



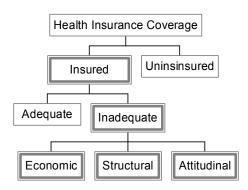
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# Measuring the Adequacy of Coverage or Underinsurance

While there is no simple answer to the question of what it means for a person to be underinsured, the research literature has identified three approaches to the measurement of health insurance.

These approaches: economic, structural and attitudinal may be used individually or in combination for a comprehensive measurement of whether or not health care coverage may be considered adequate.

**Economic approaches** seek to identify the adequacy of the coverage in terms of a person's ability to pay for health needs and out of pocket costs such as premiums and deductibles.



**Structural approaches** attempt to identify the adequacy of coverage in terms of whether the benefits provided by the coverage plan are appropriately commensurate with some benchmark of benefits.

**Attitudinal approaches** look to identify the adequacy of health insurance coverage in terms of the perceptions of the person covered.

#### **Economic Approach**

Under the economic measurement approach, focus is placed on how a catastrophic illness may affect the family income of people who are insured.

The following questions have been used to measure this economic dimension:

- Do the premium costs for a particular health insurance plan to the person (consumer paid premiums) exceed X% of the person's income? (Shearer, 2000)
- In the past year, did the out-of-pocket expenses for necessary medical care exceed X% of the person's income? (Daly, 2000; Salmon, 1988)
- Is there a Y% chance that the out-of-pocket expenses for necessary medical care will exceed X% of the person's income for the coming year? (Short and Banthin, 1995; Kuttner, 1999)

## **Structural Approach**

The structural components of underinsurance include parts of a benefits package that do not sufficiently protect the health care needs of an insured person (Bashshur, Smith, and Styles, 1993). Several authors define underinsurance in structural terms of a positive response to some variant of the question:

Relative to some benefits package, is there at least one benefit that is NOT covered by a
particular health insurance plan?" (Fox, McManus, Almeida, & Graham, 1997; Kentucky
Cabinet for Health Services, 2001; Short & Banthin, 1995).

### **Attitudinal Approach**

There are two types of attitudinal approaches identified in the research literature. The first can be cast as perceptions of unmet healthcare needs while the second focuses on satisfaction with health care coverage.

- Is there at least one health benefit *not* covered by insurance that the person would prefer to receive? (Davis, 2000)
- Is there at least one symptom during the past year that the person believed required medical treatment but for which insurance did not cover treatment? (Baker, Shapiro, Schur, & Freeman, 1998)
- Is there at least one health benefit covered by a particular health insurance plan that the person would prefer to receive but is not eligible to receive? (Daly, 2000)

## Limitations and Considerations in the Selection of an Approach

Wide variation in rates of underinsurance is not only reflective of the different measurement categories and benchmarks used, but may reveal the limitations and complexities of the measurement approaches themselves.

## 1. Economic Approach Limitations and Considerations

An obvious limitation with the economic approach is that the ability to pay for necessary medical (health) benefits is income related. For example, suppose that two individuals both had out-of-pocket payments of \$2000, but that the first individual's income was \$12,000 and the second individual's income was \$120,000. In such a case, the impact of the \$2000 out-of-pocket expense is likely to be much more of a burden for the former than the latter. Indeed, it seems likely that the former would be considered underinsured and the latter not, even though the relevant out-of-pocket payment was, in both cases, identical.

## 2. Structural Approach Limitations and Considerations

The limitations of the structural approach include selection of the benchmark benefits package and the need to update the benchmark as advances in health care result in more cost effective care or make new treatments available. The determination of a benchmark benefits package is fraught with political and philosophical issues and, as noted above, significantly affects measured underinsurance rates.

### 3. Attitudinal Approach Limitations and Considerations

The utility of the perceived unmet need for healthcare services approach is compromised by the measurement problems associated with its reliance on "perceived need." Expected health care needs may never become actual health care needs; thus, the failure to satisfy this need ought not count as an actual instance of underinsurance. Furthermore, some restriction on the range of those unmet health care "needs" seems warranted. Suppose, for example, that a person going bald decides that he wants to correct the baldness with a hair replacement procedure. However, upon investigation the person discovers that his health insurance plan will not cover the hair replacement procedure. Should we in this case conclude that the person is underinsured because his health plan has failed to cover a desired benefit? If the relevant health care needs are nothing more than subjective preferences, then the concept of underinsurance based on unmet health care needs will be much too coarsely grained. Any time a person had a health care want, no matter how trivial or unnecessary, that was not met by his or her health insurance plan, the person would be underinsured.

On the other side of the equation, many desired health care services are not necessary for the health of the individual even if a general need for care is assumed. If particular services are necessary for the health of the individual and are not covered by the person's health insurance plan, then there is a *prima facie* reason for saying that the person is underinsured. Pulling these points together, we are now in a position to offer a general characterization of one way that a person's health insurance plan can be inadequate based on this approach: *If the health insurance plan fails to cover one or more benefits that the person believes to be necessary for his or her health, then the health insurance plan is inadequate and the person is underinsured.* 

The above kinds of problems suggest that we need to somehow index the measurements of perceived unmet need - i.e., we need to weight the measurements of subscriber satisfaction by taking into account relevant differences amongst the subscribers. To this end, one could use the following conceptual directions as a guide in finding the source of satisfaction or dissatisfaction with a health plan: 1) expectations for the plan's benefit structure; 2) the plan's actual benefit and organizational structure; 3) characteristics of subscribers including demographics and socioeconomic positions; 4) consumer characteristics; 5) health care system orientations (Gerst, Rogson and Hetherington, 1969).

A final concern is that a person should possess a certain basic knowledge of the health plan in order for this approach to be useful. When subscribers have incorrect information, they may hold unrealistic expectations and be unreasonably demanding or undemanding, depending on the type of misinformation held (Gerst, Rogson and Hetherington, 1969).

#### **Selected References**

- Baker, David W., Shapiro, Martin F., and Schur, Claudia L., "Health Insurance and Access to Care for Symptomatic Conditions," <u>Archives of Internal Medicine</u>, v. 160, n. 9 (May 8, 2000), pp. 1269 1274.
- Davis, John B., "Conceptualizing the Lack of Health Insurance," <u>Health Care Analysis</u>, v. 8, n. 1 (2000), pp. 55 64.
- Farley, Pamela J., "Who Are the Underinsured?," <u>Milbank Memorial Fund Quarterly: Health and Society</u>, v. 63, n. 3 (Summer, 1985), pp. 476 503.
- Fox, Harriette B., McManus, Margaret A., Almeida, Ruth A., Graham, Regina R., Eligibility
  Options Under the State Children's Health Insurance Program: The Children's Health
  Insurance Project, Issue Brief 1 (Washington, D.C.: Maternal Child Health Policy
  Research Center, 1997).
- Gerst, Arthur, Rogson, Lorraine, and Hetherington, Robert, "Patterns of Satisfaction with Health Plan Coverage: A Conceptual Approach," <u>Inquiry</u>, v. 6, n. 3 (September, 1969), pp. 37 51.
- Kentucky Cabinet for Health Services, Office of Communications, "Kids Now: 10,000 Underinsured Children Immunized," (November 5, 2001). Online at <a href="http://chs.state.ky.us/chs/news/newsreleases/2001/nr1105.doc">http://chs.state.ky.us/chs/news/newsreleases/2001/nr1105.doc</a>>. Last accessed 02/07/2002.
- Kuttner, Robert, "The American Health Care System: Health Insurance Coverage," <u>The New England Journal of Medicine</u>, v. 340, n. 2 (January 14, 1999), pp. 163–168.
- Salmon, J. Warren, "The Uninsured and the Underinsured: What Can We Do?," <u>The Internist</u>, v. 29, n. 4 (April, 1988), pp. 8 13.
- Shearer, Gail, <u>The Health Care Divide: Unfair Financial Burdens</u> (Washington, D.C.: Consumers Union, 2000).
- Short, Pamela Farley, and Banthin, Jessica S., "New Estimates of the Underinsured Younger than 65 Years," <u>The Journal of the American Medical Association</u>, v. 274, n. 16 (October 25, 1995), pp. 1302 1306.