

The Well-Being of Older Population across Twelve Countries: A Comparative Analysis Based on the Index on Well-Being in Older Populations

Toshiko Kaneda, Marlene Lee, and Kelvin Pollard
Population Reference Bureau (PRB)

In this paper, we will compare the well-being of older populations across 12 countries using the Index of Well-Being in Older Populations (IWOP) that we are currently developing. Until now, there has been no comparable, standard set of indicators available to measure the well-being of older populations across countries. While population aging signifies a human success story, it also poses significant economic, social, and political challenges to nations. But the extent to which various potential challenges become reality depends, in part, on how well older populations are faring. Given the current trend of rapid population aging around the world, the lack of a standard summary index of well-being for older populations hampers on-going assessments of policies and programs aimed at helping individuals age well. It also inhibits countries' ability to learn from the experiences of one another as they try to address aging-related challenges.

The IWOP fills this gap by providing a user-friendly measure that summarizes complex and multi-dimensional aspects of the well-being of older populations, using 12 indicators across four key domains. We create the index and sub-indices separately for three age groups: 50-64¹, 65-74, and 75 and older. The IWOP will help both researchers and decision-makers monitor the well-being of older populations and compare them across countries. With repeated measurement, this index will also allow for tracking progress over time.

Our paper will first describe the development of the composite index, and then discuss findings from a cross-national analysis using 12 countries—United States, Austria, Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden, and Switzerland

Four Domains of Well-Being in Old Age

Multiple factors contribute to an individual's sense of well-being. Although ideas about what constitutes "well-being" vary across individuals and contexts, there is some consensus on the importance of several key domains. An extensive review by Cummins (1996; 1997a) on subjective well-being indicates that most of the topic areas studied comprised a few specific domains of life. Among them, the following seven domains were consistently considered highly relevant (Cummins 1996, 1997a; Land 2001):

- (1) Material well-being—e.g., command over material and financial resources and consumption
- (2) Health—e.g., health functioning, personal health

¹ For the United States, the age ranges for the youngest group is either 50.5-64 or 52.5-64, depending on the indicators examined. The U.S. sample is, therefore, slightly older than other samples. We, however, expect the bias caused by the age differentials to be minimal.

- (3) Safety—e.g., security from violence, personal control
- (4) Productive activity—e.g., employment, job, work, schooling
- (5) Place in community—e.g., socioeconomic status, community involvement, self-esteem, empowerment
- (6) Intimacy—e.g., relationships with family and friends
- (7) Emotional well-being—e.g., mental health, morale, spiritual well-being

Researchers have identified a set of indicators for similar domains and developed summary indices to measure well-being for a variety of populations differing in age and contexts (Cummins 1996, 1997b; Land 2001). However, there is no existing set of indicators or indices available to describe the well-being of older populations consistently across countries.

After examining the availability of indicators for the seven domains above, we combined concepts underlying some domains and selected four domains representing a critical set of outcomes in old age on which to focus our index:

- Material well-being
- Physical well-being
- Social engagement
- Emotional well-being

Data

Data for the analysis come from the Health and Retirement Surveys (HRS) for the United States and the Survey of Health, Ageing and Retirement in Europe (SHARE) for the 11 European countries. The main components of SHARE were designed to be comparable with HRS. The use of comparable surveys helps achieve greater consistency in measurement across countries. Furthermore, focusing our analysis on the select set of Western industrialized countries at more or less similar levels of socioeconomic development has afforded us the opportunity to examine how each indicator behaves in a more homogeneous sample of countries before expanding the analysis to a more diverse set of nations. We limit our analysis to community-dwelling adults and exclude the respondents with proxy responses. Sensitivity analyses currently underway will assess the direction and extent of the potential bias due to these. The number of observations ranges from 1,615 to 3,649 across countries, except for the United States with the largest sample size of 18,469 and Switzerland with the smallest sample size of 962.

Indicators

We measure the four domains of well-being using the 12 indicators below. These are all outcome measures except for the indicator on obesity. We employ the same set of indicators for all age groups so that we may directly compare the levels of well-being across them.

1. Material Well-being

- 1.1. Income: Average household income per capita
- 1.2. Poverty: Percent not in absolute poverty

2. Physical Well-being

- 2.1. Disability: Percent with no disability
- 2.2. Independent Living: Percent with no difficulty taking medications
- 2.3. Physical Functioning: Percent with no limitation in physical functioning (able to walk a short distance)
- 2.4. Life Expectancy: Life expectancy at ages 50-54 65-69, or 75-79 (depending on the age group)
- 2.5. Obesity: Percent not obese

3. Social Engagement

- 3.1. Social participation: Percent who participate in an economic or social activity (e.g., employment; community or religious organizations; social clubs; and/or volunteer work)
- 3.2. Social support: Percent in contact with at least one child

4. Emotional Well-being

- 4.1. Depression: Percent with no report of depression (non-clinical)
- 4.2. Suicide: Suicide rate for older adults (transformed because a lower suicide rate represents a better outcome)
- 4.3. Happiness: Percent reporting to be thriving

Methods

We use two approaches in measuring the relative well-being of the older population: a composite index and a composite ranking. In our first approach, we calculate a summary index as an average of sub-index scores across the four domains.

We develop each domain's sub-index score by first standardizing each county's indicator value against the country with the best score for a specific indicator. The standardized score, thus, shows the proximity to the "best practice" country per indicator. That is, on a scale of 0 to 100 with the best practice country being 100, it shows where each country stands for a particular indicator. The higher the score, the closer it is to the best practice country. Because the country with the best score is not the same across indicators, countries used as the standard vary across indicators.

To create the sub-index per domain, we take the average of the proximity to the best practice country across all indicators in the domain. To create the summary index, we take the average of the sub-index scores across the four domains. The general interpretations of these composite scores are the same as with the indicator score discussed above. Since it is rare that any country has a sub-index or a summary index score of 100, that is, it scores best across all indicators in a domain or all domains, the sub-index and the summary index scores are typically compared against a hypothetical country that scores best across all indicators within a domain or across all domains.

In addition to the sub-index and summary index scores, we also present composite rankings for countries based on the average ranking across indicators and domains.² More specifically, the domain ranking, or each country's ranking within a domain, is calculated as the average ranking of indicators within the domain. The summary ranking, or a country's overall ranking is calculated as the average ranking across its domain rankings. These composite rankings produce results that are not substantively different from the composite indices. However, this ordinal method of assessing the well-being of countries' older populations is less sensitive to outliers and tends to group countries into bands indicating similar levels of performance for groups of countries rather than identifying any single country as best. For all rankings, 1 (first) is the best possible value and 12 (12th) is the worst possible value.

Preliminary Results

Material Well-Being: A country's score on the material well-being domain generally improves for the older age groups. In this domain, the highest scoring countries are the United States for the 50-64 age group, Switzerland for the 65-74 age group, and both Switzerland and France for the 75 and older age group. Spain has the lowest scores in the two youngest age groups, while Greece scores the lowest in the 75 and older age group.

Physical Well-Being: Most countries' scores on physical well-being are lowest for the two older age groups. Switzerland has the highest physical well-being score in all age groups. The United States scores the lowest among the 50-64 age group, and Spain scores the lowest among the 65-74 and the 75 and older age groups.

Social Engagement: The sub-index score of countries in the social engagement domain is generally lower for the two older age groups. For all age groups, the United States fares best on this domain and Italy ranks at the bottom.

Emotional Well-being: There is no clear age pattern in countries' relative standing in the emotional well-being domain. The highest ranked countries are Greece for the 50-64 age group, Greece and the United States for the 65-74 age group, and the United States for the 75 and older age group. France scores the lowest in the two youngest age groups, and Germany scores the lowest in the 75 and older age group.

Composite Index: Based on the summary composite index, the United States scores the highest in all three age groups, followed by Denmark in the 50-64 age group, and Switzerland in the 65-74 and 75 and older age groups. Spain consistently ranks at the bottom, followed by Italy for all age groups among this group of countries. Among countries with the same or similar relative ranking based on the composite index score, the factors driving the relative ranking tend to vary.

The final paper will provide a detailed discussion of the findings and explore some possible factors underlying key cross-national differences in the well-being of older populations.

² Land, Lamb, and Zheng (forthcoming) apply the same method in an international comparison of child well-being.