



## List of references on health expectancy

### Monthly update n°4

March 2007

## New references with keywords and abstracts

2007

Caselli, G., Egidi, V., Frova, L., Lipsi, R. M., Spizzichino, D. *Sopravvivenza e salute*. In: Gruppo di Coordinamento per la Demografia, editor. Rapporto sulla popolazione. L'Italia all'inizio del XXI secolo. Bologna: Il Mulino; 2007. p. 87-110 CB17/43  
([http://www.mulino.it/edizioni/volumi/scheda\\_volume.php?vista=scheda&ISBNART=11828](http://www.mulino.it/edizioni/volumi/scheda_volume.php?vista=scheda&ISBNART=11828))

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
CALCULATION  
SULLIVAN METHOD  
DISABILITY-FREE LIFE EXPECTANCY  
PERCEIVED HEALTH  
ACTIVITIES OF DAILY LIVING (ADL)  
GEOGRAPHIC COMPARISON  
1999-2000

Life expectancy in good perceived health (How is your health in general, 5 response items) is calculated for men and women, at birth and at age 65, for the year 2000 in 24 Italian regions and for the whole country. Disability-free life expectancy is calculated using data on functional limitations (Activities of Daily Living) for men and women, at ages 15 and 65, for the year 2000 in 24 Italian regions and for the whole country. Differences among regions for both indicators are analysed.

Farago, M. *Egészségesen várható élettartamok Magyarországon 2005: Egy összetett, kvalifikált mutató a népesség egészségi állapotának mérésére [Healthy life expectancy in Hungary 2005: a summary measure of population health]*. Budapest: Hungarian Central Statistical Office; 2007.

CB17/41

HEALTH EXPECTANCY  
PERCEIVED HEALTH  
ORIGINAL CALCULATION  
SULLIVAN METHOD  
EDUCATION  
HUNGARY  
2005

The sample comes from the Hungarian SILC/2005 data (14700 persons) and the death data are of interval (2004,2005). The calculation method is „Sullivan\_5”, that is, prevalence by up to 5 response categories from question: How is your health in general? Very good / good / fair / bad / very bad  
The calculations are performed at country and county (20 counties) levels and by education (three levels) and type (size) of strata.

Martel, S., Choinière, R. *Une estimation du fardeau de différentes maladies chroniques à partir de l'espérance de vie ajustée en fonction de l'état de santé* Québec: Institut National de Santé Publique du Québec; 2007. CB17/72  
(<http://www.inspq.qc.ca/pdf/publications/593-EstimationFardeauMaladiesChroniques.pdf>)

HEALTH-ADJUSTED LIFE EXPECTANCY (HALE)  
ORIGINAL CALCULATION  
SULLIVAN METHOD  
DISEASE (CHRONIC)  
QUEBEC  
2000-2003

À la suite de l'augmentation continue, au Québec, de l'espérance de vie à la naissance, on observe un nombre croissant de personnes qui vivent de plus en plus longtemps avec des maladies chroniques. Cependant, très peu de travaux ont analysé le fardeau lié à ces maladies. Cette étude a pour objectif d'estimer l'impact de certaines maladies chroniques sur l'état de santé de la population à partir de la mesure de l'espérance de vie ajustée en fonction de l'état de santé en l'absence d'une maladie. Cette mesure permet de tenir compte à la fois de la contribution de la mortalité et de la morbidité au fardeau de la maladie. Nos résultats montrent que les gains les plus importants en années vécues et en années vécues en santé seraient attribuables à l'élimination des tumeurs malignes et des cardiopathies ischémiques. Pour les troubles mentaux et du comportement ainsi que pour les maladies hypertensives, les gains en années vécues en santé seraient beaucoup plus élevés que les gains en années vécues. Ce sont les personnes âgées de 65 ans et plus qui bénéficieraient de la très grande majorité des gains en années vécues résultant de l'élimination des maladies chroniques étudiées. Par ailleurs, l'élimination des troubles mentaux et du comportement, des maladies hypertensives, du diabète et des maladies vasculaires cérébrales, de même que des cardiopathies ischémiques chez les femmes, mèneraient à une compression de la morbidité. À l'opposé, l'élimination des tumeurs malignes se solderait par une expansion de la morbidité. Cette étude est exploratoire et il est nécessaire d'en mener d'autres pour mieux comprendre le rôle de certaines maladies et de divers traumatismes sur l'état de santé de la population québécoise.

Philibert, M. D., Pampalon, R., Choinière, R. *L'espérance de santé au Québec : Revue de différentes estimations pour les années 1986 à 2003*. Québec: Institut National de Santé Publique du Québec; 2007. CB17/73  
(<http://www.inspq.qc.ca/pdf/publications/581-EsperanceSanteQc-Estimations1986-2003.pdf>)

HEALTH EXPECTANCY  
HEALTH INDICATOR  
MORBIDITY COMPRESSION  
CALCULATION  
COMPARISON  
1986-2003

La hausse continue de l'espérance de vie à la naissance observée au Québec depuis quelques années

est-elle accompagnée d'une hausse parallèle de l'espérance de vie en santé? Les différentes mesures d'espérance de santé produites pour le Québec depuis quelques années ne permettent pas de suivre adéquatement l'évolution de la situation et donc, de répondre à cette question. Ce rapport fait donc un survol des différentes estimations d'espérance de santé produites pour le Québec entre les années 1986 et 2003. Il présente les cadres conceptuels sur lesquels sont basés les différentes mesures d'état de santé produites au Québec. Il décrit les éléments les plus significatifs dans la construction de ces mesures et discute de leur comparabilité.

La description de chacune de ces mesures porte sur quatre éléments importants de leur construction : la mesure de la mortalité, le type d'enquête d'où sont tirées les données sur l'état de santé, les hypothèses utilisées en l'absence d'information pour certains groupes de la population et le concept et la mesure qui servent à définir l'état de santé. La mesure de la mortalité varie peu selon les données utilisées et les méthodes retenues et ne constitue pas un facteur déterminant dans la variation des estimations d'espérance de santé. Les mesures d'espérance de santé n'offrent pas de bases conceptuelles suffisamment homogènes pour isoler l'effet du type d'enquête et des hypothèses d'attribution d'états de santé en l'absence d'informations. Le concept et la définition des états de santé considérés, leur niveau de sévérité notamment, constituent le principal facteur à l'origine des variations observées entre les différentes mesures d'espérance de santé. Enfin, deux mesures d'espérance de santé sont proposées afin de permettre des comparaisons dans le temps et dans l'espace ainsi que pour favoriser l'estimation du fardeau des limitations d'activité, sur le système de soins.

2006

*Gesundheit im Schlaglicht: Deutschland 2004*. World Health Organization; 2006.  
([http://www.euro.who.int/document/chh/ger\\_highlights\\_ger.pdf](http://www.euro.who.int/document/chh/ger_highlights_ger.pdf))

CB17/71

HEALTH EXPECTANCY  
HEALTH REPORT  
GERMANY

Breakwell, C., Bajekal, M. **Health expectancies in the UK and its constituent countries, 2001**. *Health Statistics Quarterly* 2006;29(Spring):18-25.  
([http://www.statistics.gov.uk/downloads/theme\\_health/HSQ29.pdf](http://www.statistics.gov.uk/downloads/theme_health/HSQ29.pdf))

CB17/29

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
DISABILITY-FREE LIFE EXPECTANCY  
CALCULATION METHOD  
ENGLAND  
WALES  
SCOTLAND  
NORTHERN IRELAND  
UNITED KINGDOM  
2001

A previous article set out proposals for constructing a new series of health expectancies which aimed to widen the coverage to the UK and all four of its constituent countries and to improve the methods used in the calculations (see CB 16/80)

This article investigates the impact of applying the new methods by comparing estimates of healthy life expectancy (HLE) and disability-free life expectancy (DFLE) based on the old and new methods for one year (2001). It then goes on to present

and compare health expectancies based on the new methodology across England, Wales, Scotland and Northern Ireland and the entire UK in 2001.

Doblhammer-Reiter, G., Ziegler, U. **Future elderly living conditions in Europe: Demographic insights**. In: Backes, G. M., Lasch, V., Reimann, K., editors. *Gender, Health and Ageing. European Perspectives on Life Course, Health Issues and Social Challenges*. Wiesbaden VS Verlag für Sozialwissenschaften; 2006. (Alter(n) und Gesellschaft, n°13) CB17/65

Domínguez, E., Seuc, A., Aldana, D., Licea, M., Díaz, O., López, L. **Impacto de la diabetes sobre la duración y la calidad de vida de la población cubana: años 1990, 1999, 2000, 2003/ Revista Cubana de Endocrinología** 2006;17 (2):p-p. CB17/79  
([http://bvs.sld.cu/revistas/end/vol17\\_2\\_06/end03206.pdf](http://bvs.sld.cu/revistas/end/vol17_2_06/end03206.pdf))

HEALTH EXPECTANCY  
DISEASE-FREE LIFE EXPECTANCY  
CUBA

Esaola, S., Martín, U., Pérez, Y., Ruiz, R., Aldasoro, E., M., C. **Magnitud y desigualdades socioeconómicas de la esperanza de vida ajustada por calidad en la CAPV Instituto Vasco de Innovación Sanitaria. Departamento de Sanidad. Gobierno Vasco, septiembre 2006**. Bizkaia: Instituto Vasco de Innovación Sanitaria. Departamento de Sanidad. Gobierno Vasco; 2006. CB17/78

(<http://www.bioef.org/externos/informeEVAC20061212.pdf>)

HEALTH EXPECTANCY  
QUALITY-ADJUSTED LIFE EXPECTANCY  
ORIGINAL CALCULATION  
SULLIVAN METHOD  
BASQUE COUNTRY  
SPAIN

Quality-adjusted life expectancy is calculated according to Sullivan method for the Autonomous Community of the Basque Country in Spain, using data from the 1997 and 2002 health surveys.

García Ferruelo, M. **La salud como aproximación a la felicidad. Índice** 2006(14):9-11. CB17/77  
(<http://www.revistaindice.com/numero14/>)

HEALTH EXPECTANCY  
MORBIDITY COMPRESSION  
SPAIN

Gesundheitsberichterstattung des Bundes. **Gesundheit in Deutschland**. Berlin: Robert Koch Institute; 2006 CB17/38  
([http://www.rki.de/cln\\_048/nn\\_216468/EN/Content/Health\\_Reporting/HealthInGermany/GesInDtldSummary.templateId=raw,property=publicationFile.pdf/GesInDtldSummary.pdf](http://www.rki.de/cln_048/nn_216468/EN/Content/Health_Reporting/HealthInGermany/GesInDtldSummary.templateId=raw,property=publicationFile.pdf/GesInDtldSummary.pdf))

LIFE EXPECTANCY  
HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
PERCEIVED HEALTH

In this report the authors point to life expectancy and healthy life expectancy in Germany and compare several european countries using Eurostat data for 2003. (See page 17 of the report)

ISTAT. *Un sistema informativo territoriale su sanità e salute / [Regional data-set on health]*. Rome: ISTAT; 2006. CB17/54  
(Accessed April 2007: <http://www.istat.it/sanita/sociosan/english.html>)

HEALTHY LIFE EXPECTANCY  
DISABILITY-FREE LIFE EXPECTANCY  
CALCULATION  
ITALY  
1994  
1999-2000

The Health for All - Italia information system collects health data from several sources. It is intended to be a cornerstone for the achievement of an overview about health in Italy. Health is analyzed at different levels, ranging from health services, health needs, lifestyles, demographic, social, economic and environmental contexts. The database associated software allows to pin down statistical data into graphs and tables, and to carry out simple statistical analysis. It is therefore possible to view the indicators' time series, make simple projections and compare the various indicators over the years for each territorial unit. This is possible by means of tables, graphs (histograms, line graphs, frequencies, linear regression with calculation of correlation coefficients, etc) and maps. These charts can be exported to other programs (i.e. Word, Excel, Power Point), or they can be directly printed in color or black and white.

Juel, K., Sorensen, J., Bronnum-Hansen, H. *Risikofaktorer og folkesundhed i Danmark*. København: Statens Institut for Folkesundhed (SIF); 2006. CB17/58  
([http://www.si-folkesundhed.dk/upload/risikofaktorer\\_def.pdf](http://www.si-folkesundhed.dk/upload/risikofaktorer_def.pdf))  
HEALTH EXPECTANCY  
HEALTH REPORT  
DENMARK

Juel, K., Sorensen, J., Bronnum-Hansen, H. *Folkesundhed og risikofaktorer – tal på sundhed til kommunen*. København: Statens Institut for Folkesundhed (SIF); 2006. CB17/61

HEALTH EXPECTANCY  
HEALTH REPORT  
DENMARK

Ministerio de Sanidad y Consumo. *La esperanza de vida libre de incapacidad: un indicador estructural*. Ministerio de Sanidad y Consumo; 2006. CB17/76  
(<http://www.msc.es/estadEstudios/estadisticas/docs/informeEVLL.pdf>)

HEALTH EXPECTANCY  
HEALTHY LIFE YEARS  
CALCULATION METHOD  
GEOGRAPHIC COMPARISON  
REVES  
EUROPE

The authors present the calculations of healthy life years for european countries, based on data from the European Communiy Household Panel for the years 1995 to 2001 extrapolated for the years 2002 and 2003.

**2005**

Gärtner, K., Scholz, R. D. *Lebenserwartung in Gesundheit [Healthy life expectancy]* In: Gärtner, K., Grünheid, E., Luy, M., editors. *Lebensstile, Lebensphasen, Lebensqualität: interdisziplinäre Analysen von Gesundheit und Sterblichkeit aus dem Lebenserwartungssurvey des BiB*. Wiesbaden: VS Verlag für Sozialwissenschaften; 2005. p. 311-331. (Schriftenreihe des Bundesinstituts für Bevölkerungsforschung, n°36) CB17/66

Gomez Leon, M., Leon Diaz, E. M. *Esperanza de vida saludable de los adultos mayores en La Habana en 2000*. In: XXVe Congrès International de la Population Tours (France); 2005. CB17/39 (<http://iussp2005.princeton.edu/abstractViewer.aspx?submissionId=50606>)

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
DISEASE (CHRONIC)  
DISABILITY  
ORIGINAL CALCULATION  
SULLIVAN METHOD  
HAVANA CITY  
CUBA  
2000

En el trabajo se presenta el cálculo de la esperanza de vida saludable para los adultos mayores de Ciudad de la Habana en el período 1998-2000, utilizando la tabla de mortalidad de Ciudad de La Habana del período 1998-2000 y el Método Sullivan, con el cual se combinan las prevalencias de determinadas enfermedades y discapacidades de una encuesta realizada en siete países de la región de América denominada SABE. También se presenta un análisis bivariado para ver la relación entre los factores asociados a las desigualdades frente a la salud por determinadas enfermedades así como por factores socio-económicos y su diferencia por sexos, también se realizó un análisis multivariado a través de una regresión logística y la regresión dprobit para ver el grado de asociación de las variables socio-económicas y de salud. Los resultados muestran una disminución de la esperanza de vida saludable que aumenta con la edad y está asociada fundamentalmente a enfermedades crónicas y el nivel de educación, también que el diferencial por sexos de la esperanza de vida saludable es a favor de los hombres.

Leon Diaz, E. M., Gomez Leon, M. *Estudio exploratorio de los perfiles socio-económicos de los adultos mayores con limitaciones funcionales de siete ciudades de América Latina y el Caribe*. In: XXVe Congrès International de la Population Tours (France); 2005. CB17/40

(<http://iussp2005.princeton.edu/abstractViewer.aspx?submissionId=50618>)

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
FUNCTIONAL LIMITATION  
ACTIVITIES OF DAILY LIVING (ADL)  
INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADL)  
SOCIAL INEQUALITY  
ORIGINAL CALCULATION  
LATIN AMERICA  
THE CARRIBBEAN  
1999  
2000

La investigación tiene el objetivo de identificar los perfiles socioeconómicos de los adultos mayores que presentan limitaciones funcionales en América Latina y el Caribe, región que tiende a un rápido envejecimiento, donde prevalecen dificultades económicas, y en algunos de ellos grandes desigualdades sociales. Se realizará un estudio exploratorio sobre los datos del estudio multicéntrico “Salud, Bienestar y Envejecimiento en las Américas” (SABE), encuesta realizada en el año 2000, en 7 ciudades de América Latina y el Caribe a través de un proyecto de la Organización Panamericana de la Salud donde se entrevistaron a partir de muestras probabilísticas 10 891 personas de 60 años y más. Se aplicarán métodos de análisis multivariado para a partir de covariables socio-económicas como ingresos, arreglos familiares, índices de vivienda y de equipamiento del hogar y variables demográficas como sexo, edad y estado conyugal analizar la población con limitaciones funcionales, medido a través del auto reporte de las limitaciones en las Actividades Básicas de la Vida Diaria. Las conclusiones del estudio brindarán elementos para promover la adopción de estrategias en políticas sociales y de salud pública.

Manton, K. G., Lamb, V. L. *Mortality and disability trajectories above age 90 in the U.S. 1982-2004*. In: XXV International Population Conference; Tours, France: IUSSP; 2005. CB17/30  
(<http://iussp2005.princeton.edu/abstractViewer.aspx?submissionId=50729>)

HEALTH EXPECTANCY  
ACTIVE LIFE EXPECTANCY (ALE)  
ELDERLY  
OLDEST OLD  
MORTALITY  
DISABILITY  
TRENDS  
FORECASTING  
USA

In this paper we conduct a coupled life expectancy – active life expectancy analysis using National Long Term Care Survey (NLTCS) and linked Medicare data to produce estimates of life expectancy (LE) and active life expectancy (ALE) at various dates to examine the relative rate of change in total LE and ALE over time to see the effects of improvements in elderly health and longevity. We will focus attention to the changes in LE and ALE for persons aged 85 years and older, and mortality patterns at extreme (i.e., age 95 to 110) ages.

Parker, M. G., Ahacic, K., Thorslund, M. **Health changes among Swedish oldest old: prevalence rates**

**from 1992 and 2002 show increasing health problems.** *Journal of Gerontology: Medical Sciences* 2005;60(10):1351-1355. CB17/31  
([http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=16282573](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16282573))

ELDERLY  
HEALTH STATUS  
HEALTH POLICY  
HEALTH CARE SYSTEM  
MORBIDITY  
DISABILITY  
TRENDS  
SWEDEN

**BACKGROUND:** The health of the elderly population is of utmost importance for planning policy and resources for care services. Most surveys of the health of the elderly population show improvement, suggesting support for the compression of morbidity hypothesis. This study examines changes in the health of the Swedish population (aged 77+) from 1992 to 2002.

**METHODS:** Two nationally representative surveys of the elderly population (n = 537 and 563, respectively), including both community-based and institutionalized persons were used. Outcomes include self-reported diseases, symptoms, and activities of daily living, as well as objective tests of physical capacity, lung function, vision, and cognition.

**RESULTS:** None of the indicators showed improvement. A number of health indicators showed significant worsening, with or without adjustment for changes in the age and sex distribution from 1992 to 2002. Among self-reported indicators, there were significant increases in several diseases and symptoms. The objective function tests also showed significantly worse results in 2002 compared to 1992 for physical capacity, lung function, and cognition. No significant differences in activities of daily living limitations were found.

**CONCLUSIONS:** In light of several recent studies, we expected to observe improvements in the health of the elderly population. However, this study showed no signs of improvement. On the contrary, we found a pattern of worsening health. The study included objective tests of function, implying that results are not due solely to raised expectations or changes in reporting. Possible explanations are discussed.

Spadea, T., Quarta, D., Demarca, M., Marinacci, C., Costa, G. **Speranza di vita in buona salute nella popolazione occupata torinese / [Healthy life expectancy in the occupied segment of the Turin population].** *Medicina del Lavoro* 2005;96 (suppl):s28-38. CB17/46  
(<http://www.sicurweb.it/professional/news/dettaglio.asp?id=5108>)

HEALTH EXPECTANCY  
DISEASE (CHRONIC)  
DISABILITY  
OCCUPATION  
ORIGINAL CALCULATION  
SULLIVAN METHOD  
HEALTH INDICATOR  
SOCIAL INEQUALITY  
ADULT  
ITALY  
TURIN  
1991



**BACKGROUND:** The indicators of healthy life expectancy measure differences in health among various population subgroups more sensitively than do indicators of mortality.

**OBJECTIVES:** The aim of the study was to evaluate the differences among occupational categories in Turin using indicators as life expectancy without tumor, without diabetes, without disability, without chronic disease and healthy.

**METHODS:** Mortality tables by occupation were calculated on Turin residents, aged 18-64 years in 1991, using the Turin Longitudinal Study which combines personal, census, and health information for the residents of the city. Longitudinal assessments of health expectancy were obtained by means of record-linkage with the Cancer Registry, the Diabetes Registry, and hospital discharge records. In addition, prevalence estimates of good health, disability, and chronic illness, obtained from ISTAT (Central Statistics Institute) investigations in 1999-2000 were combined with mortality data using Sullivan's algorithm.

**RESULTS:** Among men there was a systematic disadvantage in almost all indicators of health expectancy for some manual occupations, while jobs requiring more qualifications were more advantaged. The health profile for women was more controversial, with an overall disadvantage among women who were professional consultants, although this group showed substantial variability: the legal professions had the lowest life and health expectancies, with approximately 3 years of life less than the health professions, which were among the most advantaged.

**DISCUSSION:** The various indicators gave results which were at times conflicting, especially because the information obtained from the available sources had major limitations. The development of indicators needs to aim for greater homogeneity between mortality and health data to ensure maximum comparability.

Stürzer, M., Cornelißen, W. *Lebenserwartung im internationalen Vergleich, im Zeitvergleich sowie im regionalen Vergleich*. In: Gender datenreport. München: Bundesministerium für Familie, Senioren, Frauen und Jugend; 2005. p. 474-480 CB17/70  
(<http://www.bmfsfj.de/Publikationen/genderreport/8-Gesundheitsstatus-und-gesundheitsrisiken-von-frauen-und-maennern/8-2-lebenserwartung-im-internationalen-vergleich-im-zeitvergleich-sowie-im-regionalen-vergleich.html>)

HEALTH EXPECTANCY  
HEALTH REPORT  
GERMANY

**2004**

Burgio, A. *Speranza di vita libera da disabilità*. In: Folino-Gallo, P., Ricciardi, W., editors. Rapporto osservasalute. Stato di salute e qualità dell'assistenza nelle regioni italiane. Milan: Vita e Pensiero; 2004 p. 136-139 CB17/47  
(<http://www.osservasalute.it/>)

Arbeev, K. G., Butov, A. A., Manton, K. G., Sannikov, I. A., Yashin, A. I. **Disability trends in gender and race groups of early retirement ages in the USA**. *Sozial- und Präventivmedizin* 2004;49(2):142-151. CB17/35  
(<http://www.springerlink.com/content/4ucqgh0g4bcv88ft/?p=63e399b095f94a1d8d0fd95eae94508f&pi=14>)

DISABILITY

SEX COMPARISON  
RACIAL COMPARISON  
TRENDS  
ACTIVITIES OF DAILY LIVING (ADL)  
INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADL)  
INSTITUTIONALIZATION  
USA

**OBJECTIVES:** To analyse disability trends over the 1980s-1990s in gender and race groups of early retirement ages in USA.

**METHODS:** Disability trends for white and black males and females aged 65-69 and 70+ are analysed using the 1982-1999 NLTCS. Disability is analysed at three levels (instrumental activities of daily living (IADL), activities of daily living (ADL), and institutionalisation).

**RESULTS:** 1) A larger increase in proportions of non-disabled blacks aged 65-69 compared with whites and males compared with females. 2) Differences in disability trends among gender and race groups. 3) A faster absolute decline in non-institutionalised disabled aged 65-69. 4) A larger absolute decline and a smaller relative decline in proportions of disabled aged 70+ compared with 65-69. 5) A significant decrease in the proportion of ADL disabled blacks and an increase of ADL disabled white females in the age group 70+.

**CONCLUSIONS:** Americans aged 65-69 years manifest a significant improvement in health over the 1980s-1990s but the dynamics differs in gender and race groups. Possible reasons for these differences are discussed.

Crimmins, E. M., Hayward, M. D. **Workplace characteristics and work disability onset for men and women.** *Sozial- und Präventivmedizin* 2004;49(2):122-131. CB17/34  
(<http://www.springerlink.com/content/pt3gt52leaclywrf/?p=69663f504e60449bb1e626ed538837c4&pi=12>)

DISABILITY  
MALE  
FEMALE  
AGED  
USA

**OBJECTIVES:** This paper investigates the association between job characteristics and work disability among men and women in older working ages in the United States. We examine whether the association persists when controlling for major chronic disease experience. We also address whether job characteristics are ultimately associated with the receipt of disability benefits.

**METHODS:** Data are from the Health and Retirement Survey and are nationally representative of noninstitutionalized persons 51-61 in 1992. Disability onset is estimated using a hazard modeling approach for those working at wave 1 (N = 5,999). A logistic regression analysis of disability benefits is based on a risk set of 525 persons who become work-disabled before the second interview.

**RESULTS:** Women's disability onset and health problems appear less related to job characteristics than men's. For men, work disability is associated with stressful jobs, lack of job control, and environmentally hazardous conditions but is not associated with physical demands. Participation in disability benefit programs among those with work disability is unrelated to most job characteristics or health conditions.

**CONCLUSIONS:** Understanding of the differing process to work disability for men and women and the relationship between work and health by gender is important for current policy development.

Ercolani, P. **Reddito nazionale, vita media e benessere: una nota**. Universita' Politecnica delle Marche (I), Dipartimento di Economia; 2004. (Working Papers 208). CB17/48  
(<http://ideas.repec.org/p/anc/wpaper/208.html>)

HEALTHY LIFE EXPECTANCY  
ITALY

Una soddisfacente singola misura del benessere non puo' essere ottenuta. Soltanto un insieme di variabili complementari puo' essere in grado di fornire adeguate informazioni sulle variazioni del benessere di una collettivita'. Ma, poiche' non e' possibile definire tale insieme in modo oggettivo, ci troveremo di fronte a differenti proposte in competizione tra loro. In questo quadro e' utile accertare quali indicatori mettono in luce facce diverse del benessere e quali, pur rilevando aspetti diversi, forniscono analoghe indicazioni. Precedenti lavori hanno esaminato la relazione tra PIL pro capite ed un importante aspetto del benessere, la durata media della vita, ed hanno mostrato che c'e' una stretta relazione tra i due indicatori soltanto a bassi livelli di reddito. Questa nota esamina se il risultato cambia, quando invece del puro indicatore quantitativo si utilizza una misura, recentemente elaborata dall'Organizzazione Mondiale della Sanita', che tiene conto anche di aspetti qualitativi del benessere fisiologico: la speranza di vita in buona salute. L'analisi mostra che, anche con il nuovo indicatore, le precedenti conclusioni sono confermate.

Kalėdienė, R., Petrauskienė, J. **Healthy life expectancy - an important indicator for health policy development in Lithuania**. *Medicina (Kaunas)* 2004;40(6):582-588. CB17/42

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
PERCEIVED HEALTH  
SULLIVAN METHOD  
TRENDS  
LITHUANIA  
1997-2001

The aim of the study was to assess the changes in healthy life expectancy of the Lithuanian population between the years 1997 and 2001 and to explore the differentials of this combined mortality and subjective health measure in males and females. Life tables for 1997 and 2001 are used. Healthy life expectancy calculations are made according to Sullivan method using self perceived health data. The trends are discussed.

Lange, C., Thelen, J., Wirz, J. **Lebenserwartung bei Gesundheit / [Healthy Life Expectancy]**. *Das Gesundheitswesen* 2004;68(7) CB17/68  
(<http://www.thieme-connect.com/ejournals/abstract/gesu/doi/10.1055/s-2006-948633>)

HEALTH EXPECTANCY  
GERMANY  
2003  
2005

Hintergrund: In dem Indikator „Gesunde Lebensjahre“ werden die Lebenserwartung und die Jahre ohne gesundheitliche Beeinträchtigung in einer Kennziffer zusammengefasst. Mit diesem Indikator, der auch der zentrale Strukturindikator der Europäischen Union für den Bereich Gesundheit ist, soll überprüft werden, ob die steigende Lebenserwartung mit einem Gewinn oder Verlust von Lebensjahren in

Gesundheit verbunden ist. Zur Berechnung wird üblicherweise die Prävalenz von länger als sechs Monaten dauernder gesundheitlicher Beeinträchtigung, die z.B. mit dem Minimum European Health Module (MEHM) erfragt wird, herangezogen.

Ziel: Da Prävalenzschätzungen von gesundheitlicher Beeinträchtigung stark abhängig von dem eingesetzten Untersuchungsinstrument und dem jeweiligen kulturellen Kontext sind, wurden in zwei Wellen des Telefonischen Gesundheitssurveys des RKI unterschiedliche Frageformulierungen geprüft.

Methoden: Die Berechnung der Lebenserwartung ohne gesundheitliche Beeinträchtigung erfolgte auf der Grundlage der abgekürzten Periodensterbetafel 2002/2004 nach der Sullivan methode; Daten zur Prävalenz wurden aus den Telefonischen Gesundheitssurveys 2003 (GSTel03) und 2005 (GSTel05) des RKI berechnet.

Ergebnisse: Während die Prävalenz derjenigen, die ihre Gesundheit als „erheblich“ oder „stark“ beeinträchtigt einschätzen, so gut wie nicht zwischen den beiden Wellen der Surveys differierte und auch die subjektive Gesundheit von beiden Untersuchungsgruppen vergleichbar bewertet wurde, war dies bezüglich der Gesamteinschätzung von Beeinträchtigung nicht der Fall. Hinsichtlich der „Gesunden Lebensjahre“ ergaben sich dadurch Unterschiede von knapp 4 Jahren bei Frauen und gut 5 Jahren bei Männern.

Diskussion / Schlussfolgerungen: Werden nur „erheblich Beeinträchtigte“ in die Berechnungen einbezogen, ergeben sich kaum Unterschiede zwischen beiden Erhebungen und die Geschlechtsunterschiede (Anteil von Jahren in Gesundheit an der Lebenserwartung) nivellieren sich. Die anhand dieser Prävalenzen ermittelten Jahre ohne Beeinträchtigung entsprechen den Ergebnissen der WHO für Deutschland.

Verbrugge, L. M., Yang, L.-S., Juarez, L. **Severity, timing and structure of disability.** *Sozial- und Präventivmedizin* 2004;49(2):110-121. CB17/33  
(<http://www.springerlink.com/content/q5x3kv3w067paeg7/?p=d84ff9ca84a44176996fa3c091711bdc&pi=11>)

## DISABILITY

### ACTIVITIES OF DAILY LIVING (ADL)

### INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADL)

### FUNCTIONAL LIMITATION

**OBJECTIVES:** Severity and timing are key aspects of disability experience for individuals. They also generate a population's disability structure (prevalence, counts, patterns). We study links among severity, duration, and structure for community-dwelling adults in the US.

**METHODS:** The data source is the National Health Interview Survey Disability Supplement. Disabilities in personal care (ADL), household management (IADL), and physical functions (PLIM) are analyzed.

**RESULTS:** Many combinations of disabilities are possible, but just a few are frequent; the top-10 patterns cover 70% of ADL, 89% of IADL, and 47% of PLIM disabled adults. Hierarchical patterns are common for ADLs and IADLs. People with many disabilities also have more-severe ones, and their disabilities often started at the same time.

**CONCLUSIONS:** Disability structure reflects severity and timing of specific disabilities, sometimes strongly, and other times weakly due to exit processes from the community. Assumptions that disability occurs in "hard" tasks first and "easy" ones last, and that hard-and-early connotes mild disability whereas easy-and-late connotes severe, need direct empirical testing.

Wiesner, G., Bittner, E. K. **Lebenserwartung, vorzeitig verlorene Lebensjahre und vermeidbare Sterblichkeit im Ost-West-Vergleich / [Life expectancy, potential years of life lost (PYLL), and avoidable mortality in an East/West comparison].** *Bundesgesundheitsblatt, Gesundheitsforschung,*

HEALTH EXPECTANCY  
COMPARISON  
GERMANY

The dynamics of convergence between East and West Germany in the life-prolonging process continued undiminished from 1990 until 2001. The regional differences in premature and avoidable mortality were clearly reduced, both between East and West and between the individual federal states. In the East and in the West there was an increase in life expectancy in all age groups and for both sexes, whereby the increase in life expectancy was considerably greater in East Germany and in all of the East German federal states. Also, the standardized potential years of life lost before the age of 65 decreased more intensively in East Germany. The women in East Germany achieved a lower premature mortality due to illness in the year 2001 than those in West Germany. In the initial year of 1990, the years of life lost were 27.2% greater. Unnatural premature mortality (especially due to accidents) was also relatively high in East Germany in the year 2001, but it is clearly being reduced. The avoidable mortality has been more than cut in half in all East German federal states since 1990. An almost complete alignment between East and West in regard to avoidable mortality was achieved in the year 2001. The phase of economic stagnation that can be observed in East Germany since 1997 has up to now not led to a worsening in the constitutive health references presented above.

2003

Instituto nacional de Estadística. *Encuesta sobre discapacidades, deficiencias y estado de salud 1999. Resultados nacionales*. Madrid: INE; 2003  
CB17/74  
(<http://www.ine.es/inebase/cgi/um?M=%2Ft15%2Fp418&O=inebase&N=&L=>)

HEALTH EXPECTANCY  
HEALTH REPORT  
CALCULATION METHOD  
SULLIVAN METHOD  
DISABILITY-FREE LIFE EXPECTANCY  
DISEASE-FREE LIFE EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
CALCULATION  
SPAIN  
1999

In the report on the results of the 1999 Spanish survey on disability, impairments and health status, the authors present the results of calculations of a set of health expectancies for the Spanish population, men and women, at birth and at age 65 and by region. A detailed chapter on Sullivan method is provided.

*La qualità della sopravvivenza: salute e autonomia*. In: ISTAT, editor. Rapporto Annuale – La situazione del Paese nel 2002. Roma: Istat; 2003. p. 257-261  
CB17/44

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
CALCULATION

SULLIVAN METHOD  
DISABILITY-FREE LIFE EXPECTANCY  
PERCEIVED HEALTH  
ACTIVITIES OF DAILY LIVING (ADL)  
GEOGRAPHIC COMPARISON  
1999-2000

Life expectancy in good perceived health (How is your health in general, 5 response items) is calculated for men and women, at birth and at age 65, for the year 2000 in 24 Italian regions and for the whole country. Disability-free life expectancy is calculated using data on functional limitations (Activities of Daily Living) for men and women, at ages 15 and 65, for the year 2000 in 24 Italian regions and for the whole country. Differences among regions for both indicators are analysed.

***Healthy throughout life– the targets and strategies for public health policy of the Government of Denmark, 2002–2010.*** Copenhagen: Ministry of the Interior and Health of Denmark; 2003. CB17/57  
(<http://www.folkesundhed.dk/media/healthythroughoutlife.pdf>)

HEALTH EXPECTANCY  
HEALTH REPORT  
DENMARK

Bronnum-Hansen, H. ***Health expectancy and the hypotheses of compression, expansion and dynamic equilibrium.*** In: NONOSCO, NOMESCO, editors. Sustainable social and health development in the Nordic countries; Stockholm; 2003, p. 122-133. CB17/60

HEALTH EXPECTANCY  
TRENDS  
MORBIDITY COMPRESSION  
SOCIAL INEQUALITY  
DENMARK  
1985-2001

Ishizaki, T., Yoshida, H., Kumagai, S., Watanabe, S., Shinkai, S., Suzuki, T., Shibata, H., Imanaka, Y. ***Active life expectancy based on activities of daily living for older people living in a rural community in Japan.*** *Geriatrics and Gerontology International* 2003;3(s1):S78-S82. CB17/37  
(<http://www.blackwell-synergy.com/doi/abs/10.1111/j.1444-0594.2003.00099.x>)

HEALTH EXPECTANCY  
ACTIVE LIFE EXPECTANCY (ALE)  
ACTIVITIES OF DAILY LIVING (ADL)  
FUNCTIONAL LIMITATION  
DEPENDENCE  
ORIGINAL CALCULATION  
JAPAN  
1996  
1997

**Objectives:** To examine functional transitions in activities of daily living (ADL) over a one-year interval

among older Japanese living in a rural community, and to estimate their active life expectancy (ALE) based on ADL.

Design: A prospective cohort study.

Setting: A community-based environment.

Participants: A total of 1069 residents aged 65 or older in Nangai Village, Akita, Japan

Measurements: A structured interviewed questionnaire, which involved age, sex, and four ADL items, was used for each survey in both 1996 and 1997. We defined functional dependency in ADL as a loss of independence in any ADL item. In addition, we defined ALE as the average number of remaining life years free of ADL dependence at a given age.

Results: Of the baseline cohort (n = 1069), we received 1068 analyzable questionnaires at the follow-up survey in 1997. During the follow-up, 95% of subjects who were initially independent in ADL remained independent. Active life expectancies for men and women were estimated to be 15.4 and 17.8 more years at 65 years of age, respectively.

Conclusion: The study revealed that women had longer average life years than men in terms of ADL disabilities.

Rasmussen, N. *Introduction to the proposed health indicators*. In: NONOSCO, NOMESCO, editors. Sustainable social and health development in the Nordic countries; Stockholm; 2003, p. 29-36.

CB17/59

HEALTH EXPECTANCY  
HEALTH INDICATOR  
DENMARK

Robine, J.-M., Jagger, C., Euro-REVES group. **Creating a coherent set of indicators to monitor health across Europe: the Euro-REVES 2 project**. *European Journal of Public Health* 2003;13(3):6-14.

CB17/64

(<http://eurpub.oxfordjournals.org/archive/>)

HEALTH EXPECTANCY  
DISABILITY  
HEALTH INDICATOR  
MENTAL HEALTH  
PERCEIVED HEALTH  
FUNCTIONAL LIMITATION  
ACTIVITY RESTRICTION

The Euro-REVES 2 project, 'Setting up of a coherent set of health expectancies for the European Union', was begun in 1998 under the European Health Monitoring Programme with the aim of selecting a concise set of instruments to simultaneously monitor mortality and the different facets of health. An in-depth analysis of the current health survey instruments in Europe together with a review of past research, found that, although harmonization in instruments appeared to exist superficially, major differences existed. Four instruments have been recommended (where necessary using existing instruments with modifications suggested by the research literature) covering physical and sensory functional limitations, activity restriction, self-perceived health and mental health. Additionally a new global activity limitation indicator (GALI) has been developed. These instruments are firmly anchored to past research and the health concepts behind the indicators and their relevance to policy and guidelines for implementation are explicitly made. The second phase of the project will recommend further instruments, leading to health expectancies that cover all the conceptual framework of population health measurement. This will allow



assessment of health inequalities between the European Union countries, an appreciation of the causes and the production of profiles for each country in terms of the various facets of health.

2002

Bronnum-Hansen, H., Juel, K. **Tabte gode levear pa grund af rygning / [Health life years lost due to smoking]**. *Ugeskrift for Læger* 2002;164(34):3953-3958. CB17/56  
([http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=12212476](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12212476))

BACKGROUND: The aim of the study was to estimate health expectancy--that is, the average lifetime in good health--in never smokers, ex-smokers, and smokers in Denmark.

MATERIAL AND METHODS: A method suggested by Peto and colleagues in 1992 for estimating smoking-attributable mortality rates was used to construct a life table for never smokers. This table and the relative risks of death for ex-smokers and smokers versus never smokers were used to estimate life tables for ex-smokers and smokers. Life tables and prevalence rates of health status were combined and health expectancy was calculated by Sullivan's method.

RESULTS: The expected lifetime of a 20 year-old man who will never begin to smoke is 56.7 years, 48.7 of which are expected to be in self-rated good health. The corresponding figures for a man who smokes heavily are 49.5 years, 36.5 of which are in self-rated good health. A 20 year-old woman who will never begin to smoke can expect to live a further 60.9 years, with 46.4 years in self-rated good health; if she is a life-long heavy smoker, her expected lifetime is reduced to 53.8 years, 33.8 of which are in self-rated good health. Health expectancy based on long-standing illness is reduced for smokers when compared with never smokers.

DISCUSSION: Smoking reduces the expected lifetime in good health and increases the expected lifetime in poor health.

Burgio, A., Solipaca, A. **Ripartizione del finanziamento sanitario contributo tecnico metodologico dell'Istat alla riflessione sui vantaggi e gli svantaggi dell'adozione di alcuni indicatori**. Document prepared by Istat researchers for the Italian Minister of Health. Roma; 2002. CB17/49

## HEALTH EXPECTANCY

The authors mention in a short paragraph the advantages and disadvantages of the use of disability-free and chronic disease-free life expectancies to assess the health needs of the Italian population.

Klein, T., Unger, R. **Aktive Lebenserwartung in Deutschland und in den USA. Kohortenbezogene Analysen auf Basis des Sozio-ökonomischen Panel [Active life expectancy in Germany and in the United States. A cohort analysis based on the "German Socio-Economic Panel" (GSOEP) and the "Panel Study of Income Dynamics" (PSID)]**. *Zeitschrift für Gerontologie und Geriatrie* 2002;35(6):528-539. CB17/67  
(<http://www.springerlink.com/content/ynekw38dl37cqqwh/?p=1376f81b77ca407bb687f100b20c31a7&pi=1>)

## ACTIVE LIFE EXPECTANCY (ALE)

TRENDS

GERMANY

USA



Using the method of multistate life-tables, the article presents results on active life expectancy on the basis of the German Socio-Economic Panel (GSOEP) and the Panel Study of Income Dynamics (PSID). The transitions into and out of active life are based on event-history analysis and are calculated for different cohorts. Compared to cross-sectional analysis, the longitudinal analysis carried out here describes active life expectancy with reference to single birth cohorts. Results show that in Germany there has been substantial improvement in active life expectancy while in the USA there has been some deterioration.

Regeringen. *Sund hele livet – de nationale mål og strategier for folkesundheden 2002-10*. København: Indenrigs- og Sundhedsministeriet; 2002. CB17/62  
(<http://www.folkesundhed.dk/page199.aspx>)

HEALTH EXPECTANCY  
HEALTH REPORT  
DENMARK

Seuc, A., Domínguez, E. **Introducción al cálculo de la esperanza de vida ajustada por discapacidad**. *Revista Cubana de Higiene y Epidemiología* 2002;40 (2):95-102. CB17/80  
([http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1561-30032003000200005&lng=en&nrm=iso](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1561-30032003000200005&lng=en&nrm=iso))

DISABILITY-ADJUSTED LIFE EXPECTANCY (DALE)  
MORBIDITY  
MORTALITY  
QUALITY OF LIFE  
DISABILITY  
HEALTH INDICATOR

The justification and the procedure of disability-adjusted life expectancy, an indicator that summarizes the health status of a population in a specially intuitive way, is presented. Comments are made on the interdependence between this indicator and the disability-adjusted life years (DALY), which are increasingly used at the national and international level to evaluate the burden of diseases and their sequelae, and the burden of the main risk factors propitiating these diseases and sequelae. The calculation procedure is illustrated by an example and the possible interpretations and analyses that can be made with this indicator are discussed. Finally, the main information requirements demanded by the adequate and periodical calculation of these indicators are dealt with.

Wilhelmson, K., Allebeck, P., Steen, B. **Improved health among 70-year olds: Comparison of health indicators in three different birth cohorts**. *Aging-Clinical & Experimental Research* 2002;14(5):361-370. CB17/32  
(<http://www.kurtis.it/en/riviste.cfm?rivista=aging&id=6&sezione=0>)

MORBIDITY  
ELDERLY  
HEALTH STATUS  
DISABILITY  
FUNCTIONAL STATUS  
SOCIAL INEQUALITY  
SWEDEN

**Background and aims:** Whether or not there has been a “compression of morbidity” in older ages has been vividly debated during the last decades. Previous studies have found indications of both improved and deteriorated health among elderly persons. Few studies have analyzed how changes in health indicators are influenced by social background factors. The aim of this study was to analyze the differences in morbidity – measured as self-assessed health, number of symptoms, number of diseases and physical function – in three different cohorts of 70-year olds, with special regard to the impact of social factors.

**Methods:** We used data from random samples of 70-year-old people born in 1901/02 (cohort 1), 1906/07 (cohort 2), and 1911/12 (cohort 3). In the three cohorts there were 973, 1036 and 619 participants, respectively. They had a medical examination and were interviewed regarding social background, social network, self-assessed health, need of care, and number of diseases.

**Results:** There were fewer 70-year olds not feeling healthy in the two younger cohorts (OR=0.68; CI=0.56-0.83, and OR=0.67; CI=0.53- 0.84 respectively) and fewer with many symptoms. There were also indications of better physical functioning in the younger cohorts. Women seemed to have gained more than men, while the institutionalized persons had a deterioration. **Conclusions:** There are indications of good years being added, but not for the institutionalized persons.

## 2001 sqq

**Stato di Salute, Bisogni e domanda sanitaria.** In: Relazione Sanitaria. Rome; 2001. p. 37-47 CB17/52

HEALTHY LIFE EXPECTANCY  
DISABILITY-FREE LIFE EXPECTANCY

Crialesi, R. **Qualità della sopravvivenza.** In: Ministero della Sanità, Direzione Generale Studi, Documentazione sanitaria e Comunicazione ai cittadini, editors. Relazione sullo stato sanitario del Paese – 2000. Rome; 2001. p. 120-122 CB17/51

HEALTH EXPECTANCY  
DISABILITY-FREE LIFE EXPECTANCY  
CALCULATION  
SULLIVAN METHOD  
ITALY  
TRENDS  
1990  
1999-2000

Life expectancies without disability, without confinement, without difficulties in ADL, and without locomotion difficulties are calculated for both sexes in Italy in years 1990 and 1999, at ages 65 and 75.

Foschi, F., Barbini, N. **Il lavoro e l'invecchiamento della popolazione nel nuovo millennio.** *Difesa sociale* 2000(3/4 (Argomenti di medicina sociale)):141-152. CB17/50

AGING  
QUALITY OF LIFE  
MORBIDITY COMPRESSION  
REVIEW  
HEALTH EXPECTANCY

Dealing with the issues of ageing and work, the authors review the problems connected with the ageing of the working population and the different vocational abilities related to age. They outline the major legislative guidelines, the directives of international organizations as well as the research studies of the last few years. They present a research project on aging health and work that they are carrying out, as this is one of the few field studies ever conducted in Italy.

Frova, L., Battisti, A., Burgio, A. *Speranza di vita libera da disabilità in Italia: un'analisi delle differenze territoriali e di genere*. In: Giornate di Studio sulla Popolazione - VII Edizione; Latina, Italy. 2007. CB17/45

HEALTH EXPECTANCY  
DISABILITY-FREE LIFE EXPECTANCY  
ACTIVITIES OF DAILY LIVING (ADL)  
CALCULATION  
SULLIVAN METHOD  
GEOGRAPHIC COMPARISON  
1999-2000

Disability-free life expectancy is calculated using data on functional limitations (Activities of Daily Living) for men and women aged 30 for the year 2000 in 24 Italian regions and for the whole country. Differences among regions for both indicators are analysed. The authors examine the effect of mortality and of disability on the regional differences of disability-free life expectancy by sex and age groups.

Jitapunkul, S., Chayovan, N. **Healthy life expectancy of Thai elderly: did it improve during the soap-bubble economic period?** *Journal of the Medical Association of Thailand* 2000;83(8):861-864.

CB17/36

([http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list\\_uids=10998838](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10998838))

HEALTH EXPECTANCY  
HEALTHY LIFE EXPECTANCY  
PERCEIVED HEALTH  
ORIGINAL CALCULATION  
TRENDS  
THAILAND  
1986  
1995

Healthy life expectancy (HLE) of Thai elderly was studied to clarify the health benefit for the elderly population in Thailand during the soap-bubble economic period by comparing their HLE and life expectancy (LE) in 1986 and 1995. The information on the perceived health status of Thai elderly, aged 60 and over, from two national surveys in 1986 and 1995 and the life tables of correspondent years were used for calculating healthy life expectancy. Both life expectancy (LE) and healthy life expectancy (HLE) of Thai elderly have markedly increased between 1986 and 1995. Regardless of sex, the HLE-LE ratios of nearly all age groups increased from 1986 to 1995. This suggests that the unhealthy life duration had been compressed. Women spend more years than men both active and inactive at every age; however, the proportion of life that is expected to be active is less for women. In conclusion, health and well-being of Thai elderly population significantly improved during the soap-bubble economic period (1989-1996) of Thailand.

Pérez Díaz, J. *Envejecimiento y esperanza de vida en salud*. In: XXIII Congreso de la Sociedad Española de Geriátría y Gerontología; Barcelona. Organised by Centre d'Estudis Demogràfics; 2000. CB17/75 (<http://www.imsersomayores.csic.es/documentacion/documentos/registro.jsp?id=1068>)

HEALTH EXPECTANCY  
AGING  
SPAIN

Demographic ageing, as with other life expectancy indicators, is a cross-sectional phenomenon. However, individuals' ageing is a longitudinal phenomenon. This is the perspective adopted in this research to analyse health changes experienced by aged individuals. The increase in longevity across generations is the main aspect of the demographic transition, which has also provoked a deep restructuring of the profile of different generations and the social construction of the life cycle. In view of these changes, I analyse the transformation of the demographic characteristics of the aged population and the foreseeable needs for health services.

*Regeringens folkesundhedsprogram 1999-2008: Et handlingsorienteret program for sundere rammer i hverdagen / The Danish Government Programme on Public Health and Health Promotion 1999-2008: an action oriented programme for healthier settings in everyday life*. København: Sundhedsministeriet; 1999. CB17/63  
(<http://www.folkesundhed.dk/media/detgamlefolkesundhedsprogr.pdf>)

HEALTH EXPECTANCY  
HEALTH PLANNING  
DENMARK

Crialesi, R., Frova, L., Rocchi, F., Verdecchia, A. **An integrated approach to measure the health status of the Italian population**. *Rivista di Statistica Ufficiale* 1999(1):9-22. CB17/55  
(<http://www.istat.it/dati/pubbsci/rivista/numero1.1999.htm>)

DISEASE-FREE LIFE EXPECTANCY  
CALCULATION METHOD  
FORECASTING  
ITALY

An evaluation of the quality of survival and of the health status of the population, besides examining the usual mortality indicators, cannot overlook also those of morbidity, i.e. incidence and prevalence of the main disease processes. It is important to understand whether the increase in survival also produces an increase in the number of years lived in a condition of good health.

Aim of this paper is to suggest a method to calculate a synthetic indicator that takes into account both morbidity and mortality data: disease free life expectancy, that is the mean number of years an individual can be expected to live without developing one of the major chronic diseases, whether fatal or non-fatal. Disease-free life expectancy is obtained by combining in a morbidity-mortality table incidence and mortality rates.

An application of this method and a simulation up to year 2020 is given for the Italian population.