

## SUPPLEMENTARY DATA

**Supplementary Table 1** Validated questionnaires used in the Better Health in Late Life questionnaire

Topic	Name of validated questionnaire	Link	License required
Self-reported health	The 12-item short-form health survey, SF-12v2	<a href="#">SF-12v2 PRO Health Survey - Quality Metric   We Measure Health</a>	Yes, license no. QM053156
Stress	The Perceived Stress Scale	<a href="#">Valideret oversættelse af Perceived Stress Scale - Fagperson Regionshospitalet Gødstrup (regionshospitalet-goedstrup.dk)</a>	No
Depression	The Major Depression Inventory	<a href="https://www.sundhed.dk/sundhedsfaglig/laegehaandbogen/undersogelser-og-proever/kalkulatorer/major-depression-inventory-mdi/">https://www.sundhed.dk/sundhedsfaglig/laegehaandbogen/undersogelser-og-proever/kalkulatorer/major-depression-inventory-mdi/</a>	No
Bowel problems	The Irritable Bowel Syndrome Module and the Gastroduodenal Module of the Rome IV Diagnostic Questionnaire for Functional Gastrointestinal Disorders in Adults	<a href="#">Rome IV Diagnostic Questionnaires - Rome Foundation (theromefoundation.org)</a>	Yes, license obtained 03-07-2020, no license number issued

**Supplementary Table 2** Overview of registries linked to the Better Health in Late Life data set

REGISTRY TITLE	CONTENTS	PERIOD (YEARS COVERED)
<b>The Danish Civil Registration System</b>	The most central of all registries. A unique 10-digit identifier assigned to each resident is issued by this system. Includes the address of residence, mortality, and migration data on all Danish residents. Updated daily. <sup>1</sup>	1968–
<b>The Danish National Patient Registry</b>	Data on all contacts with Danish hospitals. For each contact, one to 19 secondary diagnoses are recorded using the ICD system. <sup>2</sup>	1977– Non-psychiatric hospital contacts 1995– Outpatient/emergency room contacts
<b>The Danish Cancer Registry</b>	Data on all incident cancers including diagnosis according to the ICD system, topography, morphology, and tumor stage at the time of diagnosis. <sup>3</sup>	1943–
<b>The Register of Medicinal Product Statistics</b>	Data on all prescription medications sold at pharmacies and in retail stores (nb: only limited types of over-the-counter medication) as well as medication sold to Danish hospitals. <sup>4</sup>	1994– complete from 1997 onwards
<b>The Danish Psychiatric Central Research Register</b>	Data on all contacts with Danish psychiatric departments. Includes admission and discharge dates with one primary and as many as 20 secondary diagnoses per entry. <sup>5</sup>	1970– Psychiatric inpatient care 1995– Outpatient care
<b>The Clinical Laboratory Information System, LABKA</b>	Biomarker data from laboratory analyses of biological samples from residents of the North and Central Denmark Regions. <sup>6</sup>	1990– complete from 2005 onwards
<b>The Danish Registry of Causes of Death</b>	Information on all deaths of Danish residents who died while in Denmark. The underlying cause of death (as defined by the World Health Organization) as well as the immediate and any contributing causes of death are recorded. <sup>7</sup>	1970–
<b>The National Pathology Registry</b>	Information on all pathology examinations conducted at pathology departments in Danish hospitals and by practicing pathologists. The type and number of specimens are recorded along with diagnoses based on the Danish SNOMED (Systemized Nomenclature of Medicine) codes. <sup>8</sup>	1997–
<b>The National Health Insurance Service Registry</b>	Data on Danish residents' use of health services covered by the state-funded health care system, such as general practitioners, medical specialists, psychologists, physiotherapists, chiropractors, and dentists. <sup>9</sup>	1990–
<b>The Integrated Database for Labor Market Research</b>	Information on all Danish employees and companies (both public and private) as well as types of employment. <sup>10</sup>	1980–
<b>The Educational Attainment Register</b>	Information on each resident's education and development of their qualifications over time. <sup>11</sup>	1974–

**Abbreviations:** ICD, International Classification of Diseases

**Supplementary Table 3** Distribution of the respondents by demographic factors

				Relative distribution	
		Sample size	Response rate, %	Sample, %	Respondents, %
<b>All</b>		301,244	32.0	100.00	100.00
<b>Sex</b>					
	Male	150,496	28.6	50.0	44.7
	Female	150,748	35.4	50.0	55.3
<b>Age group</b>					
	50–53 years	76,584	27.0	25.4	21.4
	54–57 years	85,201	30.2	28.4	26.7
	58–61 years	72,737	33.9	24.1	25.5
	62–65 years	66,722	38.0	22.3	26.3
<b>Highest level of education</b>					
	Primary school	65,975	20.3	21.9	13.9
	Upper secondary education or vocational training	135,669	30.9	45.0	43.4
	Higher education, short/medium	68,212	41.3	22.6	29.2
	Higher education, long	31,388	41.3	10.4	13.5
<b>Household composition</b>					
	Single, without children	81,067	26.8	26.9	22.5
	Single, with children	12,940	28.4	4.3	3.8
	Couple, without children	141,399	36.2	46.9	53.1
	Couple, with children	65,838	30.1	21.9	20.6
<b>Ethnic origin</b>					
	Danish	268,707	33.8	89.2	94.1
	Immigrant/descendant	32,537	17.5	10.8	5.9
<b>Annual household income, DKK</b>					
	<150,000	34,956	21.9	11.6	8.0
	150,000–250,000	65,512	22.7	21.7	15.4
	250,000–350,000	83,400	32.6	27.7	28.2
	350,000–500,000	79,411	38.8	26.4	32.0

>500,000	37,965	41.8		12.6		16.5
<b>Region of residence</b>						
North Denmark Region	31,514	30.1		10.5		9.9
Central Denmark Region	67,624	33.1		22.4		23.2
Region of Southern Denmark	67,142	32.5		22.3		22.6
Capital Region	87,153	31.7		28.9		28.6
Region Zealand	47,811	31.6		15.9		15.7

**Abbreviations:** DKK, Danish Krone

## References

1. Schmidt M, Pedersen L, Sørensen HT. The Danish Civil Registration System as a tool in epidemiology. *Eur J Epidemiol*. 2014;29(8):541–549.
2. Schmidt M, Schmidt SA, Sandegaard JL, Ehrenstein V, Pedersen L, Sørensen HT. The Danish National Patient Registry: a review of content, data quality, and research potential. *Clin Epidemiol*. 2015;7:449–490.
3. Gjerstorff ML. The Danish Cancer Registry. *Scand J Public Health*. 2011;39(7 Suppl):42–45.
4. Pottegard A, Schmidt SAJ, Wallach-Kildemoes H, Sorensen HT, Hallas J, Schmidt M. Data resource profile: the Danish National Prescription registry. *Int J Epidemiol*. 2017;46(3):798–798.
5. Munk-Jørgensen P, Mortensen PB. The Danish Psychiatric Central register. *Dan Med Bull*. 1997;44(1):82–84.
6. Grann AF, Erichsen R, Nielsen AG, Frøslev T, Thomsen RW. Existing data sources for clinical epidemiology: The clinical laboratory information system (LABKA) research database at Aarhus University, Denmark. *Clin Epidemiol*. 2011;3:133–138.
7. Gjersøe P, Andersen SE, Mølbak AG, Wulff HR, Thomsen OO. [Reliability of death certificates. The reproducibility of the recorded causes of death in patients admitted to departments of internal medicine]. *Ugeskr Laeger*. 1998;160(35):5030–5034.
8. Bjerregaard B, Larsen OB. The Danish Pathology Register. *Scand J Public Health*. 2011;39(7 Suppl):72–74.
9. Andersen JS, Olivarius Nde F, Krasnik A. The Danish National Health Service Register. *Scand J Public Health*. 2011;39(7 Suppl):34–37.
10. Petersson F, Baadsgaard M, Thygesen LC. Danish registers on personal labour market affiliation. *Scand J Public Health*. 2011;39(7 Suppl):95–98.
11. Jensen VM, Rasmussen AW. Danish Education Registers. *Scand J Public Health*. 2011;39(7 Suppl):91–94.