EXPLORING STAKEHOLDER PERSPECTIVES ON WHAT IS AFFORDABLE HEALTH CARE

Marjorie A. Rosenberg[1]
Paul H. Johnson, Jr.[2]
Ian G. Duncan[3]

[1]Corresponding Author
Professor, University of Wisconsin-Madison
Office: (608) 262-1683
Fax: (608) 265-4195
E-Mail: mrosenberg@bus.wisc.edu
Address: Wisconsin School of Business
Departments of Actuarial Science, Risk Management and Insurance
And Biostatistics and Medical Informatics
5297 Grainger Hall
Madison, WI 53706

[2] Assistant Professor,
University of Illinois at Urbana-Champaign
Office: (217) 244-5517
Fax: (217) 333-9576
E-Mail: pjohnson@uiuc.edu
Address: Department of Mathematics
361 Altgeld Hall
Urbana, IL 61801

[3]President, Solucia, Inc.
Office: (860) 676-8808
Fax: (860) 676-8848
E-Mail: duncan@soluciaconsulting.com
Address: Solucia, Inc. Main Office
220 Farmington Avenue, Suite 4
Farmington, CT 06032

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Abstract

Health care expenditures have accounted for increasing proportions of the US Gross Domestic Product, and the rate of growth of health care expenditures has increased over the past two decades. These two measures of assessing whether the level of health care expenditures is affordable may be appropriate in the aggregate for the US, but are not appropriate to assess whether individual stakeholder groups can afford their particular level of spending on health care. Health care is an economic good that differs from other economic goods, as it involves life and death issues, and invokes a call for a moral authority. This paper explores definitions of what is affordable health care from the perspective of different stakeholders and suggests that other measures are needed to assess whether or not health care is affordable for stakeholders as one definition is not appropriate for all stakeholders.

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1. Introduction

Financial forecasts for US health care spending have led to concerns as to whether the economy can sustain this growth in the future, or whether there is a potential crisis in the level of health care spending today. Two common measures used to indicate that US health care spending is not affordable with regards to the level of aggregate spending are (i) a growing percentage of GDP devoted to health care and (ii) increasing rates of growth of health care spending.

What is overlooked in these measures is whether they are applicable to different stakeholder groups or stakeholders at an individual-level, and what financial impact they may have on stakeholders. Stakeholders are health care providers, private payers such as insurers, public payers such as governmental entities, employers, and consumers who utilize the services, who also may pay some or all of the premiums, and may also pay the providers. This paper will address these stakeholder perspectives and suggest that their perspectives are critical to the discussion of whether or not health care is affordable.

As background, in 1960, US National Health Expenditures (NHE) were 5.2% of the US Gross Domestic Product (GDP), while in 2005, NHE were 16% of GDP (Centers for Medicare & Medicaid Services, 2007). The Office of the Actuary at the Centers for Medicare and Medicaid Services (CMS) developed macro-level models for projecting short-term and long-term health care spending for the US economy (Braden et al., 1998, Selden et al., 2001, Smith et al., 1999). Short-term national-level forecasts from CMS estimate growth in NHE to $3.6 trillion in 2014, or 18.7% of GDP (Heffler et al., 2005). By 2014, the public sector is estimated to account for half of total health care spending (Centers for Medicare & Medicaid Services, 2007). Intermediate term projections using the CMS methodology indicated that NHE would increase to $16.0 trillion by

2030, or 32% of GDP. The average nominal annual growth rate of NHE was projected as 8.3% from 1990 to 2030, while the projected real annual NHE growth rate was about 3.0% (Burner et al. 1992).

Chernew et al. (2003) suggested two alternative definitions for health care affordability in the aggregate. The first definition examined the difference between national income and a level of non-health care spending. If the difference was positive, then health care spending was deemed to be affordable. A second definition, admittedly more conservative, examined whether a proportion of the increase in income could be spent on health care. Either definition would allow the absolute amount of money spent on health care to rise with income. Their paper utilized the second definition to be consistent with a Medicare Technical Review panel that assumed there would never be a downward trend in non-health care spending. Their conclusions were that aggregate health care expenditures would be affordable until 2075 if real annual NHE grew at a rate one percentage point higher than real annual GDP, even though aggregate health care expenditures would consume 38% of GDP. With a two percentage point difference, aggregate health care expenditures would be affordable only until 2039.

Getzen (2006) stated that only a certain amount of US dollars could be set aside to pay health care expenditures and were allocated across various groups in the US health sector at the stakeholder-level. Due to the financial budget constraints, each stakeholder group would pay a portion of the overall finite NHE that depended on the specific attributes of each group and included their market power in the health sector, the ability of the stakeholder to influence health policy, and the income of the stakeholder.

No mechanism or methodology currently exists to guide decision-makers in determining whether a health care crisis exists because affordability analyses are required at the

stakeholder-level. Projections of NHE are useful for designing national health care policies, but are inadequate for considering affordability at the stakeholder-level. Definitions of affordability for one group of stakeholders cannot be completed in isolation of the impact on other stakeholders.

In this paper we provide a summary of the literature of different definitions of affordability found in the actuarial and health care literature, and describe which aspects of these definitions are important when defining affordability. We explicitly consider three stakeholder-level perspectives: consumers, employers, and the government.[1]

2. Stakeholder-Level Health Care Affordability

Stakeholder-level definitions can bear some similarity to definitions of affordability in the aggregate, as they can compare absolute spending of health care versus other goods and services, or examine the relative growth rates of health care spending versus spending for other goods and services (Blumberg et al., 2007, Bundorf and Pauly, 2006). However, in general, the conclusion as to whether the level of health care spending is affordable for a particular stakeholder could differ from that found in the aggregate.

The premise of identifying stakeholder perspectives for measuring health care affordability parallels that in the health services research literature to determine the cost-effectiveness of a new program or intervention. Cost-effectiveness analyses provide a structure to evaluate whether resources should be invested for a new program or medical intervention, by comparing the resources consumed to the health improvements gained based on the status quo (Gold et al., 1996). Whether a program or intervention is considered cost-effective depends on the perspective taken in the analysis.

[1] While we focused in this paper on consumers, employers, and the government, we acknowledge that other large stakeholder groups are providers and private insurers.

In the cost-effectiveness literature, stakeholders have competing interests as the patient demands the medical care with the most benefit regardless of the cost, while the payers want to maintain a balance between cost and utilization (Russell et al., 1999). Taking the perspective of one stakeholder ignores costs incurred by other stakeholders, so affordability conclusions could vastly differ between stakeholders (Russell, 2004). Complicating the stakeholder perspective is a need to consider the role of health insurance and the nature of health care itself. Since the 1940s, when insurance companies began to offer commercial health insurance, there has been a link between health care affordability and health insurance. Individuals who purchased health insurance substituted the probability of incurring a future catastrophic loss with premiums using small periodic payments (Feldstein, 1999). Health insurance links the users of medical services to the suppliers. With the introduction of Medicare and Medicaid in the 1960s, the government also made insurance publicly available to the aged and indigent, further linking affordability and health insurance.

Although health care is considered an economic good, health care from the stakeholder perspective is very personal. Life and death decisions are made and these decisions affect people, both the person receiving care as well as others. Each stakeholder will bring their own perspective, both financial and moral.

Consumers/Employees

In theory, affordability is based on economic concepts such as income or ability to pay (Blumberg et al., 2007, Bundorf and Pauly, 2006, Lee and McKercher, 2002). One's ability to pay can be based on consumer income and physical access to obtaining a medical good or service. A basic level of affordability such as "that believed to be within one's financial means" is an income-based definition (2006 Random House Unabridged Dictionary).

Blumberg et al. (2007) defined a benchmark standard of affordability for an individual or family as a “share of income now devoted to health spending by privately insured people” in the context of the Massachusetts legislation designed to expand health insurance coverage. Gruber (2008) stated that insurance coverage in Massachusetts for a family of four with an income of $40,000 would cost approximately 30% of family income, but stated that there was necessarily no right definition of what was an affordable level of health insurance spending. However the Massachusetts State Health Care Connector has now regulated affordability by defining the percentage of income deemed affordable for different family compositions.

Axene (2004) described affordability as the ability to purchase a good or service without unacceptable or unreasonable sacrifices. This definition suggested an income-based measure for affordability. An individual stakeholder was able to afford health care or health insurance premiums if their income exceeded a minimum threshold that included an implicit analysis by the consumer to optimize price and value.

In practice, consumers may associate affordability with the availability or cost of health insurance and out of pocket costs (Blumberg et al., 2007, Gilmer and Kronick, 2005). By this measure, health care has become increasingly unaffordable. In 1996, approximately 15.8% (40.2 million) of individuals had combined health insurance premiums and out of pocket costs that exceeded 10% of family income. In 2003, about 19.2% (48.8 million) of individuals in families were spending more than 10% of family income on health care. Furthermore, among those 19.2% of individuals in 2003, approximately 7.3% (18.7 million) were spending more than 20% of family income on health insurance premiums and out of pocket costs (Banthin and Bernard, 2006).

Himmelstein et al. (2005) extrapolated from a survey of 1,800 personal bankruptcy filers that 1.9 to 2.2 million people filed for bankruptcy in 2001 because of unaffordable health care

costs, with average out of pocket costs of about $12,000. Fifty percent of all bankruptcy filings were in part the result of health care costs for what the authors called “solidly middle-class” individuals who faced poverty after a serious illness. Dranove and Millenson (2006) criticized the findings of Himmelstein et al. (2005), finding that health care costs were the cause of at most 17% of bankruptcy filings and that those Americans likely to face poverty after a serious illness were more accurately described as “marginally middle-class” with average household incomes of $25,000. Also, Himmelstein et al. (2005) suggested comprehensive national health insurance as a means to greatly reduce the number of medical expense-related number of bankruptcies. Yet Dranove and Millenson (2006) showed that a comprehensive plan would necessitate defining medical expenses much more broadly than what had been done in both private and government-funded plans. Seifert and Rukavina (2006) commented that regardless of the actual frequency of health care cost-related bankruptcies, any medical debt could be considered a risk factor for reduced health care access and poorer health status for both the insured and uninsured. Efforts limited to reducing the number of uninsured would be meaningless if they did not address health care access barriers faced by the underinsured and those with medical debt.

Health care affordability of one can also be compared against others in similar circumstances who have purchased health insurance (Bundorf and Pauly, 2006). In 2003, 36% of health care expenditures were financed by private insurance, and 16% were financed out of pocket (Office of the Assistant Secretary for Planning and Evaluation Issue Brief, 2005). Consumer health care affordability can depend on a ratio of health care spending to non-health care spending with consideration of budget constraints and other sources of coverage, such as Medicaid or a spousal plan.

The State of Massachusetts passed legislation in April 2006 to mandate health insurance to

address the uninsured population for health care. Their approach linked health care with health insurance, by mandating that individuals and families purchase health insurance (Blumberg et al., 2007). The State deemed the purchase of insurance to be affordable by household based on household income and family size. The intent of the legislation is to aid the State in providing access to health care for the uninsured, and equates affordability of health care with the purchase of health insurance coverage.

Employers

Employers differ from consumers in that they can pass on price increases to their customers, increase employee contributions to their health insurance premium (Gruber and McKnight, 2003), or eliminate health insurance benefits altogether. The federal government provides employers with incentives to provide health insurance to their employees, by not considering the premiums paid by employers on behalf of their employees as taxable income to employees. Approximately 64% of adults who have private health insurance are sponsored by employers (Holahan and Cook, 2005). Employers can choose to replace group health insurance premiums with higher employee wages, although this is a less tax-efficient mechanism of providing for employee health care than with employer-subsidized insurance.

Between 1982 and 1998, the percentage of US employees who had all of their health insurance premiums paid by their employer decreased from 44% to 28% (Cutler, 2003). Employee dollar contributions to premiums rose between 4 to 6 times higher than inflation between 1997 and 2002 (Crimmel, 2004). Furthermore, for firms with 50 or more employees, the percentage of employees with low co-pays ($0 < co-pay ≤ $10) decreased from 59.0% in 1999 to 42.1% in 2003, and the percentage with medium co-pays ($10 < co-pay ≤ $20) increased from 32.7% to 62.8% (Crimmel et al., 2006). Finally, employee out of pocket costs have increased

substantially over time. In 1999, the percentage of family-coverage employees with a low out of pocket limit ($0 < out of pocket limit ≤ $2500) was 45.5% and that decreased to 29.4% in 2003. The percentage with a high out of pocket limit (out of pocket limit > $5000) substantially increased from 13.8% to 24.4% (Taylor et al., 2006).

One possible impact on employer affordability of health care are the "pay-or-play mandates" discussions in Massachusetts, where employers must pay for workers' insurance premiums to help reduce the number of uninsured. Arguments in favor of these mandates include that employers should incur the increased expenses to pay for employee health insurance premiums and that the employer has a moral obligation to provide health insurance for its employees. Those in opposition argue that these additional expenses would reduce employee wages or eliminate low paying jobs in the workforce (Burkhauser, 2008, Pauly, 2008). However the assumption of a wage-benefit tradeoff is debated in the literature (Bernstein and Gould, 2008). Those mainly impacted by employer pay-or-play mandates are those employers who do not provide health insurance and those persons currently uninsured (Blumberg, 2008). The risk of unemployment would be greatest for those workers near the minimum wage and the impact would fall disproportionately on the less educated, minorities, and females (Baicker and Levy, 2008).

Definitions of affordability for employers are similar to those for consumers, as they would consider income measures or budget considerations. The choice of providing insurance and the benefit structure as compared to providing the same amount in wages would factor into the calculation of whether health care is affordable to employers.

Government

Due to the expansion and increased cost of public programs like Medicare and Medicaid, the federal government has steadily paid a higher share of NHE over the past four decades. In

2005, spending for Medicare and Medicaid was $342 billion and $313.1 billion, respectively. Approximately 41 million elderly and/or disabled persons were enrolled in Medicare coverage in 2003, and 46 million Americans received funding from Medicaid for health care services in 2001.

Both federal and state governments can enact legislation to respond to an increase in their NHE burden. If federal and state governments find their share of NHE unaffordable because the quantity of health care demanded by the elderly or poor exceeds the government budget for health care expenditures, the government can either request additional funding for Medicare and Medicaid programs, or make changes to the programs themselves. The introduction of Medicare Part D to provide pharmaceuticals to the elderly covered by Medicare increased the financial burden on the government. Attempts to reduce their budgets, such as cutting physician reimbursement, have been generally unsuccessful.

This legislative authority provides the government with market power that is considerably different from other US stakeholders. The cost of health care may become unaffordable to a governing body simply because some other expenditure consumes a larger portion of the operating budget.

An affordability crisis emerges when health care spending is compared with the sources of finance that are not growing as rapidly or in absolute dollars. Husein et al., (1993) and Bolnick, (2003) viewed health care from a national or state perspective, as part of a three-part framework, and defined a health care system as affordable if the cost would not create a deficit in the budget.

3. Discussion

The question as to whether health care in the US is affordable depends on the level of aggregation used in the analysis as well as the definition of affordability. We began with the

concept that either the relationship of NHE and GDP or the rate of growth of NHE relative to the growth rate in GDP would determine whether the US health care system was affordable. Affordability analyses at the aggregate-level suggested that the US health care system was not facing an imminent crisis. However, NHE forecasts do not explicitly consider stakeholder-level attributes.

In addition, NHE forecasts do not consider interaction effects among or between stakeholders. Changes in the financing of health care by one group of stakeholders can affect the cost and consumption of health care by other stakeholders. These interdependencies are hidden at the national-level, as in cost-effectiveness analyses, since NHE represents the total health care expenditures paid after accounting for stakeholder-specific effects and interactions. There could be large variation of health care affordability as measured for the uninsured as compared to those insured by their employers, and further contrasted with affordability for employers, physicians, or health plans. Based on the reported trends in the increasing out-of-pocket costs on the average consumer health care budget and the effect of increasing employee health insurance contributions, consumers may not be able to pay for future health care expenditures. There could be wide differences in health care affordability as measured for the uninsured, as compared to those insured by their employers, and further contrasted with affordability for employers, physicians, or health plans.

Interactions are seen by examples such as decisions made by employers in the private sector affect the health care coverage choices of individual families. An increase in contribution levels from employees will reduce the numbers of employees who choose employee coverage and increase either uncompensated care or Medicaid. Both of these choices, in turn, increase the cost to the employer; the first through the prices paid to providers and the second through payroll taxes.

Increases in taxes and the cost of health care services will help make health care (and employment) less affordable, leading to further reductions in insurance and employment. In the case of Massachusetts, healthcare affordability (defined by some percentage of income) will impact both the number of individuals who can obtain subsidized health insurance and the amount of government expenditures. Any shortfall in the program would be shifted to other stakeholders.

Another example of interaction effects involves cost-shifting from the Medicare program to private payers. Cost-shifting originally referred to hospitals compensating for lost revenue by increasing the price they charged private pay customers for health care (Dranove, 1988, Foster, 1985, Mayes and Lee, 2004, Newhouse, 1970, Zwanziger et al., 2000). The effect of cost-shifting increased the cost of health care to private payers. The impact was also felt for the uninsured, as they bore the residual effects of cost-shifting from public and private programs.

We noted that definitions of affordability for consumers were based on economic concepts such as income or ability to pay. These descriptions of affordability did not detail what was an unacceptable or unreasonable sacrifice. Sacrifices vary by individual and relate to the economic concept of value, where a consumer is likely to pay for a good, if the good has value to the consumer. In this sense, health care is unique relative to other economic goods, as most other goods and services in the market are purchased according to rational economic principles where optimization and rational allocation of resources occur. Since health care is high-tech and expensive, and because of the way health care is regulated and financed, it is difficult to find a substitute. Health care consumers do not have the opportunity to choose from a continuum of insurance policies or services that meet their needs and abilities to pay, in the same way as in other markets. The notion of affordable health care is a more complicated concept than that found in many other economic domains due to the existence of health insurance, tax incentives, mandated

benefits, and philosophical issues, such as quality of life, and that expenditures on health care contribute to social welfare.

Certainly the health of the individual is a factor in determining health care affordability, as a healthy individual would not have the same out of pocket expenses as one who is sick. Purchasing a home or attending college may exceed one's annual wages, but these events are not considered unaffordable when the cost is spread over time. Health insurance is one example of a financing mechanism that enables the cost of medical services to become more affordable. If health care services were financed in a manner similar to the purchase of a home or the payment of college tuition, health care could be more affordable over time. A stakeholder may not be able to pay for an expensive medical treatment with their own income, but may be able to afford the services if they purchase health insurance with relevant coverage.

Any definition of health care affordability should make the distinction between the affordability of medical services and the use of health insurance, a financing tool. Due to the capacity of safety net organizations to provide charity care and the requirement of access to health care in the event of an emergency, affordability of health care and affordability of health insurance are not the same. Linking affordability with the availability of health insurance will not necessarily make health care affordable. The presence of health insurance reduces the cost to the consumer, decreases the transparency of health care spending, and increases the quantity of health care demanded. With higher utilization of health care resources, premiums for health insurance will rise, and increase the costs to consumers.

Given the strong link between health insurance and health care affordability, consumers may find that a reduction in the subsidy provided by health insurance adversely affects health care affordability. If health insurance premiums continue to increase or if the health of a person

decreases, consumers may decrease spending on essential non-health care goods and services to afford health insurance. A consumer may believe health care is affordable only as long as the employer is paying the majority of health insurance premiums. An employer may believe that health care is affordable as long as the government provides tax subsidies.

Consumers do not possess the legislative authority or market power, as contrasted with governments and employers. They pay health care expenditures out-of-pocket, obtain health insurance to cover some of their expenditures, or go without obtaining health care. For consumers, access to health care has personal consequences that relate to quality of life, length of life, and financial security; while for the government and employers, the purchase of health care is a financial decision. Income measures or budget approaches do not necessarily adjust for the level of health of individuals or families.

For the US and state governments, their share of health care expenditures continues to increase, although governments can choose to incur deficits in their budgets. If the government raises payroll taxes to pay these increased expenditures, then the effect is to reduce real disposable stakeholder income. Employees would be impacted if employers decreased employee health benefits or eliminated insurance coverage. Accordingly total health care affordability is not the sum of the health care affordability of each stakeholder in the US health care system, due to interaction effects between stakeholders.

Health care expenditure projections at the stakeholder-level would recognize that various stakeholders are affected differently by increasing health care costs. With the increasing power of computers, another approach to determine health care affordability is micro-simulation modeling.[2] Socio-economic systems are modeled with individual units, such as consumers and households

[2] A number of forecasting models used by consulting organizations are proprietary and not available in the public domain.

using the percentage of disposable income, providers and insurers using the percentage of profits, and governmental entities or employers using the percentage of total compensation. Estimates are calculated for each unit and the results are weighted to study the distributional impacts of items of interest in the aggregate. Micro-simulation models could address whether the US health care system is in or near crisis by projecting health care expenditures for different groups of stakeholders separately, explicitly recognizing differences between stakeholder groups. General references that describe micro-simulation models include National Research Council (1991) and Harding (1996). Specific applications of micro-simulation modeling include health care and health insurance spending (Zabinski et al., 1999, Gruber, 2003), modeling of individual/household retirement income and bankruptcy (Toder et al., 2002, Smith, 2003), long-run asset accumulation (Ando and Nicoletti-Altimari, 2004), and tax expenditures or subsidies (Gruber and Levit, 2000, Sheils and Haught, 2004).

4. Conclusion

Affordability has several dimensions, which should be considered in any definition applied to health care affordability. Several authors have addressed some of these dimensions, but no author has yet addressed them all: (1) an individual's ability to pay for health care (Axene, 2004, Blumberg et al., 2007, Bundorf and Pauly, 2006) or a nation's ability to pay for health care (Chernew et al., 2003), (2) the absolute level of health care cost (Lee and McKercher, 2002) or the rate of increase in health care costs related to some standard such as growth in income or GDP (Chernew et al., 2003), (3) the impact of health insurance (Gilmer and Kronick, 2005), (4) the economic concept of value of health care, and (5) the time horizon for paying for the health care beyond the current year.

In the end, it is the individual consumer who bears the ultimate burden for affordable health care, due to their personal investment in its outcome. Employers benefit from affordable health care by enabling a healthier, possibly more productive workforce. The government benefits by having a well-defined public policy relative to maintaining population health.

The question of whether health care in the US is affordable depends on whether any stakeholder group is adversely affected by a marginal change in health care spending that requires a tradeoff in the consumption of other goods and services and that is not acceptable to that stakeholder. What is unclear in this statement is the impact on each stakeholder and the appropriate set of definitions of affordability to use. While it is agreed that one type of definition may be appropriate for a given stakeholder, the same definition is not applicable to all stakeholders. As such, we believe that further research is needed to disaggregate the estimates of health care expenditures and their impact at the stakeholder-level using micro-level stakeholder analyses and interaction effects to better inform decision-makers regarding health care financing and affordability.

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