A BENCHMARK FOR COVERAGE

HOW THE FEHBP BLUE CROSS BLUE SHIELD STANDARD OPTION PLAN COVERS MEDICAL CARE FOR PATIENTS WITH SERIOUS CHRONIC CONDITIONS

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How the FEHBP Blue Cross Blue Shield Standard Option Plan Covers Medical Care for Patients with Serious Chronic Conditions

Executive Summary

What does it mean to be adequately insured? A growing body of research documents both health-related and financial problems that can arise when health insurance doesn't cover enough. Rates of medical debt are growing, chiefly among the insured. One in five privately insured Americans with chronic conditions live in families with medical bill problems – an increase from 16 percent in 2003. When out-of-pocket (OOP) spending for medical care exceeds just 2.5 percent of income – less for low-income persons—financial burdens on families become substantial. Studies show that the underinsured and uninsured people face similar problems accessing medical care and managing financial burdens.

A critical decision congressional policy-makers must make in health reform is to define what constitutes health insurance. Minimum coverage standards have been suggested, and one potential benchmark often mentioned is the Blue Cross Blue Shield standard option (BCBSSO) plan. Offered through the Federal Employees Health Benefits Plan (FEHBP), the health insurance program is for federal employees and members of Congress. The BCBSSO plan is the most popular plan option in the FEHBP, covering approximately half of all program participants.

This report examines the adequacy and transparency of coverage under the BCBSSO plan for four serious medical conditions: stage II breast cancer; stage III colon cancer; myocardial infarction (heart attack); and type I diabetes. It compares coverage features to simulated claims scenarios developed to illustrate potential care needs of patients with serious and chronic conditions and estimates what patient OOP treatment costs would be under the plan. It also reviews language in the plan brochure for clarity and ease of understanding. Finally, the report discusses implications of the use of this plan as a benchmark of adequate health insurance coverage.

The BCBSSO plan has an estimated actuarial value of nearly 90 percent, and it appears to offer protection against medical bills that is roughly comparable to other typical employer-sponsored group health plans. According to one report, the FEHBP actuarial value of 87 percent compares to an actuarial value of 93 percent for typical employer-sponsored HMO plans and 80 percent to 84 percent for typical employer-sponsored PPO plans.

However, actuarial value is only a general measure and does not reflect the actual cost-sharing expenses real patients might face under different scenarios. Furthermore, knowing that the BCBSSO plan offers relatively equivalent protection to other employer-sponsored group health plans doesn't speak to the overall adequacy of coverage provided by such plans.

Covered benefits under the BCBSSO plan are relatively comprehensive, and cost sharing for routine care is modest. In the event of serious illness, however, patient costs could be very high. The plan caps total patient cost-sharing expenses at $7,000 per year ($5,000 if patients get all care from a subset of network providers designated as "preferred.") This level of patient cost-sharing liability is higher than most other employer-sponsored plans, whose OOP limits tend to be below $3,000, and has increased significantly in recent years. On the other hand, the annual OOP limit under the BCBSSO plan is comprehensive, covering deductibles, co-pays, and coinsurance. Under most other employer-sponsored plans, by contrast, it tends to be the case that prescription drug cost sharing and office visit co-pays do not count toward the annual OOP limit.

For patients who become seriously ill, cost-sharing expenses under the BCBSSO plan could become burdensome, particularly so for people with chronic conditions whose treatment continues for more than one or two years. Cost-sharing burdens also increase if patients need to seek care (or inadvertently receive it) from non-preferred physicians. In the case of the stage II breast cancer patient, estimated cost sharing expenses ranged from $10,000 to more than $13,000 (covering two calendar years). For the stage III colon cancer patient, cost sharing ranged from $15,000 to $17,000 over the course of treatment (covering three calendar years). These estimates do not take into account balance-billing liability patients might face if they seek care from doctors who do not participate in the BCBSSO plan network.

These OOP costs are significant. For medically bankrupted families who were privately insured, OOP medical expenses averaged approximately $18,000. When OOP spending for medical care exceeds just 2.5 percent of income (less for low-income persons), the financial burden on families becomes substantial. Studies show that the underinsured and uninsured face similar problems accessing medical care and managing financial burdens.

The study shows that the Blue Cross Blue Shield standard option plan is "adequate." It offers good protection by covering the most important benefits without caps and with an overall limit on cost-sharing liability. However, it is certainly not "Cadillac" coverage. Patients with serious and chronic illnesses could incur thousands of dollars in OOP expenses for covered care under this benchmark plan. Low- and middle-income families would need additional cost-sharing subsidies in order to be able to afford these expenses.

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Overview

One key decision congressional policy-makers must make in health reform is to define what constitutes health insurance. Minimum coverage standards have been suggested, and one potential benchmark often mentioned is the Blue Cross Blue Shield standard option plan (BCBSSO) offered through the Federal Employees Health Benefits Program (FEHBP) – the health program for federal employees and members of Congress. The BCBSSO plan is the most popular plan option in the FEHBP, elected by almost half of all program participants.[1]

This report examines the adequacy and transparency of coverage under the BCBSSO plan. It compares coverage features to simulated claims scenarios developed to illustrate potential care needs of patients with serious and chronic conditions – breast cancer, colon cancer, heart attack, and diabetes – and estimates what patient out-of-pocket (OOP) treatment costs would be under the plan. It also reviews language in the plan brochure for clarity and ease of understanding. Finally, this report discusses implications of the use of this plan as a benchmark of adequate health insurance coverage.

What does the plan cover?

Coverage under the BCBSSO plan is relatively comprehensive, with some exceptions. See Figure 1.

Covered benefits – The plan covers basic benefits including inpatient and outpatient hospital and medical care, prescription drugs, mental health care, medical equipment, diagnostic lab and imaging, home health care, preventive care, and hospice care.

There is no lifetime maximum for covered benefits and no annual or dollar limits on covered benefits with some exceptions. Home health care is limited to 25 visits per year. Rehabilitative care other than cardiac rehab is limited to 75 visits per year. Cranial prosthetics (wigs) are limited to one per lifetime, and reimbursement is limited to $350. A 25-visit annual limit also applies to outpatient mental health care when received from non-preferred providers.[2]

In addition, genetic testing related to family history of cancer or other diseases is specifically excluded from coverage. Eye examinations are covered only when related to a specific medical condition.

Cost sharing – Significant cost sharing applies to covered services. An annual deductible of $300 ($600 for family policies) applies to many benefits. These include surgery, inpatient professional care, chemotherapy, radiation therapy, cardiac rehab, durable medical equipment, lab, and imaging. Once the deductible is met, coinsurance applies – usually 15 percent or 30 percent, depending on where care is received. That is, the patient pays 15 percent or 30 percent of the allowed charge, with the plan paying the other 85 percent or 70 percent, respectively. Higher patient coinsurance applies for mental health care from a non-preferred provider, and for prescription drugs filled at a non-preferred pharmacy. In most cases, when covered services are not subject to the deductible, a co-

pay applies instead. For example, a co-pay of $200 applies to each hospitalization. Many outpatient treatment and diagnostic services and office visits are subject to a $20 co-pay.

Figure 1. Covered Services and Cost Sharing under the FEHBP Blue Cross Blue Shield Standard Option Plan

Item/Service	Subject to deductible?	Additional cost sharing when care rendered by preferred provider		Additional cost sharing when care rendered by non-preferred provider or out-of-network*		Benefit Limits
		Co-pay	Coinsurance	Co-pay	Coinsurance	
Hospital Inpatient	No	$200	-	$300	-	
Hospital Outpatient	Yes	-	15%	-	30%	
Ambulance (Medical Condition)	No	$100	-	$100	-	
Ambulance (Accidental Injury)	No	$0		-	$0	
Emergency Care (Medical)	Yes	-	15%	-	30%	
Emergency Care (Accidental Injury)	No	-	-	-	-	
Physician, Professional Care, Inpatient	Yes	-	15%	-	30%**	
Physician, Professional Care, Outpatient Office Visits	No	$20	-	-	30%	
Outpatient Mental Health	No	$20	-	-	40%	Limited to 25 visits per year; may seek waiver of limit if treated by preferred provider
Eye Exam	No	$20	-	-	30%	Covered only if related to a specific medical condition
Lab, X-ray	Yes	-	15%	-	30%	
Durable Medical Equipment	Yes	-	15%	-	30%	
Home Health Care	Yes	-	15%	-	30%	Limited to 25 visits per year, no more than 2 hours per visit/day
Hospice Care (Outpatient)	No	-	-	-	-	
Physical, Occupational, Speech Therapy	No	$20	-	-	30%	Limited to 75 visits per year
Chemotherapy and Radiation Therapy	Yes	-	15%	-	30%	
Cardiac Rehabilitation	Yes	-	15%	-	30%	
Screening Mammogram	No	$20	-	-	30%	
Screening Colonoscopy	No	$20	-	-	30%	
Prescription Drugs – Generic	No	-	20%	-	45%	
Prescription Drugs – Brand and Non-formulary	No	-	30%	-	45%	

Annual Deductible	$300 ($600 family)
Annual OOP Maximum	$7,000 (individual or family); $5,000 if all care is received from preferred providers

* In addition to otherwise applicable cost sharing, patients who receive care from non-network providers may be subject to balance billing.
** Coinsurance for non-preferred radiologists, pathologists, and surgical assistants is limited to 15% when patient care is received in a preferred hospital. Such coinsurance counts toward the $7,000 annual out-of-pocket cap.

There is no annual deductible for prescription drugs, but tiered coinsurance applies. For generic drugs, patients must pay 20 percent of the allowed charge. Brand-name drugs and drugs not on the plan formulary are subject to 30 percent coinsurance.

Adult preventive services, such as an annual mammogram or a colonoscopy, are not subject to the annual deductible. Instead, for most preventive services, adults pay a $20 co-pay with no other cost sharing if care is received from a preferred provider. In general,

adult preventive services are not covered unless they are received from a preferred provider. However, certain services such as cancer screening would be covered from a non-preferred provider, though these would be subject to the annual deductible, after which patients would have to pay 30 percent coinsurance. For children, the plan pays 100 percent of allowed charges for covered preventive services rendered by preferred and non-preferred providers alike.

Cost sharing for most covered services, whether deductibles, co-pays, or coinsurance, is limited by an annual OOP cap of $7,000. This is high relative to most job-based health plans, where the annual OOP limit tends to be less than $3,000. On the other hand, under most other employer-based plans, the annual OOP cap generally does not limit patient cost sharing for prescription drugs and other co-pays.[3] For patients who become seriously ill and require frequent or ongoing treatment, even modest co-pays for medical care and prescription drugs could add up to $1,000 or more per year.[4]

Within the overall cap of $7,000, a lower limit of $5,000 applies to cost sharing for care received from "preferred providers" in the BCBSSO plan network. If patients receive care from a combination of preferred and non-preferred providers, cost sharing might accumulate to more than $5,000 but cannot exceed $7,000 for the calendar year.[*]

Unlike the annual deductible, which is twice as high for family contracts compared to individual policies, the annual OOP limit does not vary depending on family size; rather, it is applied per contract. Several other FEHBP plans also have a family limit at the same level as the self-only limit. By contrast, under most other employer-sponsored plans, the annual OOP limit for family coverage is double that applied for self-only coverage.[5]

Provider network-within-a-network – Like most health plans, the BCBSSO plan has a network of participating providers. Within the network, a subset of providers is designated as "preferred." The lowest level of cost sharing applies only when patients receive care from a preferred provider. Higher cost sharing applies when care is received from a non-preferred provider within the plan network or from a nonparticipating provider. In addition, care received out of network may be subject to balance billing.

Enrollees can view a list of preferred participating providers on the Blue Cross Blue Shield Web site, but the names of non-preferred network providers are not listed there.[6] Plan officials advise that if enrollees want to find out whether a non-listed doctor is in network, they must call the plan to inquire about that specific provider.

Plan officials report that roughly 80 percent of all participating providers are preferred, but among specialists, the participation rate is lower.[7] Further details on participation rates by specialty were not available, but appear to vary. For example, a search of the online preferred provider directory for the Washington, D.C., area, found three radiation oncologists and 10 emergency physicians within a 10-mile radius of downtown

[*] Cost sharing for certain services is not limited by the annual out-of-pocket cap when care is from non-network providers. These include emergency room physician medical care, anesthesia care, and hospital care.

Washington. The name of one specialist in hospice and palliative medicine appears (35 miles away). On the other hand, among preferred providers, there are more than 600 general pediatricians, family physicians, and internists within 10 miles of downtown Washington, D.C.

"Inadvertent" use of non-preferred providers – When patients are hospitalized, certain doctors who provide inpatient care may not be in the BCBSSO plan network or may not be preferred providers. Patients may have little choice in the selection of such doctors. For example, a patient who needs an operation may select her surgeon, but not the anesthesiologist who puts her to sleep or the pathologist who reads her slides during the procedure. Yet, bills incurred from these physicians can be significant and are subject to higher cost sharing under the plan.

The BCBSSO plan makes several different types of accommodations to limit patients' cost-sharing exposure in such circumstances.

Inpatient care from radiologists, pathologists, and assistants at surgery – When inpatient care is provided in a preferred hospital, cost sharing for care from radiologists, pathologists, and assistants at surgery is set at a level for preferred providers (usually, 15 percent coinsurance), regardless of whether these particular doctors are preferred or even participating in the plan network. However, if these doctors are not preferred providers, the 15 percent coinsurance applies toward the higher $7,000 annual limit on patient cost sharing. If the doctors are non-participating, the patient may also be subject to balance billing.

Inpatient anesthesia care – If a patient inadvertently receives care from an anesthesiologist in the BCBSSO network who is not a preferred provider, she will still be liable for the higher 30 percent coinsurance. If the anesthesiologist is not in the plan network at all, the patient must pay a co-pay of up to $800 for the anesthesia care, after which BCBSSO will pay all remaining charges, including balance-billing charges.

Emergency room physician care – When a patient receives emergency medical care from a non-preferred emergency physician, the higher 30 percent coinsurance rate applies. If the emergency room physician is not in the plan network at all, the patient must pay a co-pay of up to $350 for the medical care, after which BCBSSO will pay all remaining charges, including balance-billing charges.

<u>How does this plan protect patients when they get sick?</u>

The actuarial value of the BCBSSO plan has been estimated at 87 percent.[8] That means, for an average population, the plan would be expected to pay 87 percent of medical expenses. This overall measure summarizes the combined effect of a policy's covered benefits and cost sharing into a single number that can be used to compare the relative protection offered by different policies. However, a policy with an actuarial value of 87 percent won't necessarily cover 87 percent of every patient's bills. Instead, for example,

it might pay 90 percent of bills for a breast cancer patient but only 70 percent of bills for a healthy patient's routine care needs.

This report estimates patient care needs for four serious and chronic medical conditions – breast cancer, colon cancer, heart attack, and diabetes. These are examples of conditions that occur commonly in the population and that generate the kinds of large medical expenses for which most people would hope to have health insurance protection. Individual patient care needs can vary. To simplify this analysis, patient-care scenarios were developed based on published treatment guidelines and the patients were assumed to have no other complications or care needs beyond those illustrated.

Allowed charges for the care scenarios were also estimated. In general, doctors, hospitals, and other providers will submit their own billed charges for care provided, but will accept as full payment the charge allowed by the insurer – usually a lesser amount – when they participate in an insurer's provider network. Each insurer's fee schedule is unique and proprietary. Therefore, we estimated a nationwide fee schedule for allowed charges based on claims data from the MarketScan® Commercial Claims and Encounters Database.[9]

Estimated claims costs for each condition are compared to coverage provisions under the BCBSSO plan in order to estimate patient costs that would be incurred for care. To test the impact on patient cost of the plan's network-within-a-network structure, variations on some of these estimated claims costs are also presented. For all four patient-care scenarios, estimated patient costs are presented assuming that all care is received from preferred providers. For the patient scenarios that involve hospital care or mental health care, a second estimate of patient costs is presented that assumes patients receive care from non-preferred anesthesiologists and mental health care providers. A third estimate assumes the patient receives other specialist care (radiation oncology and surgery) from a participating, but non-preferred physician. None of the estimates assume care from a non-participating provider, and so none of the scenarios estimate potential patient costs due to balance billing.

Breast cancer

Breast cancer is the most common cancer in women. In 2007, 178,480 new breast cancers were diagnosed; 95 percent of breast cancers occur in women 40 and older, although 59 percent of cases are diagnosed before the age of 65. Thanks to improved early detection technologies, breast cancer is usually detected at early stages when it is most treatable and chances of survival are greatest.[1]

Treatment will vary based on the tumor stage and pathology and other patient characteristics, although widely accepted treatment guidelines are published and regularly updated.[2] The patient described in this scenario was diagnosed in May with a stage II breast cancer following a routine screening mammogram. Approximately 30 percent of breast cancers are diagnosed as stage II.[3] Her tumor tested positive for estrogen receptors (ER+) and for increased levels of a protein called HER2/neu (HER2+), which makes breast cancer more aggressive. About 25 percent of breast cancers are Her2-positive.[4] Onset of serious illness is also often linked to anxiety and depression. An estimated 15 percent to 25 percent of cancer patients suffer from depression.[5]

Standard treatment for this patient would include breast-conserving surgery (lumpectomy), chemotherapy, Herceptin therapy, radiation therapy, and hormone therapy. In this scenario, surgery takes place about one month after her mammogram. Chemotherapy, with biweekly infusions, begins one month following surgery and continues for 16 weeks. About one month following the last chemotherapy infusion, daily radiation therapy begins and continues for seven weeks. Herceptin infusion therapy begins during the second half of chemotherapy and continues weekly for a year. Diagnostic tests and procedures are also ordered. Various medications and a cranial prosthesis (wig) are prescribed for treatment side effects. The patient also receives short-term counseling for depression. From start to finish, these treatments would take place over 87 weeks. Hormone therapy (taken orally) and other follow-up care and screening would continue beyond this time frame.

Under this scenario, estimated allowed charges (reflecting insurer-negotiated discounts) for treatment billed by providers, institutions, and suppliers total approximately $111,302.

The patient would be billed for 52 diagnostic tests and imaging procedures, one outpatient surgery, 118 visits associated with various cancer treatment therapies, and 36 mental health visits. She would also need 36 outpatient prescription drugs and refills with drug prices ranging from $9 to $700. (See Figure 2)

Figure 2. Summary of treatment and allowed charges* for early stage breast cancer scenario [$111,302 total allowed charges over 87 weeks, beginning May 1]

Treatment items and services	Number billed in year 1	Allowed charges in year 1	Number billed in year 2	Allowed charges in year 2	Number billed in year 3	Allowed charges in year 3	Total number billed	Total allowed charges
Office Visit	37	2,574	10	815	1	95	48	3,484
Office Procedure	31	899	16	61	0	0	47	960
Radiology	8	3,203	4	1,198	0	0	12	4,401
Laboratory	24	1,625	16	301	0	0	40	1,926
Surgery	1	1,657	0	0	0	0	1	1,657
Anesthesia	1	1,265	0	0	0	0	1	1,265
Hospital	1	2,914	0	0	0	0	1	2,914
IPMD	1	148	0	0	0	0	1	148
Rx Drugs	16	2,081	19	3,102	1	253	36	5,436
Wig	1	257	0	0	0	0	1	257
Chemotherapy	23	52,586	13	22,550	0	0	36	75,136
Mental Health	15	1,260	21	1,706	0	0	36	2,966
Radiation Therapy	27	8,632	8	2,120	0	0	35	10,752
Total Charges:		**$79,101**		**$31,853**		**$348**		**$111,302**

* Estimates of allowed charges based on MarketScan® data of private health insurer payments nationwide.

[1] American Cancer Society, *Breast Cancer Facts and Figures 2007-2008*.
[2] See National Comprehensive Cancer Network at www.nccn.org.
[3] Ali, Sohrab, "Female Breast Cancer Incidence, Stage at Diagnosis, Treatment, and Mortality in North Carolina, North Carolina Public Health studies, June 2006.
[4] Medical News Today, "Herceptin Proven To Benefit Women With HER2 Positive Early Breast Cancer Latest Results From The HERA Study," March 12, 2009.
[5] See for example, American Heart Association, "Top Ten Things to Know Depression and Coronary Heart Disease," available at http://www.americanheart.org/downloadable/heart/1222379335251topTenDepression.pdf, or National Cancer Institute, "Depression PDQ, available at http://www.cancer.gov/cancertopics/pdq/supportivecare/depression/HealthProfessional/page2.

Estimated patient costs for breast cancer under the BCBSSO plan

If the patient seeks all care from preferred providers within the plan network, her expected expenses for the duration of the treatment scenario are estimated at $10,096, or 9 percent of total allowed charges. If she receives most care from preferred providers but non-preferred anesthesia and mental health care, her estimated cost liability would increase to $11,805, or 11 percent of the total. If the patient were to receive additional care from a non-preferred radiation oncologist, then her estimated cost liability would increase further to $13,324, or 12 percent of the total. See Figure 3.

Annual deductible – Because care is provided over 87 weeks, the patient satisfies the annual deductible in each of two years.

Co-pays – If the patient receives all care from preferred providers, she would pay an estimated $1,020 in co-pays over the course of treatment – a $200 co-pay for her outpatient lumpectomy and 41 co-pays of $20 for other outpatient cancer and mental health treatment visits. Once she seeks care from non-preferred mental health therapists or radiation oncologists, she pays fewer co-pays because these visits become subject to coinsurance instead.

Coinsurance – Most patient expenses arise from coinsurance applied to chemotherapy, radiation therapy, and prescription drugs. Coinsurance expenses increase significantly, to more than $1,000 (vs. $420 in co-pays) if the patient seeks outpatient mental health care from a non-preferred provider and this cost sharing applies to the higher $7,000 OOP limit. If radiation therapy is from a non-preferred provider, coinsurance of almost $2,000 applies (vs. $573 in co-pays and deductibles) and this amount also is subject to the higher OOP limit. Coinsurance for anesthesia care increases almost $200 if the doctor is non-preferred and the entire coinsurance amount applies to the higher $7,000 OOP limit.

Non-covered services – No items or services in this scenario are excluded from coverage under the BCBSSO plan. However, some mental health visits might be excluded if care were from a non-preferred provider and if the timing of care were different and all 36 of the outpatient mental health visits were needed in a single calendar year. In such a case, the 25-visit limit would apply and 11 visits would be excluded from coverage, leaving the patient with more than $900 in non-covered charges to pay.

Figure 3. Summary of allowed charges and patient expenses for breast cancer treatment, assuming different use of preferred and non-preferred in-network providers ($111,302 total allowed charges over 87 weeks, beginning May 1)

			All preferred providers	All preferred providers except anesthesiologist, mental health	All care preferred providers except radiation oncologist, anesthesiologist, mental health
Estimated patient expenses (% of total costs)			$10,096 (9%)	$11,805 (11%)	$13,324 (12%)
Service	Number billed	Total allowed charges			
Office Visit	48	3,484	600	600	620
Office Procedure	47	960	299	320	321
Radiology	12	4,401	526	526	542
Laboratory	40	1,926	320	324	332
Surgery	1	1,657	249	249	249
Anesthesia	1	1,265	190	379	379
Hospital	1	2,914	437	437	437
Inpat. Med Care	2	148	22	22	22
Rx Drugs	36	5,436	1,032	1,037	1,262
Prostheses	1	257	0	0	0
Chemotherapy	36	75,136	5,427	6,151	6,154
Mental Health	36	2,966	420	1,187	1,089
Radiation Therapy	35	10,752	573	573	1,917
Expense Type:					
Deductible			$600	$600	$600
Coinsurance			$8,476	$10,585	$12,084
Co-pays			$1,020	$620	$640
Non-covered Services			$0	$0	$0

Colon cancer

Colorectal cancer is the third most common cancer among men and women in the United States. Almost 150,000 new cases are diagnosed each year. Colorectal cancer is also the second leading cause of cancer death in the United States, with nearly 50,000 deaths each year. Screening can detect and remove polyps before they become cancerous or find cancers earlier when they are more treatable. If everyone age 50 and older received recommended colorectal cancer screening, as many as 60 percent of these deaths could be prevented. Unfortunately, many people do not get screened, and as a result most colorectal cancers are diagnosed at later stages.[*] Some are reluctant to get a test they think will be uncomfortable, while others are concerned about the cost. For people not covered by health insurance, a colonoscopy can cost between $2,000 and $3,800, while charges allowed by insurance companies are typically much lower.[2]

In this scenario, the patient initially seeks medical advice following symptoms (blood in stool). The stage III colon cancer is diagnosed in May, and the patient undergoes surgery to remove the affected part of his colon. He then undergoes 12 rounds of chemotherapy, involving a combination of drugs referred to as FOLFOX, at two-week intervals. Initially, the chemotherapy is effective and when treatments end, the patient receives follow-up screening at three-month intervals to monitor for recurrence. As often happens with colon cancers diagnosed at later stages, the cancer does come back and screening indicates it has spread to the liver.[3] The patient is hospitalized for a second surgery to remove the tumors, and then resumes chemotherapy, this time with a drug regimen known as FOLFIRI. After eight rounds of this treatment, scans indicate FOLFIRI is not having a positive effect, and treatment is changed to a different and more expensive combination of drugs, Cetuximab and Irinotecan. This treatment is also assessed after eight rounds, when it, too, is found to not be working. At this point, active treatment ceases. The patient is referred to hospice care and he dies eight weeks later.

From diagnosis to date of death, care takes place over 124 weeks at an estimated cost of $252,433. The patient has two inpatient surgeries, 57 visits associated with chemotherapy, 42 lab tests and scans, 23 home hospice visits, and 72 prescription drugs and refills. (See Figure 4)

Figure 4. Summary of treatment and allowed charges[*] for late stage colon cancer scenario [$252,433 total allowed charges over 124 weeks, beginning February 1]

Treatment items and services	Number billed in year 1	Allowed charges in year 1	Number billed in year 2	Allowed charges in year 2	Number billed in year 3	Allowed charges in year 3	Total number billed	Total allowed charges
Office Visit	30	2,362	24	1,853	16	1,072	70	5,287
Office Procedure	18	1,212	14	896	8	213	40	2,321
Radiology	1	1,017	2	4,150	1	100	4	5,267
Laboratory	19	1,184	15	915	8	201	42	2,300
Rx Drugs	28	6,704	27	5,692	17	3,605	72	16,001
Surgery	1	1,417	1	2,593	0	0	2	4,010
Hospital	1	16,203	1	25,976	0	0	2	42,179
Inpat. Prof.	1	662	1	662	0	0	2	1,324
Anesthesia	1	1,481	1	1,481	0	0	2	2,962
Chemotherapy	25	55,805	18	58,738	14	51,293	57	165,837
Hospice	0	0	0	0	23	4,945	23	4,945
Total Charges:		**$88,048**		**$102,956**		**$61,430**		**$252,433**

* Estimates of allowed charges based on MarketScan® data of private health insurer payments nationwide.

[1] *Colorectal Cancer Screening*. Summary, Evidence Report: Number 1. AHCPR Publication No. 97-0302. Agency for Health Care Policy and Research, Rockville, MD. http://www.ahrq.gov/clinic/colorsum.htm.

[2] http://www.costhelper.com/cost/health/colonoscopy.html.

[3] Recent studies suggest that patients diagnosed with late-stage colon cancer have a 35.7% reoccurrence rate within 5 years. See "Intensive Surveillance Beneficial in Early-Stage Colon Cancer," Health Day News, June 30, 2009. Available at http://www.clevelandclinicmeded.com/news/Article.aspx?AID=628515&setSpecialty=true.

Estimated patient costs for colon cancer under the BCBSSO plan

If the patient seeks all care from preferred providers within the plan network, his expected expenses for the duration of the treatment scenario are estimated at $15,000, or 6 percent of total allowed charges. If he receives just anesthesia care from a non-preferred network provider, his estimated cost liability would increase to $15,889, or 6.3 percent of the total. If the patient were cared for by both a surgeon and anesthesiologist who were non-preferred providers, then his estimated cost liability would increase further to $17,045, or 7 percent of the total. See Figure 5.

Because care is provided over 124 weeks, the patient satisfies the annual deductible in each of three years. Patient co-pays are approximately $1,000.

Coinsurance totals roughly $13,000 over the treatment period if all care is from preferred providers. If just anesthesia care is given by a non-preferred provider, the coinsurance costs increase by almost $850. If the patient is cared for by a non-preferred cancer surgeon in addition to the non-preferred anesthesiologist, coinsurance costs increase by about $2,000. Higher costs arise because a higher rate of coinsurance applies and this cost sharing is subject to the higher $7,000 annual OOP limit.

Non-covered services – No items or services in this scenario are excluded from coverage under the BCBSSO plan.

Figure 5. Summary of allowed charges and patient expenses for colon cancer treatment, assuming different use of preferred and non-preferred in-network providers ($252,433 total allowed charges over 124 weeks, beginning February 1)

Estimated out-of-pocket costs (% of total costs)			Preferred Providers Only	Preferred Providers except anesthesiologist	Preferred Providers except anesthesiologist and surgeon
			$15,000 (6%)	$15,889 (6.3%)	$17,045 (7%)
Service	Number billed	Total allowed charges			
Hospital	2	42,179	400	400	400
Inpatient Medical Care	2	1,324	199	199	199
Office Visit	70	5,287	560	600	617
Office Procedure	40	2,321	518	518	522
Radiology	4	5,267	802	802	802
Laboratory	42	2,300	288	349	353
Surgery	2	4,010	601	601	1,180
Anesthesia	2	2,962	444	888	888
Prescription Drugs	72	16,001	1,397	1397	1,727
Chemotherapy	57	165,837	9,790	10,134	10,358
Hospice	23	4,945	0	0	0
Expense type:					
Deductible			$900	$900	$900
Coinsurance			$13,140	$13,989	$15,128
Co-pays			$960	$1,000	$1,017
Non-covered Services			$0	$0	$0

Heart attack

Coronary artery disease is the leading cause of death in the United States. More than 1.2 million new or recurring heart attacks occur in the United States annually. High-risk groups include men over the age of 40 and women over the age of 50. Thanks to improved interventions, the survival rate for heart attack is increasing.[1]

Myocardial infarction (MI), or heart attack, occurs when a vessel supplying the heart becomes blocked and cuts off the heart's blood supply. This is an acute event that requires immediate medical attention. The American Heart Association and the American College of Cardiology have published well-established treatment guidelines for patients who have suffered from MI.[2]

In this scenario, the patient has a heart attack at his home in May and is transported to the hospital by ambulance. There, treatment includes a full cardiac workup and insertion of a stent to reopen the affected coronary artery. He remains in the hospital overnight and then is discharged to recover at home from this procedure. Several weeks later, he is readmitted to the hospital for three days for coronary artery bypass graft surgery. Post-surgery follow-up care includes 36 cardiac rehabilitation sessions. Thereafter, quarterly visits with his primary care provider are needed to monitor medications, which include drugs to reduce blood pressure, cholesterol, and anti-platelet medication. Major depression occurs in one of every five patients hospitalized for MI.[3] The patient in this scenario receives short-term psychotherapy visits as well as a prescription for an antidepressant. Active treatment is concluded 56 weeks following the attack.

Under this scenario, estimated allowed charges (reflecting insurer-negotiated discounts) for treatment billed by providers, institutions, and suppliers total about $77,816.

The patient would be billed for one ambulance ride, two hospitalizations for surgery, six cardiology visits, nine diagnostic tests and imaging procedures, 36 cardiac rehab sessions, and 50 mental health visits. He would also need 64 prescriptions and refills with drug prices ranging from $2 to $125. See Figure 6.

Figure 6. Summary of treatment and allowed charges* for heart attack scenario [$77,816 total allowed charges over 56 weeks, beginning May 1]

Treatment items and services	Number in year 1	Allowed charges in year 1	Number in year 2	Allowed charges in year 2	Total number	Total allowed charges
Ambulance	1	729	0	0	1	729
Hospital	2	53,474	0	0	2	53,474
Inpat. Med Care	14	2,521	0	0	14	2,521
Office Visit	4	533	2	267	6	800
Office Procedure	6	406	2	10	8	416
Radiology	2	752	0	0	2	752
Laboratory	5	409	2	58	7	467
Surgery	2	10,195	0	0	2	10,195
Prescription Drugs	44	1,450	20	299	64	1,749
Cardiac Rehab.	36	2,844	0	0	36	2,844
Mental Health	30	2,346	20	1,523	50	3,869
Total Allowed Charges	146	$75,660	46	$2,156	192	$77,816

* Estimates of allowed charges based on MarketScan® data of private health insurer payments nationwide.

[1] American Heart Association, "Heart Disease and Stroke Statistics: 2009 Update At-A-Glance" Available at http://www.americanheart.org/presenter.jhtml?identifier=3037327

[2] See http://www.acc.org/qualityandscience/clinical/topic.cfm. See also http://www.americanheart.org/presenter.jhtml?identifier=3004562

[3] National Institute of Mental Health, "Co-occurrence of Depression with Health Disease," Jan. 13, 2009, available at http://www.healthyplace.com/depression/nimh/co-occurrence-of-depression-with-heart-disease/menu-id-1419/.

Estimated patient costs for heart attack under the BCBSSO plan

If the patient seeks all care from preferred providers within the plan network, his expected expenses for the duration of the treatment scenario are estimated at $5,014 or 6 percent of total allowed charges. If he receives most care from preferred providers but some care from non-preferred providers – the emergency medical and anesthesia care in the hospital and outpatient mental health care – his cost-sharing expenses would increase to $7,121, or 9 percent of total allowed charges. If the patient also chose a non-preferred cardiac surgeon for the second surgery, his cost sharing would increase further to $8,211, or 11 percent of total allowed charges. See Figure 7.

The patient would satisfy the deductible in the first year and a portion of a second-year deductible. Co-pays for ambulance, hospital, outpatient mental health, and other physician visits would total $1,620 if only preferred providers are seen. For non-preferred provider care, most co-pay expenses would be replaced by higher coinsurance costs.

Coinsurance would total $3,000 if all care were from preferred providers, but would rise to more than $6,900 as more non-preferred provider care is received. Higher coinsurance rates apply and this cost sharing is subject to the higher $7,000 annual OOP limit.

Five outpatient mental health visits in the first year would not be covered if the provider is non-preferred because the 25-visit annual limit would apply.

Figure 7. Estimated patient out-of-pocket costs for heart attack treatment scenario, assuming different use of preferred and non-preferred in-network providers. ($77,816 total allowed charges over 56 weeks, beginning May 1)

Estimated out-of-pocket costs (% of total costs)			Preferred Providers Only	Preferred Providers except anesthesia, emergency physician, mental health	Preferred Providers except anesthesia, emergency physician, mental health, cardiac surgeon
			$5,014 (6%)	$7,121 (9%)	$8,211 (11%)
Service	Number billed	Total allowed charges			
Ambulance	1	729	400	400	400
Hospital	2	53,474	400	400	400
Inpat. Med Care	14	2,521	378	712	756
Office Visit	6	800	120	120	240
Office Procedure	8	416	71	71	132
Radiology	2	752	113	113	113
Laboratory	7	467	119	119	119
Surgery	2	6,120	918	1,305	1,742
Anesthesia	2	4,075	611	1,223	1,223
Prescription Drugs	64	1,749	457	457	457
Cardiac Rehab.	36	2,844	427	427	853
Mental Health	50	3,869	1,000	1,776	1,776
Expense Type:					
Deductible			$368	$368	$368
Coinsurance			$3,001	$5,728	$6,938
Co-pays			$1,620	$620	$500
Non-covered Services			$25	$406	$406

Diabetes

Diabetes is a metabolic disorder in which the body is either unable to produce or properly use insulin, a hormone needed to convert sugars and other food into energy. It is a lifelong disease that requires constant monitoring and treatment. In 2006 approximately 23.6 million Americans, or 8 percent of the U.S. population had been diagnosed with diabetes, and an additional 1.6 million new cases were diagnosed in 2007. The total economic cost of diabetes in 2007 is estimated at $174 billion, and one of every five health care dollars in the United States is spent caring for someone diagnosed with diabetes.[1]

The American Diabetes Association has published – and regularly updates – guidelines for the clinical management of patients with diabetes. Standard treatment for a patient with type I diabetes includes prescription insulin, blood glucose self-monitoring (at least four times per day), quarterly lab tests and visits to a primary care physician or endocrinologist, and annual examinations of the feet and eyes.

The patient in this scenario has well-controlled diabetes. She tests her blood sugar four times daily – which requires test strips, a monitoring system, lancets, and alcohol swabs. She administers Lantus insulin every morning with a syringe and Humalog insulin from a pre-filled insulin pen three times a day before meals. In addition to her diabetes, the patient also has elevated blood pressure for which she takes a generic prescription drug, Altace, once daily. Finally, once annually she must purchase a glucagon emergency kit to keep on hand in case she becomes unconscious from very low blood sugar, or hypoglycemia. For a patient with this type of diabetes self-management needs, the charge for any single item or service is relatively modest, but ongoing. For example, test strips cost approximately $1 each, but the patient would use about 1,400 strips per year.

Under this scenario, allowed charges (reflecting insurer insurer-negotiated discounts) for treatment billed by providers, labs, and pharmacies total more than $7,100 for one year.

The patient would be billed for 10 lab tests, 13 office visits and procedures, and 80 prescriptions and refills (including purchases of diabetes testing supplies and syringes that are typically covered under the outpatient pharmacy benefit), with prices per refill ranging from $10 to $153. (See Figure 8.)

Figure 8. Summary of treatment and allowed charges for type I diabetes [$7,148 total allowed charges* per year]

Treatment items and services	Number per year	Total allowed charges per year
Office Visit	7	648
Office Procedure	6	127
Laboratory	10	176
Glucose Meter	1	0
Glucose Test Strips (box 100)	14	1,442
Lancets (Box 100)	14	134
Alcohol Swabs (box 100)	14	47
Syringes (Box 30)	14	225
Lantus Insulin	9	1,289
Humalog Insulin	14	2,148
Glucagon Kit	1	94
Other RX	14	818
Total Allowed Charges		**$7,148**

* Estimates of allowed charges based on MarketScan® data of private health insurer payments nationwide.

[1] American Diabetes Association, "Diabetes Statistics," http://www.diabetes.org/diabetes-statistics.jsp

Estimated patient costs for diabetes under the BCBSSO plan

If the patient seeks all care from preferred providers within the plan network, her expected expenses for the management of her diabetes for one year are estimated at $2,155, or 30 percent of total allowed charges. For this patient scenario, only costs associated with preferred providers were estimated. See Figure 9.

Most cost sharing is paid at the pharmacy, where the annual deductible does not apply. The patient would satisfy two-thirds of the annual deductible. By contrast, more than $1,700 in coinsurance expenses would be incurred. The higher 30 percent coinsurance rate for brand drugs also applies for test strips and other diabetes testing supplies. In addition, because no generic version of insulin is licensed in the United States, the 30 percent rate also applies.

Alcohol swabs are excluded from coverage under the plan.

Figure 9. Estimated patient out-of-pocket costs for diabetes treatment scenario under the FEHBP Blue Cross Blue Shield Standard Option Plan ($7,148 total allowed charges over one year)

Estimated out-of-pocket costs (% of total costs)			Preferred Providers Only
			$2,155 (30%)
Service	Number billed	Total allowed charges	
Office Visit	7	648	140
Office Procedure	6	127	29
Laboratory	10	176	176
Glucose Meter	1	0	0
Glucose Test Strips (Box 100)	14	1,442	433
Lancets (Box 100)	14	135	40
Alcohol Swabs (Box 100)	14	47	47
Syringes (Box 30)	14	226	68
Lantus Insulin	9	1,289	387
Humalog Insulin	14	2,148	644
Glucagon Kit	1	94	28
Other Rx	14	818	163
Expense Type:			
Deductible			$205
Coinsurance			$1,763
Co-pays			$140
Non-covered Services			$47

Other coverage rules and provisions – Several rules commonly found in health plans are designed to ensure that certain types of expensive care are medically necessary. Hospitalizations require precertification; in case of emergency, the member or hospital must contact the plan within two days of admission. Failure to obtain precertification can result in a partial or complete reduction in coverage for the hospital stay. Prior approval is also required for certain costly prescription drugs, including Neupogen, taken by the breast cancer patient during chemotherapy.

Mental health and substance abuse services require precertification for inpatient care or prior approval for outpatient care. If an approved treatment plan for outpatient care is not obtained, care will be subject to an annual limit of 25 visits and the BCBSSO plan reserves the right to not cover further visits for the year until medical necessity is determined.

It was not possible to test the operations of precertification procedures under the plan. All required precertification of care was assumed to be received in a timely manner.

Transparency

In general, the evidence of coverage (EOC) for the BCBSSO plan was well organized and relatively straightforward. This appears to be required of all plans participating in the FEHBP. The plan brochure states, "All FEHB brochures are written in plain language to make them responsive, accessible, and understandable to the public." In addition, all FEHBP plan documents issued by all carriers are written using the same format and similar descriptions to facilitate comparison between plans.

The EOC also clearly lists provisions that have changed in the past year with a description of the change and page numbers to find the relevant provisions.

Illustrations are also offered in several instances to help clarify how coverage works. For example, an illustration of how balance billing might apply is offered to help explain this concept. The use of examples adds to the readability and clarity of the EOC where they are provided.

Even so, certain plan features are sufficiently different from other employer-sponsored health plans that they may merit more emphasis or explanation than currently provided in the EOC. In particular:

- The annual out-of-pocket limit is applied on a per-contract basis, and is the same regardless of whether the policyholder has single or family coverage. This information would be important for potential enrollees to consider as they determine their plan and enrollment choices. For example, in the case of federal employees who are married, if both spouses want coverage under the BCBSSO plan, the couple might think it is less expensive to enroll as two individuals because the federal government premium contribution is slightly higher for single coverage compared to family coverage. However, the out-of-pocket cost-sharing exposure for the couple doubles if they enroll separately. If this feature is not

sufficiently understood, a married couple might take on an additional $7,000 per year in cost-sharing exposure in order to save approximately $600 per year in premium contributions.

- The network-within-a-network feature may be confusing. This feature appears to be relatively unique to the Blue Cross Blue Shield FEHBP plan options. In many other private health insurance policies, including many offered by Blue Cross Blue Shield outside of the FEHBP, the preferred cost-sharing levels apply to care received from any participating network provider.[10] Another transparency challenge is that the BCBSSO plan Web site does not provide information on the identities of participating providers that are not preferred. Enrollees must inquire separately about each such provider in order to gain this information.
- The application of the OOP limit for preferred and non-preferred providers was somewhat confusing to understand. Follow-up inquiries to plan officials helped clarify how the OOP limits work. Including examples of how patients might incur out-of-pocket cost sharing expenses using various combinations of preferred and non-preferred providers could help clarify this plan feature for enrollees.

Implications for health care reform

The BCBSSO plan is often cited as a benchmark of excellent health coverage. With an estimated actuarial value of nearly 90 percent, it appears to offer protection against medical bills that is roughly comparable to other typical employer-sponsored group health plans. According to one report, the FEHBP actuarial value of 87 percent compares to an actuarial value of 93 percent for typical employer-sponsored HMO plans and 80 percent to 84 percent for typical employer-sponsored PPO plans.[11]

As has been illustrated, however, actuarial value is only a general measure and does not reflect the actual cost-sharing expenses real patients might face under different scenarios. Furthermore, knowing that the BCBSSO plan offers relatively equivalent protection to other employer-sponsored health plans doesn't speak to the overall adequacy of coverage provided by such plans.

Covered benefits under the BCBSSO plan are relatively comprehensive, and cost sharing for routine care is modest. The plan caps total patient cost-sharing expenses, both in and out of network. However, total patient cost-sharing liability is high and has increased significantly in recent years.[12] For patients who become seriously ill, cost-sharing expenses under this plan could become burdensome, particularly so for people with chronic conditions whose treatment continues for more than one or two years. Studies show that even modest cost sharing can make it more difficult for chronically ill patients to effectively manage their conditions. For example, one study found that a $6 to $12 increase in co-pays can prompt patients with diabetes to reduce their prescription drug use by almost 25 percent.[13]

Cost-sharing burdens also increase if patients need to seek care (or inadvertently receive it) from non-preferred physicians. In the case of the illustrative breast cancer patient, estimated cost-sharing expenses ranged from $10,000 to more than $13,000. For the

colon cancer patient, cost sharing ranged from $15,000 to $17,000 over the course of treatment. These estimates do not take into account balance-billing liability that patients might face if they seek care from doctors who do not participate in the plan network at all.

A growing body of research documents problems that can arise when health insurance doesn't cover enough medical expenses. Rates of medical debt are growing, chiefly among the insured.[14] One in five (or more than 9 million) privately insured people with chronic conditions live in families with medical bill problems – an increase from 16 percent in 2003.[15] Medical bankruptcy is also primarily a problem of the insured; a recent study found more than 75 percent of those who filed for bankruptcy in 2007 and those who cited medical bills as a contributing factor had health insurance. For medically bankrupted families who were privately insured, OOP medical expenses averaged approximately $18,000. [16] When OOP spending for medical care exceeds just 2.5 percent of income (less for low-income persons), financial burdens on families become substantial.[17] Studies show that the underinsured and uninsured face similar problems accessing medical care and managing financial burdens.[18]

Patients with serious and chronic illnesses could incur thousands of dollars in OOP expenses for covered care under this benchmark plan. Low- and middle-income families would likely need additional cost-sharing subsidies in order to be able to afford these expenses.

Notes

[1] Office of Personnel Management data.
[2] The plan brochure states that coverage for all outpatient mental health care is subject to an annual cap of 25 visits, which may be waived for services received from preferred providers. However, staff at OPM clarified this language in the brochure is incorrect. Instead, outpatient mental health care from preferred providers is not capped as long as a treatment plan for care is filed with and approved by the plan in advance. If an approved treatment plan is not in place, the plan reserves the right to refuse to cover care beyond 25 visits unless medical necessity of further treatment is established. OPM staff indicated that the misleading language in the brochure will be corrected for future years.
[3] HRET and Kaiser Family Foundation, "2008 Employer Health Benefits Survey." Henry J. Kaiser Family Foundation.
[4] Pollitz, K., et al, "Coverage When It Counts: What Does Health Insurance in Massachusetts cover and How Can Consumers Know?" Robert Wood Johnson Foundation, May 2009. Available at http://www.rwjf.org/files/research/coveragewhenitcountsfinal.pdf
[5] HRET and Kaiser Family Foundation, "2008 Employer Health Benefits Survey." Henry J. Kaiser Family Foundation.
[6] http://www.fepblue.org/provider/
[7] Personal communication, BCBSA staff, June 2, 2009. Note that the Blue Cross and Blue Shield Association does not endorse or necessarily agree with any of the information provided or comments made in this document.
[8] Peterson, C., "Setting and Valuing Health Insurance Benefits," Congressional Research Service, CRS Report to Congress, April 6, 2009. This report references the BCBSSO plan offered in 2007, when the annual deductible was $250, the annual OOP limit was $4,000, the hospital co-pay was $100, and coinsurance for most services was 10 percent.
[9] MarketScan® is a registered trademark of Thomson Healthcare Inc. The MarketScan® data included individual-level, de-identified health insurance claims across the continuum of care (e.g. inpatient, outpatient, outpatient pharmacy, carve-out behavioral health care) as well as enrollment data from large employers and private health plans across the United States. Claims data reflect a variety of fee-for-service plans, preferred provider organizations, HMOs, and other capitated health plans for the period of January-December, 2007. Thomson Reuters provided median allowed charge data for each billing code requested, as well as charges at the 25th and 75th percentiles. Because hospital data in the MarketScan® database included a mixture of claims paid according to fee-for-service, per-diem, and diagnosis-related group methodologies, Thomson Reuters selected claims with length-of-stay, diagnosis, and procedures reflected in our scenarios and provided allowed charge data for the total hospital stay, using the same data formats.
[10] A review of 60 BCBS policies in 15 states offered on www.ehealthinsurance.com found only one other policy with this network-within-a-network feature.
[11] Peterson, C., "Setting and Valuing Health Insurance Benefits," Congressional Research Service, CRS Report to Congress, April 6, 2009.
[12] Cost sharing under the BCBSSO plan has increased substantially in recent years. In 2007, the annual deductible was $200. The annual OOP limit for preferred provider care was $4,000 and for non-preferred care it was $5,000. The annual plan deductible is 50 percent higher than in 2007 ($200 vs. $300).
[13] Goldman, D., et al, "Pharmacy Benefits and the Use of Drugs by the Chronically Ill," *Journal of the American Medical Association,* Vol. 291, No. 19, May 19, 2004. See also Tamblyn, R., et al, "Adverse Events Associated with Prescription Drug Cost-Sharing Among Poor and Elderly Persons," *Journal of the American Medical Association,* Vol. 285, No. 4, January 24, 2001.
[14] Cunningham, P., "Tradeoffs Getting Tougher: Problems Paying Medical Bills Increase for US Families, 2003-2007," Center for Studying Health System Change, Tracking Report No. 21, September 2008. Available at www.hschange.org.
[15] Tu, H. and Cohen, G., "Financial and Health Burdens of Chronic Conditions Grow," Center for Studying Health System Change Tracking Report No. 24, April 2009. Available at www.hschange.org.
[16] Himmelstein, D., et. al., "Medical Bankruptcy in the United States, 2007: Results of a National Study," *The American Journal of Medicine,*
[17] Cunningham, P., "Living on the Edge: Health Care Expenses Strain Family Budgets," Center for Studying Health System Change Tracking Research Brief No. 10, December 2008. Available at www.hschange.org.
[18] Schoen, C., et al, "How Many Are Underinsured? Trends Among US Adults, 2003 and 2007, *Health Affairs* Web Exclusive, June 10, 2008.