



List of references on health expectancy

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New references with keywords and abstracts

2009

Bronnum-Hansen, H., Petersen, I., Jeune, B., Christensen, K. **Lifetime according to health status among the oldest olds in Denmark.** *Age and Ageing* 2009;38(1):47-51. CB18/71 (<http://ageing.oxfordjournals.org/cgi/content/abstract/38/1/47>)

HEALTH EXPECTANCY / OLDEST OLD / COGNITIVE FUNCTION / PHYSICAL ACTIVITY / PERCEIVED HEALTH / LONG-TERM CARE / ORIGINAL CALCULATION / SULLIVAN METHOD / DENMARK / 2006

BACKGROUND: policy makers face increasing demands for care of the aged and therefore need more information about the health status of very old people. The purpose of this study was to quantify the average lifetime according to health status among the oldest olds in Denmark. **METHODS:** the 2,258 participants (63% of all survivors) in the 1905 Danish cohort survey were interviewed in 1998 and re-assessed in 2000, 2003 and 2005. Lifetime according to self-rated health status, physical independence and being cognitively intact was estimated. Physical independence was defined as the ability to get up from a chair or bed, walk around the house and go to the toilet, and being cognitively intact was defined as having a Mini-Mental State Examination score >22.

RESULTS: the average lifetime between ages 92 and 100 was 2.7 years for men and 3.3 years for women, of which almost half was in self-rated good health. The lifetime in physical independence was 2.0 years for men and 2.4 years for women, and both men and women spent an average of 1.1 years in a state of physical independence without cognitive impairment.

CONCLUSION: even at ages 92-93, a substantial proportion of the remaining lifetime is spent in reasonably good health.

Lai, D. J. **A Comparative Study of Handicap-free Life Expectancy of China in 1987 and 2006.** *Social Indicators Research* 2009;90(2):257-265. CB18/81 (<http://www.springerlink.com/content/j4p24533887nq76g/>)

HEALTH EXPECTANCY / HANDICAP-FREE LIFE EXPECTANCY / ORIGINAL CALCULATION / SULLIVAN METHOD / TRENDS / CHINA / 1987 / 2006 /

After the first large scale national sampling survey on handicapped persons in 1987, China conducted its second national sampling survey in 2006. Using the data from these two surveys and the national life tables, we computed and compared the expected years of life free of handicapped condition by the Sullivan method. The expected years of life lived with handicap

for the Chinese population increased from 4.87 years for males and 5.81 years for females in 1987 to 5.55 years and 6.32 years in 2006, respectively. The same trend was observed for people in working ages (15-64) and old ages (65+). However, the expected years of life lived with handicap decreased for children (0-14). Our results also showed that the effect of skeletal handicap increased notably for both sexes. Healthy life expectancy is an important indicator in measuring quality of life of a population. Our study utilized this measurement to quantify one aspect of quality of life of the Chinese population.

2008

Health expectancies in the UK, 2004. *Health Statistics Quarterly* 2008;37(spring):48-51.

CB18/90

(http://www.statistics.gov.uk/downloads/theme_health/Health-expect-UK-2004.pdf)

HEALTH EXPECTANCY / DISABILITY / LONG-STANDING ILLNESS / PERCEIVED HEALTH / ORIGINAL CALCULATION / SULLIVAN METHOD / TRENDS / UNITED KINGDOM / ENGLAND / WALES / NORTHERN IRELAND / SCOTLAND / 2004 /

This report presents the latest figures on male and female health expectancy, at birth and at age 65, for the UK and its four constituent countries (England, Wales, Scotland and Northern Ireland) in 2004. Healthy life expectancy (HLE) is computed using data on 'good' or 'fairly good' perceived health and disability-free life expectancy (DFLE) is computed using data on 'disability' and 'limiting longstanding illness'. Both are computed according to Sullivan method. Trends since 2001 are provided.

Cai, L., Lubitz, J., Hayward, M., Saito, T., Hagedorn, A., Crimmins, E. M. ***Estimation of Multi-State Life Table Functions and Their Variability Using the SPACE Program.*** In:

Population Association of America; New Orleans; 2008.

CB18/73

(<http://paa2008.princeton.edu/download.aspx?submissionId=80047>)

HEALTH EXPECTANCY / MATHEMATICAL MODEL /

This PAA paper introduces the SPACE (Stochastic Population Analysis for Complex Events) program which provides demographers and social scientist with an alternate and improved means to model the dynamics of complex events and to draw statistical inferences. The authors examine the average values as well as the distributions of health expectancy. Comparisons are made with the IMaCh program.

Cambois, E., Clavel, A., Romieu, I., Robine, J.-M. **Trends in disability-free life expectancy at age 65 in France: consistent and divergent patterns according to the underlying disability measure.** *European Journal of Ageing* 2008;5(4):287-298.

CB18/72

(<http://www.springerlink.com/content/h784131826707573/?p=b34293b39af54a028b42fe75bde6f396&pi=2>)

HEALTH EXPECTANCY / DISABILITY-FREE LIFE EXPECTANCY / DISABILITY / ORIGINAL CALCULATION / SULLIVAN METHOD / TRENDS / FRANCE / 1980s / 1990s /

Disability-free life expectancy estimates (DFLE) are summary measures to monitor whether a

longer life expectancy (LE) is associated with better health or whether additional years of life are years of poor health or disability. Disability is a generic term defined as the impact of disease or injury on the functioning of individuals. It covers various situations from the rather common functional limitations to restrictions in daily activities and finally dependency. Disentangling these dimensions is essential to monitor future needs of care and assistance; but this is not always feasible since surveys do not systematically cover a large range of disability dimensions in their questionnaires. This study aims to cover different disability dimensions by using data from different French population surveys. We computed ten disability-free life expectancies, based on both specific and generic disability indicators from four population health surveys, in order to describe and compare trends and patterns for France over the 1980s and the 1990s. We used the Sullivan method to combine prevalence of disability and life tables. In 2000, two thirds of total LE at age 65 are years with physical or sensory functional limitations and 10% are years with restrictions in personal care activities. Trends in DFLE over the two last decades seem to have remained stable for moderate levels of disability and to have increased for more severe levels of disability or activity restrictions. We found that patterns are consistent from one survey to the other when comparing indicators reflecting similar disability situations

Cambois, E., Laborde, C. *Espérances de vie sans incapacité en France: disparités sociales, disparités régionales*. Paris: INED; 2008 (Rapport à la DRESS-MiRE). CB18/76

HEALTH EXPECTANCY / DISABILITY-FREE LIFE EXPECTANCY / SOCIAL INEQUALITY / GEOGRAPHIC COMPARISON / ORIGINAL CALCULATION / SULLIVAN METHOD / FRANCE / 2002-2003 /

The authors compute different disability-free life expectancy indicators using data from the 2002-2003 French health survey. They analyse social and geographic differences.

Cambois, E., Laborde, C., Robine, J.-M. **A double disadvantage for manual workers: more years of disability and a shorter life expectancy.** *Population et Sociétés* 2008(441) CB18/67
(http://www.ined.fr/fichier/t_publication/1341/publi_pdf2_pesa441.pdf)

DISABILITY-FREE LIFE EXPECTANCY / SOCIAL INEQUALITY / CALCULATION / FRANCE / 2003 /

The authors calculate disability-free life expectancies at age 35 for workers and managerial staff, using data from the 2002-2003 French Insee survey on health and medical care in France. On average workers are living less long than managers, and live longer with disabilities.

Jagger, C., Gillies, C., Mascone, F., Cambois, E., Van Oyen, H., Nusselder, W. J., Robine, J.-M., EHLEIS team. **Inequalities in healthy life years in the 25 countries of the European Union in 2005: a cross-national meta-regression analysis.** *The Lancet*. 2008;372(9656):2124-2131. CB18/78
([http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(08\)61594-9/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(08)61594-9/abstract))

HEALTH EXPECTANCY / DISABILITY-FREE LIFE EXPECTANCY / ACTIVITY RESTRICTION / SOCIAL INEQUALITY / ORIGINAL CALCULATION / SULLIVAN METHOD / EUROPEAN UNION / 2005 /

Background Although life expectancy in the European Union (EU) is increasing, whether most of these extra years are spent in good health is unclear. This information would be crucial to both contain health-care costs and increase labour-force participation for older people. We investigated inequalities in life expectancies and healthy life years (HLYs) at 50 years of age for the 25 countries in the EU in 2005 and the potential for increasing the proportion of older people in the labour force.

Methods We calculated life expectancies and HLYs at 50 years of age by sex and country by the Sullivan method, which was applied to Eurostat life tables and age-specific prevalence of activity limitation from the 2005 statistics of living and income conditions survey. We investigated differences between countries through meta-regression techniques, with structural and sustainable indicators for every country.

Findings In 2005, an average 50-year-old man in the 25 EU countries could expect to live until 67·3 years free of activity limitation, and a woman to 68·1 years. HLYs at 50 years for both men and women varied more between countries than did life expectancy (HLY range for men: from 9·1 years in Estonia to 23·6 years in Denmark; for women: from 10·4 years in Estonia to 24·1 years in Denmark). Gross domestic product and expenditure on elderly care were both positively associated with HLYs at 50 years in men and women ($p < 0·039$ for both indicators and sexes); however, in men alone, long-term unemployment was negatively associated ($p = 0·023$) and life-long learning positively associated ($p = 0·021$) with HLYs at 50 years of age.

Interpretation Substantial inequalities in HLYs at 50 years exist within EU countries. Our findings suggest that, without major improvements in population health, the target of increasing participation of older people into the labour force will be difficult to meet in all 25 EU

Jeune, B., Bronnum-Hansen, H. **Trends in health expectancy at age 65 for various health indicators, 1987-2005, Denmark.** *European Journal of Ageing* 2008;5(4):279-285

CB18/70

(<http://www.springerlink.com/content/008wm720w9308532/?p=f92ad8fc0a174390b04d1cdc2ca5bfd5&pi=1>)

HEALTH EXPECTANCY / LONG-STANDING ILLNESS / FUNCTIONAL LIMITATION / PERCEIVED HEALTH / ORIGINAL CALCULATION / SULLIVAN METHOD / TRENDS / DENMARK / 1987-2005 /

The aim of the study was to determine the trends in health expectancy at age 65 in Denmark during the period 1987–2005, including the end of a period of stagnation (until 1995) and the beginning of a new period with increasing life expectancy (after 1994). The study was based on nationwide register data on mortality and data on health status from the Danish Health Interview Surveys carried out in 1987, 1994, 2000, and 2005. Expected lifetime in various health states was estimated with Sullivan's method. Life expectancy at age 65 increased only after 1994 by almost 2 years among men and by about 1 year among women. The increase in expected lifetime without long-standing, limiting illness, lifetime without functional limitations, and lifetime with self-rated good health was all substantial in both genders (1·4–3 years depending on gender and health indicator), and was followed by a decrease in lifetime with the unhealthy state resulting in increasing proportions of lifetime in a healthy state. Overall, expected lifetime in good health increased more than life expectancy in both genders during the second half of the period 1987–2005, i.e. after the stagnation period.

Johnson, C. **Ageing and Healthy Life Expectancy: Will the Extended Years be Spent in Good or Poor Health?** *Journal of The Indian Academy of Geriatrics* 2008;4(2):64-67.

CB18/79

(http://www.jiag.org/ageing_healthy.pdf)

HEALTH EXPECTANCY / INDIA /

In the context of an ageing population in India, the author stresses the urgent need to estimate healthy life expectancy.

Manton, K. G., Gu, X. L., Lowrimore, G. R. **Cohort changes in active life expectancy in the US elderly population: Experience from the 1982-2004 National Long-Term Care Survey.** *Journal of Gerontology: Social Sciences* 2008;63(5):S269-S281.

CB18/69

(<http://psychsoc.gerontologyjournals.org/cgi/content/abstract/63/5/S269>)

HEALTH EXPECTANCY / ACTIVE LIFE EXPECTANCY (ALE) / DISABILITY / ORIGINAL CALCULATION / GOM ANALYSIS / TRENDS / 1982-2004 /

Objectives. To understand declines in chronic disability prevalence in the U.S. elderly population, we examined cohort changes in active life expectancy, a health measure relating population disability and longevity dynamics.

Methods. We computed active life expectancy and life expectancy using the six National Long-Term Care Surveys, done from 1982 to 2004 and linked to continuous-time Medicare service data for the same time period by using a stochastic process model based on disability scores calculated using grade of membership analyses. We simultaneously estimated continuous-time disability dynamic and mortality functions to calculate life tables for specific disability states and for temporally changing mixtures of disability states.

Results. Disability dynamics, measured as changes in grade of membership scores, showed significant variation across two birth cohorts followed for 24 years. Disability dynamics and disability-specific hazard functions were significantly improved in the younger cohort (persons aged 65-74 in 1982).

Discussion. Our results, supporting the hypothesis of morbidity compression, indicate that younger cohorts of elderly persons are living longer in better health. The methods describe individual disability transitions and mortality and other factors associated with disability changes, making it possible to better evaluate interventions to promote future declines in disability.

Reuser, M., Bonneux, L., Willekens, F. **Smoking kills, obesity disables: A multistate approach of the U.S. Health and Retirement Survey.** In: Population Association of America; New Orleans; 2008.

CB18/74

(<http://paa2008.princeton.edu/download.aspx?submissionId=80952>)

HEALTH EXPECTANCY / DISABILITY-FREE LIFE EXPECTANCY / OBESITY / SMOKING / EDUCATION / ACTIVITIES OF DAILY LIVING (ADL) / ADULT / ORIGINAL CALCULATION / COX MODEL / USA /

The authors estimate the number of years to live with and without ADL disability at age 55 by

self reported BMI, smoking status and level of education. They use data from the U.S. Health and Retirement Survey (HRS) and Asset and Health Dynamics among the Oldest Old (AHEAD), from 1995 to 2004.

Reynolds, S. L. **Successful aging in spite of bad habits: introduction to the special section on 'Life style and health expectancy.** *European Journal of Ageing* 2008;5(4):275-278.

CB18/77

(<http://www.springerlink.com/content/075h231kh0222660/?p=b34293b39af54a028b42fe75bde6f396&pi=0>)

HEALTH EXPECTANCY /

As the organizer of the 19th REVES meeting in St Petersburg (USA), Sandra Reynolds gathers four original papers given during the meeting in a special section in the *European Journal of Ageing*. In this introduction, she summarizes and comments each paper and draws conclusions.

Smith, M., Edgar, G., Groom, G. **Health expectancies in the United Kingdom, 2004-06.** *Health Statistics Quarterly* 2008(40):77-80.

CB18/89

(http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19093641)

HEALTH EXPECTANCY / DISABILITY / LONG-STANDING ILLNESS / PERCEIVED HEALTH / ORIGINAL CALCULATION / SULLIVAN METHOD / TRENDS / UNITED KINGDOM / ENGLAND / WALES / NORTHERN IRELAND / SCOTLAND / 2004-2006 /

This report presents the latest figures on male and female health expectancy, at birth and at age 65, for the UK and its four constituent countries (England, Wales, Scotland and Northern Ireland) in 2004–06. Healthy life expectancy (HLE) is computed using data on 'good' or 'fairly good' perceived health and disability-free life expectancy (DFLE) is computed using data on 'disability' and 'limiting longstanding illness'. Both are computed according to Sullivan method. Trends since 2000-02 are provided.

Van Oyen, H., Deboosere, P. **Tendances dans la sante de la population en Belgique entre 1997 et 2004 / Tendensen in de volksgezondheid in België tussen 1997 en 2004.** *Revue Belge de Securite Sociale / Belgisch Tijdschrift voor Sociale Zekerheid* 2008:245-283 / 249-287.

CB18/92

(<http://www.socialsecurity.fgov.be/bib/rbss.htm>)

HEALTH EXPECTANCY / PERCEIVED HEALTH / MORBIDITY / DISABILITY / ACTIVITY RESTRICTION / ORIGINAL CALCULATION / SULLIVAN METHOD / BELGIUM / 1997 / 2001 / 2004 /

This paper assesses the trends in health expectancy indicators in Belgium in 1997, 2001, and 2004. Life expectancy, life expectancy in good self perceived health, life expectancy without chronic morbidity, life expectancy without a group of diseases, with at least one disease or with co-morbidity, life expectancy without disability, or with moderate or severe disability and life expectancy without activity limitation, or with moderate or severe activity limitation, are computed by sex at ages 15, 65 and 80 according to Sullivan method.

Cet article évalue les tendances dans les indicateurs relatifs à l'espérance de santé en Belgique en 1997, 2001 et 2004. Les indicateurs d'espérance de vie, d'espérance de vie en bonne santé auto-perçue, d'espérance de vie sans morbidité chronique, d'espérance de vie sans groupe de maladies, avec au moins un groupe de maladies ou avec comorbidité, d'espérance de vie sans invalidité, avec une invalidité modérée et avec une invalidité sévère et d'espérance de vie sans limitations de l'activité, avec des limitations modérées et sévères de l'activité – sont évalués par sexe à 15 ans, 65 ans et 80 ans selon la méthode de Sullivan.

Yang, Y. **Long and happy living: Trends and patterns of happy life expectancy in the US, 1970-2000.** *Social Science Research* 2008;37(4):1235-1252. CB18/68
(http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6WX8-4PHJGKT-1&_user=10&_coverDate=12%2F31%2F2008&_rdoc=1&_fmt=high&_orig=browse&_sort=d&_view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=34f0e50394a8e71db57c39916937fd6a)

HEALTH EXPECTANCY / MENTAL HEALTH EXPECTANCY / ORIGINAL
CALCULATION / SULLIVAN METHOD / TRENDS / 1970-2000 / USA /

This study assesses the trends and differentials in length of quality life in the U.S. population as measured by happy life expectancy in 1970, 1980, 1990, and 2000. The analysis combines age-specific prevalence rates of subjective well-being from a large nationally representative survey and life table estimates of mortality in decennial Census years. Employing the period prevalence-rate life table method-Sullivan method, the analysis finds evidence for improvement in quality of life in the U.S. Happy life expectancy largely increased in both absolute terms (number of years) and relative terms (proportion of life) over time at all adult ages examined. And increases in total life expectancy were mainly contributed by increases in expectancy in happy years rather than unhappy years. Happy life expectancy is longer than active life expectancy. And there has been greater compression of unhappiness than compression of morbidity. There are substantial differentials in happy life expectancy by sex and race because of differential prevalence rates of happiness. Women and whites had longer years of total and happy life expectancies at most ages and dates, while men and blacks had greater proportions of happy life expectancies across the three decades. Although race differentials generally decreased at older ages and with time, relative disadvantages of blacks persisted.

2007

Health expectancies in the United Kingdom, 2003. *Health Statistics Quarterly* 2007;33(Spring):69-70. CB18/91
(http://www.statistics.gov.uk/downloads/theme_health/HealthExpectancies2003.pdf)

HEALTH EXPECTANCY / DISABILITY / LONG-STANDING ILLNESS / PERCEIVED
HEALTH / ORIGINAL CALCULATION / SULLIVAN METHOD / UNITED KINGDOM /
ENGLAND / WALES / NORTHERN IRELAND / SCOTLAND / 2003 /

This report presents the latest figures on male and female health expectancy, at birth and at age 65, for the UK and its four constituent countries (England, Wales, Scotland and Northern Ireland) in 2003. Healthy life expectancy (HLE) is computed using data on 'good' or 'fairly

good' perceived health and disability-free life expectancy (DFLE) is computed using data on 'disability' and 'limiting longstanding illness'. Both are computed according to Sullivan method.

Baerlocher, M. O. **Differences in healthy life expectancy among men and women.** *Canadian Medical Association Journal* 2007;177(10):1174. CB18/88
(<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=2043068&blobtype=pdf>)

HEALTH EXPECTANCY / HEALTH-ADJUSTED LIFE EXPECTANCY (HALE) / SEX
COMPARISON / WORLD POPULATION / 2002 /

Short comment of the sex differences in healthy life expectancies as calculated for 2002 by the World Health Organization.

Cambois, E., Robine, J.-M., Mormiche, P. **Did the prevalence of disability in France really fall in the 1990s? A discussion of questions asked in the French health survey.** *Population-E* 2007;62(2):315-337. CB18/86
(http://www.ined.fr/en/resources_documentation/publications/population/)

DISABILITY / HEALTH SURVEYS / TRENDS / FRANCE / 2002-2003 /

In 2002-2003, the French Health Survey included - for the third time since 1980 - a general question on impairments and disabilities in daily life". The responses obtained suggest that the prevalence of disability has fallen far more rapidly in the past decade than in earlier periods. Indeed, the drop exceeds the most optimistic scenarios. Our study devotes special attention to changes in the survey protocol and their possible influence on comparability of the latest results with those of previous surveys. The analysis shows that the general question in the 2002-2003 survey mainly records severe activity restrictions and proven (and thus relatively rare) disability situations, whereas the wording was designed to identify "basic limitations" as well, which are far more common. This selection was more pronounced in the latest survey than in its predecessors. In conclusion, the impairments and disabilities question does not provide continuity with the time series begun in 1980, but it yields additional information on the various types of functional problems via those situations of social disadvantage that it more specifically brings to light.

Cambois, E., Robine, J.-M., Mormiche, P. **Une forte baisse de l'incapacité en France dans les années 1990 ? Discussion autour des questions de l'enquête Santé.** *Population-F* 2007;62(2):363-386. CB18/87
(http://www.ined.fr/fr/ressources_documentation/publications/population/bdd/publication/1327/)

DISABILITY / HEALTH SURVEYS / TRENDS / FRANCE / 2002-2003 /

L'enquête Santé française posait en 2002-2003, pour la troisième fois depuis 1980, une question générale sur les « gênes ou handicaps dans la vie quotidienne ». Les réponses obtenues suggèrent une décroissance beaucoup plus rapide qu'auparavant des prévalences de l'incapacité au cours de la dernière décennie, dont l'ampleur dépasse les scénarii les plus optimistes. Ce travail examine plus particulièrement les changements intervenus dans le protocole de la dernière enquête et leur influence possible sur la comparabilité des résultats avec ceux des enquêtes antérieures. L'analyse montre que la question générale de l'enquête de 2002-2003 enregistre surtout des

restrictions d'activité sévères et des situations de handicap avérées, donc relativement peu répandues, alors que la formulation visait à recueillir aussi des situations de « simples gênes », bien plus fréquentes. Cette sélection a été plus prononcée dans la dernière enquête que dans les enquêtes précédentes. Au total, la question sur les gênes ou handicaps ne permet pas de poursuivre la série chronologique initiée en 1980, mais elle vient compléter la connaissance des différents types de problèmes fonctionnels à travers les situations de désavantage social qu'elle semble plus spécifiquement refléter.

Robine, J.-M. *Active life expectancy*. In: Capezuti, E., Siegler, E., Mezey, M., editors. The Encyclopedia of Elder Care. The comprehensive resource on geriatric and social care. Second Edition ed. New York: Springer; 2007. p. 4-7. CB18/85
(http://www.springerpub.com/prod.aspx?prod_id=0259X)

HEALTH EXPECTANCY / ACTIVE LIFE EXPECTANCY (ALE) / DISABILITY-FREE LIFE EXPECTANCY / HEALTHY LIFE YEARS / REVIEW /

Robine, J.-M. *Active life expectancy*. In: Markides, K. S., editor. Encyclopedia of health and aging. Thousand Oaks, Ca: Sage; 2007. p. 2-4. CB18/83
(<http://www.sagepub.com/refbooksProdDesc.nav?prodId=Book227074>)

HEALTH EXPECTANCY / ACTIVE LIFE EXPECTANCY (ALE) / DISABILITY-FREE LIFE EXPECTANCY / HEALTHY LIFE YEARS / REVIEW /

Robine, J.-M., Jagger, C. *Healthy life expectancy in the UN-European region*. In: Marin, B., Zaidi, A., editors. Mainstreaming Ageing. Indicators to Monitor Sustainable Progress and Policies. Aldershot - Brookfield USA - Singapore - Sydney: Ashgate; 2007. p. 317-328. (Public Policy and Social Welfare) CB18/84
(http://www.euro.centre.org/data/1192809590_39180.pdf)

HEALTH EXPECTANCY / HEALTHY LIFE YEARS / HEALTH INDICATOR / EUROPEAN UNION /

The aim of this paper is to provide the essential guidelines for development of comparative social indicators in the domains of morbidity, mortality and longevity in the UN-European Region, and their effect on long-term population trends. The authors propose some essential guidelines for such indicators, namely that each indicator should be policy relevant at the regional level, comparable across countries, available using harmonized sources, stable over time to ensure continuity, and easily understood. In this context they describe results of a feasibility study for a new European Union Structural Indicator: the Health Life Years (HLY).

2006

Robine, J.-M. *Summarizing health status*. In: Pencheon, D., Guest, C., Melzer, D., Gray, J. A. M., editors. Oxford Handbook of Public Health Practice. 2nd ed. Oxford: Oxford University Press; 2006. p. 160-168. CB18/82
(<http://www.oup.com/uk/catalogue/?ci=9780198566557>)

HEALTH EXPECTANCY / HEALTHY LIFE YEARS / HEALTH-ADJUSTED LIFE

EXPECTANCY (HALE) / DISABILITY-FREE LIFE EXPECTANCY / REVIEW /

This chapter introduces to the main current summary measures of population health and their principal characteristics.

2000-2003

Saito, Y. *Health expectancy in Japan*. In: Aging in Japan 2003. Tokyo: Japan Aging Research Center; 2003. p. 67-81. CB18/75

HEALTH EXPECTANCY / JAPAN /

This chapter reviews studies on health expectancy using data on the Japanese population.

Lai, D. J. **Effects of handicap on life expectancy: the case of China**. *Public Health* 2000;114(5):330-335. CB18/80
(http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%2311546%232000%23998859994%23410500%23FLP%23&_cdi=11546&_pubType=J&view=c&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=83ff674c29cbe2fb97e75ff330618f64)

HEALTH EXPECTANCY / HANDICAP-FREE LIFE EXPECTANCY / ORIGINAL CALCULATION / SULLIVAN METHOD / CHINA / 1987 /

The purpose of this study was to quantify and partition the expected years of life with and without handicap for the Chinese population according to various types of handicaps, age–sex groups and regions.

A large-scale sample survey on handicapped persons conducted in 1987, and the 1990 population census constitute the basis for computing the expected years of life free of handicapped condition using the method proposed by Sullivan.

The expected years of life with handicap for the Chinese population in childhood (0–14 y), working ages (15–64 y) and the elderly (65 y+) were 0.40, 1.78, and 3.44 for males and 0.34, 1.69, and 4.55 for females. For the Chinese males over 65 y of age, there were about 1.83 expected years of life with aural handicap and 0.59 expected years of life with ocular handicap. For the Chinese females over 65 y of age, there were about 1.87 expected years of life with aural handicap and 1.16 expected years of life with ocular handicap. The burden of living with handicap is greater for females and the elderly. This general pattern holds for all types of handicap except for skeletal handicap.

The expected years of life with handicap for the Chinese population provide useful information for setting public health policies, despite the difficulty in making comparisons with the similar data in other countries.