The Colorado Health Foundation™

REPORT

Health Insurance Benefit Adequacy

March 2009

A Report by Barbara Yondorf, Yondorf & Associates

HealthCoverage

Introduction

In the face of soaring health costs, policymakers are wrestling with ways to ensure more people have adequate health insurance coverage. Public policymakers play a number of different roles in promoting benefit adequacy—from legislating public plan benefits, to enacting health plan mandates, to establishing special health programs where traditional health insurance benefits fall short.

This brief provides a framework to help policymakers and interested stakeholders think about what constitutes adequate coverage. There is no single answer to this question and this brief makes no attempt to prescribe a benefits package. As one Colorado health policy leader noted, "There are no definitive answers when it comes to defining adequate coverage—it's a balancing act."

Determining "Adequacy"

What is "adequate" depends on the purpose, target population and context.

Designing an adequate benefit plan would be a fairly simple task if resources were unlimited and health services utilized appropriately. But resources are limited and inappropriate utilization is a problem. Thus tackling the issue of benefit adequacy requires balancing plan coverage against available resources. Policymakers also need to decide: adequate for what purpose, adequate for whom and adequate in what context?

Purpose

Whether health benefits are deemed adequate is a matter of purpose and perspective. The individual's interest in having adequate health insurance is clear:

- Being able to get the care you need, when you need it without incurring burdensome medical bills or threatening your quality of life. For some (mainly middle- and high-income families) this translates to a primary concern about protecting assets. For others with low assets (especially low-income families) ensuring access to basic services—being able to afford routine care—may be equally or more important. While in either case getting critically needed care is paramount, designing an affordable plan that meets the needs of both groups is difficult.

But there may be other concerns when it comes to public policy. Examples include:

- Ensuring everyone has access to affordable, basic cost coverage, similar to the concept of minimum required auto insurance coverage
- Reducing cost shifting related to medical debt
- Minimizing the societal costs and public health burden of illness, disease and disability
- Improving the overall health of the citizenry in order to improve productivity and enable people to reach their full potential
- Helping those most in need
- Providing universal, comprehensive coverage

A given benefit plan may be adequate for some of these purposes but not others.

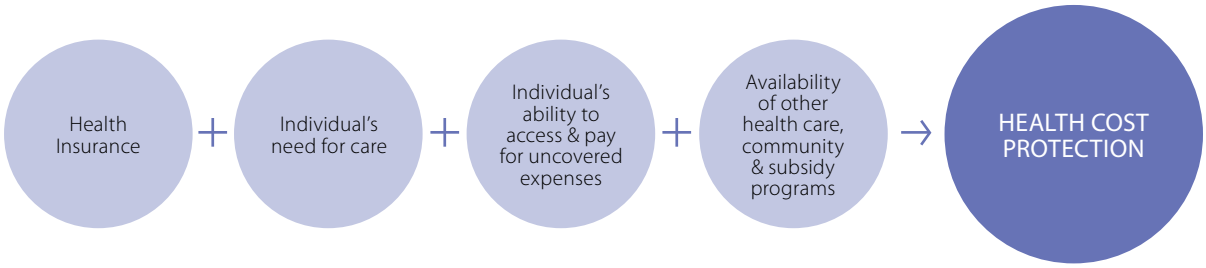
Target population

What may be adequate coverage for one person may not be for another. For example, coverage may be designed to meet the needs of the average person; people with low incomes, disabilities or major chronic conditions; or children. Clarity about who the target population is will affect judgments about whether or not a particular plan is adequate.

Context

As the figure below shows, health insurance is just one of several factors that determine whether a particular individual has adequate protection. People's need for care, ability to access and pay for uncovered services and the availability of other programs and supports (e.g., prescription drug assistance programs, school-based health centers, public health programs, free health screenings) influence how adequate a health plan will be for a particular person. Assume, for example, that a low-income family with generally healthy children has employer-sponsored health insurance. If the family lives in a community where there are easily accessible, free or low-cost health care services, they may find they have adequate coverage for their children. But if this is not the case, then the out-of-pocket cost even for routine care may be such that the family has to delay, forgo or incur medical debt for their children's care in order to cover the costs of deductibles and copayments. In this case, their coverage is not adequate to meet their needs.

Figure 1. *Determining Adequate Coverage*



Calculating the Number of Underinsured

An estimated 66 percent of Coloradans age 19-64 have adequate coverage, 20 percent are uninsured and 14 percent are underinsured, and the numbers of underinsured and uninsured are climbing.

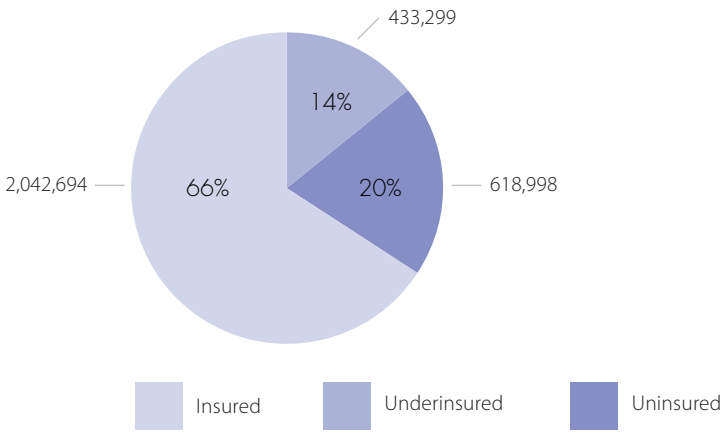
It is difficult to gauge the number of people with adequate coverage. One approach is to count how many people are uninsured or underinsured and assume the rest are adequately insured. A person is underinsured if limits on his coverage hinder him from obtaining medically necessary care or if high out-of-pocket payments constitute a serious financial burden or outright barrier to care.

A commonly used measure of underinsurance is the expenditure by an individual or family of more than 10 percent of their income (5 percent for families with incomes under 200 percent of the Federal Poverty Level) on deductibles, copays, coinsurance and care not covered by their plan in a given year or having deductibles that equal or exceed 5 percent of income. (The count does not include people who may have had poor coverage but had few medical expenses, nor does it include premium payments.) A major study of underinsurance published by The Commonwealth Fund found[1]:

- 14 percent of *all* non-elderly U.S. adults were underinsured in 2007, up from 9 percent in 2003; an even larger percentage were uninsured.
- Among the *insured*, 20 percent of non-elderly adults were underinsured in 2007, up from 12 percent in 2003.

Applying the 14 percent figure to Colorado yields an estimate of 433,299 underinsured residents age 19-64. Since another 618,998 Coloradans age 19-64 are uninsured, this suggests that an estimated 2,042,694 non-elderly adult residents have adequate coverage. (See figure 2.)

Figure 2. *Health Insurance Status of Colorado Adults*



Using a different measure of underinsurance, another study found that 11 percent of adults 65 and older had problems paying or were unable to pay their medical bills in 2007.[2] Estimates of the number of underinsured children are not available.

Those most likely to be underinsured include[3]:

- People with low incomes or who have medical deductibles exceeding 5 percent of their income
- Individuals with health problems
- People with individual or public, as opposed to employer-sponsored, health insurance
- Women, and adults age 55 to 64 or 19 to 24 compared with those 25 to 54
- Farm families
- Rural and inner city residents.

Consequences of Inadequate Coverage

People with inadequate coverage are more likely to go without needed care, incur medical debt, experience higher absenteeism and rely on government and charity programs.

Underinsurance is a problem not only for the person with inadequate coverage but also for the economy, providers, employers and government.

- The underinsured are more than twice as likely as those with adequate insurance to have medical debt or problems paying medical bills[4]; 53 percent report going without needed care due to cost.[5]
- Underinsurance is associated with higher personal bankruptcy filings, which affects both the individual and the businesses whose bills go unpaid. Medical expenses contribute to nearly half of all personal bankruptcies. Among those whose illness led to bankruptcy, 75 percent had insurance at the onset of illness.[6]
- Higher rates of underinsurance lead to higher levels of hospital bad debt and charity care, which results in higher hospital charges for everyone.[7]
- Increasing numbers of employees with poorer coverage can lead to greater worker financial stress, which is associated with increased absenteeism and reduced productivity.[9]
- Growing numbers of underinsured relative to adequately insured people means greater demand for government help (e.g., prescription drug assistance programs) and publicly financed care (e.g., Medicaid's Breast and Cervical Cancer Treatment Program, which is open to women whose insurance does not cover such treatment).

> *"The underinsured will surpass the uninsured as health care's biggest headache [in 2009]."*[8]
>
> *— Pricewaterhouse Coopers*

Designing Adequate Plans

Policymakers have taken a variety of approaches to designing adequate plans, with some approaches benefiting some individuals more than others.

Policymakers and program administrators have approached the design of adequate health coverage in a number of different ways. These approaches have been shaped, in part, by the answers to the questions raised earlier in this brief—what is the public policy goal, who is the target population, and what is the context? Some of the major approaches are discussed below. Table 1 attempts to assess how likely it is that each will meet the needs of different target populations.

Alternative Approaches to Benefit Design

- Prioritize benefits based on effectiveness of medical treatments
- Follow the private insurance market
- Use a benchmark plan as a guide
- Focus on catastrophic (back-end) coverage
- Focus on coverage for prevention and early intervention (front-end coverage)
- Provide more coverage for some based on need
- Cover all medically necessary care

Prioritize benefits based on effectiveness of medical treatments

This approach emphasizes coverage for the most effective and publicly valued medical interventions. Clinical evidence of the effectiveness of various treatments and services determines what is and is not covered. Oregon used this approach to develop the Oregon Health Plan, which covers Medicaid recipients. The Plan covers treatments for specific conditions on a prioritized list, starting with the most effective and publicly valued ones and covering as many as possible with available funding. Representatives of people with disabilities have been critical of this approach, arguing that it tends to undervalue many of the services and supports needed by people with disabilities. While the Oregon approach has received a great deal of attention, it has not caught on as a basis for benefit design. In part this may be because of the administrative requirements for a publicly credible prioritization process and in part because it means specifically excluding some less effective, but still not completely ineffective, treatments for conditions that are nonetheless popular in the public eye, including marginally effective treatment for some forms of cancer.[10]

Follow the private insurance market

This approach looks to the private market to see what kind of coverage most employers provide or individuals purchase. The State of Colorado uses this approach to define two plans that all small group insurers are required to offer. By law, the state-designed Standard Plan must approximate the average level of coverage offered in the small group market; the Basic Plan must approximate the lowest level. Critics of this approach argue that the private market is oriented to relatively healthy, middle-income people—full-time employees in the group market and healthy people in the individual market. As a result, private insurance plans are often not well-suited to the needs of people with low incomes or expensive chronic conditions.

Use a benchmark plan as a guide

Similar to the previous one, this approach relies on an existing health plan as the basis for coverage. The federal government took this approach when it required states to use one of the following plans, or a plan with benefits of equal value, to design their children's health insurance programs: the Blue Cross/Blue Shield Preferred Provider Option offered to federal employees; a health benefit plan offered by the state to its employees; or the state's largest HMO plan. While benchmark plans often have better-than-average benefits, out-of-pocket expenses may still be a hardship for low-income families, especially those with major medical bills. Also, as is true with almost all commercial plans, people with special needs are likely to find the benefits inadequate.

Focus on catastrophic (back-end) coverage

This approach focuses on high medical expenditures. The typical catastrophic plan has a relatively high deductible (e.g., $2,500, $5,000 or more per person). To temper the effects of catastrophic plans on people with low incomes or who have high ongoing medical expenses, catastrophic plans may be paired with tax deductible heath savings accounts, to which employers, employees or even the government may make contributions. There have also been experiments with income-sensitive catastrophic plans, where the size of the deductible depends on a person's income (e.g., 5 percent of income) rather than a fixed dollar amount (e.g., $5,000). Not surprisingly, catastrophic-only plans are particularly problematic for those with the least ability to pay the deductible.

Focus on coverage for prevention and early intervention (front-end coverage)

This approach emphasizes preventive care and early diagnosis and treatment. Typically, front-end plans have low cost sharing requirements for doctor and outpatient visits and most diagnostic procedures but very limited hospital coverage (e.g., five days or $25,000 per year) or low annual total benefit caps (e.g., $35,000 or $50,000). Data on average annual expenditures suggest that for many people, despite the limits, these plans will adequately cover their expenses, assuming a comprehensive set of covered services. However, front-end plans will not provide adequate coverage for those with special care needs or high medical costs, a population that changes significantly from year to year. In fact, of those in the top 5 percent of spending, only a third will still be in that category a year later.

> *Average total health expenditures per non-elderly person in the United States were $3,231 in 2006.*[11]
>
> *In 2005, the top 5 percent of Americans accounted for nearly 50 percent of total annual expenditures, or $14,100 or more per person. The bottom 50 percent accounted for under $776.*[12]
>
> *Over time, there is a leveling of expenses. For example, of those in the top 5 percent of spending, only a third will still be in that category a year later.*[13]

Provide more coverage for some based on need

This approach uses a plan that has different benefit levels for different groups. For example, the plan may have lower copays or out of-pocket maximums for those with low incomes, or trigger additional coverage once the patient reaches a certain level of expenditure or disability or is diagnosed with a serious chronic condition. Medicaid has enhanced services for certain populations (e.g., pregnant women). Some large employers offer plans that have salary-based deductibles that increase with income. This approach should ensure adequate coverage for all since it has the flexibility to respond to different individual circumstances. However, it can be expensive to administer as it may involve means testing and assessments of the need for enhanced services on a case-by-case basis.

Cover all medically necessary care

This approach ensures adequate coverage, at least in terms of benefits. But because unlimited coverage is expensive, other means may be necessary to contain costs. Examples include access controls, such as prior authorization requirements and waiting lists for expensive, non-emergency services; major delivery system and payment reforms to reduce unnecessary care; and restrictions on the number or availability of certain types of providers.

Benefit Design

Benefit design is about more than the types of care to be covered.

A number of plan elements need to be addressed when designing coverage. Each affects the extent to which coverage is adequate for a given person or circumstance. Some of the major ones are discussed below. For the most part, the discussion focuses on commercial insurance plans.

Benefit Design and Underinsurance

Major Benefit Design Elements

- What's covered, what's excluded
- Caps on benefits
- Cost-sharing requirements and provider payments
- Wellness incentives

Leading Causes of Underinsurance

- No or limited coverage for certain types of care
- High cost-sharing requirements relative to income
- Low caps on certain covered services
- Pre-existing condition exclusions

What's covered, what's excluded

- **Health conditions:** Some plans exclude coverage for certain conditions, such as infertility, alcoholism or autism. Plans sold in the individual market often have additional exclusions, such as for pregnancy, mental illness or sexually transmitted diseases. Almost all plans exclude pre-existing conditions for some period (e.g., six months or a year). Individual heath insurance plans may totally exclude coverage for a person's specific pre-existing conditions. Inability to get such conditions covered is the main reason people enroll in CoverColorado, the state's high-risk pool for uninsurable individuals. People who lack coverage for their health condition and have limited ability to pay are more likely than those with adequate coverage to turn to public programs for assistance.

> *The J's of Jefferson County dropped COBRA for a more affordable individual plan. Soon after, Mrs. J unexpectedly discovered she was pregnant. Her plan didn't cover pregnancy. "The most traumatic part was the repeated declines I received from health care providers when I tried to schedule a prenatal appointment—no insurance, no deal."*

- **Services and treatments:** Plans typically cover such things as hospital, outpatient and emergency care, doctors' visits, and diagnostic procedures and services. But they may exclude coverage for any number of things, such as prescription drugs, mental health care, durable medical equipment (e.g., wheelchairs, prostheses), dental care, substance abuse treatment, care coordination, medically necessary nutritional support, vision care, long-term care, hearing aids, behavioral care, abortions and care the insurer determines to be experimental, investigational or not medically necessary. Sometimes plans cover ground but not air ambulance transport. These exclusions can be particularly problematic for those with special needs, chronic conditions or disabilities.

> *M of Douglas County was born with a genetic disorder. Her family has paid more than $25,000 a year for care their plan excludes or caps (e.g., prosthetics, physical, occupational and speech therapy, wheelchairs, expensive medications and prescription formulas, as well as coinsurance and deductibles). According to Mrs. K, "If you have a special needs child, you're underinsured."*

Caps on benefits

- **Dollar, visit or day limits:** Plans often limit coverage for certain services. For example, a plan may cover a maximum of 20 physical therapy visits, 45 days of inpatient mental health care or $2,000 of durable medical equipment per year. While such limits are usually set so they meet the needs of most people, they can be a serious problem for those who require more care than the plan covers.

> *S of Douglas County is a young girl who was sexually assaulted. This led to posttraumatic stress disorder (PTSD). Her parents' small group plan limits coverage to 10 psychotherapy visits a year. The family is spending hundreds of dollars each month for the additional therapy she requires.*

- **Annual and lifetime limits** Most plans cap the total amount they will pay for a person's covered medical expenses while on the plan (e.g., $1 million). This is called a lifetime maximum. Some limit how much they will pay each year (e.g., $100,000). These caps can help the plan control its overall risk, particularly for extremely expensive cases. But the caps also mean that some people with costly medical conditions may hit the cap and find themselves without coverage.

> *Mr. W. of Mesa County is in his mid-50s. He can only afford coverage under a limited benefit plan. Last year he was diagnosed with colon cancer. His plan covered about one-fourth of his care. Paying the balance wiped out Mr. W's retirement savings.*

Cost-sharing requirements and provider payments

- **Copays, coinsurance and deductibles:** Cost-sharing provisions in health plans are designed to help control utilization (including unnecessary care) and reduce premiums. They may be structured to create an incentive for a certain behavior (e.g., waiving the deductible or copay for preventive care) or discourage a behavior (e.g., imposing higher copays for emergency room use). The trend in recent years has been toward much greater patient cost sharing, largely as a way to control rising premiums. Between 2007 and 2008 alone, the percentage of small firms with deductibles of $1,000 or more for single coverage jumped from 21 percent to 35 percent.[15] Although most plans cap total annual out-of-pocket expenses for deductibles and coinsurance payments, where cost-sharing requirements and out-of-pocket caps are high relative to income, they can be a serious problem for some.

> *The B's of El Paso County own their business. The only plan they can afford has a $5,000 annual deductible and the premium has been going up 15 percent to 20 percent a year. Mrs. B has had to postpone all but the most critical care because she cannot afford the cost.*

> *Ms. A of Arapahoe County has multiple sclerosis. The copay on a prescription drug she needs to control relapses and delay disability was $30. Recently it jumped to $250—an amount she cannot afford.*

- **Provider payments:** Plans can and do vary widely in the rates they pay providers. Usually the rates are negotiated between the insurer and participating providers. Medicaid pays among the lowest rates. Billed charges by providers represent the highest rates, although plans rarely pay charges. Where a plan pays less than what the provider charges, the patient may be responsible for the difference, called balance billing, which can be substantial. Very low payment rates can affect the willingness of providers to see persons covered by the plan—a problem some Medicaid and Medicare patients have faced.

Wellness incentives

- Depending on how they are structured, some incentives for healthy behaviors may enhance health plan adequacy. Such incentives can take a number of forms. They may include coverage for regular physical exams, well-child checks or tobacco cessation programs. There may be lower premiums for non-smokers, or full coverage for preventive care or prescription drugs that are critical for maintaining the health of people with chronic conditions. Incentives may also include coverage for health education classes and individual heath assessments.

Other health plan features that affect coverage adequacy include such things as prior authorization requirements, which providers are covered in-network and how a plan defines terms such as medically necessary and disabled.

Table 1. *How Different Approaches to Designing a Benefit Plan Are Likely to Affect the Adequacy of Coverage for Sample Target Populations*

Important Note: *Any chart such as this necessarily involves subjective judgments. These are not exact assessments of adequacy. Instead, the adequacy ratings are intended to give the reader a general idea of where different approaches to benefit design may leave many or most people in various circumstances with insufficient coverage.*

	Generally healthy people				**People with expensive medical conditions and special needs populations**			
	Low income		**Middle income**		**Low income**		**Middle income**	
	Adults	**Children**	**Adults**	**Children**	**Adults**	**Children**	**Adults**	**Children**
Cover all medically necessary care with limited patient cost sharing	A	A	A	A	A	A	A	A
Provide more for some based on need	A	A	A	A	A	A	A	A
Prioritize benefits based on effectiveness with limited patient cost sharing	A	A	A	A	P	P	P	P
Use a benchmark plan with relatively good, comprehensive coverage	P	P	A	A	I	I	P	P
Follow the private market—cover what most employer plans cover	P	P	A	A	I	I	P	P
Provide coverage that focuses on prevention and early intervention (front end coverage)	P	P	A	A	I	I	I	I
Provide catastrophic (back end) coverage with traditional covered services	I	I	P	P	I	I	I	I

Legend

A – Adequate: meets the needs of the substantial majority of people in the category.

P – Problematic: coverage will be adequate for some but others will experience problems paying medical bills, will delay needed care or will have to rely on public programs for some of their care or expenses.

I – Inadequate: Likely will result in significant problems for a substantial number of people in this category who will have problems paying medical bills, will delay needed care or will have to rely on public programs for some of their care or expenses.

Low Income: Families with incomes up to no more than 200 to 300 percent of the Federal Poverty Level (FPL).[14] The 2009 FPL for a family of four is an income of $22,050.

Middle Income: Families with incomes from about 200 to 300 percent FPL up to around 400 percent FPL.

Note: *In all cases, the adequacy of coverage rating is for individuals who require care beyond inexpensive, routine care.*

Alternative Plans

When one plan design is not adequate for everyone, there are alternatives.

Designing a one-size-fits-all health plan that adequately meets everyone's needs is difficult, especially with limited resources. Where benefits fall short for a particular group or individual, policymakers may want to establish special programs to help them. Some examples follow.

Options When Benefits Fall Short

- Wrap-around or supplemental coverage
- Wrap-around or supplemental care programs
- Funded health savings accounts (HSAs)
- Broader coverage for some people
- Medicaid buy-in for certain populations
- Catastrophic coverage programs

Wrap-around or supplemental coverage

This type of coverage fills in when a person's benefit plan is inadequate. For example, Medicaid provides wrap-around coverage for low-income patients on Medicare, paying expenses and covering services not covered by Medicare. It does the same for some privately insured individuals with disabilities and children with special health care needs (e.g., the Children's Extensive support waiver program). California's Access for Infants and Mothers (AIM) program provides maternity coverage for pregnant women in middle-income families who have private insurance that has a deductible or copayment specifically for maternity services that is more than $500. Programs can also be established to help people meet their cost-sharing requirements on an income-based, sliding fee scale basis. One drawback of wrap-around programs relates to the administrative complexity of adding means testing, tracking copays and supplementing them on a person-by-person basis.

Wrap-around or supplemental care programs

These programs offer care that may not be covered by a person's plan. Examples include free vision screenings, free or reduced-price dental care programs and school-based health centers. The Kids Mobility Network, a Colorado nonprofit, provides reconditioned walkers, wheel chairs and other equipment to children with disabilities who are uninsured or underinsured. A problem for many patients who have to rely on public or charity programs for some of their care is finding, coordinating and getting to the array of services they require, especially in the case of people with complex medical conditions and those dually diagnosed with a developmental disability and mental illness.

Funded health savings accounts (HSAs)

Sometimes high-deductible health plans are paired with HSAs. The problem for some families is that they may not have the resources to fund an HSA. Employers can help by funding a portion of their employees' HSAs and a few insurers are beginning to include contributions to HSAs as part of their plans. The public sector can do the same. Indiana recently launched a program that combines HSA-like "POWER accounts" that the state helps fund with high-deductible commercial health plans in order to encourage more people to buy coverage.

Broader coverage for some people

This approach involves providing a different plan or plans for those for whom a regular plan is clearly inadequate. This could be a commercial or public plan. Medicaid covers many things not covered by traditional insurance plans and has no or nominal cost-sharing requirements for most care. The coverage is broad because those who are eligible for the program (e.g., very low income families, children in foster care, people with disabilities, the elderly) have no discretionary income with which to pay for anything not covered by their plan and may need services often excluded or capped in traditional plans. Having different plans for different populations was the approach Massachusetts took in formulating its widely publicized 2006 comprehensive health reforms.

Medicaid buy-in for certain populations

Similar to the previous option, states can allow individuals, especially those with special health needs, to buy into a plan that provides more generous benefits. This may be the individual's only coverage or it may supplement what they already have. For example, Medicaid allows adults with disabilities who exceed normal income eligibility limits to buy in to the program, usually by paying premiums based on income. Some states also allow moderate and higher income families to buy coverage for their children through the state children's health insurance program.

Catastrophic coverage programs

Where individuals face catastrophic out-of-pocket costs despite having coverage, programs can be established to help defray those costs. One example is the Colorado Long-Term Care Partnership. Under this program, eligible individuals who buy private long-term care policies that meet certain coverage requirements can continue to receive long-term care under Medicaid once their private coverage is exhausted, without spending down all of their assets, as is usually required for Medicaid coverage. This same type of approach could be used to encourage uninsured people to at least buy low-cost, front end coverage for non-catastrophic medical expenses by guaranteeing coverage of catastrophic expenses should they exhaust their plan's benefits. Similarly, government could reinsure expenses above a certain amount under a comprehensive plan, an approach New York has used to try to reduce the cost of coverage for certain people covered under individual and small group plans.

Conclusion

As a matter of public policy, determining what constitutes adequate coverage is not easy. At minimum it requires public consensus about who we're trying to help, to what end. It requires balancing needs with resources. A one-size-fits-all approach is not likely to work. How best to meet the needs of those with the least ability to pay and most complex medical problems is one of the greatest challenges. In designing strategies to get more people covered, policymakers need to make sure they are not exacerbating the growing problem of underinsurance.

> *"Without careful examination of what constitutes adequate health benefits coverage . . . states may simply substitute one problem for another. States may provide access to affordable health insurance even as they increase the number of people for whom health insurance fails to provide adequate health benefits."*
>
> *— Andrew Ward, "The Concept of Underinsurance"*

WRITER:
Barbara Yondorf, *Yondorf & Associates*

EDITORS:
Kelly Dunkin, *Senior Program Officer—Health Coverage, The Colorado Health Foundation*
Lorez Meinhold, *Senior Policy Officer—The Colorado Health Foundation*
Caren Henderson, *Director of Communications—Creative Services, The Colorado Health Foundation*

Submitted by The Colorado Health Foundation
501 South Cherry Street, Suite 1100 ◦ Denver, Colorado 80246-1325
TEL: 303.953.3600 ◦ **TOLL-FREE:** 877.225.0839
www.ColoradoHealth.org

References

1. Schoen C, et al. "How Many Are Underinsured? Trends Among U.S. Adults, 2003 and 2007." *Health Affairs Supplement Web Exclusives.* June 10, 2008.
2. Doty M, et al. "Seeing Red: The Growing Burden of Medical Bills and Debt Faced by U.S. Families." *Issue Brief.* The Commonwealth Fund; August 2008.
3. Schoen C, et al. "How Many Are Underinsured?" op cit.; Doty M, et al. "Seeing Red: The Growing Burden of Medical Bills," op cit.; and Comer J, et al. "Underinsurance: The Hidden Dimension to the Heath Care Crisis." *Great Plains Research: A Journal of Natural and Social Sciences.* University of Nebraska; Fall 1996.
4. Doty M, et al. "Seeing Red" op cit.
5. Schoen C, et al. "How Many Are Underinsured?" op cit.
6. Himmelstein D, et al. "Illness and Injury as Contributors to Bankruptcy." *Health Affairs.* February 2, 2005.
7. Evans M. "They See Bad Debt Rising," *ModernHealthcare.com.* November 3, 2008
8. Monegain B. "Pricewaterhouse Coopers Looks into Healthcare Crystal Ball for 2009." *Healthcare IT News;* December 29, 2008.
9. Armour S. "Workers' Financial Stress May Hurt Productivity." *USA Today*; September 7, 2007.
10. Yondorf B. "The Oregon Experience: Prioritizing Services and Expanding Coverage." Balancing Health Needs with Resources series. National Conference of State Legislatures; January 2002.
11. Medical Expenditure Panel Survey. www.meps.ahrq.gov, Household Survey, Table 3.
12. Kaiser Family Foundation. "Concentration of Health Care Spending in the U.S. Population, 2005." http://facts.kff.org/chart.aspx?ch=181.
13. Stanton M. "The High Concentration of U.S. Health Care Expenditures." *Research in Action.* Issue 19. Agency for Healthcare Research and Quality; June 2006.
14. For 2009, the federal poverty level is an annual income of $10,830 for a single person and $22,050 for a family of four. For a complete listing of poverty levels by family size, go to http://aspe.hhs.gov/poverty/09poverty.shtml
15. Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2006-2008.
16. Ward A. "The Concept of Underinsurance: A General Typology." *Journal of Medicine and Philosophy.* Vol. 31, No. 5, 2006.

A publication of  The Colorado Health Foundation™

501 South Cherry Street, Suite 1100 ◦ Denver, Colorado 80246 -1325 ◦ www.ColoradoHealth.org ◦ **TEL:** 303.953.3600 ◦ **FREE:** 877.225.0839