



HRQOL Concepts



Why is quality of life of important?

Although the World Health Organization (WHO) defined health very broadly as long as a half century ago, health in the United States has traditionally been measured narrowly and from a deficit perspective, often using measures of morbidity or mortality. But, health is seen by the public health community as a multidimensional construct¹ that includes physical, mental, and social domains.

As medical and public health advances have led to cures and better treatments of existing diseases and delayed mortality, it was logical that those who measure health outcomes would begin to assess the population's health not only on the basis of saving lives, but also in terms of improving the quality of them.

What is quality of life?

Quality of life (QOL) is a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life.² What makes it challenging to measure is that, although the term “quality of life” has meaning for nearly everyone and every academic discipline, individuals and groups can define it differently. Although health is one of the important domains of overall quality of life, there are other domains as well—for instance, jobs, housing, schools, the neighborhood. Aspects of culture, values, and spirituality are also key aspects of overall quality of life that add to the complexity of its measurement. Nevertheless, researchers have developed useful techniques that have helped to conceptualize and measure these multiple domains and how they to each other.

What is health-related quality of life?



The concept of health-related quality of life (HRQOL) and its determinants have evolved since the 1980s to encompass those aspects of overall quality of life that can be clearly shown to affect health—either physical or mental.³⁻⁶

On the individual level, this includes physical and mental health perceptions and their correlates—including health risks and conditions, functional status, social support, and socioeconomic status. On the community level, HRQOL includes resources, conditions, policies, and practices that influence a population's health perceptions and functional status. The construct of HRQOL enables health agencies to legitimately address broader areas of healthy public policy around a common theme in collaboration with a wider circle of health partners, including social service agencies, community planners, and business groups.⁷

HRQOL questions about perceived physical and mental health and function have become an

important component of health surveillance and are generally considered valid indicators of service needs and intervention outcomes. Self-assessed health status also proved to be more powerful predictor of mortality and morbidity than many objective measures of health.⁹⁻¹⁰ HRQOL measures make it possible to demonstrate scientifically the impact of health on quality of life, going well beyond the old paradigm that was limited to what can be seen under a microscope.

Why is it important to track HRQOL?

Focusing on HRQOL as a national health standard can bridge boundaries between disciplines and between social, mental, and medical services. Several recent federal policy changes underscore the need for measuring HRQOL to supplement public health's traditional measures of morbidity and mortality. *Healthy People 2000, 2010, and 2020* identified quality of life improvement as a central public health goal. HRQOL is related to both self-reported chronic diseases (diabetes, breast cancer, arthritis, and hypertension), and their risk factors (body mass index, physical inactivity, and smoking status).³

Measuring HRQOL can help determine the burden of preventable disease, injuries, and disabilities, and it can provide valuable new insights into the relationships between HRQOL and risk factors. Measuring HRQOL will help monitor progress in achieving the nation's health objectives. Analysis of HRQOL surveillance data can identify subgroups with relatively poor perceived health and help to guide interventions to improve their situations and avert more serious consequences. Interpretation and publication of these data can help identify needs for health policies and legislation, help to allocate resources based on unmet needs, guide the development of strategic plans, and monitor the effectiveness of broad community interventions. HRQOL assessment is a particularly important public health tool for the elderly in an era when life expectancy is increasing, with the goal of improving the additional years in spite of the cumulative health effects associated with normal aging and pathological disease processes.

How can HRQOL be measured?

Several measures have been used to assess HRQOL and related concepts of functional status. Among them are the Medical Outcomes Study Short Forms (SF-12 and SF-36), the Sickness Impact Profile, and the Quality of Well-Being Scale. The SF-36 measures are now used by the Health Care Financing Administration (HCFA) and the National Committee for Quality Assurance's Health Plan Employer Data and Information Set (HEDIS 3.0) to help evaluate the quality of care in managed care plans and other health care applications. While these measures have been widely used and extensively validated in clinical settings and special population studies, their length often makes them impractical to use in population surveillance.

To meet the need for a standard set of valid HRQOL measures that could be used in our national health surveillance system, a collaborative program was initiated in 1989 by the Division of Adult and Community Health (DACH) in the CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). This HRQOL surveillance program received its initial direction and guidance from several planning meetings that included representatives of state and local chronic disease and health promotion programs, relevant academic disciplines, and survey researchers.³

During the early 1990s, DACH worked with CDC's Disability Prevention Program, Women's Health Program, National Center for Health Statistics Questionnaire Development Research Lab, and Epidemiology Program Office to develop and validate a compact set of measures that states and communities could use to measure HRQOL.⁸ These are the Healthy Days measures, an integrated set of broad questions about recent perceived health status and activity limitation. On the basis of a synthesis of the scientific literature and advice from its public health partners, the

CDC has defined HRQOL as “an individual’s or group’s perceived physical and mental health over time.”

Resources

- [CDC Healthy Living \(/healthyliving/index.html\)](/healthyliving/index.html)
- [CDC Physical Activity for Everyone \(/physicalactivity/everyone/guidelines/index.html\)](/physicalactivity/everyone/guidelines/index.html)
- [CDC Nutrition \(/nutrition/everyone/fruitsvegetables/index.html\)](/nutrition/everyone/fruitsvegetables/index.html)
- [CDC Health in All Life Stages \(/lifestages/index.html\)](/lifestages/index.html)
- [CDC Meditation and Health \(/features/meditation/index.html\)](/features/meditation/index.html)

+References

1. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no 2, p. 100) and entered into force on 7 April 1948.
2. The WHOQOL Group. The World Health Organization Quality of Life Assessment (WHOQOL). Development and psychometric properties. *Soc Sci Med* 1998;46:1569-1585.
3. Centers for Disease Control and Prevention. Measuring healthy days: Population assessment of health-related quality of life. *Centers for Disease Control and Prevention*, Atlanta, Georgia 2000.
4. Gandek B, Sinclair SJ, Kosinski M, Ware JE Jr. Psychometric evaluation of the SF-36 health survey in Medicare managed care. *Health Care Financ Rev* 2004;25(4):5-25.
5. McHorney CA. Health status assessment methods for adults: past accomplishments and future directions. *Annual Rev Public Health* 1999; 20:309-35.
6. Selim AJ, Rogers W, Fleishman JA, Qian SX, Fincke BG, Rothendler JA, Kazis LE. Updated U.S. population standard for the Veterans RAND 12-item Health Survey (VR-12). *Qual Life Res*. 2009;18(1):43-52.
7. Kindig DA, Booske BC, Remington PL. Mobilizing Action Toward Community Health (MATCH): metrics, incentives, and partnerships for population health. *Prev Chronic Dis* 2010;7(4). http://www.cdc.gov/pcd/issues/2010/jul/10_0019.htm ([/pcd/issues/2010/jul/10_0019.htm](http://www.cdc.gov/pcd/issues/2010/jul/10_0019.htm)).
8. Hennessy CH, Moriarty DG, Zack MM, Scherr PA, Brackbill R. Measuring health-related quality of life for public health surveillance. *Public Health Rep* 1994;109(5):665-672.
9. Dominick KL, Ahern FM, Gold CH, Heller DA. Relationship of health-related quality of life to health care utilization and mortality among older adults. *Aging Clin Exp Res* 2002;14(6):499-508.
10. DeSalvo KB, Bloser N, Reynolds K, He J, Muntner P. J. Mortality prediction with a single general self-rated health question. A meta-analysis. *Gen Intern Med* 2006;21(3):267-75.

Page last reviewed: March 15, 2011

Page last updated: March 17, 2011

Content source: [National Center for Chronic Disease Prevention and Health Promotion](#) | [Division of Population Health](#)

Centers for Disease Control and Prevention 1600 Clifton Rd. Atlanta, GA 30333, USA
800-CDC-INFO (800-232-4636) TTY: (888) 232-6348 - [Contact CDC-INFO](#)

