – findings from the Canadian General Social Survey, which included time diaries, indicate that housework time for women was associated with feeling stressed, and was associated with feeling unaccomplished in one's daily goals for men (Milkie, Wray and Boeckmann, 2021[131]). Lastly, in the long term, a gendered unpaid workload can impact other risk and resilience factors for mental ill-health, such as women's financial resources (due to lower social security contributions and less wealth-building) (OECD, 2022[133]).

Box 4.2. Policy focus: Work-life balance interventions that also improve mental health outcomes

Promote a work-life balance for all groups

Policy makers can promote working arrangements that have been found to improve the work-life balance, such as remote work options, flexible working hours and legal ceilings to working hours (OECD, 2019[134]; Eurofound, 2015[135]; Cazes, Hijzen and Saint-Martin, 2015[136]; Bouzol-Broitman et al., 2016[137]):

- At the company level, providing guidance for employers
- Through legal frameworks with social partners
- Including new categories of (vulnerable) workers such as gig workers

In addition, commuting time to work represents a significant aspect of the work-life balance – on average, before the rise of hybrid and teleworking induced by the COVID-19 pandemic, people in OECD countries spent 30 minutes per day travelling to work or study, and will likely continue to do so at least in some form (OECD, 2021[138]). Given that longer commute times are associated with lower job and leisure time satisfaction, increased strain and poorer mental health (Clark et al., 2020[139]), the experience of commuting – and environmental targets regarding lowering transport emissions – could be improved by expanding the public transport infrastructure to outer city areas, including WiFi connectivity en route, opportunities for sitting, and frequent and high-speed travel.

Reduce the unpaid work gender gap and recognise the value of unpaid work

There are several policy options to address the large gender gap in unpaid work present in OECD countries, including:

- Expanding access to timely, affordable and long-term early childhood education and care, which has also been associated with improvements in maternal mental health (Richardson et al., 2018[140])

- Designing parental leave policies with gender equality in mind, including allowances that balance the needs for female labour market re-entry, gender parity and mental health; and increase up-take of parental leave by fathers (e.g. by bonus payments or father's quotas) (OECD, 2017[141])
- Continuously assessing existing policies (including taxation) for unintended negative consequences on gender equality and women's unpaid work burden (OECD, 2022[133]).

In addition, efforts that will increase the recognition of the value of unpaid work, both economic and in terms of social norms, include:

- Including unpaid household labour in macroeconomic aggregates and conducting frequent time-use surveys to do so (van de Ven, Zwijnenburg and De Queljoe, 2018[142])
- Recognising unpaid care in pension schemes (e.g. carer credits) (OECD, 2021[143])
- Conducting awareness campaigns and supporting the work of civil society (including both women's and men's groups) that challenge current gender norms around expected roles (OECD, 2017[141]).

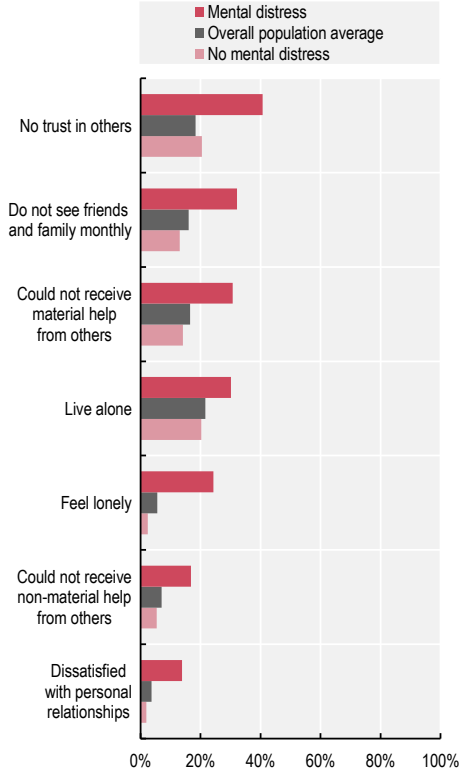
4.3. Social connections

Social connections encompass the time spent and relationships with other people. This includes both quantity of time (i.e. frequency of social contact with friends and family, or how socially isolated a person is) and aspects of quality (i.e. whether people feel supported, and whether they feel lonely – which can occur even if a person is not physically socially isolated from other people but perceives a mismatch between their existing and desired social relationships) (OECD, 2020[11]).[9]

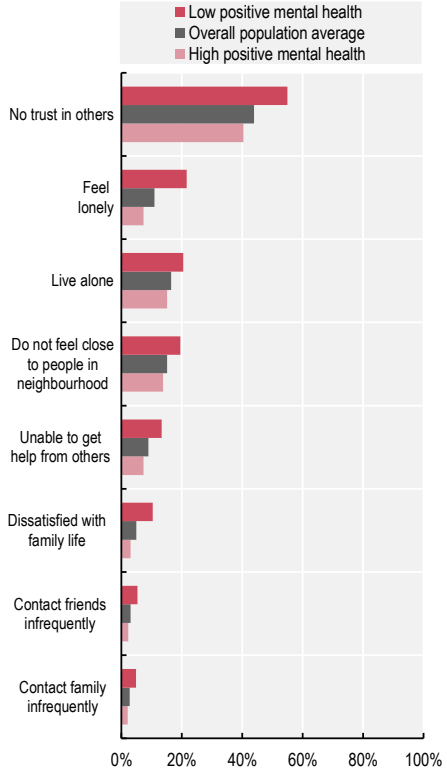
People's social relationships and their mental health are closely associated. From a clinical perspective, social connectedness is often operationalised as social functioning, or the degree to which a person is able to fulfil various roles in social environments, and one of the key diagnostic criteria of depression is withdrawal from social situations, as well as a lack of interest or engagement in important social roles, such as work or close relationships (American Psychiatric Association, 2022[144]). Reduced connectedness here is then both a risk factor for and an outcome of mental ill-health (i.e. an early symptom of onset, a symptom of ongoing episodes, a criterion for recovery) (Zimmerman et al., 2006[145]; Saeri et al., 2018[146]). Indeed, people experiencing poor mental health tend to consistently experience worse social connection outcomes. For instance, those at risk of mental distress are ten times more likely to report feeling lonely and two times more likely to say they do not trust other people than those not at risk of distress (Figure 4.6, Panel A). Both people at risk of mental distress and those with low positive mental health are also more than twice as likely to have infrequent contact with friends and family, compared to people in good mental health (Figure 4.6, Panels A and B) (Richardson et al., 2018[140]).

Figure 4.6. People experiencing mental distress or low positive mental health are more likely to distrust others, feel lonely and have infrequent contact with family and friends

Panel A: Share of those with social connectedness deprivations, by those at risk for mental distress, those not, and the overall population, OECD 26, 2013 & 2018



Panel B: Share of those with social connectedness deprivations, by those at risk for low positive mental health, with high positive mental health, and the overall population, OECD 24, 2016



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) tool. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool, for how each well-being deprivation is defined and for which countries are included in each OECD average.
Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[18]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[19]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

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Social connectedness and good mental health mutually reinforce one another

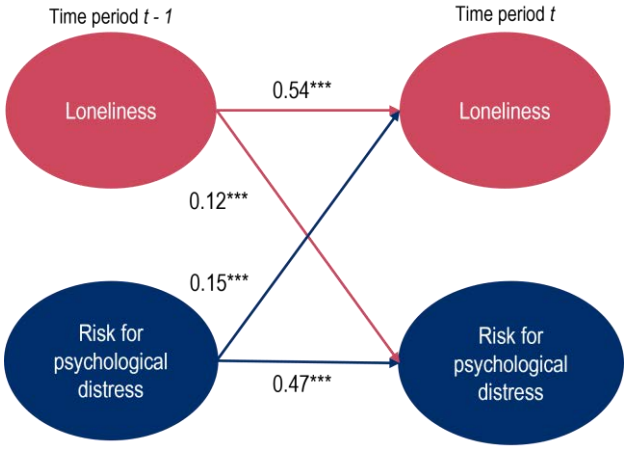
There is widespread consensus and longitudinal evidence that social connectedness can protect and promote mental health (and health more generally) (Kawachi, 2001[147]; Perkins, Subramanian and Christakis, 2015[148]). Lack of contact with local friends has been linked to common mental disorders, particularly for individuals facing material deprivation, and frequency of social contact in the year prior is associated with higher emotional well-being, regardless of an individual's initial mental well-being (Lorber et al., 2023[149]; Ding, Berry and O'Brien, 2015[150]; Luo et al., 2012[151]). In addition, poor perceived social support and loneliness predict lower life satisfaction and worse depression outcomes in terms of symptoms, recovery and social functioning, with similar preliminary evidence for anxiety, schizophrenia and bipolar disorder (Wang et al., 2018[152]; Cruwys et al., 2013[153]; Cacioppo et al., 2008[154]). Overall, evidence suggests that subjective appraisals of the quality of social relationships (e.g. loneliness, perceived social support) are more strongly associated with psychological health than objective measures

of its quantity (e.g. frequency of social contact, whether a person lives alone) (Holt-Lunstad, Smith and Layton, 2010[155]).

Multiple longitudinal studies have tried to disentangle the complex relationship between different aspects of social connectedness and mental health further, often relying on structural equation models to examine bidirectionality. Overall, it is clear that the relationship is reciprocal (Figure 4.7). For instance, while loneliness is associated with early mortality due to increased risks of behaviours such as substance use, the behaviours associated with substance abuse disorder can then contribute to further social isolation (Patterson and Veenstra, 2010[156]; Hosseinbor et al., 2014[157]). However, there is also increasing evidence that social connectedness is a comparatively stronger predictor of mental health than the converse: loneliness has predicted subsequent changes in depressive symptomatology and perceived mental health, but not vice versa, in British adults and older American adults (Cacioppo, Hawkley and Thisted, 2010[158]; Yu et al., 2015[159]); and perceived lack of being accepted by others was found to be a stronger and more consistent predictor of mental distress year-on-year than the reverse in New Zealand (Saeri et al., 2018[160]). The causal association between social connectedness and health more generally is also supported by recent studies using causal epidemiology and experimental evidence in animals (Office of the U.S. Surgeon General, 2023[161]).

Figure 4.7. Previous experience of loneliness predicts current mental health status, and vice versa

Cross-lag panel model showing risk for psychological distress (GHQ-12) and loneliness, GBR, 2019-2020



Note: The model is adjusted for the following time-invariant covariates: age, sex, education, ethnicity, urban/rural. Coefficients are standardised. Loneliness is defined as those reporting they are feeling lonely "some of the time" or "often". Data included come from waves 9 and 10 of the UKHLS survey. GHQ-12 measures psychological distress on a scale from 0 (least distressed) to 12 (most distressed). All analyses were performed using Mplus and the R "MplusAutomation" package. More details on the models can be found in the *Reader's Guide*.
Source: University of Essex (2022[162]), *Understanding Society: Waves 1-11, 2009-2020 and Harmonised BHPS: Waves 1-18, 1991-2009 [data collection]*, 5th Edition. UK Data Service, https://www.understandingsociety.ac.uk/.

In terms of causal pathways, social relationships fulfil a fundamental psychological need for belonging and act as a protective psychological resource, particularly in times of adversity (Baumeister and Leary, 1995[163]; Jetten, Haslam and S. Haslam, 2012[164]; Praharso, Tear and Cruwys, 2017[165]). Social isolation may alter an individual's cognitive processes and social cognition, leading to lower interpersonal trust and hypervigilance for social threats, which then further contribute to less motivation to connect with others, while strong social connections are linked to higher self-esteem, greater empathy and more cooperative relationships (VanderWeele, Hawkley and Cacioppo, 2012[166]). Loneliness also impacts both biological

and behavioural aspects of mental health, in that it can contribute to increased cortisol levels, disrupted sleep patterns, higher risk of substance use to self-medicate, and lower likelihood to engage in protective activities such as exercise (which also has been found to have additional mental health benefits if done in the company of others) (Hawkley, Thisted and Cacioppo, 2009[167]; Hosseinbor et al., 2014[157]; Kanamori et al., 2016[168]; Victorian Government Australia, 2021[169]).

Loneliness among young people is an emerging policy concern

Public awareness of loneliness and social isolation so far has been greatest for older people, with much of the research on loneliness and health, including on which interventions might work to tackle it, relating to people over age 55 (Box 4.3). Indeed, older adults are more likely to face factors such as living alone, the loss of family or friends, chronic illness and hearing loss, and some pre-COVID-19 country-specific estimates considered up to one quarter of people aged 65 or older to be socially isolated and/or lonely (National Academies, 2020[170]; Local Government Association, 2016[171]).

However, during COVID-19 young people have emerged as a new risk group for both loneliness and mental distress: in March 2021, nearly one in five people in European OECD countries felt lonely most or all of the time, and people aged 18-24 felt the loneliest during the pandemic, being twice as likely as those over 65 to feel so, reversing pre-pandemic trends (OECD, 2021[53]). By spring 2022, these numbers still had not recovered to 2020 levels: people aged 18-29 continued to be the loneliest age group, with more than one in three young people affected (Eurofound, 2022[172]). However, the increase in youth loneliness seems to predate COVID-19, with evidence from systematic reviews suggesting that loneliness in young adults has already been on the rise worldwide over the past four decades (Buecker et al., 2021[173]).

Box 4.3. Policy focus: Social connection interventions that also improve mental health outcomes

Make improving social connectedness an explicit policy priority

The topic of social connections, despite its central importance for the well-being of people and societies, often does not have a dedicated policy home. In order to generate the mandate for agencies to address and systematically think of social connectedness in their work, improving it has to be made an explicit policy goal to be monitored and improved, including through:

- Including relevant targets in cross-government and local-level strategies.
- Creating initiatives and positions with dedicated funding, visibility and convening power, such as dedicated government roles (e.g. the Minister of Loneliness in the United Kingdom and in Japan) or strategies (e.g. the 2018 Loneliness Strategy in the United Kingdom, the 2018 Loneliness Programme of the Netherlands, the 2022 Strategy against Loneliness in Germany and the 2020-30 Municipal Strategy against Loneliness in Barcelona) (Government of the United Kingdom, 2023[174]; BMFSFJ, 2022[175]; Government of the Netherlands, 2023[176]; Ajuntament de Barcelona, 2020[177]). In the United States, the Surgeon General published an advisory report to call attention to the importance of social connections for individual and community-wide health and well-being in May 2023, including recommendations for different stakeholders across government, research, civil society, media, families and individuals (Office of the U.S. Surgeon General, 2023[161]). In addition, the Public Health Agency in Sweden and the Ministry of Social Rights and Agenda 2030 in Spain are currently in the process of developing national loneliness strategies (Swedish Presidency of the Council of the European Union, 2023[178]; EPE, 2022[179]).

- Routinely evaluating policies for their impact on social connectedness.

Expand support for existing social connection interventions and infrastructure

Support for existing programmes and structures that tackle the drivers of social connections, and for which evidence of efficacy exists, should be expanded. This includes:

- Integrating social connections in existing service structures, for example, through social prescribing, a practice in which health professionals connect patients to non-health-related support provided by community organisations (e.g. debt advice and financial planning workshops, arts and sports activities, walking groups) (OECD, 2021[53]).
- Investing in social infrastructure, e.g. public, civic and green spaces that create inclusive opportunities for social contact and improve a sense of belonging. For instance, the German government is currently sponsoring more than 500 multi-generational centres in which people from different ages and backgrounds come together for social and civic engagement as part of its strategy to strengthen local development in all regions (BMFSFJ, 2023[180]).
- Supporting community programmes, including recreational and art activities and volunteering groups. For instance, the United Kingdom recently launched a "Know Your Neighbourhood Fund" for local organisations, in order to widen participation in volunteering and tackle loneliness, particularly for people living in disadvantaged areas (Government of the United Kingdom, 2023[181]). Additionally, Germany's Urban Development Support programme "Social Cohesion – Building Coexistence in the Neighbourhood Together," implemented jointly by the Federal Ministry for Housing, Urban Development and Building and state and municipal governments, focuses on strengthening cohesion through quality-of-life oriented integrated urban development planning, more diverse housing, and neighbourhood managers who help residents connect with one another and volunteer (Federal Ministry, 2023[182]). The Ministry of Health, Welfare and Sport in the Netherlands also focuses on supporting municipalities in expanding and evaluating local social connectedness programmes (Government of the Netherlands, 2023[176]).
- Expanding access to psychological support services, including in education systems, to improve social skills and maladaptive social cognition for people who already feel disconnected (Masi et al., 2011[183]).

Strengthen the evidence base on effective and scalable interventions for different population groups

There are still many knowledge gaps on what works best in which context in order to lastingly improve social connectedness, especially when it comes to scalable policy solutions (European Commission, 2023[184]; NWO, 2023[185]). There is a real need to fund further research on the root causes of social connectedness (rather than only on its prevalence) and to share best practices among OECD countries, including for the following areas:

- On the different components of social connectedness (including structural, functional and quality aspects), rather than only on loneliness
- On the different interventions needed to target children, young adults and the working-age population, rather than only older people, including on group-specific pathways and delivery mechanisms such as digital tools
- On the role of the stigma of loneliness
- On the medium- and long-term impact of promising interventions, since most have only been evaluated in the short term
- On community-level and place-based approaches that tackle social determinants and improve social infrastructure, rather than only individual-level interventions

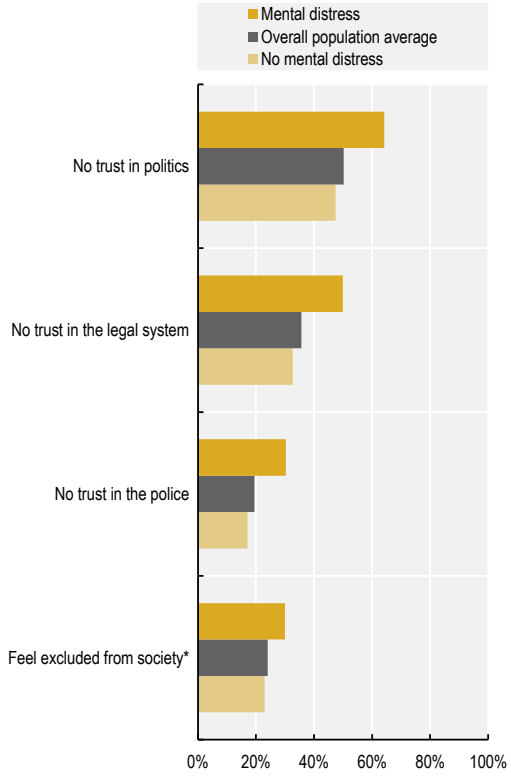
4.4. Civic engagement

Civic engagement is about whether citizens can and do take part in important civic activities that enable them to shape the society in which they live. Mental health has political consequences in that people's likelihood to participate in civic engagement can be influenced by their mental states, and perceptions of public institutions can be a risk factor for poor mental health.

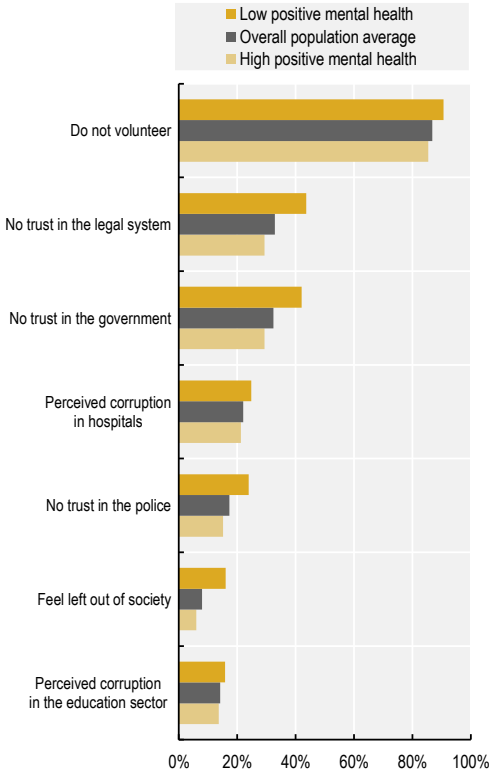
Feelings of exclusion from society and alienation from public institutions are associated with worse mental health outcomes. Indeed, compared to their peers with good mental health, people at risk of mental distress and those with low positive mental health are more likely to report distrust in a range of public institutions (e.g. the government, the legal system, the police) and to say they feel left out of society (Figure 4.8).

Figure 4.8. Feeling alienated from society and public institutions is associated with both mental distress and lower positive mental health

Panel A: Share of those with civic engagement deprivations, by those at risk for mental distress, those not, and the overall population, OECD 26, 2013 & 2018



Panel B: Share of those with civic engagement deprivations, by those at risk for low positive mental health, those with high positive mental health, and the overall population, OECD 24, 2016



Note: In Panel A, risk of mental distress is defined using the Mental Health Index-5 (MHI-5) – indicators marked with an asterisk refer to 2018 only. In Panel B, positive mental health is defined using the World Health Organization-5 (WHO-5) tool. Refer to the *Reader's Guide* for full details of each mental health survey tool and for how each well-being deprivation is defined.

Source: Panel A: OECD calculations based on the 2013 and 2018 *European Union Statistics on Income and Living Conditions (EU-SILC)* (n.d.[18]) (database), https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions; Panel B: OECD calculations based on the 2016 *European Quality of Life Surveys (EQLS)* (Eurofound, n.d.[19]) (database), https://www.eurofound.europa.eu/surveys/european-quality-of-life-surveys.

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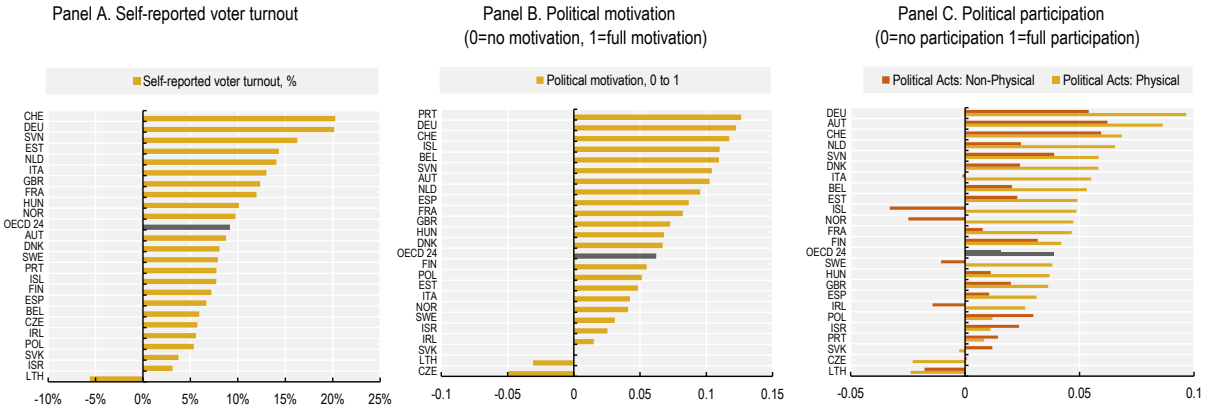
Similarly, people who reported having experienced more symptoms of depression in the past year (the mental health condition on which most of the research in this field has focused so far) are less likely to vote and to engage in other forms of political participation, such as contacting a politician, signing a petition or demonstrating. They are also less likely to be interested and confident in politics more generally (Figure 4.9).

Figure 4.9. Depression is associated with citizens being less active, less interested and less confident in politics

Average weighted differences between the top and bottom depressed quintiles in the European Social Survey, 2006-12



Note: Political motivation refers to the mean of rescaled answers to questions about internal political efficacy (whether one believes they can influence politics) and interest in politics. Political participation refers to the mean of rescaled answers to questions about having contacted a politician, worked for a party/action group, wore a campaign sticker, signed a petition, and demonstrated in the past year.

Source: Landwehr and Ojeda (2021[186]) "Democracy and depression: A cross-national study of depressive symptoms and nonparticipation". *American Political Science Review*, Vol.115, Issue 1, pp.323-330, https://doi.org/10.1017/S0003055420000830.

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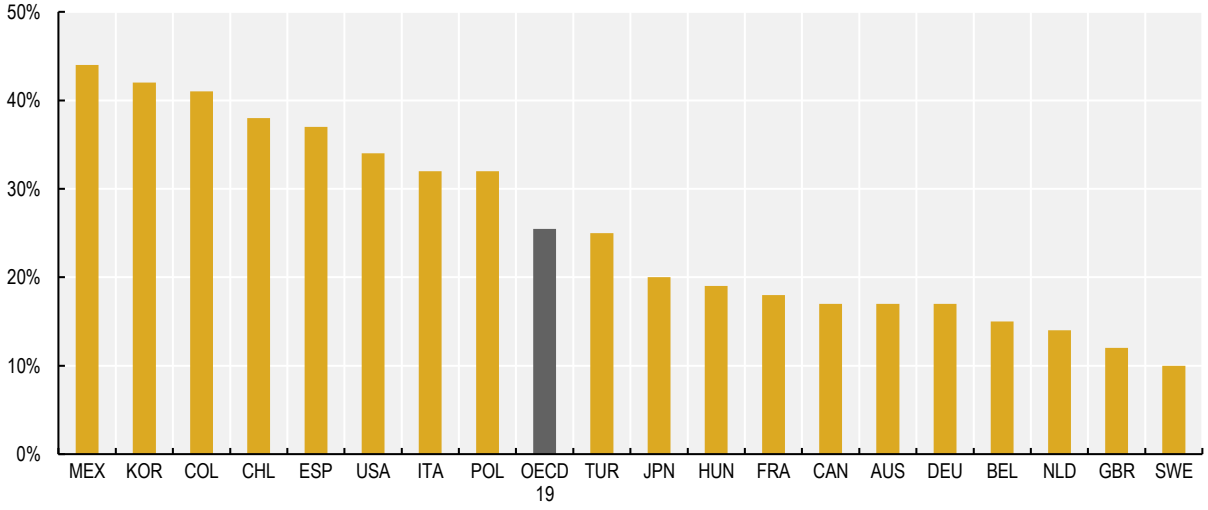
Outcomes related to civic engagement and political representation can also affect mental health

Without the participation of people experiencing mental ill-health, their needs (including needs regarding conditions that could help with recovery and promote good mental health) might not be well represented on the political agenda, contributing to further decreasing feelings of political efficacy and motivation (Bevan and Jennings, 2014[187]; Bernardi, 2021[188]). Second, there is tentative evidence from some OECD countries that "political stress" and concerns about polarisation are emerging as new risk factors for mental health. In 2020, 40% of American adults felt significant stress due to politics, between 20% and 30% blamed politics for causing fatigue, lost sleep, feelings of anger and loss of temper and for triggering compulsive behaviours, and 5% reported suicidal ideation as a result (Smith, 2022[189]).

Figure 4.10. A quarter of respondents across OECD countries believe people with a history of mental illness should be excluded from public office

Proportion of respondents stating that they agree with the statement "Anyone with a history of mental illness should be excluded from public office", OECD 19, 2019



Note: OECD 19 is the unweighted average of the countries shown. Results for the United Kingdom refer to Great Britain (excluding Northern Ireland).
Source: Ipsos MORI / King's College London (2019[190]), *World Mental Health Day 2019*, https://www.ipsos.com/sites/default/files/ct/news/documents/2019-10/world-mental-health-day-2019_0.pdf.

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Box 4.4. Policy focus: Civic engagement interventions that also improve mental health outcomes

Ease the participation and representation of those with lived experience of mental ill-health in politics

The particular challenges for political participation and civic engagement that people experiencing mental ill-health face should be taken into account when trying to increase their representation in politics, including by:

- Offering less physically-demanding forms of participation in decision-making (e.g. through digital formats) and reducing any potential barriers to voting embedded in regulation more generally. Several of these would also help the participation of other groups, such as the elderly or those working long, inflexible working hours.
- Improving trust in public institutions by targeting people with experience of mental ill-health, and particularly young people. The updated OECD Trust Framework has identified government competencies (i.e. responsiveness and reliability) and values (i.e. openness, integrity, fairness) as the drivers of public trust (OECD, 2017[191]; Brezzi et al., 2021[192]). The various recommendations and good governance practices in each area could be adapted for specific population groups, such as people experiencing poor mental health.
- Conducting awareness campaigns to decrease stigma, particularly for politicians with lived experience of mental ill-health.
- Funding research on the impact of mental ill-health on civic participation beyond depression, and whether the challenges might be different.

Address political stress as an emerging risk factor for mental health

The prevalence of political stress should be monitored further to determine whether this is a growing phenomenon across OECD countries. Individuals already affected could be supported by integrating the management of political stress as well as other risk factors, such as low perceptions of government responsiveness, into clinical practice and education systems. In addition, interventions that enhance social capital, such as investment in civic spaces to connect people from different backgrounds, including political views, could help to bridge divides (Box 4.3).

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Notes

[1] This also implies that intersectionality between these characteristics increases the risk for being affected by IPV.

[2] Disability is another individual risk factor for IPV: people with disabilities have been consistently found to be at greater risk of sexual, physical and psychological IPV victimisation, with some estimates suggesting that more than 50% of disabled women experience IPV in their lifetime (Breiding and Armour, 2015[193]).

[3] These figures are not fully representative for children aged 0-3, however, because children were of different ages at the time their parents were surveyed. The lifetime prevalence of experiencing intimate partner violence was 9.6% for mothers (who represented 90% of the sample) and 2.6% for fathers (who represented 7% of the sample of around 8 000 families).

[4] Pathways that explain the link between IPV perpetration and mental ill-health might include symptoms leading to violence (e.g. paranoia, hostility, anger), increased likelihood of substance use, and shared genetic and family environmental risks for mental health conditions, substance use and violence (Oram et al., 2022[42]). However, more research into these hypothesised causal mechanisms is needed.

[5] Stereotype threat refers to expectations and anxieties activated by a stigmatised group when negative stereotypes about their group are made salient.

[6] For instance, Black Americans with severe depression are more likely than white Americans to be misdiagnosed as having schizophrenia, suggesting that clinicians tend to put more emphasis on psychotic than depressive symptoms for this population group (Gara et al., 2019[194]).

[7] For instance, in 2014 (the latest available data point), Black people in the United Kingdom were more than twice as likely as white people to be receiving treatment for mental health problems (Government of the United Kingdom, 2017[195]).

[8] Moreover, in countries where there is a regulation on maximum working time, this is generally limited to 48 hours per week.

[9] It is important to note that the majority of research on social connectedness more generally and with regards to studies relating to mental health often does not cleanly distinguish between different aspects of the phenomenon. Often very different concepts, such as social isolation, loneliness, social capital, social cohesion and community participation, are either conflated or used interchangeably. Upcoming WISE work on different conceptualisations of relevant aspects of social connectedness will contribute to this field, focusing on more harmonised official data collection on the topic.

5. Realigning, redesigning, refocusing and reconnecting for better outcomes: Practical lessons

Implementing and sustaining policies that simultaneously improve mental health and well-being outcomes require resources, incentives and working arrangements that enable all relevant stakeholders to contribute to the shared goal of tackling the social, economic, relational and environmental determinants of mental health upstream. Using key characteristics of well-being policy practice, this chapter reviews how selected mental health initiatives across the OECD have been aligning action across government agencies; redesigning policy formulation to address the joint determinants of mental health; refocusing efforts towards the promotion of positive mental health; and connecting with societal stakeholders beyond government, including those with lived experience, youth, civil society and researchers. Cross-cutting lessons point to the importance of clearly defining mental health goals, allocating sufficient time and resources to build partnerships, using strategic grantmaking to fund non-health activities, and systematically building in provisions for evaluation.

The previous three chapters of this report have highlighted the strong interlinkages between people's mental health and their experiences in other components of their economic, social, environmental and relational well-being. An extensive body of literature shows the important role that different government agencies, beyond health, have in improving population mental health alongside the other well-being outcomes that fall within their policy remit. The wide range of possible "win-win" policy examples that are showcased in Chapters 2-4, and that in some cases have already been put in place in OECD countries, exemplify the potential for such co-benefits.

However, despite their potential, systematically implementing such win-win policies is often difficult in practice. The mental health policy arena may be particularly challenging, in that better integrating service provision and tackling the social, economic and relational determinants of mental health upstream, require continuous cross-agency collaboration. Indeed, while almost three-quarters of countries responding to the OECD Mental Health Benchmarking Policy Questionnaire in 2020 reported having in place national programmes or strategies for integrated and cross-governmental approaches to mental health governance, there is room for improvement (OECD, 2021[1]). A recent review of progress made five years after the adoption of the 2015 *OECD Recommendation on Integrated Mental Health, Skills and Work Policy,* which focuses on the key areas of health care, youth support and education, workplace and welfare policy, found that OECD countries continue to see not only mental health treatment but also mental health prevention and promotion as first and foremost an issue for the health system (OECD, 2021[2]). Indeed, up to now integration with other sectors, particularly when it comes to linking mental health with welfare and employment services, is limited and often not scaled (OECD, 2021[2]). There tends to be even less systematic integration when it comes to other areas that impact mental health – beyond the key domains addressed in the *Recommendation* – such as the environment (see Chapter 3), neighbourhood design (see Chapters 2, 3 and 4), social connectedness, safety or work-life balance (see Chapter 4).

Successful strategy and policy formulation and implementation hence need to be supported by a broader ecosystem that provides resources, incentives and working arrangements that enable all relevant stakeholders to contribute to the shared goals of tackling the determinants of mental health upstream. To illustrate some of the challenges and opportunities of integrated approaches to mental health policy, following the characteristics of well-being policy approaches more generally (Box 5.1), this chapter examines nine different initiatives from eight OECD countries as case studies, with information gathered from mid-2022 until early 2023 (Table 5.1).[1]

The case studies vary in terms of focus: some include an overarching mental health strategy (e.g. in Sweden and Finland), others centre on an agency focusing on mental health and well-being (e.g. in New Zealand), and some concern specific programmatic activities (e.g. in Canada, Norway, Western Australia, and for the *Act Belong Commit* Programme). The findings of this chapter hence do not reflect a comprehensive stocktake that is representative of all OECD countries or of the included countries' entire mental health portfolio, nor do they imply that there are no interesting approaches elsewhere.

In addition, the evidence base on the impact of the initiatives varied widely. In some cases, extensive evaluations including in peer-reviewed journals were published, while other initiatives were only launched at the time of writing this report and their inclusion here is based more on what has not worked well in previous strategies. Furthermore, since the case studies do not represent individual interventions (but rather supporting mechanisms that enable the programmes listed as examples in the previous chapters), they have not been subject to a typical best-practice evaluation for public health interventions (OECD, 2022[3]). Nevertheless, the experiences of these initiatives point to useful insights about the different elements of policy ecosystems that can help realise well-being and mental health co-benefits. They hence enlarge the evidence base on how countries are trying to align mental health action across government agencies; design policy formulation to address the joint determinants of mental health; refocus efforts towards the promotion of positive mental health; and connect with societal stakeholders beyond government, including those with lived experience, youth, civil society and researchers.

Table 5.1. Selected mental health initiatives featured as case studies

Initiative	Country	Agencies interviewed
Act Belong Commit (the ABCs of mental health) Programme	Australia (Western Australia), Denmark, Faroe Islands, Finland, Norway	Trøndelag Public Health Alliance in Norway; Finnish Institute for Health and Welfare; Board of Public Health in the Faroe Islands; Copenhagen University
Western Australian Mental Wellbeing Guide	Australia (Western Australia)	Western Australia Mental Health Commission
Mental Health Promotion Innovation Fund & Positive Mental Health Surveillance Indicator Framework	Canada	Health Canada; Public Health Agency of Canada
National Mental Health Strategy and Programme for Suicide Prevention 2020-30	Finland	Finland Ministry of Social Affairs and Health, Finnish Institute for Health and Welfare, MIELI Mental Health Finland
Mental Health and Wellbeing Commission (Te Hiringa Mahara)	New Zealand	New Zealand Mental Health and Wellbeing Commission (Te Hiringa Mahara)
Programme for Public Health Work in Municipalities	Norway	Norway Directorate of Health
Upcoming National Policy for Mental Health and Suicide Prevention	Sweden	Public Health Agency of Sweden
Public Service Boards & the North Wales Public Service Lab and Insight Partnership	Wales	Flintshire and Wrexham Public Services Board, Wrexham University

Box 5.1. Characteristics of well-being policy approaches applied to mental health

In recent years, practitioners in the field of public health have increasingly emphasised its role as provider of public goods to society more broadly, highlighting its important contributions to and interlinkages across sectors such as education, employment and social participation. This approach has also been conceptualised as moving away from a reactive focus on reducing disease, towards the proactive promotion of good well-being outcomes and new collaborative ways of working jointly with other departments, stakeholders and citizens (Table 5.2) (Von Heimburg et al., 2022[4]).

Table 5.2. Moving from a traditional public health approach to a well-being approach

Assumptions, practices and roles in framing public goods as well-being

	Traditional public health	Well-being
Assumptions		
Goals	Reduce incidence and prevalence of disease	Promote well-being for all
Scope	Physical and mental health	Multiple domains of well-being
Responsibility	Health sector	All sectors
Function of power and privilege*	Invisible	Visible
Practices		
Capabilities	Deficit orientation	Strength orientation
Ecological focus	Individual	Community
Timing of interventions	Reactive	Proactive
Disciplinary approach	Health and epidemiology	Transdisciplinary
Roles		
Role of citizen	Passive recipient of services	Co-creators of public good
Role of professionals	Experts	Facilitators
Role of settings and institutions	Service providers	Arenas for co-creation of public good
Role of government	Fund health sector	Convene and coordinate all sectors

Source: Von Heimburg et al. (2022[4]), "From public health to public good: Toward universal wellbeing", *Scandinavian Journal of Public Health*, Vol. 50, Issue 7, pages 1062-1070, https://journals.sagepub.com/doi/10.1177/14034948221124670.
Note: * This point both acknowledges the role different power structures, including structural discrimination, play in determining health outcomes, and views citizens as active, resourceful contributors to society.

The OECD has previously summarised well-being policy approaches in terms of four "R's": *realigning* policy practice across government silos, *redesigning* policy content from a more multidimensional perspective, *refocusing* policies towards the outcomes that matter most to people, and *reconnecting* people with the public institutions that serve them (OECD, 2021[5]). For this report, these principles have been adapted to reflect the goals of population mental health prevention and promotion strategies, and to point out the common challenges and success factors for achieving them (Figure 5.1).

Figure 5.1. Principles of well-being policy approaches in the case of mental health

REALIGN: WHOLE-OF-GOVERNMENT APPROACH	REDESIGN: WELL-BEING DETERMINANTS FOR PREVENTION AND PROMOTION	REFOCUS: EMPHASIS ON POSITIVE MENTAL HEALTH	RECONNECT: BUILDING BROAD PARTNERSHIPS
Involve collaborations across multiple government departments	Reflect the (joint) social, economic, environmental and relational determinants of mental health in policy content	Both address deprivations in mental health and promote human flourishing	Collaborate with people with lived experience, communities and non-governmental actors

5.1. Realign: Whole-of-government approach

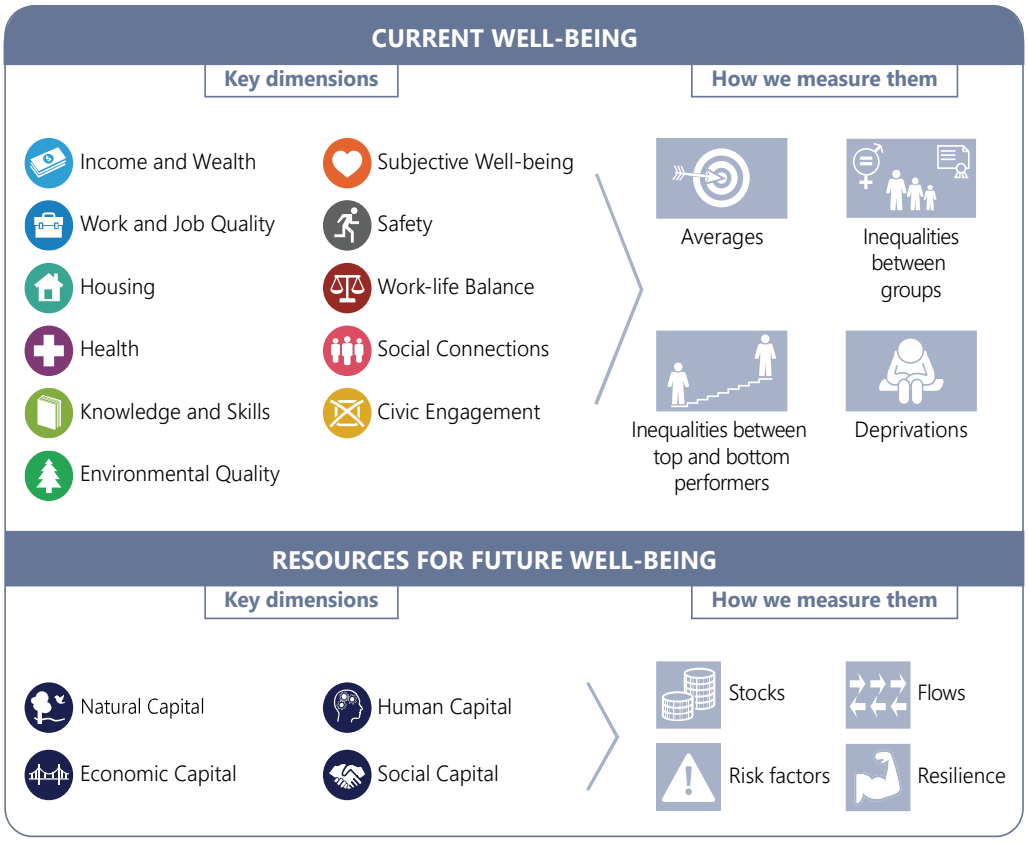
Many (mental) health inequities are influenced by policies outside of the health sector, and it has long been recognised that intersectoral collaboration is needed to tackle them. Indeed, such efforts have often been described as Health in All Policies (HiAP), meaning that health considerations are systematically integrated into policymaking across sectors, alongside other objectives (CDC, 2016[6]; WHO, 2013[7]). Examples of existing coordination mechanisms between mental health and non-health sectors include joint service planning (often through inter-departmental coordinating committees or advisory groups); single multi-agency care plans; formal interagency collaborative agreements; joint training or cross-training of mental health and other staff to ensure shared understanding; sharing of information systems; blended funding initiatives; and joint service provision through multidisciplinary, multi-agency teams (Whiteford et al., 2014[8]; Diminic et al., 2015[9]).

However, turning a whole-of-government approach into reality, and sustaining it over time, is not easy. HiAP has often remained unrealised in practice, partly because the asymmetry built into the concept makes coalition-building difficult: it has often focused on wins for the health sector and often seems to imply that other sectors should adjust their priorities accordingly (National Collaborating Centre for Healthy Public Policy, 2022[10]; WHO and European Observatory on Health Systems and Policies, 2023[11]; Lundberg, 2020[12]). Indeed, a review of how municipal governments in Denmark, Norway and Sweden (all of which prioritised an HiAP approach over the last decade) implemented HiAP points to challenges related to insufficient political commitment to health equity goals outside of the health sector and inadequate budgetary prioritisation (Scheele, Little and Diderichsen, 2018[13]). In addition – in many countries and not limited to health topics – inter-departmental groups and task forces can be time-limited, tend to have no formal authority over other departments, and, without proper resourcing, rely on motivated individuals (outside of their day job) rather than formalised structures to push forward a collaborative agenda (Mondal, Van Belle and Maioni, 2021[14]; Fujisaki et al., 2016[15]; Karré, Van der Steen and Van Twist, 2013[16]; Kokkinen et al., 2017[17]; Tooher et al., 2016[18]).

Broader multidimensional frameworks can provide the mandate for agencies to contribute to common goals

One way to engage other sectors in promoting (mental) health outcomes and to strenghten their ownership over these topics is to emphasise broader, shared concepts such as sustainability and well-being. The various multidimensional well-being frameworks developed across OECD countries can provide a common understanding of the wide range of outcomes that matter to people (see Figure 5.2 for the OECD Well-being Framework as an illustration). This can be a starting point to support alignment across government departments towards objectives for which they share joint responsibility, and since outcomes right across government are included, it can resonate more strongly with a wider range of internal stakeholders compared to a narrower focus on health equity (Scheele, Little and Diderichsen, 2018[13]; OECD, 2023[19]).[2]

Figure 5.2. The OECD Well-being Framework



Source: OECD (2020[20]), *How's Life? 2020: Measuring Well-being*, OECD Publishing, Paris, https://doi.org/10.1787/23089679.

Anchoring such well-being frameworks in legislation has provided incentives for new, long-term ways of working together. For instance, in Wales, the 2015 Wellbeing of Future Generations Act sets out seven national well-being goals (encompassing health but also prosperity, resilience, equality, cohesion, culture/language and global responsibility). The Act requires public bodies to consider the long-term impact of their decisions, to work more closely with the public, communities and each other, and to address persistent problems such as poverty, health inequalities and climate change (Future Generations Commissioner for Wales, 2023[21]).[3] Under this Act, each local authority established a ***Public Services Board (PSB)*** to improve joint work across all public services; each PSB has a member from the local health board alongside other authorities. In some cases, the PSBs have joined together across local authorities to realise the benefits of subregional and regional collaboration. The boards must carry out a

well-being assessment, outlining the state of different aspects of well-being and expected future trends in the local area, which is then used to support a local well-being plan (formulated every five years) that sets out how PSBs will meet their responsibilities under the Act (Welsh Government, n.d.[22]; The Future Generations Commissioner for Wales, 2023[23]).

Oftentimes, mental health, and its connection to other areas of public policy, is identified as a priority area in both well-being assessments and plans. For instance, the Wrexham County Borough 2022 Well-being Assessment highlighted that access to the natural environment is associated with positive mental health outcomes, and that almost 20% of children aged 10+ in North Wales experience mental health problems (higher than the Welsh average of 14%) (Wrexham PSB, 2022[24]). Accordingly, the resulting 2023-28 Well-being Plan of the Flintshire and Wrexham Public Services Board agreed to "innovate with communities to build good mental health and wellbeing" as one of its six well-being priorities (Figure 5.3). The overarching well-being objectives under the Welsh Future Generations Act have thus facilitated a regular space for collaboration and coordination among public bodies, rather than setting up multiple inter-departmental task forces (e.g. on substance use, on suicide, on mental health) that can face overlapping issues and similar upstream determinants.

Figure 5.3. Example of well-being outcomes and objectives, including mental health, in a Public Services Board Well-being Plan in Wales

Well-being objectives and outcomes in the Flintshire and Wrexham Public Services Board Well-being Plan 2023-28

Source: Flintshire and Wrexham Public Services Board (2023[25]), *Flintshire and Wrexham's Wellbeing Plan 2023-2028*, https://www.wrexhampsb.org/well-being-assessment/.

Also in cases where HiAP remains the central guiding principle, a recognised broader framework can provide non-health agencies with an official mandate (and thus the agency) to engage with health goals. Sweden's Parliament endorsed a national public health policy in 2018, stating that "public health is a shared responsibility for all sectors at all levels" (Folkhälsomyndighete, 2021[26]). The policy's eight target areas reflect the multidimensionality also inherent in many well-being frameworks, and highlight the social determinants of health (conditions in early life; knowledge, skills, and education/training; work, working conditions, and work environment; income and economic resources; housing and neighbourhood conditions; health behaviours; control, influence, and participation; an equitable and health-promoting health and medical service) (Figure 5.4). It also covers cross-cutting areas of focus, including human rights, national minorities, disability policy, child and youth rights policy, equality and discrimination policy.

Figure 5.4. The eight target areas of the Swedish public health policy

Source: Folkhälsomyndighete (2021[26]), *Towards a Good and Equitable Health*, Public Health Agency of Sweden, https://www.folkhalsomyndigheten.se/contentassets/bb50d995b033431f9574d61992280e61/towards-good-equitable-health.pdf.

Sweden is currently in the process of creating a ***new national strategy on mental health and suicide prevention***. In doing this, the Ministry of Health and Social Affairs requested that the new strategy comprehensively address the need for "good, equal and gender-equitable mental health for the entire population" and be based on the national public health policy framework (Folkhälsomyndighete, 2020[27]; 2023[28]; Becker, 2023[29]). In this way, the framework was instrumental in bringing together 26 delivery agencies in 2020, under the lead of the National Board of Health and Welfare and the Swedish Public Health Agency, to draft a proposal for a strategy with goals, priorities and indicators for follow-up.[4] The proposal, titled "*It's about life*", was submitted to the Ministry of Health and Social Affairs in September 2023 for consideration and eventual adoption (Folkhälsomyndighete, 2023[30]). By contrast, the previous Government's Strategy for Mental Health 2016-20, while also emphasising the importance of whole-of-society approaches to population mental health promotion and prevention,[5] was created before the establishment of the national public health policy framework and did not include clearly assigned areas of responsibility and targets (by government) for agencies. In retrospect, this led to a certain lack of ownership

and engagement in several national agencies, and external evaluators have noted that it left especially regional and municipal governments with the responsibility for addressing the structural determinants of mental health (Fjellfeldt, 2023[31]; Becker, 2023[29]). In addition, a government inquiry strongly recommended that more comprehensive intersectoral efforts were needed to develop the 2016-20 Strategy's follow-up in order to achieve sustainable progress on mental health (Government of Sweden, 2019[32]).

Implementation plans that address intersectoral collaboration, alongside performance evaluation metrics, can concretely support delivery

The high-level mental health strategies published by government departments often focus on the overall vision and opportunities for synergies, without explicitly spelling out the steps needed for their implementation and roll-out at the delivery level. Aspects such as funding and accountability, or plans for the monitoring and evaluation of partnerships, can also be absent from high-level strategy-setting documents (Diminic et al., 2015[9]). In some of the case studies, such as in Finland, these aspects have been or are planned to be supported by separate implementation plans.

In Finland, the current ***National Mental Health Strategy and Programme for Suicide Prevention*** was passed in February 2020, to cover the ten-year period ending in 2030 (Ministry of Social Affairs and Health, 2020[33]). The plan is housed in the Ministry of Social Affairs and Health but also involves nine other ministries.[6] To facilitate inter-agency cooperation, an Interministerial Cooperation Group meets multiple times a year to foster cross-ministry connections and workshop how each could contribute to the promotion of mental health and well-being (the National Strategy does not provide lines of funding to different government agencies to develop programmes that touch on mental health). In order to support the implementation of the Strategy, a separate Draft Resolution on Mental Health Promotion was published in 2023, concretely outlining planned cross-cutting measures for mental health promotion and suicide prevention for 2023-27, and how these are reflected in the strategies and programmes of other ministries (Ministry of Health and Social Affairs, 2023[34]).[7] The Draft Resolution will be updated in line with the forthcoming Government Programme (following a change in the Finnish Government in April 2023), and then lead to a separate implementation plan.

In addition, Finland has made the process of intersectoral collaboration itself an explicit goal of mental health policy. The National Mental Health Strategy and Programme for Suicide Prevention has five priority areas, which include: (1) mental health as a capital, (2) the mental health of children and young people, (3) mental health rights, (4) services to effectively meet all peoples' needs and (5) good (integrated) management of mental health (Ministry of Social Affairs and Health, 2020[33]). While the first four priority areas capture improved mental health outcomes and service delivery, the fifth, "good management", focuses specifically on the ability to effectively implement the strategy across administrative sectors and levels of government. Measures taken under this area, and also outlined in the Draft Resolution on Mental Health Promotion, include the development of mental health impact assessments (see section on "redesign" below), and regular assessments of municipal performance in promoting well-being and health, focusing on preconditions for effective management (Table 5.3). In addition, the good management priority of the National Strategy highlights that "models for inter-agency collaboration will be developed, describing the role of actors, cost-sharing and management of activities" (Ministry of Social Affairs and Health, 2020[33]).

Table 5.3. Areas of assessment for municipal management performance in health and welfare promotion in Finland

Health promotion capacity building framework (TEA)

Indicator	Details
Commitment	The organisation's commitment to health and welfare promotion based on strategy documents as well as the use of national programmes
Management	How health and welfare promotion are organised, defined and implemented
Monitoring and needs assessment	How health and welfare determinants in the population are monitored, how the needs of different population groups are assessed and how the results are reported to the management and elected officials
Resources	The resourcing of health and welfare promotion based on staffing types and skills
Participation	Residents' opportunities to take part in development and assessment of activities

Note: Indicators are scored from 0 (low result) to 100 (high result) for each municipality. Information is collected every two years.
Source: THL (2023[35]), *Health and Welfare Promotion*, Finnish Institute for Health and Welfare, https://thl.fi/en/web/thlfi-en/statistics-and-data/statistics-by-topic/health-and-welfare-promotion.

Successful cross-sectoral collaboration requires sufficient resources, but can facilitate participation and relationship building

Despite the increasing awareness of the importance of mental health and its economic and societal costs, mental health policies have historically seen a chronic shortage of investment. For instance, among OECD countries for which data are available, mental health spending as a proportion of total health spending largely remained unchanged between 2009 and 2019, when it stood at just under 7% – even though the costs of mental ill-health are estimated at more than 4% of GDP across the OECD (OECD, 2021[1]). While some OECD members, such as Australia, Austria, Canada, Chile, Latvia, Lithuania and the United Kingdom announced new funding for mental health care in response to the COVID-19 pandemic, this was not the case for most countries (OECD, 2023[36]).

Constraints on resources are also among the most commonly cited barriers to intersectoral linkages between mental health and other sectors (Whiteford et al., 2014[8]). Indeed, the OECD has previously highlighted the key role that financial incentives can play in encouraging stakeholders to develop more integrated mental health strategies and services, and the need for budgets to be allocated to ministries other than health (OECD, 2021[2]). However, responses to the 2020 OECD Mental Health Benchmarking Policy Questionnaire showed that most countries do not have such non-health budgets in place (and many countries had difficulty in identifying whether a dedicated mental health budget existed) (OECD, 2021[1]). A systematic review of mental health policy documents from jurisdictions in Australia, New Zealand, the United Kingdom, Ireland and Canada also found there to be little discussion of intersectoral financing arrangements at the strategy stage; and an accompanying report in support of the upcoming Irish Mental Health Promotion Plan stressed that while cross-sectoral integration will increase value for money and reduce erroneous spending, commitment in terms of additional investment and resources is crucial if implementation success (Diminic et al., 2015[9]; Barry, Keppler and Sheridan, 2023[37]).

Providing resources to all delivery agencies can support deeper engagement and commitment, as is shown by the development of the aforementioned proposal for the ***new national strategy on mental health and suicide prevention*** in Sweden. The drafting of the proposal was jointly led by the National Board of Health and Welfare and the Swedish Publish Health Agency and involved 24 additional agencies. While coordinated approaches are not new in Sweden, it is rare that over twenty agencies have been tasked with policy co-development. For each of the three years of the development phase, the government provided SEK 5 000 000 (around USD 480 000) to each of the two lead agencies, and SEK 1 000 000 (around USD 98 000) to all the other participating agencies to fund their involvement in strategy development. The

funding was used flexibly depending on each agency's needs; some (especially larger) agencies used the funds to pay internal staff costs, while others hired external consultants to drive this work.

Beyond funding, time to develop partnerships is another essential resource for collaboration. The time provided for co-development in Sweden – three years from 2020-23 – was viewed as an unusually long process by participants, but allowed for co-creation and exploratory idea development (Becker, 2023[29]). The first deliverable each agency was tasked with submitting was an analysis of the current relationship of mental health to their area of expertise, along with what they anticipate as long-term needs (Folkhälsomyndighete, 2020[27]).[8] During the first year, meetings between the 26 agencies were held on a monthly basis and primarily consisted of knowledge sharing. As the strategy development continued, the work became more open and less prescriptive, as no pre-defined roles were given to agencies beyond the two leads. The flexibility of this co-creative process was perceived by participants to be at times difficult, especially given the number of views in the room, but also allowed for new perspectives to be developed.[9]

This exercise revealed how little agencies knew about one another's work and ways of operating. In fact, many participants perceived the collaborative implementation process to be even more important than the actual content discussed and understood this assignment as a potential foundation for more cooperation in the future (Becker, 2023[29]). It is too early to judge whether such an extensive collaborative exercise is realistic for frequent or time-sensitive policymaking needs in the future, and what will happen to the recommendations in the draft proposal after submission to the Ministry of Health and Social Affairs. However, this experience points to the importance of continuously investing in building intersectoral relationships and trust, to start shifting (often hierarchical) organisational cultures to open learning (Mondal, Van Belle and Maioni, 2021[14]).

Independent oversight agencies and funding for broader well-being activities at the local level represent new models for realigning

Several case studies are employing models for realigning across government that go beyond the more traditional examples of joint service provision and interagency task forces. These include creating independent agencies to evaluate the efforts of other stakeholders, and redirecting funding to support broader mental health and well-being activities at the local level.

A model for creating a separate body to assess progress on mental health and well-being, and relevant efforts across sectors has been established in New Zealand through the ***Mental Health and Wellbeing Commission (Te Hiringa Mahara)***. The Commission, established in 2021 as an independent crown entity, provides system oversight on activities related to mental health and well-being and plays an advocacy role of amplifying community voices in policy processes (Mental Health and Wellbeing Commission, 2022[38]).[10] The Mental Health and Wellbeing Commission has four main strategic priorities: (1) advancing mental health and well-being outcomes, (2) achieving health equity, with a special focus on priority populations, (3) advocating for a people-centred mental health and addiction service system, and (4) addressing the wider determinants of well-being. These goals are supported by workstreams on monitoring and reporting, and advocacy and engagement. While the Commission does not itself implement or fund mental health programmes, it serves as a watchdog that comments on both the activities of agencies tasked with providing mental health and addiction services and the population-level outcomes these policies are designed to target, by providing publicly available reporting on trends and strategies, by advocating for improvement and by placing relevant issues in the public debate.

The Commission's monitoring reports have so far focused on publicly funded mental health and addiction services. Since one of the Commission's strategic priorities is to address the wider determinants of well-being, it not only monitors services but has also built relationships with other commissions and government agencies – including the Ministry of Business, Innovation and Employment; the Ministry of Social Development; the Ministry of Justice; and the Ministry for Children (Oranga Tamariki). It should be noted,

however, that other government agencies are not mandated to respond to the Commission's recommendations. In addition, despite its broad remit for system oversight, its funding is relatively small.[11]

An interesting model for vertical realignment (i.e. between different levels of government) for mental health comes from the Norwegian Ministry of Health and Care Service's ***Programme for Public Health Work in Municipalities***. Vertical coordination is particularly relevant for countries in which local governments hold principal responsibility for public health implementation, as is the case in several Scandinavian countries that are following an HiAP approach. Indeed, insufficient vertical support and lack of alignment between the national, regional and local levels have been cited as some of the challenges of implementing HiAP in practice (Scheele, Little and Diderichsen, 2018[13]).

The Programme for Public Health Work in Municipalities is a 10-year strategic grantmaking initiative, launched in 2017 by the Ministry of Health and Care Services, the Norwegian Directorate of Health, the Norwegian Institute of Public Health and the Norwegian Association of Local and Regional Authorities (KS). Coordinated by the Directorate of Health, the Programme's main goal is to increase the capacity of municipalities to establish systematic and long-term public health work that promotes mental health and prevents substance abuse among children and adolescents.[12] It provides funding for innovative projects in municipalities that are based on local needs assessments and the involvement of the local population (Helsedirektoratet, 2023[39]). Funds are provided by the Norwegian Directorate of Health to county governments, who run their own competitive process to award municipality proposals. The selection process is overseen by regional advisory boards, which vary county by county, but typically comprise university and research actors, members from NGOs, youth council representatives and municipality stakeholders themselves.

Aside from the Programme's engagement with different levels of government, it is innovative in various other ways: for instance, it pooled existing smaller government grants on mental health into a larger fund, and followed calls from the KS to move away from short-term, one year projects. In its first year, the Programme distributed grants totalling NOK 42 million (around USD 4 million); it gave out NOK 70 million (around USD 6.5 million) in the second year, and it has budgeted NOK 77 million (around USD 7 million) for grants every year since 2019. Each initiative is funded for over one year, but for less than five years, to strike a balance between effective long-term planning and enabling more agile policy making to better respond to evolving constituent needs. Indeed, a 2022 mid-term evaluation of the Programme found that municipalities singled out the long-term nature of the programme as an important success factor (Gotaas, Bergsli and Danielsen, 2022[40]).

The Programme employs an open definition of "innovation" – the only criteria being that projects must have a universal focus[13] and be a new activity, or extend an existing activity to a new target group or a new setting within the municipality. This has allowed municipalities to use funds flexibly in accordance with their needs, which in many cases has meant that funding has been allocated to activities that would not have fallen under the traditional remit of health (e.g. school or kindergarten-based programmes, increasing participation in recreational activities, creating public meeting spaces, developing integrated welfare services for parents with financial difficulties, funding activities strengthening youth participation such as youth councils).

Lastly, the Programme has provided a platform for learning for what works by enabling and expanding knowledge sharing between municipalities (which often do not have broad oversight over what their counterparts are doing in other parts of the country). Both the county governments and the Directorate of Health have served as a conduit for different local actors to learn from one another's innovations and adapt successful projects from other municipalities to their own local context (e.g. by organising a series of meetings and webinars on local public health work, and by launching a web portal featuring all funded projects) (Helsedirektoratet, 2021[41]). In addition, knowledge sharing has also been enabled to some degree with researchers – while there was no specific budget line provided for project evaluation, municipalities are required to document their initiatives and encouraged to collect impact data on

interventions. In some cases, this led to increased collaboration with universities (see section on "reconnect" below).

Evaluations of the overall Programme's outcomes so far have been positive. An initial survey commissioned by the Directorate of Health was conducted at the start to provide a baseline for mental health outcomes for children and young people in Norway, as well as for existing efforts at the municipal level to improve well-being, prevent mental ill-health, and diminish drug and alcohol use (Helgesen, Abebe and Schou, 2017[42]). The baseline report found that just under 20% of youth across municipalities reported feeling lonely in the past month and close to 13% reported symptoms of depression. 72% of municipalities reported that they had established cross-sectoral groups to address public health issues, showing that prior to the Programme's implementation there were some coordination channels in place. A mid-term evaluation in 2022 (which focused on ways of working in the municipalities rather than repeating the baseline outcomes survey) provided an overall positive assessment: the *Programme* had increased collaborative relationships and municipalities' competencies for public health work (Gotaas, Bergsli and Danielsen, 2022[40]). Indeed, almost all of the municipalities surveyed stated that the initiative has led to them to conduct activities that they would not have prioritized within ordinary operations, and many felt that they would integrate these into existing workstreams after the grant period ended. Recommendations for further improvement included strengthening the role of counties as intermediaries between the Directorate of Health and municipalities; providing municipalities with greater support and training in research design; better engagement with municipalities that have not yet voluntarily participated in the programme; and acknowledging and addressing tensions between the need to implement evidence-based policies (the evaluations of which take significant time and resources) and the desire to roll out new, innovative programmes (which may be so novel as to not have as robust an evidence base) (Gotaas, Bergsli and Danielsen, 2022[40]).[14]

5.2. Redesign: Well-being determinants for mental health prevention and promotion

In contrast with "realign", redesigning refers not to cross-government collaboration per se, but to how the development of policy *content* within individual government departments can better acknowledge how programmes affect people's mental health.[15] The previous three chapters, by highlighting policy examples that provide co-benefits for both mental health and well-being outcomes, have already outlined what redesigning might look like for different sectors (Box 5.2).

Box 5.2. Win-win policy examples to improve mental health and other aspects of well-being

Chapters 2-4 of this report have used the OECD's Well-being Framework to better understand the interactions between mental health outcomes and our material conditions, quality of life factors and determinants of the quality of relationships. Each section culminates with a box outlining policy examples that address mental health and the given well-being outcome: these serve to provide evidence-based options to improve population-level outcomes, showcase existing programmes implemented by OECD countries and provide new examples on topics studies far less up to now, such as the nexus of climate change, civic engagement or social connections, and mental health.

A selection of such policy examples are listed below:

- **Material conditions**, covering income and wealth; economic capital; work and job quality; and housing:

- Increase access to social assistance programmes, while decreasing the cognitive burden of enrolment (Box 2.1)
- Encourage employers to prioritise mental flourishing at work (Box 2.2)
- Create supportive and inclusive neighbourhoods to promote connectedness and psychological well-being (Box 2.3)

- **Quality of life aspects**, covering physical health; knowledge and skills; educational attainment and human capital; environmental quality and natural capital:
  - Better integrate physical and mental health care (Box 3.1)
  - Encourage physical activity to promote good mental health (Box 3.1)
  - Incorporate social and emotional learning into curricula (Box 3.2)
  - Promote life-long learning (Box 3.2)
  - Expand options to engage in ecotherapy and green social prescribing (Box 3.3)
  - Highlight the mental health costs of climate change, and the benefits of climate action, in environmental accounting and cost benefit analyses (Box 3.3)
- **Quality of relationships**, covering safety; work-life balance; social connections and social capital; and civic engagement:
  - Tackle the roots of discrimination and racism (Box 4.1)
  - Value unpaid work (Box 4.2)
  - Prioritise social connectedness in policy (Box 4.3)
  - Ease participation and representation of those with lived experience of mental ill-health in politics (Box 4.4)

Detailed information on each policy can be found in Chapters 2 through 4; additionally, Table 1.2 provides an overview of all policies recommended in this report along with the government agencies that are involved in their design and implementation – highlighting the reach of these initiatives beyond the health sector.

Concrete examples of redesigned mental health programmes across the case studies

Each of the case studies featured in this chapter have very different structures and working processes, however all include a focus on integrated approaches to mental health policy design and implementation, resulting in *redesigned* programmes that target outcomes beyond mental health.

Both Canada and Norway have experimented with distributing funds to sponsor innovative programmes that approach the improvement of mental health in different ways. In Canada, the ***Mental Health Promotion Innovation Fund*** (described in greater detail in the subsequent section on “refocus”), aims to address issues related to health equity by financing community-based initiatives that support mental health (Government of Canada, 2023[43]). Examples include providing psychosocial and education support to children, especially those in families that have newly arrived in Canada (KDE Hub, 2023[44]) (see Box 3.2, for a discussion of policies to introduce socio-emotional learning skills in curricula); providing cooking, nutrition and food-focused lessons to promote healthy relationships with one’s self and one’s body, to thereby improve mental health (KDE Hub, 2023[45]) (see Box 3.1 for policies to promote healthy behaviours and more physical activity); offering arts-based mental health, sexual health and trauma-processing services, and doing so in a way that promotes cultural identity and the development of coping skills (KDE Hub, 2023[46]) (see Chapter 4 for a discussion of safety and mental health, and Box 3.2 for an illustration of how life-long learning – including courses in art and music – can improve mental health); and developing

training courses for peers, parents and partnering organisations to better understand transphobia and transmisogyny, to better support trans, non-binary or gender-exploring youth (KDE Hub, 2023[47]) (see Chapter 4 for a discussion of discrimination and mental health). In Norway, the aforementioned ***Programme for Public Health Work in Municipalities*** has distributed funding to counties, which then receive applications from municipalities for their proposals for new approaches to mental health improvement. By way of example, the Kongsvinger municipality has rolled out a plan to provide loans to low-income families to ensure their children have stable housing and live in safe, clean environments. The programme does not aim just to improve housing outcomes, but by doing so, also hopes to improve the social inclusion of children and young people to enable them to participate in community events and activities, thereby improving their socio-emotional development and mental health (Forebygging, 2023[48]). In the Trondheim municipality, kindergartens have changed their initiation processes, so instead of three intense introductory days, they now host visits during parental leave in combination with a minimum of five less stressful introductory days later on, in order to better support not only children's cognitive development but also the parents' work-life balance (NTNU, 2023[49]).

In the case of national mental health strategies, such as in Finland, the overarching document may identify specific policies that will be funded under the national strategy. For example, the Finnish ***National Mental Health Strategy and Programme for Suicide Prevention 2020-30*** includes Individual Placement Programmes (IPS) as a means to promote the inclusion of people experiencing mental ill-health into the labour market, and more broadly, to facilitate the social inclusion of those with mental health conditions (see Box 2.2 for a longer discussion of IPS programmes, which have been piloted in eight OECD countries thus far. Refer also to OECD (2021[2]) for more information on IPS programmes and on OECD recommendations for their implementation). The IPS programme in Finland was initially rolled out in 2020 in five regional projects, and from 2023-24 will be expanded to six new regions (THL, 2023[50]; 2023[51]). The Mental Health at Work Programme is another example of a policy implemented under the National Mental Health Strategy and Programme for Suicide Prevention 2020-30, and includes a toolkit for employers that recommends concrete steps to promote mental health at work (Finnish Institute of Occupational Health, 2023[52]). The toolkit includes a "recovery calculator" to ensure that business processes and workloads promote employee recovery and resilience, guidance for managers for building safe spaces, and advice for substance abuse programmes at the workplace (see Box 2.2 for other examples of how governments can encourage employers to prioritise mental flourishing at work).

The ***Public Services Boards*** in Wales each develop their own initiatives at a local level. One of the efforts of the Wrexham and Flintshire PSB focuses on building a community of practice around social prescribing to improve social connectedness and shore up resilience to mental ill-health (refer to Chapter 4 for a longer discussion of social connections and mental health, and Box 4.3 for policy examples relating to social prescribing). The Wrexham and Flintshire PBS have also developed an initiative called the Children's University, in partnership with Wrexham University, to instill a love of learning in children from a young age. The programme is not school-based, but rather invites participation in extra-curricular activities including volunteering, sports, art, culture and outdoor learning (Wrexham PSB, 2022[24]; Wrexham University, n.d.[53]) (see Box 3.2 for a discussion of the importance of life-long learning for mental health, and Chapter 4 for more references on the way leisure activities and civic engagement – including volunteering – impact mental health).

The ***Act Belong Commit (the ABCs of mental health) Programme*** is a mental health promotion campaign that multiple countries have adopted – some at the national or local level – while in other countries non-governmental organisations, such as universities, have taken up the programme (see Box 5.3 for more information).[16] The ABCs encourage people to do something active (Act), to do something with someone (Belong) and to do something meaningful (Commit). Some national ABC initiatives have created an activity bank to provide people with ideas for ways they can enact each of the pillars and for communal activities they can join. For example, the Faroe Islands ABC programme hosted a walking excursion for unemployed individuals, to enable them to interact with one another in nature, destress, and

gain energy and inspiration from one another and the beautiful surroundings (Mentally Healthy WA, 2019[54]) (see Box 3.3 for examples of nature-based therapy, including green social prescribing). In Western Australia, ABC has been brought to the public school system through Mentally Healthy Schools: primary and secondary schools have integrated ABC messaging into classrooms, the school environment and the whole school community (Mentally Healthy WA, 2023[55]) (see Box 3.2 for school-based interventions; see also OECD (2021[1]) for more examples).

And finally, in New Zealand the ***Mental Health and Wellbeing Commission*** cannot enact policy in its own right, given its role as an independent agency, but it does advocate for the introduction or expansion of good practices. As one example, the *Commission* has called for increasing the use of peer support workers in mental health and addiction services to better address the needs of those experiencing mental ill-health or substance use issues (Mental Health and Wellbeing Commission, 2023[56]) (see Box 3.1 for policy examples relating to community-based health services, and the de-institutionalisation of mental health care; see also OECD (2021[2]) for a longer discussion of this topic).

Mental health and broader well-being impact assessments can help agencies to think about the impacts of their policies, but need to be designed in a user-friendly manner

In order to think about potential co-benefits, as well as trade-offs when deciding between different policy options, ***impact assessments (IAs)*** are a common tool for identifying the broader impacts of specific policies ex-ante, and Finland has been developing targeted mental health IAs to capture policy impacts on mental health specifically.

Municipalities in Finland are legally obliged to conduct IAs in decision-making, although implementation remains uneven in practice. The 2021 Acts on the Organisation of Social Welfare and Health Care, and on Wellbeing Services Counties, place a duty on local bodies to "assess in advance and take into account the impact of their decisions on the well-being and health of people by population group" (FINLEX, 2021[57]).[17] The government has grouped a wide range of different types of IAs (e.g. related to children, gender, health, social impact, equality and linguistic impact) under the broader category of Human Impact Assessments, and public agencies are encouraged to combine the components as needed alongside other assessments (e.g. related to the environment, land use planning, economic and business impacts) (THL, 2023[58]) (Table 5.4). According to a 2022 survey commissioned by the Finnish Institute for Health and Welfare (THL), ex-ante evaluation was perceived as improving services and enabling a holistic review of important issues. However, while around 60% of municipalities that responded were using prospective IAs in their work “at least sometimes”, one-third did not have any IA process in place and many expressed difficulty in describing impacts of single decisions.[18] When it comes to mental health, 93% of municipalities reported not having taken mental health impacts into account in their ex-ante assessments, and they expressed a desire for guidance on concrete approaches and working methods, training, networking and clear, easy-to-use indicators (Rotko et al., 2022[59]).

Table 5.4. A human impact assessment form used in municipal and county-level decision-making in Finland

Impacts (short and long term)	Alternative 0 (current situation continues)	Alternative 1	Alternative 2
Population (including by gender, age, income, level of education, residential area)			
Organising services			
Staff			
Environment			

Source: Adapted from the Finnish Institute for Health and Welfare (THL).

Because mental health, and in particular positive mental health, has not yet been included among the existing suite of IAs for municipalities, the Finnish *National Mental Health Strategy 2020-30* recommended the development of a specific mental well-being impact assessment (MIVA) tool to guide mental health management in support of its HiAP approach (Ministry of Social Affairs and Health, 2020[33]). As a first step in creating this tool, the Finnish Institute for Health and Welfare (THL) and MIELI Mental Health Finland conducted a systematic review of existing mental health and well-being impact evaluation frameworks that have been used in international settings, and highlighted both opportunities and challenges related to their practical implementation (Cresswell-Smith et al., 2022[60]) (Table 5.5). In early 2023, guidance that clarifies terms and supports a harmonised approach to MIVA for municipalities and wellbeing service counties was released, featuring examples of good practice (THL, 2023[61]). For instance, the City of Jyväskylä Council evaluated a proposed initiative to reduce operating fees for after-school activities for low-income families. After gathering input from service providers, children and parents, the evaluation identified positive psychosocial effects of different types of after-school activities on children, including on their social relationships and their opportunities for hobbies (THL, 2023[61]). Going forward, it will be important to ensure integration with other IAs (something municipalities stressed as important to them) in order to avoid duplication of work and the creation of multiple, potentially overlapping processes.

Table 5.5. Opportunities and challenges when implementing mental well-being impact assessments

Opportunities	Challenges
Listening to and involving a wide range of stakeholders, including people with lived experience and mental health organisations	Impact assessment takes time and financial resources are essential – long-term monitoring in particular requires permanent resources
An opportunity to explore both positive and negative effects on mental health	Heterogeneous definitions cause confusion
The purpose of IA is to facilitate evaluation, but it can also be a tool for advocacy, raising awareness and capacity building for mental health	Impact assessment needs to be user-friendly and designed to be used by laypeople in a variety of sectors – it is important to avoid jargon and unnecessarily complex terminology
	Advocacy work is needed to raise awareness and improve the approach in different sectors
	There can be a tendency for a rapid process IA with subsequent reports lacking in-depth details and documentation

Source: Adapted from Cresswell-Smith et al. (2022[60]), "Mental health and mental wellbeing impact assessment frameworks – A systematic review", *International Journal of Environmental Research and Public Health,* https://www.mdpi.com/1660-4601/19/21/13985.

5.3. Refocus: Emphasis on positive mental health

Several countries have refocused their mental health activities so that in addition to addressing the incidence of clinical mental health conditions, efforts are simultaneously made to promote positive mental health outcomes at the population level. This is closely related to the field of mental health promotion, which focuses on strengthening protective factors for good mental health, enhancing supportive environments and enabling access to skills, resources and life opportunities that promote the mental health and well-being of individuals and populations (Barry et al., 2019[62]). Besides the value of positive mental health in itself, there is an argument to be made that mental health promotion is something other sectors beyond health are more likely to recognise as their responsibility: for instance, in Finland, the 2022 survey of municipalities mentioned in the previous section showed that only 29% of respondents had a mental health strategy in place (and 28% could not say whether their municipality has a strategy), whereas almost all (95%) were implementing mental health promotion activities (Rotko et al., 2022[59]).[19]

Publishing data on positive mental health can help to put it on the agenda

Investing in the development of indicators on positive mental health and regularly collecting monitoring data can help to foster a common understanding of its components across agencies and society, help assess the mental health impacts of shocks (e.g. COVID-19) in a timely manner and evaluate high-level progress on whether mental well-being is improving.

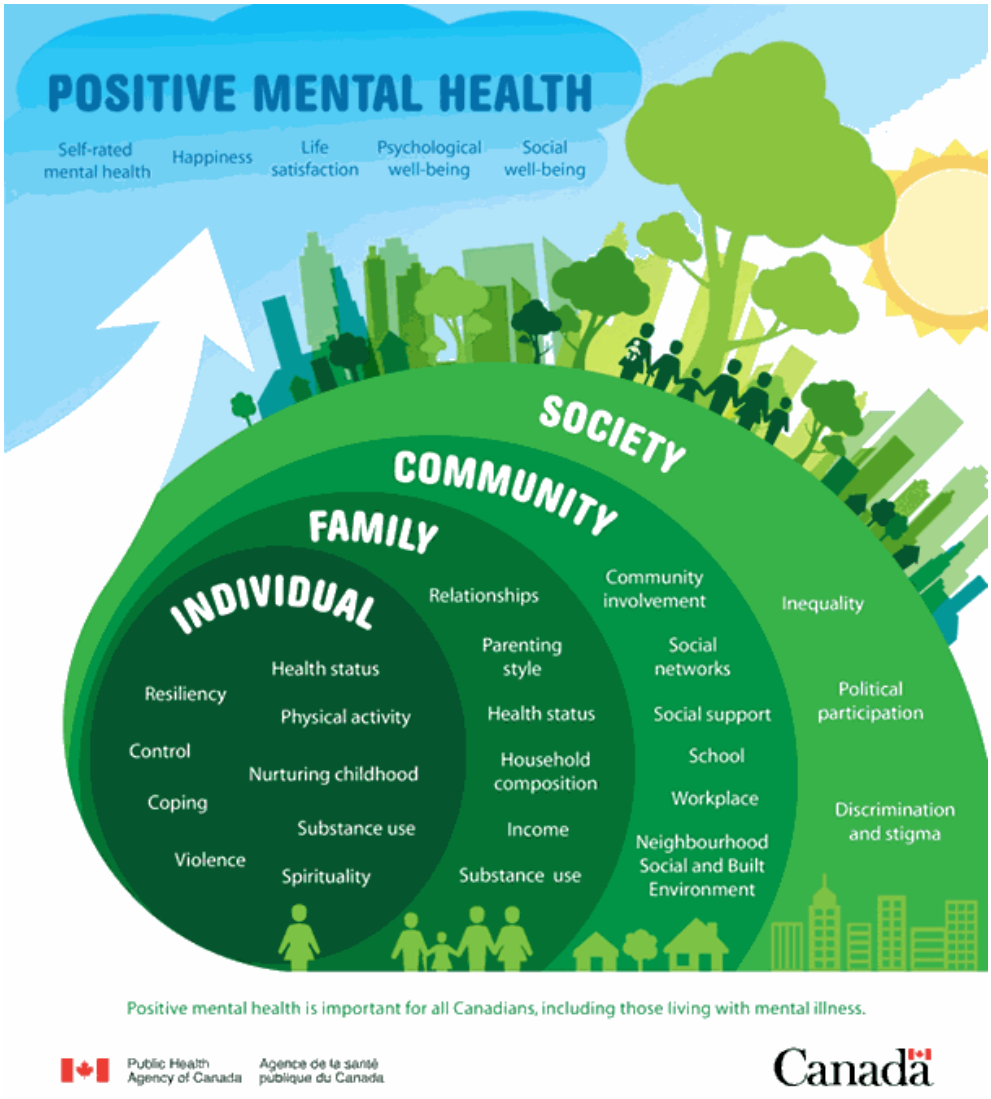
In Canada, the 2012 national mental health strategy *Changing Directions, Changing Lives* highlighted that while surveillance systems on mental health conditions have been established, data suitable for monitoring positive mental health across the Canadian population remained scarce (Mental Health Commission of Canada, 2012[63]). In response to this need for better data, the Government of Canada funded the Public Health Agency of Canada (PHAC) to develop the ***Positive Mental Health Surveillance Indicator Framework (PMHSIF),*** launched in 2016, to monitor population positive mental health and its determinants and to inform policies for mental health promotion (Orpana et al., 2016[64]). The underlying conceptual framework uses the PHAC's definition of positive mental health as a "state of well-being that allows us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and spiritual well-being that respects the importance of culture, equity, social justice, interconnections and personal dignity" (Government of Canada, 2014[65]). The PMHSIF contains five positive mental health outcome indicators across three domains (emotional, psychological and social well-being) and 24 indicators for capturing associated risk and protective factors across the individual, family, community and societal level (Figure 5.5).

The PHAC's work on monitoring and evaluating the indicators of the PMHSIF (at the national level, for adults, youth and disaggregated according to a variety of demographic and socioeconomic variables) via an online platform has contributed to their routine inclusion in briefings to the Ministers of Health and Mental Health and Addictions, and to their mainstreaming into other health surveillance products (Public Health Agency of Canada, 2023[66]). For instance, the PMHSIF has informed municipal surveillance efforts around Canada, such as in the *2018 Status of Mental Health Report* of the city of Ottawa in the province of Ontario which used the PMHSIF as its basis (Public Health Ottawa, 2018[67]). In addition, the PMHSIF's outcome measure on self-rated mental health has been added to the health indicators dashboard of the Chief Public Health Officer of Canada, and psychological well-being is one of the PHAC's high-level performance indicators in the departmental results reports (Government of Canada, 2023[68]; 2022[69]).[20] Canada's Quality of Life framework, originally developed by the Department of Finance in 2021, also includes three outcome indicators from the PMHSIF as headline indicators (intended to provide high-level assessments of overall quality of life): life satisfaction, self-rated mental health indicator (under the Health domain), and social well-being (i.e. sense of belonging to the local community (under the Society domain) (Statistics Canada, 2023[70]). For the last few years, the Quality of Life framework has been integrated into the budgeting process via budget impact reports: each budget measure lists the anticipated quality-of-life

impacts it is expected to advance. By way of example, in the 2022 budget impact report, diverse budget measures ranging from “Long-Term Supports to End Homelessness” to “First Nations Water and Community Infrastructure” to “Fighting and Managing Wildfires” all highlighted self-reported mental health improvement as a potential impact (Government of Canada, 2022[71]).

Increasing data availability on positive mental health, including now annual statistics on self-rated mental health, life satisfaction and sense of belonging to one’s community, also made it possible to assess the impacts of the COVID-19 pandemic on mental health in Canada, including on different population groups (Capaldi et al., 2022[72]; Capaldi, Liu and Dopko, 2021[73]; Government of Canada, 2022[74]; 2022[75]; Ooi et al., 2023[76]). Such evidence is essential for informing the focus of strategies and taking wider governmental action to address mental health inequalities between population groups on an ongoing basis, including in the aftermath of shocks and during recovery periods.

Figure 5.5. The Canadian Positive Mental Health Surveillance Indicator Framework



Source: Orpana et al. (2016[64]), “Monitoring positive mental health and its determinants in Canada: The development of the Positive Mental Health Surveillance Indicator Framework”, *Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice*, https://doi.org/10.24095/hpcdp.36.1.01.

Strategies and funding mechanisms can and are increasingly explicitly targeting mental health promotion

Multiple governments have endorsed positive mental health as an explicit policy goal in recent years, as can be seen in several of the case studies conducted for this report (in Canada, Finland, Wales and Western Australia), as well as in additional OECD countries (e.g. in Ireland, where the Department of Health is currently developing a Mental Health Promotion Plan) (Department of Health Ireland, 2023[77]; Walsh, Sheridan and Barry, 2023[78]; Barry, Keppler and Sheridan, 2023[37]). Concretely, this has resulted in both bespoke guidance on how to improve mental well-being for agencies as well as innovative funding mechanisms that target resilience factors for health promotion.

In Australia, the Western Australia Mental Health Commission's Mental Health Promotion, Mental Illness, Alcohol and Other Drug (AOD) Prevention Plan 2018-2025 (Prevention Plan) already included information about both risk and resilience factors for mental health, as well as references to promotion activities (Mental Health Commission, 2018[79]). However, since its release in 2018, there has been increasing awareness of the importance of promoting mental well-being (which is how the Commission refers to positive mental health) specifically, as well as developments in research and evidence about cost-effective mental health promotion over the life course (Carbone, 2021[80]). To better define and strengthen the mental well-being and mental health promotion components of the Prevention Plan, the Commission is developing a supplementary ***Mental Wellbeing Guide*** that will be published in 2023 (Mental Health Commission, 2023[81]). The Guide will clarify the term "mental well-being" and how it impacts and interacts with both mental health and physical health, identify the factors that influence mental well-being, and provide practical examples of activities to improve well-being for state and local government agencies, communities, non-governmental and private organisations. One of the Guide's goals will also be to encourage other actors to include relevant measures in impact evaluations in order to further strengthen the evidence base on good practice.

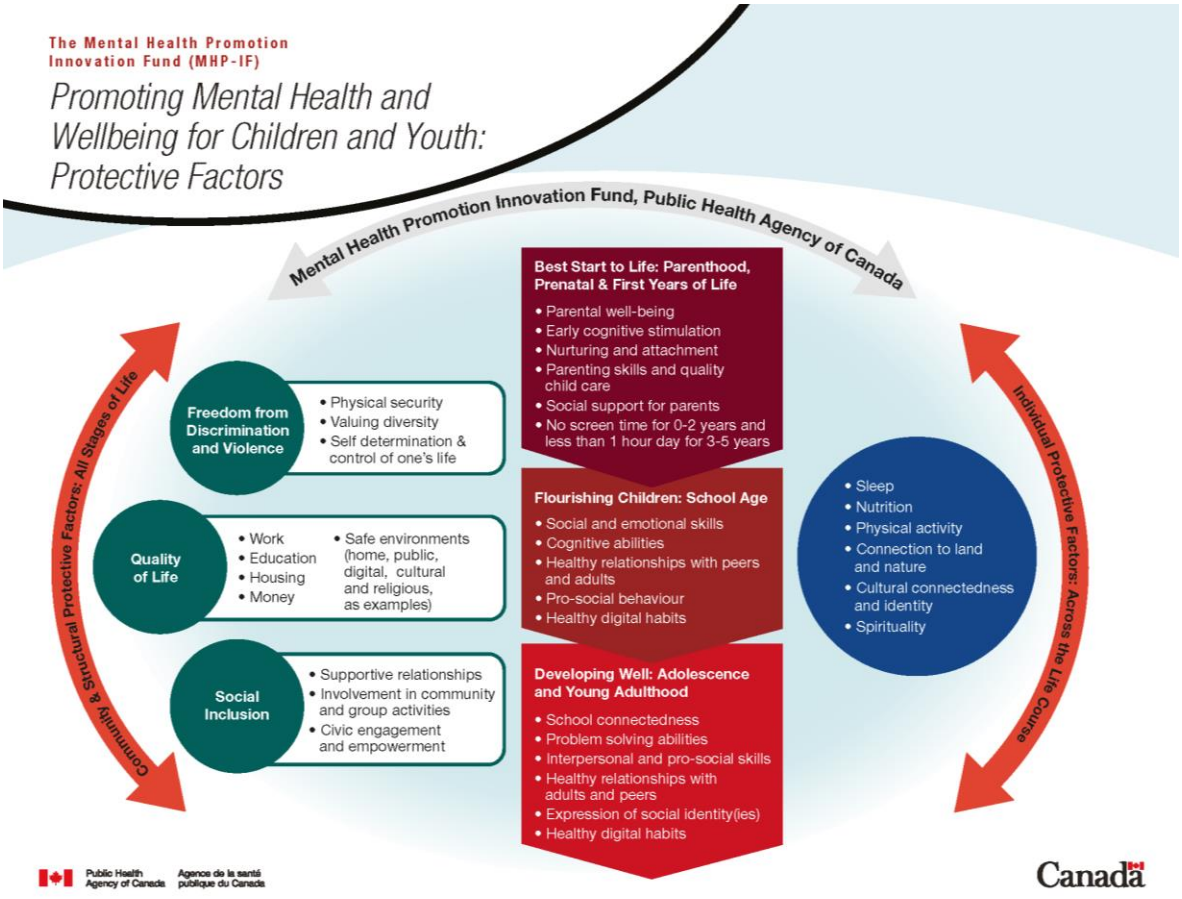
In Canada, the PHAC has been experimenting for more than a decade with new models of strategic grantmaking for health promotion to encourage social innovation. Through the 2009-20 ***Innovation Strategy***, long-term funding was provided to community-based organisations across Canada in over 1 700 communities that addressed complex health challenges by focusing on their broader social and economic determinants and inequities (Government of Canada, 2023[82]). The Innovation Strategy had two key objectives: to test and evaluate new, community-based approaches to promote health for individuals, families and communities; and to apply the results to impact policy and programme development, to ultimately support deep and sustainable systems change.[21] The Innovation Strategy focused on two priority areas: "Equipping Canadians – Mental Health throughout Life" and "Achieving Healthier Weights in Canada's Communities". The next, current iteration of the funding programme, started in 2019 and providing up to nine years of funding, has been renamed the ***Mental Health Promotion Innovation Fund*** and, as its name suggests, focuses on mental health promotion (Government of Canada, 2023[43]).

Two of the key elements for success of the Innovation Strategy (that have been retained in the current Mental Health Promotion Innovation Fund) are first, a multiyear commitment to funding that allows for meaningful project and partnership development (see section on reconnecting below).[22] And, second, a phased approach to funding that allows for social innovation (all projects received funding for 12-18 months to design and test programmes, with the most promising approaches being selected for follow-up funding of up to four years for full implementation and evaluation, with an additional three years of funding for the final phase to scale up the successful programmes into other communities, populations and systems). At the end of the three phases of funding, the Innovation Strategy led to over 1 400 partnerships established by community-led organisations across multiple sectors with more than CAD 30 million (around USD 23 million) of leveraged funds through matched financing from project partners (e.g. the private sector, impact investors, other government departments or other community organisations), and all funded

projects reported improvements in protective factors for project participants by the end of the programme (Bradley Dexter et al., 2021[83]).

A range of programme design components have also been updated in the Mental Health Promotion Innovation Fund following learnings from the Innovation Strategy. These include the creation of a dedicated Knowledge Development and Exchange Hub for Mental Health Promotion to facilitate knowledge sharing on what works for achieving scale-up and systems change (see section on reconnecting below (KDE Hub, 2023[44])), and a stronger focus on building *protective* factors for mental health into programme activities, especially at the early stages of life (infants to youth) (Figure 5.6). In addition, experiences from the Innovation Strategy showed that while funded projects targeted multiple determinants of health, there was a great emphasis on individual behaviour and personal skills, rather than on system level factors (Salmond and Mahato, 2021[84]). The Mental Health Promotion Innovation Fund hence created a Health Equity Indicator Tool (HEIT) pilot and invited funded projects to participate, with the aim of supporting them to define the priority determinants of health alongside equity considerations, as well as the opportunities to tackle these issues more upstream. Lastly, the Mental Health Promotion Innovation Fund moved from a traditional, detailed, long-term workplan to a "Programme of Work" approach that highlights key milestones rather than detailed activities so as to provide projects with greater flexibility to make mid-course corrections based on implementation and evaluation.

Figure 5.6. Promoting mental health and well-being for children and youth in Canada: Protective factors



Source: Government of Canada (2023[85]), *Public Health Agency of Canada (PHAC) Mental Health Promotion Innovation Fund*, https://www.canada.ca/en/public-health/services/publications/diseases-conditions/infographic-mental-health-wellbeing-children-youth-protective-factors.html.

5.4. Reconnect: Building broad partnerships

Communities play an essential role in mental health promotion. Strengthening connections between central and local government policy makers and a diverse array of community associations, advocacy groups and civil society organisations is hence key to help build a joint understanding of what mental health prevention and promotion means and how it can be cultivated at the population level.

The majority of mental health strategies have a participatory element, and ideally this continues beyond the planning stage

Participatory approaches, to various degrees, have been a part of all studies covered in this chapter. Consultations in the course of strategy development have included people with lived experience, young people and where relevant Indigenous populations. In order for this participation to be meaningful to the consulted groups, their involvement should also be prioritised during implementation.

For example, the development of the Western Australian ***Mental Wellbeing Guide*** has been supported by two rounds of State-wide consultation: its initial development in 2021 was informed by consultation with 780 individuals via a series of 92 face-to-face interviews, 29 online focus groups and an online survey; a literature review of 333 published papers and grey literature relating to well-being; and an expert reference group. This was followed in 2023 by targeted consultation on the draft Mental Wellbeing Guide, with responses received from State government and non-governmental, private and community organisations, and people with lived experience (Mental Health Commission, 2023[81]). In New Zealand, the 2018 Government Inquiry into Mental Health and Addiction (He Ara Oranga) that recommended the establishment of the ***Mental Health and Wellbeing Commission*** consulted stakeholders widely and drew on over 5 000 submissions, 400 meetings and 26 public community forums (New Zealand Government, 2018[86]). The Mental Health and Wellbeing Commission itself has developed frameworks for assessing both mental health systems (He Ara Āwhina) and well-being outcomes (He Ara Oranga) for involved which public consultations, with a particular focus on reaching people with lived experience of mental distress – were conducted (Mental Health and Wellbeing Commission, 2023[87]; New Zealand Government, 2022[88]). People with lived experience continue to be represented through positions on the Commission's board at the governance level, and dedicated lived experience roles at the operational level.

Depending on the country context, Indigenous populations and their views have been given special priority, as has been the case in New Zealand, Sweden and Canada. In New Zealand, the prioritisation of Māori and upholding of the Treaty of Waitangi (New Zealand's founding document between Māori and the Crown) are mandated in the establishment legislation for the Mental Health and Wellbeing Commission (Parliamentary Council Office, 2022[89]). The He Ara Oranga well-being outcomes framework of New Zealand's Commission, mentioned above, draws on existing New Zealand government work in monitoring outcomes (for example, the Treasury's Living Standards Framework) (Mental Health and Wellbeing Commission, 2022[90]). However, it combines both a specific te ao Māori (a Māori worldview) and a "shared" (universal) perspective on what matters for good lives, unlike other well-being work in New Zealand which usually has treated these through separate frameworks (Figure 5.7). Through this framework, the Commission is reflecting te ao Māori views by emphasising less individualistic aspects and the relational well-being of whānau (roughly translated as extended family or community).

Figure 5.7. The He Aro Oranga Wellbeing Outcomes Framework

Source: Mental Health and Wellbeing Commission, (2022[90]), *He Ara Oranga te tarāwaho putanga toiora / He Ara Oranga wellbeing outcomes framework*, https://www.mhwc.govt.nz/our-work/he-ara-oranga-wellbeing-outcomes-framework/.

In Sweden, the Sámi Parliament is one of the agencies involved in drafting the new ***mental health and suicide prevention plan***, the first time the needs of the Sámi people have been explicitly addressed in a mental health strategy (Schreiber, 2020[91]). Throughout the drafting process, the Sámi Parliament has argued for the importance of keeping a separate mention of issues and needs specific to the Sámi people, rather than mainstreaming these throughout the plan (the latter approach has been taken with other groups, e.g. by gender, children and young people, those with disabilities, those with existing mental health conditions). It is important to note that the needs of the Sámi are highlighted *not* because they are particularly vulnerable to mental ill-health in the way of other at-risk groups highlighted by the government mandate, but instead based on a discrimination and rights-based approach: their right to practice their own culture and speak their own language, and the acknowledgement that a denial of those rights historically has had impacts on (physical and mental) health.

And, in Canada, insights from National Indigenous Organisations were sought during the design process of the ***Mental Health Promotion Innovation Fund*** to inform more inclusive programme design and increase the number of Indigenous-led organisations successfully applying for funding. Following informal meetings with National Indigenous Organisations, through a PHAC-led consultation process to inform wider programming objectives, the application process was updated to include the use of culturally safe language, acknowledged the impact of ongoing colonisation on mental health, and reflected the language and wellness frameworks developed by Indigenous organisations; application opportunities were shared directly via key contacts for Indigenous organisations across the country. In addition, a chairperson with cultural safety expertise was recruited for the grantee assessment process, and specific support for projects with a connection to land was provided (e.g. through adjusted timing and project design requirements throughout the funding cycle).

Lastly, many of the mental health case studies in this chapter recognise young people as a priority group for mental health prevention and promotion, and in some cases are actively involving them in policy formulation. For instance, the Norwegian ***Programme for Public Health Work in Municipalities*** specifically focuses on mental health and well-being programmes targeting children and youth, and requires the participation of young people (and of other target groups, depending on the intervention funded) in programme development. This has taken different forms in practice, for instance through oral

consultations, interviews, drawing or making cardboard models (Table 5.6). However, a qualitative study of young people's experiences co-creating these programmes in four municipalities showed that the adolescents expressed feelings of resignation and dissatisfaction with the process in practice – they felt that implementation took a long time (so long that they themselves would not benefit from the intended projects anymore as they moved through school) and that while their views were gathered during the initial planning stages, their involvement was stopped shortly after (Sylte et al., 2023[92]). These findings are consistent with the broader literature on engaging children and adolescents in public projects, in that simply being consulted is not sufficient for young people to view their participation as meaningful, and that continuous engagement and clear and regular feedback on decisions made can help build ownership and set expectations (Cele and van der Burgt, 2015[93]; Freire et al., 2022[94]; Council of Europe, 2016[95]; Sylte, Lillefjell and Anthun, 2023[96]). Of course, this more extensive form of co-creation requires additional time and resources, and it should be noted that the COVID-19 pandemic coincided with the start of the projects in the four municipalities that were examined, placing constraints on physical meetings and introducing delays and changes in planning (Sylte et al., 2023[92]).

Table 5.6. Types of young people's participation in municipal projects in Norway

Examples of young people's participation in four projects funded under the Norwegian *Programme for Public Health Work in Municipalities*

Project funded	Types of young people's participation
Schoolyard renovation	Brainstorming day at school
Schoolyard renovation	The student council was consulted by the project leader; students in lower secondary school were involved in creative activities during classes (carpentry, painting, etc.); students in primary and lower secondary school took part in a drawing competition; students were consulted by an architect and researchers (interviews and GPS registration of schoolyard activities); adolescents and adult stakeholders took part in an activity night with image scraping
Establishment of a youth club	Student council members were represented in the project group; 8th graders were involved in creative activities during classes (cardboard modelling, image scraping, room sketching, etc.); prioritising challenges and brainstorming with students in lower secondary school using digital tools
Schoolyard renovation	5th-10th graders were involved in an activity night with adult stakeholders; 5th-10th graders were consulted by the project leader during school hours; the student council was occasionally consulted by the project leader

Source: Sylte et al., (2023[92]), "Nothing gets realised anyway': Adolescents' experience of co-creating health promotion measures in municipalities in Norway", *Societies* 2023, 13, 89, https://doi.org/10.3390/soc13040089.

Knowledge brokering is an essential part of reconnecting

Supporting non-governmental stakeholders and communities in their efforts to improve population mental health has been a key element of government approaches – as documented by the case studies reviewed here – and this has involved different ways of knowledge sharing and exchange. These include providing concrete guidance and toolkits for action, dedicated peer-learning and knowledge platforms, and partnering with academia for evaluation.

One approach is to provide easy-to-access information and guidance on the kinds of contributions community organisations can make. The ***Act Belong Commit*** campaign synthesises evidence on what contributes to living a mentally healthy life into a lifestyle framework with three main pillars. The ABCs encourage people to be physically, mentally, spiritually and socially engaged by doing something active (Act), doing something with someone (Belong) and doing something meaningful (Commit). The easy-to-remember acronym enables people to understand the goals of the programme and recall the protective and promotive steps they can take to cultivate and improve their mental health. In this way, the programme can be seen as a practical framework for mental health promotion that can be applied at all levels: in a clinical setting; in schools, workplaces or community organisations; or at the population level (Donovan

and Anwar-McHenry, 2014[97]; Donovan et al., 2021[98]). Originally developed by researchers funded by the Western Australian Health Promotion Foundation (Healthway) in the early 2000s, the ABCs have been adopted by a range of other actors worldwide including schools, universities and community organisations, and the programme has received government funding in Australia, Denmark, the Faroe Islands, Finland and Norway (Donovan and Anwar-McHenry, 2015[99]; Elon University, n.d.[100]) (Box 5.3).[23,24] One of the programme's components is a dedicated partnership strategy to connect with community groups, local governments, health organisations, advocacy groups and schools to provide them with guidance and practical examples in mental health promotion strategies. In addition, regular meetings with partnering organisations (e.g. municipalities, sports organisations, scouts and guides, and volunteering groups such as the Red Cross) contribute to continued knowledge exchange and the refinement of tools. For instance, in Australia as of 2022, the campaign had worked with 270 community organisations in Western Australia, and several more in other Australian states, in addition to collaborating with international partners (Act Belong Commit Western Australia, 2022[101]; Koushede and Donovan, 2022[102]). A recent process evaluation of ABC in Denmark highlighted that it provided relevant knowledge on mental health promotion to stakeholders and fostered intersectoral and interprofessional collaborations. However, the evaluation also pointed out that its bottom-up approach requires time and resources, as well as a continuous deliberate balancing between local adaptability and concrete guidance when engaging implementers (Hinrichsen et al., 2020[103]).

Box 5.3. Act Belong Commit (the ABCs of mental health) across different OECD countries

ABC has been implemented in a variety of OECD settings now, with involved organisers from different countries regularly meeting online (and also in person, for example at the 17th World Congress on Public Health in Rome in 2023) to share knowledge and experiences.

Western Australia

The ABCs were initially developed in Western Australia. In the early 2000s, the Western Australian Health Promotion Foundation (Healthway) funded a team of researchers to conduct focus groups to better understand how the general public understood concepts of mental health and well-being. The findings from this work informed the conclusion that mental health promotion campaigns should use the term "mentally healthy" to neutralise the negative connotations surrounding the term "mental health". This led to the Mentally Healthy Western Australia campaign that, following a six-month consultation period, was piloted in six communities in Western Australia from 2005 to 2007. The project team developed the ABC slogan at this time, wanting to find a way to communicate the goals of the programme clearly (Donovan et al., 2006[104]).

The success of the pilot led to ABC being fully launched in Western Australia in 2008. It is still active, making it the longest running mental health promotion campaign in Australia. The programme is now based in Curtin University, but it is publicly funded by the Government of Western Australia. The programme has a dedicated partnership strategy to connect with community groups, local governments, health organisations, advocacy groups and schools, and it provides them with free guidance in mental health promotion strategies. This helps to extend the reach of the ABC message to particularly to hard-to-reach populations, and directs people to opportunities for engagement. The programme website hosts a variety of publicly available tools, including a mental well-being self-assessment quiz and an activity finder (Act Belong Commit Western Australia, 2022[101]; Koushede and Donovan, 2022[102]).

Denmark

Denmark began its involvement with the ABC programme in 2014, when a research team comprising the Danish National Institute of Public Health, the Danish Healthy Cities Network, the Danish School of

Media and Journalism, Public Health Copenhagen and the Red Cross Copenhagen obtained funding from the Danish Ministry of Health to pilot Act Belong Commit in Denmark (Koushede and Donovan, 2022[102]). The pilot focused primarily on understanding whether the Australian programme could be successfully adapted to the Danish context; the final evaluation supported this finding, and showed that Danes intuitively grasped the drivers of good mental health in a way that was consistent with the messaging of ABC campaign materials (Nielsen et al., 2017[105]). When implementing the ABCs, the team translated the core messaging to Danish, while retaining the "ABC" branding (ABC for Mental Sundhed, and the programme pillars of "do something", "do something with someone" and "do something meaningful" are each translated to Danish).[1] Following receipt of its initial grant, the programme has been awarded subsequent rounds of funding by the Nordea Foundation to enable it to continue to present day.

The programme is now led and administered through a research team in the Department of Psychology at the University of Copenhagen (UCPH) and as of 2022 has developed partnerships with more than 70 organisations including 23 (out of a total of 98) municipalities in Denmark. Organisations involved in the work include sports clubs, employee associations, evening schools, the Scouts and Guides association, mental health foundations and the Centre for Prevention in Practice which is a part of the National Association of Municipalities, among others. Although at a surface level the organisational structure appears similar to the ABC programme in Australia – in that a university serves as programme lead – the Danish iteration of the programme is more decentralised, with partnering organisations participating in programme development and taking turns to host quarterly programme meetings (Koushede and Donovan, 2022[102]).

In 2022, the Danish Government announced a multi-party agreement on a ten-year plan for addressing issues relating to psychiatry and mental health. The plan outlines 19 goals, with a series of recommended indicators to track progress in each area. A priority area for the government is to address stigma surrounding mental health and to increase the public's knowledge of how to promote their mental health. From 2024, ABC for Mental Sundhed will receive funding through this plan to expand its mental health promotion campaign (Ministry for the Interior and Health, 2022[106]; Meilstrup et al., 2022[107]).

Faroe Islands

The Faroese Board of Public Health in the Faroe Islands became interested in ABC in 2016 and began developing its programme the subsequent year. Programme organisers worked closely with their Danish counterparts initially but first prioritised translating the messaging into Faroese. To develop the programme and bring onboard additional stakeholders, the Board of Public Health began by inviting all municipalities in the Faroe Islands to a presentation on ABC. The first partner to join was an umbrella organisation for all municipalities; following the presentation, additional municipalities and other agencies (including the Red Cross) agreed to join. As of early 2023, nine (of a total of 29) municipalities in the Faroe Islands have joined ABC, along with 26 partners, including Christian organisations, mental health visitors (an interest group for people experiencing mental ill-health) and (soon) also community partners that will include dance and walking groups. As a concrete example of how ABC messaging has influenced the programme design of partners, a partner school has created courses around the concepts of "togetherness" and "meaning". As in Denmark, the ABC programme meets with participating organisations four times a year. Funding for ABC in the Faroe Islands has now been enshrined in the Public Finance Act.

Finland

In Finland, the Finnish Institute of Health and Welfare (THL) is piloting and studying the implementation of the ABCs of mental health in four municipalities in 2023-24.[2] The programme development and

research are supported financially by the Finnish Ministry of Social Affairs and Health. This experience will inform the potential expansion of the programme to the national level.

Norway

In 2022 the Ministry for Health and Care Services announced the launch of a two-year ABC pilot programme in the Trøndelag region, with the intention to prepare potential expansion to the national level (Ministry of Labour and Social Inclusion, 2022[108]). This decision was informed by an ongoing initiative of the Trøndelag Public Health Alliance, an association of volunteers and public partners who had already adopted ABC in their public health collaboration. In order to tailor the programme to the Norwegian context, the initial organising team for ABC in Norway, which also included the WHO Network of Health Promoting Hospitals, met with a professional marketing team to translate the name, which after a recent consultation with the Ministry for Health and Care Services is now *ABC for god psykisk helse – ein folkehelsekampanje*, or, ABC for Good Mental Health – A Public Health Campaign (the three pillars are also translated).[3] Partners in Trøndelag have now adopted ABC to varying degrees, including the psychiatric community, which has been exploring how ABC can be implemented in clinical practice, to aid those currently experiencing, or in recovery from, chronic mental ill-health and addiction (ABC for Mental Sunnhet, n.d.[109]).

Notes:
1. Gør noget aktivt, Gør noget sammen, Gør noget meningsfuldt.
2. Translated as Mielen hyvinvoinnin ABC in Finnish.
3. Act: Gjer noko aktivt; Belong: Gjer noko saman; Commit: Gjer noko meiningsfillet.

Beyond providing guidance, Canada's ***Innovation Strategy*** and its ***Mental Health Promotion Innovation Fund***, as described above, have directly financed the work of community organisations targeting the social determinants and protective factors of health. Evaluation and peer learning have also been strong components: grant recipients are required (and receive funding) to evaluate progress on the protective factors of health that they are targeting, as well as on their policy impact (Government of Canada, 2023[43]). This information feeds into deciding which initiatives receive follow-up funding for scale. In addition, the Mental Health Promotion Innovation Fund now includes the aforementioned dedicated Knowledge Development and Exchange Hub for Mental Health Promotion (the KDE hub) to create new knowledge across funded projects in a timely fashion, build community and capacity amongst the projects and others who share their interests, and strengthen systemic supports for sustaining and scaling up promising approaches (KDE Hub, 2023[44]). Examples of KDE Hub activities include toolkits relevant to planning, implementing, evaluating and sharing new knowledge, regular webinars and an annual symposium. For instance, a research study was conducted to gather key insights from adapting project delivery to virtual and hybrid settings during the COVID-19 pandemic, including for different audiences (new immigrants, youth and 2SLGBTQI+) have been synthesised and shared in various ways, including in a peer-reviewed journal and on the KDE Hub's website (KDE Hub, 2023[44]; Riley et al., 2022[110]).

A third way to improve knowledge development on mental health more broadly is to actively engage with academia. For instance, in Wales, the ***North Public Service Lab,*** enabled by Wrexham University, provides a space for systems leadership capacity building in relation to the Future Generations Act (through a programme of masterclasses, events, cafes and workshops), and Canada's KED Hub is located at the University of Waterloo (KDE Hub, 2023[44]; Wrexham University, 2023[111]). Similarly, while the ABC programme in Western Australia is publicly funded by the Government of Western Australia, it is now based in Curtin University. Indeed, the ABC programme was not only initially developed by researchers, but it has also been continuously evaluated over the past decades through a large number of impact evaluations. Evaluations of the work in Australia, where the programme was developed and first piloted,

found that it reduces the stigma surrounding mental ill-health, increases openness around discussing mental health issues, and increases the help-seeking behaviours of participants (Anwar-McHenry et al., 2012[112]; Drane et al., 2023[113]). Research in other contexts has shown that indicators relating to the three pillars of ABC are predictive of lessened risk both for the onset of depression and anxiety and for cognitive impairment among the elderly, a decreased likelihood of problematic alcohol consumption, improved self-reported (mental) health and life satisfaction, and increased help-seeking behaviour including talking to family and friends about mental health (Santini et al., 2017[114]; 2017[115]; Ekholm, Juel and Bonde, 2016[116]; Haug et al., 2021[117]; Santini et al., 2022[118]). Finally, in the Norwegian ***Programme for Public Health Work in Municipalities***, some of the most successful municipal innovations involved increased cooperation between university-affiliated researchers who assisted with evaluation, although this was not a programme requirement (NTNU, 2020[119]; Forebygging, 2022[120]; Hope et al., 2021[121]; Berg and Johansen, 2023[122]). In turn, researchers also changed their way of working once they found out which questions were of actual interest to local policy makers, and they have since been integrated into larger research programmes (NTNU, 2023[49]; Lillefjell et al., 2018[123]; Lillefjell and Maass, 2021[124]; Lillefjell et al., 2022[125]). Going forward, the Programme could consider how to further incentivise and formalise this component.

The depth of partnerships matters for impact

Canada's ***Innovation Strategy*** has yielded important insights about what it means to build effective partnerships (and how to evaluate them). At the end of the programme, 90% of projects and partnership networks had a sustained impact on policy and public health practice by the final phase of funding, and 82% of projects continued to operate afterward by obtaining funding from other sources or by integrating into an existing system through scale up (Government of Canada, 2023[82]). On the one hand, the long-term and flexible nature of the Strategy's funding allowed for organic partnership development to take place, and on the other hand, partnership building itself was an explicit goal, which grantees were provided resources for and were evaluated on (alongside other key factors) throughout the project phases in order to assess readiness for scale-up and decide on funding extensions (Bradley Dexter et al., 2021[126]).[25]

The Strategy's assessment of the partnerships that the grantees were building points to some common key characteristics of successful "vested" partnerships, including that they were diverse in character, shared a clear agenda on which social determinants matter, aligned and adapted through dialogue and shared activities, and intentionally pooled and leveraged resources and assets across partners (Table 5.7). It also indicated that there is a trade-off between project scale-up at the beginning (e.g. reaching a higher number of regions with a programme) and slower but deeper partnership development that ultimately resulted in higher impact (Lee and Salmond, 2021[127]).

Table 5.7. Key elements of successful vested partnerships

Assessment of partnership elements for projects funded through the Canadian Innovation Strategy 2009-20 (focusing on the two priority areas of mental health and obesity)

Element		Example
Diversity of partners	Intentional multi-sectoral partnerships representing diversity across the sector (system) aiming to change	One project demonstrated a mix of partners, schools, non-profits, stores and health food stores. The diversity represented the range of partners able to influence the food system
	Local partners and leaders ground the diversity and hold different stakeholders accountable to the long term	Across the projects, strong community partners and local leaders and Elders helped the project adapt methods to the local culture as well as ensure continuity going forward
Clear agenda on social determinants of health that includes sectoral change	Changes in access to resources, material conditions and services	Community infrastructure as a part of the wider physical environment (ovens, freezers, gardens, community tables) were examples of building local assets and service provision. In addition, they also provided critical points of connection, as did events and festivals that supported social networks, belonging, and connecting cultural practices past and present
	Changes in attitudes, behaviour, skills, mental health, self-efficacy	Improved coping strategies for school children
	Upstream changes in policies, laws or budgets	Demonstrated influence on First Nations and Inuit Health Branch; changes in school policies
	Changes in societal norms, attitudes and behaviours	Changes in stigma related to mental health issues
Partner alignment	Deeper and ongoing dialogue and analysis of goals and issues across partners	One project mentioned that a key lesson was that partnerships needed to be "fewer, deeper, stronger". Time and dialogue are needed to bring partners to a shared understanding of the problem and shared solutions, and to align incentives
	Backbone agencies or groups helped to broker learning and action and align partner interests and incentives	Food networks developed a "backbone" agency, which was crucial to the health of the partnership network—even more so than the funding recipient/lead agency
	Acknowledge differences in partners but aligned incentives and mutually reinforcing activities	One project had interventions that connected multiple programs, services and sectors
Brand pooling and leveraging assets	Intentional business/governance strategy that involved aligning partner incentives and examining market and subsidy opportunities in the system	In one project, though led by a non-profit organisation, the presence of a private sector partner helped the partnership be savvy in assessing the market for local foods. This business savvy also supported sustained funding and a governance base. They were able to identify specifically where smart subsidy could be used (to address financial barriers of hunters)
	Able to leverage investment and funding through evidence	For one highly rated mental health promotion project, being able to quantify social return on investment was a good substitute for trying to earn income through the partnership and to attract investors and funders. They could demonstrate that every CAN 1 spent on the project would generate CAN 17.96 in social benefits
	Able to institutionalise the strategies	Institutional strategies included schools, mental health centres, friendship centres, government health agencies, retail stores, universities, health food stores and e-commerce sites

Source: Lee and Salmond, (2021[127]), "Monitoring vested health partnerships", *Canadian Journal of Public Health,* Vol.112/S2, pp. 231-245, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8360250/.

5.5. Conclusion

This chapter has reviewed selected mental health initiatives in OECD countries to better understand which structures, working arrangements and practices can facilitate tackling the social, economic, relational and environmental determinants of mental health upstream. The resulting findings have illustrated that all case study countries, to different degrees, are currently trying to align action across sectors, redesign and propose interventions that bring co-benefits for mental health and other well-being outcomes, increasingly prioritise positive mental health as goal in strategies and funding, and connect and collaborate with stakeholders across society. All of these actions, or principles of well-being practice more generally, are important for the practice of good mental health policy.

Beyond the lessons already pointed out in each section, several cross-cutting insights are noteworthy. First, explicitly defining what it is that should be improved, and who can contribute, can help different agencies and stakeholders to focus action. This has been the case, at a broader level, when using multidimensional frameworks to inform mental health plans and point out the interlinkages with other sectors, when formulating concrete implementation plans, or when defining and monitoring positive mental health. Second, intersectoral collaboration, partnership building and knowledge brokering, whether between different government agencies or different levels of government, or when supporting community actors, takes resources, including time, to do well. In several of the case studies, such as during the development of a new mental health strategy in Sweden or when funding municipal and community programmes in Norway and Canada, there was a conscious move away from short-term project cycles to multi-year processes, in order to allow for relationships to form, for management capacity to be built and for experimentation with programme design. Third, strategic grant making by a public health agency, as in Norway and Canada, seems to be a promising approach to channel funds into activities that target (mental) health determinants and that take local needs into account, including in areas not necessarily under the traditional remit of the health sector. And, lastly, with a few exceptions, all case studies could benefit from integrating impact evaluations into their design from the outset, in order to build the evidence base on what works for improving ecosystems that are conducive to mental health, and to move from the partly descriptive approach of this chapter to a quantitative comparative assessment. Close cooperation with academia, as has already been started in several of the featured initiatives, could be a promising avenue.

Going forward, the approach of this chapter, in examining country efforts around realigning, redesigning, refocusing and reconnecting, could be extended beyond the small sample of case studies to all OECD countries, both to the area of population mental health improvement as well as to other policy areas that can benefit from an integrated approach.

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Notes

[1] The respective initiatives were selected from a larger initial list of mental health activities that was presented to the OECD Working Party on Social Policy in early 2022, based on country interest to be featured. The Secretariat in some instances actively reached out to programmes that applied specific aspects of a well-being policy approach to mental health in an innovative way.

[2] In Ireland, the Department of Health is currently developing a Mental Health Promotion Plan. While this activity is not a case study featured in depth in this chapter, an independent report carried out by the Health Promotion Research Centre at the University of Galway in support of the Mental Health Promotion Plan recommended the Well-being Framework for Ireland, launched by the Government in 2022, could provide an overarching structure for integrating cross-sectoral policy actions that address the structural determinants of population of mental health and well-being (Barry, Keppler and Sheridan, 2023[37]).

[3] The Future Generations Act also mandates public bodies to adhere to "five ways of working", or principles they must demonstrate in their decision making to show that they are acting in accordance with sustainable development. They are collaboration (acting in collaboration with any other person or different parts of the body itself that could help the body to meet its well-being objectives), integration (considering how the public body's well-being objectives may impact upon each of the well-being goals, on their other objectives, or on the objectives of other public bodies), involvement (the importance of involving people with an interest in achieving the well-being goals and ensuring that those people reflect the diversity of the area which the body serves), long-term (the importance of balancing short-term needs with the need to safeguard the long-term needs), and prevention (how acting to prevent problems occurring or getting worse may help public bodies meet their objectives) (Future Generations Commissioner for Wales, 2023[21]).

[4] Aside from the leading agencies, other government agencies involved in the strategy include: The Swedish Work Environment Authority, the Public Health Agency of Sweden, the Swedish Research Council for Health, Working Life and Welfare (Forte), the Swedish Social Insurance Agency, the Health and Social Care Inspectorate (IVO), the Swedish Gender Equality Agency, the Swedish Prison and Probation Service, the Medical Products Agency, the Swedish Migration Agency, the Swedish Agency for Work Environment Knowledge, the Swedish Agency for Participation (MFD), the Swedish Agency for Family Law and Parenthood Support (MFoF), the Swedish Civil Contingencies Agency (MSB), the Swedish Agency for Youth and Civil Society (MUCF), the Swedish Police Authority, The National Board of Forensic Medicine, the Sámi Parliament, the National Board of Health and Welfare, the National Agency for Special Needs Education (SPSM), the Swedish Agency for Medical and Social Evaluation (SBU), the National Board of Institutional Care (SIS), the Swedish Media Council, the National Agency for Education, the

Swedish Transport Administration, the Swedish Research Council, Vinnova (Folkhälsomyndighete, 2023[28]).

[5] This plan shifted mental health efforts in the country towards prevention and promotion at the population level, moving away from a narrower focus on severe mental ill-health and clinical care that shaped earlier efforts.

[6] Ministries include: the Ministry of Defence, Ministry of Transport and Communications, Ministry of Finance, Ministry of Economic Affairs and Employment, Ministry of Justice, Ministry of Education and Culture, Ministry of the Interior, Ministry of Agriculture and Forestry and the Ministry of the Environment. Only one government ministry – the Ministry for Foreign Affairs – is not engaged in the work.

[7] Compared to the National Mental Health Strategy, the Draft Resolution on Mental Health Promotion further emphasises the importance of the climate and the environment in mental health promotion, which is a topic also included in different ministries' strategies and plans (Ministry of Health and Social Affairs, 2023[34]).

[8] Separately, the National Board of Health and Welfare and the Public Health Agency commissioned two studies to map the existing knowledge base of health strategy development best practice. The first looks at previous experiences with policy and legislation relating to mental health and suicide prevention in Sweden (Lumell Associates, 2021[132]); the second looks at other countries' (or international organisations') experiences in drafting national strategies, pulling lessons from Denmark, Finland, England, Scotland, the Netherlands Canada, Australia, New Zealand, the EU and the WHO (Lumell Associates, 2021[131]).

[9] In addition to the 26 government agencies involved, the two leading agencies held twice annual consultations with other government and/or external stakeholders, including local authorities and civil society organisations. Some agencies involved in the development process have expressed a desire for these entities to have been consulted with more frequently, given the depth of knowledge of many in the civil society, and the fact that regional and municipal authorities are concurrently developing a regional mental health strategy.

[10] The Commission's work builds off previous government strategies on mental health. In 2018 the New Zealand government launched an official inquiry into mental health and addiction: *Pathway to Wellbeing* (He Ara Oranga) (New Zealand Government, 2018[86]). It concluded with 40 recommendations to improve New Zealand's policy approaches to mental health: one such recommendation was the establishment of an independent Mental Health and Wellbeing Commission to provide independent system leadership. While the Commission was being set up, a ministerial advisory committee – operating within the Ministry of Health – was created in 2020 to begin monitoring and reporting on the Government's response to the He Ara Organa commission report, develop an outcomes framework to measure mental health and well-being, and support the establishment of the eventual independent Commission. The latter was officially inaugurated 14 months later, in February 2021.

[11] In 2021-22, the Commission had 23 staff in permanent and fixed-term roles (Mental Health and Wellbeing Commission, 2022[133]). Per comparison, this is less than half the staff of the Human Rights Commission, another independent crown entity.

[12] The 2012 Norwegian Public Health Act tasked municipalities with the promotion of health, well-being and their social determinants in local planning and service provision (Ministry of Health and Care Services, 2011[134]). Under the Public Health Act and following an HiAP approach, responsibility for public health

work was transferred to municipalities to enables them to integrate public health considerations into all local development and planning, administration and the provision of services (Helsedirektoratet, 2017[129]). The central health authority remains involved in health promotion but takes a supporting role. A recent review of how four municipalities have reflected the Public Health Act in municipal plans and project-planning documents indicates awareness of public health work as a whole-of-municipality responsibility, but also shows public health process goals (e.g. cross-sectoral governance and working groups) have so far received more attention than outcomes (e.g. health equity) (Lillefjell et al., 2023[130]).

[13] Although the majority of projects are indeed universal (meaning they are non-clinical strategies directed at an entire population that address generic mental health risk and protective factors), based on local needs, some projects may also target specific groups.

[14] A final evaluation is also planned (Helsedirektoratet, 2023[39]).

[15] Of course, realigning and redesigning are not mutually exclusive, in that the former is a precondition for the latter.

[16] Forthcoming (2024) OECD work on best practices in mental health promotion and prevention will also include an evaluation of the ABC programme in terms of effectiveness, efficiency and equity, and assess its potential for transferability.

[17] Wellbeing services counties in Finland are 21 public bodies separate from municipalities established under the 2021 reform of healthcare, social welfare and rescue services. Since January 2023, the responsibility for these services was transferred from municipalities to the wellbeing services counties.

[18] Child and environmental IAs were most commonly used (reported by around 50% of municipalities), followed by IAs on land use and construction (43%) and business (33%). Gender and rural IAs were used by only around 5% of municipalities (Rotko et al., 2022[59]).

[19] In several municipalities, mental health promotion and mental well-being strengthening activities are included in the welfare report municipalities are required by law to prepare every council term (FINLEX, 2021[57]).

[20] The PMHSIF was also listed as an example of a public health surveillance activity related to addressing climate change in the 2022 Chief Public Health Officer of Canada's Report on the State of Public Health (Government of Canada, 2022[128]).

[21] Examples of systems change achieved through the Innovation Strategy projects included the redistribution of resources within family service centres to support mental health promotion programming as a core activity; changes in practice both within and outside of the health sector due to knowledge generated through Innovation Strategy projects; and the addition of mental health promotion programming and resources to the school curriculum. It should be noted that the "systems" are quite different across funded projects (e.g. the education system, the health system, the justice system, the local community), and each project defines their system and the key players within.

[22] In the case of the *Mental Health Promotion Innovation Fund*, the long-term nature and flexibility of the funding model also allowed for a 1 year "pandemic extension" to provide projects the time to adapt and pivot to delivering online programming during the various stages of the COVID-19 pandemic.

[23] Since 2016, the Western Australian Health Promotion Foundation (Healthway) is a statutory board under the Western Australian Health Promotion Foundation Act 2016.

[24] Despite its name ("ABC") being grounded by an English acronym, the programme has been successfully translated into other languages and cultural contexts, including Danish, Faroese, Norwegian, Swedish, Finnish and Japanese.

[25] The *Innovation Strategy* created and applied a Scale-up Readiness Assessment Tool (SRAT) to assess the level of scale-up readiness of a funded project. The SRAT includes identifying predictors of success for the scale-up of effective population health interventions, organized into eight common characteristics: Intervention evidence and evaluation, reach and scale, organizational capacity, partnership development, system readiness, community context, cost factors, knowledge development and exchange (Bradley Dexter et al., 2021[126]).

How to Make Societies Thrive? Coordinating Approaches to Promote Well-being and Mental Health

Good mental health is a vital part of people's well-being. This report uses the OECD Well-being Framework to systematically review how people's economic, social, relational, civic and environmental experiences shape and are, in turn, shaped by their mental health. Based on this evidence, examples of co-benefits, or policy interventions that can jointly improve both mental health and other well-being outcomes, are identified for a range of government departments. Implementing and sustaining such co-benefits requires resources, incentives and working arrangements that enable all relevant stakeholders to contribute to tackling the upstream determinants of mental health. Selected mental health initiatives across OECD countries are reviewed to illustrate how policy makers have been realigning action across government agencies; redesigning policy formulation to address the joint factors influencing mental health; refocusing efforts towards the promotion of positive mental health; and reconnecting with societal stakeholders beyond government, including those with lived experience, youth, civil society and research institutions. *How to Make Societies Thrive? Coordinating Approaches to Promote Well-being and Mental Health* is the second of two reports as part of a broader OECD project on mental health and well-being.

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