Coverage When It Counts:

What Does Health Insurance In Massachusetts Cover And How Can Consumers Know?

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What does it mean to be adequately insured?

A growing body of research documents problems that can arise when health insurance doesn't cover enough. Rates of medical debt are growing, chiefly among the insured.[1] 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.[2] When out-of-pocket spending for medical care exceeds just 2.5 percent of income (less for low-income persons) financial burdens on families become substantial.[3] Studies show that the under-insured and uninsured face similar problems accessing medical care and managing financial burdens.[4]

How can people know when health insurance provides adequate coverage? Health insurance policies are complex products, highly variable in their design, and key information about how coverage works is not always disclosed during marketing. Further, health insurance promises protection against future, unknown events. For consumers who are healthy today, it can be difficult to anticipate what kinds of medical problems and costs might arise in the future, and harder still to evaluate how health insurance might cover those needs. Many urge that choice of health insurance is valued by consumers and key to efficient competition in health insurance markets. Yet, economists teach that well functioning markets require transparent information so that both buyers and sellers can understand and evaluate options. Health insurance transparency and coverage adequacy, therefore, go hand in hand.

This report suggests a new method for developing benchmarks to illustrate some types and costs of medical care consumers might need under a variety of scenarios, and for evaluating health insurance protection using these benchmarks. Using simulated claims scenarios for different types of patients – one diagnosed with early stage breast cancer, another who has a heart attack, and a third with diabetes – we analyzed the content of coverage provided by 10 health insurance plans sold in Massachusetts and estimated out-of-pocket costs for care that patients might face. We also reviewed the transparency and accessibility of information about policies that consumers would need to understand how coverage works. Massachusetts was chosen because of its precedent-setting reforms to achieve universal coverage that included the establishment of standards for minimum coverage for all residents.

The report concludes with a recommendation for the development of standardized health plan comparison tools – patterned on the FDA nutrition label, but for health insurance – that could help consumers appreciate the kinds of medical events for which health insurance may be needed and relative levels of protection provided under different policies.

What Can it Cost to Get Seriously Ill?

Per capita health care spending exceeded $7,400 in 2007, although few Americans needed an "average" amount of health care. Instead, just 10 percent of the population accounts for two-thirds of all health care spending.[5] Most people are healthy most of the time, but over the course of a lifetime, most people will have at least a year or two when medical needs are very high. For example, one out of every three women and one of every two men will be diagnosed with cancer in their lifetimes.[6] The lifetime risk of cardiovascular disease is 50 percent for men and 40 percent for women.[7] In addition, chronic conditions account for approximately three-quarters of medical care spending in the U.S.[8] Therefore, for some people who get sick, medical expenses will not be confined to a single acute event or calendar year, but will persist for longer periods.

This project estimated cost scenarios for illustrative patients with serious medical conditions: breast cancer, heart attack, and diabetes. *(See Methodology section in appendix.)* 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.

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.[9]

Treatment will vary based on the tumor stage and pathology and other patient characteristics, although widely accepted treatment guidelines are published

and regularly updated.[10] 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.[11] 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.[12] Onset of serious illness is also often linked to anxiety and depression. It is estimated that between 15-25 percent of cancer patients suffer from depression.[13]

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 bi-weekly 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 $143,000.

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 1)*

Figure 1. **Summary of treatment and allowed charges* for early stage breast cancer scenario**
[$143,180 total treatment costs over 87 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	Number in year 3	Allowed charges in year 3	Total number	Total allowed charges
Office Visit	37	3,288	10	987	1	113	48	4,387
Office Procedure	31	558	16	96	0	0	47	654
Radiology	8	4,061	4	1,597	0	0	12	5,658
Laboratory	24	2,394	16	530	0	0	40	2,924
Surgery	1	3,328	0	0	0	0	1	3,328
Hospital	1	3,293	0	0	0	0	1	3,293
Inpat Med Care	1	174	0	0	0	0	1	174
Rx Drugs	16	2,085	19	3,134	1	254	36	5,473
Wig	1	360	0	0	0	0	1	360
Chemotherapy	23	64,302	13	33,822	0	0	36	98,124
Mental Health	15	1,219	21	1,675	0	0	36	2,894
Radiation Therapy	27	13,429	8	2,482	0	0	35	15,911
Total:		**$98,491**		**$44,322**		**$367**		**$143,180**

** Allowed charges are held constant for all Massachusetts policies studied and are estimated based on data about allowed charges paid by many health plans and insurers in the state. See Appendix 1 for further detail.*

Heart attack

Coronary artery disease is the leading cause of death in the U.S. Over 1.2 million new or recurring heart attacks occur in the U.S. 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.[14]

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 that have suffered from MI.[15]

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 1 of every 5 patients hospitalized for MI.[16] The patient in this scenario receives short term psychotherapy visits as well as a prescription antidepressant. Active treatment is concluded in 56 weeks following the attack.

Under this scenario, estimated allowed charges (reflecting insurer negotiated discounts) for treatment billed by providers, institutions, and suppliers total $89,644.

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 2)*

Figure 2. Summary of treatment and allowed charges for heart attack scenario
[$89,644 in total treatment costs 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	618	0	0	1	618
Hospital	2	60,425	0	0	2	60,425
Inpat Med Care	14	3,319	0	0	14	3,319
Office Visit	4	655	2	327	6	982
Office Procedure	6	328	2	13	8	341
Radiology	2	867	0	0	2	867
Laboratory	5	889	2	137	7	1,026
Surgery	2	13,701	0	0	2	13,701
Prescription Drugs	44	1,465	20	303	64	1,768
Cardiac Rehab.	36	2,497	0	0	36	2,497
Mental Health	30	2,504	20	1,595	50	4,099
Total allowed charges:		**$87,269**		**$2,375**		**$89,644**

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 5 healthcare dollars in the U.S. is spent caring for someone diagnosed with diabetes.[17]

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 negotiated discounts) for treatment billed by providers, labs, and pharmacies total nearly $7,900 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 $176. *(See Figure 3)*

Figure 3. Summary of treatment and allowed charges for type I diabetes
[$7,850 total treatment cost over one year]

Treatment items and services	Number per year	Total allowed charges per year
Office Visit	7	805
Office Procedure	6	155
Laboratory	10	352
Glucose Meter	1	0
Glucose Test Strips (box 100)	14	1,680
Lancets (box 100)	14	138
Alcohol Swabs (box 100)	14	42
Syringes (box 30)	14	226
Lantus Insulin	9	1,303
Humalog Insulin	14	2,142
Glucagon Kit	1	176
Other RX	14	831
Total allowed charges:		**$7,850**

These common medical conditions were chosen for this analysis because they account for a significant amount of total medical care spending. In addition, together, they permit testing of different aspects of health insurance coverage. Treatment under the breast cancer scenario consists primarily of medical care provided in office-based and outpatient settings. By contrast, treatment under the heart attack scenario is provided largely in the hospital. Treatment for the management of diabetes is heavily dependent on pharmaceutical care. Two of the scenarios (breast cancer and heart attack) also include short term mental health treatment.

What Does Health Insurance Cover?

In the U.S., health insurance policies vary widely in terms of covered benefits, cost sharing, and other rules.

Covered benefits and cost sharing

Federal law requires coverage of a select few health benefits under health insurance. In certain health plans and health insurance policies, federal law requires coverage for breast reconstruction, minimum hospital stays for newborns and mothers, and mental health parity. Maternity care is covered by all job-based group health

plans sponsored by employers with 15 or more workers, because of requirements in the Pregnancy Discrimination Act. Federal law also sets minimum standards for certain high-deductible health plans that can be combined with tax preferred health savings accounts (HSAs.) For these plans federal rules limit the maximum cost sharing that can be required for covered benefits but are largely silent on what benefits might be covered or excluded.[18]

State laws generally establish more requirements for health insurance coverage. For example, 50 have enacted mandates to cover mammograms[19] and 47 have enacted diabetes benefit mandates.[20] Even so, coverage for mandated benefits can vary considerably. For example, insurers cover diabetes management medications, equipment and supplies differently. In some policies, all items are covered under the pharmaceutical benefit; in others, items such as glucometers, test strips, and lancets might be covered under the medical equipment benefit. In addition, state mandated benefit laws often are silent on the level of cost sharing that can apply to required benefits, so policies will vary in this respect as well.

Most health insurance requires patients to pay at least some of the cost of covered services. Cost-sharing features include deductibles (an initial level of expense paid entirely by the policyholder, after which insurance reimbursement begins), co-insurance (a percentage of covered costs paid by the policyholder), and co-payments (a flat dollar amount per service paid by the policyholder). Cost sharing rules can differ for different services. For example, office visits may be subject to a $20 co-pay while co-insurance of 20 percent applies to surgery. Deductibles may be waived for preventive care or certain other services, while separate deductibles may apply to hospitalization and prescription drugs.

Most policies also include an annual out-of-pocket maximum (OOP), a feature to limit patient cost sharing liability in a year. How the OOP operates tends to vary by policy; for example, the annual deductible counts toward the OOP in some policies but not others. Often, the OOP does not limit all cost sharing. Patient costs for prescription drugs and mental health care may not apply to the OOP; sometimes co-pays for other medical care are not limited by the OOP. As a result, patients with ongoing care needs whose health insurance lacks a comprehensive OOP might meet their annual OOP and still owe hundreds or thousands of dollars in additional cost sharing for covered services.

Importantly, cost sharing rules are applied annually under most policies. Patients whose care spans more than one plan year can expect to pay expenses arising from multiple deductibles and OOP maximums over the entire course of treatment.

Massachusetts coverage rules

Most states do not define the content of health insurance beyond the requirements of mandated benefit laws. Massachusetts is one exception. Health insurers must provide coverage for all state mandated benefits. In addition, the state health care reform law requires all residents to have health insurance that meets standards for minimum creditable coverage, or MCC.[†] Details of MCC are determined by the Board of the Commonwealth Connector – a newly organized health insurance marketplace for individuals and small employers – and updated periodically. MCC standards for 2009 include inpatient and outpatient hospital and physician care, emergency services, mental health and substance abuse treatment, and prescription drug coverage. Annual caps cannot apply for most covered benefits, although some "non-core" benefits, such as mental health care and durable medical equipment, can be subject to benefit caps. These caps vary somewhat across policies.

With respect to cost sharing, annual deductibles may not exceed $2,000 and annual maximums on out-of-pocket spending must not exceed $5,000 for an individual.

Within the Commonwealth Connector a variety of policies are offered that meet MCC standards, and they are grouped into three categories: "gold," "silver," and "bronze." All three types of policy cover the same benefits with different levels of cost sharing. Gold plans have no annual deductible and modest co-pays. Silver plans may have deductibles as high as $1,000 and moderate co-pays. Bronze plans have even higher deductibles (e.g. $2,000) and other cost sharing. For young adults only, a fourth

[†] Importantly, MCC standards apply to individuals, not insurers. Insurers can sell policies that do not meet MCC, although they must clearly label whether policies satisfy the MCC standard. All policies sold through the Commonwealth Connector must meet MCC. Individuals and employers who obtain coverage outside of the Connector must seek certification that coverage substantially satisfies MCC. Some deviation is permitted. For example, in 2009, a person covered under a federal qualified high deductible health plan is considered to meet MCC even if the annual deductible exceeds $2,000.

and lower level of coverage is also offered. Young Adult policies do not have to cover prescription drugs or certain other state mandated benefits; in addition, an annual cap on covered benefits of $50,000 can apply.

Subsidized private health insurance policies are available to residents with incomes up to 300 percent of the federal poverty level through a program called Commonwealth Care. Commonwealth Care policies are more comprehensive than other policies offered through the Connector, for example, vision and dental benefits can be covered. Cost sharing is also subsidized on a sliding scale.

Plans studied for this project

This report analyzes coverage under 10 policies sold to individuals and small employers through the Commonwealth Connector in Massachusetts in 2008. Policies were selected based on enrollment reported in January 2008. In general, we selected plans with the highest reported enrollment, but also selected at least one plan from each level of coverage and at least one plan offered by each carrier that sells coverage in the Connector.

Because all plans sold through Connector must meet MCC standards, most patient services under our scenarios are covered. Some variation occurs. Most plans we studied limit coverage for outpatient mental health care, other than for biologically based mental health conditions. Limits of 24-25 visits per year are found in most, though not all plans. Most plans also limit coverage for durable medical equipment. Benefit caps range from $750 to $3,000 per year. One of the young adult plans studied caps all covered benefits at $50,000 annually.

Annual deductibles range from zero to $2,200 for individuals (twice this level for family policies.)[‡] In most plans the deductible is comprehensive, applying to most or all covered services. However, three plans reimburse covered preventive care services before the deductible is satisfied. Three exempt office visits and five exempt outpatient prescription drugs from the deductible. Coinsurance for medical care, when applied, ranged from 20 to 35 percent under plans studied.

Co-pays varied considerably. For office visits, co-pays ranged from $10 to $40. Emergency room co-pays were more substantial, ranging from $75 to $250. A few plans imposed additional co-pays of $250 or $500 per hospital stay or outpatient surgery. All plans impose tiered cost sharing for prescription drugs. Least expensive generic drugs were subject to a co-pay of $10 to $15 per prescription. "Preferred" brand name drugs were subject to higher co-pays, ranging from $25 to $50. Most plans had a third tier for non-preferred brand drugs, with co-pays ranging from $45 to $100; in several plans, cost sharing in the top tier switched to 50 percent coinsurance.

The annual OOP maximum ranged as high as $5,000 per person. Only one of the plans studied provided for a comprehensive OOP that caps all forms of cost sharing for all covered services. Under the rest, cost sharing for at least some services can accumulate without limit.

Several plans waive some or all cost sharing for therapies that require repeated visits and which might otherwise generate a large number and dollar volume of co-pays. Five of the plans waived co-pays for chemotherapy and radiation therapy, and one waived co-pays for cardiac rehabilitation.

One plan studied was a Young Adult policy that caps covered benefits at $50,000 annually. *(See Figure 4 and Appendix 2)*

[‡] Although the general requirement for MCC is that the deductible for an individual may not exceed $2,000, in 2008 one HSA-eligible policy with an annual deductible of $2,200 was offered in the Connector.

Figure 4. Key Policy Features for Five Policies Sold through the Commonwealth Connector

[See Appendix 2 for remaining policies]

	A. NHP One (Gold)	B. Tufts Advantage HMO 750 (Silver)	C. NHP Three (Bronze)	D. HNE Wise Plus (Bronze)	E. HPHC Pulse (YA)
Cost Sharing:					
Annual Deductible	none	$750	$2,000; $100 Rx	$2,200	$2,000
Annual OOP Max	none	$5,000	$5,000	$5,000	$5,000
Includes deductible?	n/a	Yes	Yes	Yes	Yes
Includes medical coinsurance?	n/a	Yes	Yes	Yes	Yes
Includes medical copays?	n/a	Yes (except ER)	No	Yes	Yes
Includes Rx cost sharing?	n/a	No	No	Yes	No
Includes mental health cost sharing?	n/a	Yes	No	Yes	Yes
Coinsurance after deductible	n/a	n/a	20% most services	20% DME	20% most services
Co-pays (medical)	$10 OV	• $15 primary care OV • $25 specialist OV • $200 ER (waived if admitted)	• $25 OV • $100 ER (waived if admitted)	• $25 OV • $250 outpatient surgery • $75 ER (waived if admitted)	• $25 1st three OV • $250 ER (waived if admitted)
Co-pays (Rx drugs)	$10/$25/$45	$10/$30/$45	$15/50%	$10/$25/$45	$15/50%
Services for which no coinsurance or co-pays applied	• Hospital • Surgery • Chemotherapy • Radiation therapy • X-ray, lab • DME	• Hospital • Surgery • Chemotherapy • Radiation therapy • Cardiac rehab • X-rays, lab • DME	none	• Chemotherapy • Radiation therapy • X-ray, lab	none
Covered Benefits:					
Diabetes drugs, items covered as:	Rx	Rx	Rx	Rx	Rx
Significant exclusions, benefit limits (annual)	• 25 visit limit on mental health* visits • $2,500 cap on DME • Alcohol swabs	• 24 visit limit on mental health* visits • $1,500 cap on DME • Alcohol swabs	• 25 visit limit on mental health* visits • $2,500 cap on DME • Alcohol swabs	• 24 visit limit on mental health* visits • $3,000 cap on DME • Alcohol swabs	• $50,000/yr cap on all benefits • 24 visit limit on mental health* visits • $1,000 cap on DME • Alcohol swabs

** For non-biologically based mental health conditions only*

How are Specific Patient Care Needs Covered?

For this analysis, we compared patient care needs under each scenario to the coverage provisions under each policy studied. In general, a plan's tier provided a relative indicator of the protection it provided. Usually the gold policy studied offered the most comprehensive coverage, followed, by silver, bronze, and young adult. Plans within a tier generally provided similar levels of protection, but exceptions were observed.

Breast cancer coverage under Massachusetts plans

Total allowed charges for breast cancer care under this scenario are estimated to be $143,180. Under the 10 plans studied, the breast cancer patient could expect to pay markedly different shares of the total cost of her treatment, ranging from $2,004 (or 1.4 percent of total costs) under Plan A (gold) to $55,250 (or 39 percent of total costs) under the young adult Plan E. *(See Figure 5 and Appendix 2).* Variation in patient costs arises from a number of factors.

Deductible – In general, because treatment in this scenario begins in May and spans 87 weeks, patients could expect to satisfy two annual deductibles and have some expenses apply to a third. Therefore, the higher the plan deductible, the more expenses the breast cancer patient incurred.

Comprehensiveness of annual OOP – By contrast, the level of the annual OOP was not a good indicator of patient cost sharing. Among the bronze plans with an annual OOP of $5,000, patient cost sharing for breast cancer treatment ranged from about $7,600 to almost $13,000. Instead, the comprehensiveness of the OOP was more important.

Plan D (bronze) yielded the lowest patient costs because it had a comprehensive OOP. Under Plan C (bronze), by contrast, co-pays – whether for office visits, prescription drugs, or outpatient mental health care – do not apply to the annual OOP. As a result, patient costs exceeded the annual OOP by more than $1,000 in each of the first two years of treatment. Under six of the ten plans studied, the breast cancer patient incurred medical expenses in excess of her annual OOP in at least one year. Under one of those, Plan F (silver), cost sharing expenses exceeded the OOP amount even though the patient did not satisfy the OOP limit.

Waive cost sharing for therapies requiring repeated visits – Three of the plans studied waived or reduced cost sharing for chemotherapy and radiation therapy – treatments requiring an extended series of visits. Per-service co-pays that might otherwise seem modest can add up to thousands of dollars for cancer patients.

Annual coverage cap – Finally, under the YA plan with an annual cap of $50,000 on all covered benefits, the breast cancer patient would pay almost 40 percent of the total cost of care.

Heart attack coverage under Massachusetts plans

Total allowed charges for the heart attack patient under this scenario are estimated to be nearly $90,000. Under the 10 plans studied, the share of costs the patient could expect to pay ranged from $1,881 (2 percent of total) to $39,355 (44 percent). *(See Figure 6 and Appendix 2)* Variation in patient costs is attributable to a number of factors.

Deductible – Like the breast cancer patient, the heart attack patient began treatment in May of one year and care continued into a subsequent calendar year. As a result, the heart attack patient must satisfy two annual deductibles, contributing significantly to overall out-of-pocket spending. One exception is Plan C (bronze), which exempts a number of outpatient doctor visits from the deductible, applying a co-pay instead. Few of the services used in the second year of our heart attack scenario are subject to the deductible under this plan.

Comprehensiveness of annual OOP – Also similar to the breast cancer patient, the heart attack patient needed a large number of individual treatments, tests, and medications, and often cost sharing for at least some of these services did not apply to the annual OOP limit. Under eight of the plans studied, the heart attack patient incurred cost sharing in excess of the OOP limit during the first year of treatment. Under one of those, Plan G (bronze), cost sharing expenses exceeded the OOP amount even though the patient did not satisfy the OOP limit.

Exclusions – Under several of the plans, the annual cap on covered outpatient mental health visits resulted in roughly $500 in added costs to the heart attack patient.

Waive cost sharing for repeated therapies – The heart attack patient requires 3 weekly sessions of cardiac rehabilitation over a twelve week period. Only one of the plans studied,

Plan B (silver), waived cost sharing after the deductible for cardiac rehab. In the other plans studied, co-pays applied for each session, amounting to as much as $900 in co-pays for this type of care, alone, under one of the plans.

Interestingly, under the breast cancer scenario, patient cost sharing was markedly different under two bronze plans because one waived co-pays for chemotherapy and radiation therapy while the other plan did not.

Figure 5. **Estimated patient out-of-pocket costs for breast cancer treatment scenario under 5 MA plans**
[$143,180 total treatment costs over 87 weeks, beginning May 1; See Appendix 2 for remaining policies]

Estimated patient expenses (% of total allowed charges)			A. NHP One (Gold)	B. Tufts HMO 750 (Silver)	C. NHP Three (Bronze)	D. HNE Wise Plus (Bronze)	E. HPHC Pulse (YA)
			$2,004 (1.4%)	$4,039 (3%)	$12,907 (9%)	$7,641 (5%)	$55,250 (39%)
Care type:	# billed	Total allowed charges ($143,180)					
Office Visit	48	4,387	480	1,190	1,200	1,665	1,344
Office Procedure	47	466	0	194	202	200	316
Radiology	12	5,789	10	276	898	333	1,803
Laboratory	40	2,924	20	279	472	296	898
Surgery	1	3,386	0	1	1,683	1,166	1,451
Hospital	1	3,293	0	0	659	0	659
Inpat Med Care	1	174	0	0	35	0	35
Rx Drugs	36	5,473	584	659	1,185	1,044	2,410
Prostheses	1	360	0	0	72	0	72
Chemotherapy	36	98,124	140	0	3,967	322	29,939
Mental Health	36	2,894	360	540	900	955	1,191
Radiation Therapy	35	15,911	410	900	1,635	1,659	15,132
Expense type:							
Deductible			n/a	1,500	4,300*	4,767	4,000
Coinsurance			n/a	n/a	5,447	n/a	5,850
Co-pays			2,004	2,539	3,160	2,869	3,941
Non-covered services			0	0	0	0	43,380
Policy highlights:							
Annual Deductible			None	$750	$2,000	$2,200	$2,000
Coinsurance			n/a	n/a	20% most	n/a	20% most
Annual OOP Max			None	$5,000	$5,000	$5,000	$5,000
Includes medical co-pays? Includes Rx cost sharing? Includes mh cost sharing?			n/a n/a n/a	Most No Yes	No No No	Yes Yes Yes	Yes No Yes
Patient costs meet/exceed annual OOP in: Year 1 Year 2 Year 3			 n/a n/a n/a	 Not meet Not meet Not meet	 Exceed Exceed Not meet	 Not meet Not meet Not meet	 Exceed Exceed Not meet
Co-pays (medical)			$10	$15/$25	$25	$25	$25**
Co-pays (Rx drugs)			$10/$25/$45	$10/$30/$45	$15/50%	$10/$25/$45	$15/50%
Services for which no coinsurance or co-pays apply after deductible			Hospital, surgery, chemo, radiation, lab, Imaging, DME	Hospital, surgery, chemo, radiation, lab, imaging, DME	None	Radiation, chemo, labs/x-rays	None
Significant exclusions, benefit limits			-	-	-	-	$50k annual cap

** includes separate $100 annual Rx deductible, reached in years 1, 2 and 3*
*** co-pays apply only to first 3 office visits per year*

Figure 6.

Estimated patient out-of-pocket costs for heart attack treatment scenario under 5 MA plans

[$89,644 total treatment costs over 56 weeks, beginning May 1; See Appendix 2 for remaining policies]

Estimated patient expenses (% of total allowed charges)			A. NHP One (Gold)	B. Tufts Advantage HMO 750 (Silver)	C. NHP Three (Bronze)	D. HNE Wise Plus (Bronze)	E. HPHC Pulse (YA)
			1,881 (2%)	**3,251 (4%)**	**8,364 (9%)**	**7,759 (9%)**	**39,355 (44%)**
Care type:	**# billed**	**Total allowed charges ($89,644)**					
Ambulance	1	618	0	618	618	618	618
Hospital	2	60,425	0	0	1,257	0	25,795
Inpat. Med. Care	14	3,319	0	132	800	259	800
Office Visit	6	982	60	239	150	402	982
Office Procedure	13	341	0	7	13	0	341
Radiology	2	867	0	0	273	195	247
Laboratory	7	1,026	0	68	358	256	727
Surgery	2	13,701	0	0	1,831	1,982	1,857
Prescription Drugs	64	1,768	612	627	640	646	1,556
Cardiac Rehab.	36	2,497	360	0	900	900	2,497
Mental Health	50	4,099	849	1,560	1,524	2,488	3,935
Expense type:							
Deductible			n/a	1,500	2,150	4,400	3833
Coinsurance			n/a	0	3,000	0	1743
Co-pays			1,455	1,245	2,588	3,095	330
Non-covered services			426	505	426	505	32,191
Policy highlights:							
Annual Deductible			None	$750	$2,000	$2,200	$2,000
Coinsurance			None	None	20%	n/a	20%
Annual OOP Max			None	$5,000	$5,000	$5,000	$5,000
Includes medical co-pays? **Includes Rx cost sharing?** **Includes mh cost sharing?**			n/a n/a n/a	Most No Yes	No No No	Yes Yes Yes	Yes No Yes
Patient costs meet/exceed annual OOP in: **Year 1** **Year 2**			 n/a n/a	 Not meet Not meet	 Exceed Not meet	 Exceed Not meet	 Exceed Not meet
Co-pays (medical)			$10	$15/$25	$25	$25	$25**
Co-pays (Rx drugs)			$10/$25/$45	$10/$30/$45	$15/50%	$10/$25/$45	$15/50%
Services for which no coinsurance or co-pays apply after deductible			Hospital, surgery, lab, x-ray, DME	Hospital, surgery, lab, x-ray, DME	None	Labs, x-rays	None
Other			• 25 visit limit on mental health**	• 24 visit limit on mental health**	• 25 visit limit on mental health**	• 24 visit limit on mental health** visits	• $50,000/yr cap on all benefits • 24 visit limit on mental health** visits

** includes separate $100 annual Rx deductible, reached in years 1 and 2*

** * non-biologically based mental health conditions only*

By contrast, cost sharing for the heart attack was more similar under the same two bronze plans, in part because neither plan extended that cost sharing break to cardiac rehab.

Diabetes coverage under Massachusetts plans

The total allowed charges for treatment and management of diabetes under this scenario were $7,850 for one year. Under the 10 plans studied, the share of costs the patient could expect to pay ranged from $507 (6 percent of total) to $4,126 (53 percent). *(See Figure 7 and Appendix 2)* Variation in patient costs is attributable to a number of factors.

Deductible(s) – In general, the patient with diabetes paid more out-of-pocket under plans with higher deductibles. However, one of the plans studied, Plan C (bronze), had a separate deductible of $100 for prescription drugs. Because this plan covers virtually all of the diabetes management drugs and supplies under the prescription drug benefit, overall cost sharing was much lower.

Co-pays and comprehensive OOP limit – Even so, co-pay expenses for the patient with diabetes were substantial under most of the plans studied, generally between $1,000 and $2,000 per year. Because there is no generic equivalent for insulin in the U.S., patients would be subject to the higher co-pay for brand name drugs. Usually a co-pay would apply to each prescription and each box of test strips, syringes, and lancets purchased, as well as to each office visit and lab test. In this scenario, the diabetes patient could be liable for 80 co-pays per year. Furthermore, under eight of the plans, prescription cost sharing does not count toward the OOP limit. In two, Plans F (silver) and G (bronze), the patient with diabetes had cost sharing expenses in excess of the OOP limit without having reached the limit. A similar result would have occurred under the other six, had this patient experienced additional significant medical needs during the year.

Exclusions – None of the plans studied cover alcohol swabs.

Challenges To Transparency

The exercise of estimating patient care costs and coverage under each of these plans and scenarios was complicated and time consuming, likely beyond the abilities of many consumers. A consumer trying to compare levels of coverage under different policies might, instead, be inclined to compare just a few key coverage features, such as the annual deductible, the annual OOP limit, or major benefit exclusions. Doing so could be misleading, however. Other policy features often resulted in significant differences in patient cost liability, and sometimes these were not immediately obvious from plan summaries, or even after close inspection of the full policy.

Further, consumers who have never been very sick may not appreciate the extent and type of medical care that could be required in the event of a serious illness. Nor would they likely anticipate what such care might cost, in terms of either billed provider charges or insurer allowed charges.

How can consumers know ahead of time how much protection a given health insurance policy conveys? The answer is often far from clear, and there are numerous challenges to overcome.

Variation in health policies

One challenge to transparency lies in the number of ways in which health insurance policies can vary. In Massachusetts, MCC rules produce a higher degree of standardization in health insurance policies, at least those sold through the Connector, than is observed in most other states. However, insurers retain some flexibility in policy design. The most significant variation we observed in the policies studied had to do with the level of cost sharing imposed and rules for counting cost sharing expenses toward the policy's annual out-of-pocket maximum. In addition, several policies included cost sharing provisions favorable to consumers who have specific health conditions – those that limit otherwise applicable cost sharing for chemotherapy, radiation therapy, and cardiac rehabilitation.

Other policy variations are very difficult to study, and were beyond the scope of this project. In particular, some of the policies we reviewed limited coverage to services that are provided in a manner consistent with the insurer's medical policy guidelines. Policyholders were directed to the insurer's website or customer service department for a copy of those guidelines. Because nonmembers cannot readily access this information, it was not possible to evaluate how insurer guidelines may vary.

Claims payment practices of insurers were also beyond the scope of this project but, reportedly, can vary. The timeliness and accuracy of claims payment, as well as

Figure 7. Estimated patient out-of-pocket costs for diabetes treatment scenario under 5 MA plans

[$7,850 total treatment costs over one year; See Appendix 2 for remaining policies]

Estimated patient expenses (% of total allowed charges)			A. NHP One (Gold)	B. Tufts Advantage HMO 750 (Silver)	C. NHP Three (Bronze)	D. HNE Wise Plus (Bronze)	E. HPHC Pulse (YA)
			$507 (6%)	$2,578 (33%)	$960 (12%)	$3,373 (43%)	$4,126 (53%)
Care type:	# billed	Total allowed charges ($7,850)					
Office Visit	7	805	70	175	175	535	535
Office Procedure	6	155	0	155	0	137	155
Laboratory	10	352	0	352	0	143	352
Glucose Meter	1	0	0	0	0	0	0
Glucose Test Strips (box 100)	14	1,680	0	420	74	679	840
Lancets (box 100)	14	138	0	138	10	138	69
Alcohol Swabs (box 100)	14	42	42	42	42	42	42
Syringes (box 30)	14	226	0	226	16	164	113
Lantus Insulin	9	1,303	90	270	135	464	651
Humalog Insulin	14	2,142	140	630	210	606	1,071
Glucagon Kit	1	176	25	30	88	176	88
Other RX	14	831	70	140	210	288	210
Expense type:							
Deductible			n/a	507	100	2,200	967
Coinsurance			n/a	n/a	0	n/a	n/a
Co-pays			465	2029	818	1,134	3,117
Non-covered services			42	42	42	42	42
Policy highlights:							
Annual Deductible			None	$750	$2,000 $100 Rx	$2,200	$2,000
Annual OOP Max			None	$5,000	$5,000	$5,000	$5,000
Includes medical co-pays? Includes Rx cost sharing?			n/a n/a	Most No	No No	Yes Yes	Yes No
Patient costs meet/exceed annual OOP?			Not meet	Not meet	Not meet	Not meet	Not meet
Co-pays (medical)			$10	$15/$25	$25	$25	$25**
Co-pays (Rx drugs)			$10/$25/$45	$10/$30/$45	$15/50%	$10/$25/$45	$15/50%
Services for which no coinsurance or co-pays apply after deductible			Lab, DME	Lab, DME	None	Lab	None
Diabetes items covered as:			Rx	Rx	Rx	Rx	Rx
Significant exclusions, limits			Alcohol swabs	Alcohol swabs	Alcohol swabs	Alcohol swabs	$50k annual cap

** includes separate $100 annual Rx deductible*

*** co-pays apply only to first 3 office visits per year*

the rate of claims challenges and denials impact the effective level of coverage provided under a policy. Insurers may vary in terms of how accurately and timely they pay claims.[21]

Policy contract not available

Another transparency challenge is that consumers don't receive a copy of the policy contract until coverage is purchased. Until then, information about what a policy covers and how it works is only summarized in marketing materials. These summary brochures describe many key features but, by definition, do not provide comprehensive information.

In Massachusetts, the Commonwealth Connector does provide helpful and easy-to-use plan comparison tools for consumers. Summaries of every plan offered through the Connector are available on the website, with information about cost sharing, covered services, and some limitations on benefits. Few other states make such detailed and helpful plan comparison tools available to residents.

However, the Connector website does not provide access to full policy language, sometimes called the evidence of coverage (EOC). Most insurers that sell coverage through the Connector also do not make EOCs available on their own web sites, though we found one that did.[22] All health insurance contracts offered in the state are on file with the Massachusetts Division of Insurance. Copies can be obtained by filing a records request under the Massachusetts Public Records Law.

Challenges to reading and interpreting policy language

Even if health insurance policies were more readily available to consumers and prospective policyholders, the EOC can be a difficult document to read and understand. Reading a health insurance contract requires a sophisticated level of health insurance literacy that most people do not have. According to a survey commissioned by ehealth, Inc., most people would rather prepare their taxes or go to the gym than read their health insurance policy. The same survey found less than one-quarter of those asked said they were certain they understood the terminology used in their health insurance policy.[23]

Rules can be adopted to require insurance contracts to be written in a simpler and more straightforward manner, although how successful such requirements are in practice may be in question. A federal law known as ERISA requires that participants in employer-sponsored health plans must receive a summary plan description (SPD) that includes certain information elements and that is written in a manner that is understandable to the average plan participant. Given the complexity of health benefits this is a difficult standard to meet. One study analyzing the readability of SPDs found a college level education or higher would be needed to understand terms in the document.[24] The state of Rhode Island recently proposed adoption of a standard for all health insurance contracts to be written at an eighth-grade reading level.[25]

In some instances, the EOCs reviewed for this study contained gaps, as well as confusing, ambiguous or conflicting language.

Exclusions:
"All services, supplies, and other items of care that are not specifically included…"

Missing information – Each of the policies reviewed for the project stated that the insurer only covered those items and services explicitly stated in the contract. Nevertheless, it was not unusual for us to find that the EOC did not specify all covered items and services. In three of the Massachusetts policies, for example, radiation therapy and/or chemotherapy were not mentioned in the EOC. Through telephone calls to the insurer we confirmed these services were covered.

Confusing, ambiguous, or conflicting language – In general, Massachusetts policies reviewed for this report were relatively straightforward. However, there were instances in which language in EOCs was unclear or conflicting, making it difficult to understand how coverage would work.

For example, policy language on the application of cost sharing was sometimes not clear. One EOC stated in one section that mammograms were not subject to the deductible, while in another section of the document, it specified that *screening* mammograms were not subject to the deductible. In our breast cancer scenario, the patient receives several *diagnostic* mammograms that would be subject to higher cost sharing. In other policies, similar vague language was found concerning the application of cost sharing to colonoscopy.

Another policy stated in the exclusion section that services for chronic conditions were not covered. However, elsewhere in the policy, language clearly referenced coverage for services that would be required by patients with diabetes and other chronic conditions. A call to the insurance company verified that services for chronic conditions were, indeed, covered.

A "Coverage Facts" Label for Health Insurance

Understanding what health insurance covers and how it works is a challenge. Policies cover different benefits, and different cost sharing can apply to different kinds of medical care. In addition, most consumers cannot predict what future care needs might entail or cost. As a result, it is difficult to look at a health plan and appreciate how much protection it actually affords. People may tend to rely on certain policy features – such as the annual deductible or OOP limit – as indicators of the comprehensiveness of coverage; but as illustrated in this report, this can be misleading.

For this reason, we suggest the development of a new information tool for health insurance consumers: a "Coverage Facts" label for health insurance policies, modeled on the Nutrition Facts label required for packaged foods.[§]

A Coverage Facts label would summarize key features under a health insurance policy and illustrate how that policy might cover care for a given treatment scenario. The label would highlight important estimates, such as total treatment costs and the amount that the patient might be expected to pay. The label could break down patient cost liability by type of service (for example, highlighting the impact of non-covered or limited benefits) and by type of cost sharing (for example, illustrating how co-pays might add up during treatment of a chronic condition.) *(See Figure 8).* Additional narrative might accompany each label explaining in more detail how coverage features combined to produce the resulting estimates.

Coverage Facts would need to be conveyed in a series of labels. Because a single policy may cover types of benefits differently, labels would be needed for care scenarios that rely significantly on inpatient care vs. outpatient therapies, medication therapy, mental health care, and rehabilitation. Labels should also be developed for chronic conditions so that ongoing cost sharing needs are also highlighted. Scenarios might reflect health conditions that are the most common or costly for the entire population or for different demographic groups.

Coverage Facts could also help inform policymakers about the content of coverage sold in the market today.

Figure 8. Sample "Coverage Facts" Label for Health Insurance

Coverage Facts

Individually Purchased Health Insurance, 2008

Plan C (Bronze)

Monthly Premium (age 55)	$596
Annual deductible	$2,000, $100 for Rx
Annual OOP limit	$5,000
Cost sharing not subject to annual OOP	Medical, prescription, mental health co-pays
Significant exclusions, benefit limits	none

Breast Cancer Scenario ‡

(May 1 diagnosis, 87 weeks active treatment)

Estimated allowed charges for all treatment	$143,180
Estimated paid by patient	**$12,907 (9%)**

Care type	# billed	Total allowed charges ($)	$ paid by patient	% paid by patient
Office Visit	48	4,387	1,200	38%
Office Procedure	47	466	202	43%
Radiology	12	5,789	898	6%
Laboratory	40	2,924	472	10%
Surgery	1	3,386	1,683	34%
Hospital	1	3,293	659	0
Inpat Med Care	1	174	35	0
Rx Drugs	36	5,473	1,185	19%
Prostheses	1	360	72	0
Chemotherapy	36	98,124	3,967	*
Mental Health	36	2,894	900	33%
Radiation Therapy	35	15,911	1,635	10%

** signifies less than 1/2 of 1%*

Source of patient expense	Number encountered	Amount
Annual deductibles	3	$4,300
Co-pays	120	$3,160
Co-insurance	-	$5,447
Non-covered care	n/a	$0

‡ Breast Cancer Scenario includes outpatient lumpectomy, 4 two-week cycles each of two chemotherapy regimens, 7 weeks of daily radiation therapy, one year of Herceptin therapy, short term mental health counseling, various diagnostic lab and imaging services and prescription drugs. Scenario based on treatment guidelines published by NCCN. ***Individual patient care needs may vary.***

All care assumed to be received from in-network providers following all plan rules for prior authorization. Receipt of care by non-plan providers or without required authorizations can result in substantially higher out-of-pocket costs.

Active treatment over 87 weeks beginning in May assumes patient faces annual deductibles and other cost sharing in three plan years. Diagnosis at different time during calendar year could produce different cost sharing results.

[§] The Coverage Facts label has been previously recommended by others. See, for example, Wilson, K., "Check the Label: Helping Consumers Shop for Individual Health Coverage," California Health Care Foundation, June 2008. See also "Truth in Labeling" *Houston Chronicle,* February 26, 2009. Available at http://www.chron.com/CDA/archives/archive.mpl?id=2009_4705953. Editorial cites legislation sponsored by State Sen. Kirk Watson, D-Austin. See also, "Hazardous Health Plans," *Consumer Reports,* May 2009.

In the context of health reform, policymakers could make more informed choices about the tradeoffs between the cost of health insurance and what it covers if they can see illustrations of how patient costs can change under different levels of coverage.

The Coverage Facts label could be required for all health insurance policies and plans. A series of standardized patient scenarios would be prepared by a regulatory agency or other independent entity with input from clinical and billing experts. Standardized scenarios could then be distributed to health insurers, who would estimate total care costs for each scenario using their own provider fee schedules. Insurers would "process" claims under each scenario and estimate the share of costs that would be covered. These estimates would be submitted to regulators for review of accuracy and consistency. Finally, a booklet of scenarios and accompanying Coverage Facts labels could be compiled and included with the marketing materials for all health insurance policies. Whenever insurers modify or introduce new policies, the process would be repeated. Regulators would likely need additional staff and resources to implement and enforce the Coverage Facts information tool, and insurers would likely need to dedicate staff in order to comply.

This information tool has its limits. Most obviously, Coverage Facts labels cannot be developed for every potential scenario. There are too many diseases and conditions, with care needs as varied as the number of patients. It would not be possible to illustrate every one. On the other hand, some scenarios might be developed and used on a rotating basis so that patient care needs for different conditions could be studied. In addition, it might be possible to develop additional interactive web-based tools that would allow consumers to input specific care need information and see how it is covered.

The Coverage Facts label also assumes a best-case coverage scenario. All care is received in-network with no balance billing by providers,[**] all required authorizations are approved, and all claims are paid accurately and timely. However, other kinds of health plan report cards could also be developed to make more transparent insurers' claims payment practices, medical necessity determinations, utilization review practices, and other coverage features that impact the protection health insurance provides.

Another limitation of Coverage Facts is that its estimate of patient expenses is sensitive to key assumptions. For example, the 87-week breast cancer treatment scenario assumes diagnosis in May. If the patient were diagnosed in January, patient expenses would be somewhat lower because treatment wouldn't reach a third calendar year and fewer costs would fall in the second year. On the other hand, with a September diagnosis, significant treatment needs and cost sharing would occur in each of three calendar years.

The order in which claims are submitted and paid also affects some of the results reported in Coverage Facts. For example, in the heart attack profile, if the hospital bill reached the insurer first, it would satisfy the annual deductible under many policies and patient cost sharing for the ambulance ride would be lower.

Even with these limits, however, the Coverage Facts label provides an important common standard for comparing coverage under different policies. It illustrates what health care needs might be like under various serious and expensive scenarios. And it helps consumers see the combined effect of different policy features – covered benefits, exclusions, and cost sharing – that might otherwise be challenging to envision. Just as automobile manufacturers crash test cars to evaluate their combined protective features under different circumstances, the Coverage Facts labels offer consumers a more comprehensive picture of how coverage would work in situations when health insurance protection might be most needed.

In addition to a Coverage Facts information tool, the transparency and understandability of health insurance could be enhanced in other ways. In particular:

- Standardization of certain policy features could be enhanced. Although choice is generally valued, too much variation can overwhelm and even hinder consumers' ability to select a policy that best fits their

[**] Balance billing is a practice that can substantially increase costs paid by patients. Typically, the charge billed by a doctor, hospital, or other provider is greater than the charge allowed by an insurer. When care is received in network, contracting providers agree to accept the allowed charge as payment in full. Non-contracting providers, however, can bill the patient for the difference - or balance - between the allowed and billed charge.

needs.[26] Standard definitions could be developed for key health insurance terms, such as "deductible" or "OOP limit." This would help consumers to more reliably compare policies according to these important features. Standard definitions of covered benefits might also be developed so that, for example, coverage for medical equipment would always mean the same thing. In Massachusetts, the development of standard tiers of coverage is very helpful. It makes it easier for consumers to understand what different levels of coverage mean and ask more sophisticated questions about differences in otherwise similar policies.

- Regulators could require full policy language to be readily available at all times to the public so that consumers would have an opportunity to thoroughly inspect coverage prior to purchase, as well as once policy is in force.
- Disclosure of other coverage standards and limitations – such as health plan formularies and participating provider directories – could also be required so this information would be readily available to both policyholders and prospective enrollees.

Implications for Health Care Reform

The protection health insurance offers today depends on the policy purchased. An insured person who becomes seriously ill might have to pay several hundred, or thousands, of dollars out of pocket for needed care. For many consumers that range represents the difference between health security and medical debt. Consumers compare the prices of health insurance policies, but cannot always reliably tell if they are comparing like products. At a minimum, the difference in protection health insurance offers should be readily obvious for all to see.

The State of Massachusetts has taken great strides toward assuring that all residents will have basic health insurance protection, while still providing for a range of options in the level of health insurance protection offered. The Commonwealth Connector has surpassed other states in the amount and quality of information provided about health insurance policies. Even so, challenges to transparency persist and, for many consumers, what constitutes adequate coverage may remain relatively abstract.

As policymakers contemplate national health care reform, a key question will be what level of protection health insurance should provide. The answer involves tough tradeoffs. More protection costs more, while less protection leaves patients exposed to higher costs they may not be able to afford. However, premiums are paid by everyone, while the financial burden of high cost sharing and excluded benefits falls only on people when they are sick, and will be ongoing for those with chronic conditions.

These tradeoffs cannot be evaluated entirely in the abstract, nor should they be obscured. More standardization of health insurance policies or coverage features can eliminate much of the guesswork for consumers. For example, if a policy includes an OOP limit of $4,000, patients should be able to know with certainty that their financial liability for covered services will not exceed that amount in a year. For coverage features that vary, disclosure will help consumers understand the choices they face. However, given the complexity of health insurance and medical care, disclosure must provide detailed information so consumers can synthesize the impact of multiple key policy provisions and consider them in the context of health care situations they can recognize and understand.

APPENDIX 1

Methodology

1. Determination of Treatment Needs and Costs

To determine treatment needs for each patient profile, we consulted clinical experts, including medical faculty at the Georgetown University Medical Center, as well as clinical experts and staff at the American Cancer Society, the American Heart Association, and the American Diabetes Association. We also consulted published practice guidelines for each of the conditions portrayed. Detailed cancer treatment guidelines are published and regularly updated by the National Comprehensive Cancer Network (NCCN). Treatment guidelines for heart attack are published by the American College of Cardiology and the American Heart Association. Guidelines for the management of diabetes have been developed by the American Diabetes Association. With help of these experts and published protocols, we developed for each condition a comprehensive list of medical services, devices, items, and prescription medications, and a schedule with specific dates for the delivery of care over the treatment period.

Even with the availability of widely used treatment guidelines, patient care needs will vary. In general, the scenarios portray non-complicated patients. No unforeseen infections, drug interactions, or other complications arise that would lead to additional treatment needs. In some cases, though, we designed care scenarios to include treatments that would not be needed by all patients. For example, the breast cancer treatment includes herceptin therapy – an expensive treatment that would normally only be prescribed for those patients with a HER-2 positive tumor. Because health insurance policies vary in the way they cover specific types of care, we decided to include certain care needs when it was possible policies might cover them differently.

In addition, development of treatment scenarios involved assumptions about the date of diagnosis. For diabetes, a lifelong condition, we assumed the patient was already diagnosed with the condition on the start of the health insurance plan year, January 1. For the cancer and heart attack scenarios, we assumed a diagnosis on May 1. This ensured that care would fall across at least two plan years, permitting us to test the impact of reaching annual deductibles, OOP limits, and benefit caps more than once.

Once a comprehensive list of care needs was completed for a scenario, we looked up the billing codes for each item or service on the list. Billing codes for most outpatient care are based on the AMA CPT manual for 2006 and then updated for changes to the CPT manual for 2007 to match the Thomson Reuters data (described below). In several instances, we specified modifier codes identifying whether the physician procedure in our scenario takes place in the physician's office or in a facility or whether the procedure involves a surgical assistant. When a procedure is performed in the physician's office, the physician's charge includes a practice expense charge to cover overhead; when performed in a facility, only the physician's work is included. Hospital billing codes are based on the American Hospital Association National UB-04 billing manual. We also examined samples of actual claims submitted by individuals who had, themselves, been treated for the scenario conditions and who agreed to share copies of their bills and health insurance statements. In addition, we examined a sample of de-identified claims of several hundred patients, provided by the Maryland Health Insurance Plan (MHIP.)

This analysis estimates allowed charges that might be paid by health insurance companies for covered services. In general, doctors, hospitals, and other providers will submit their own billed charges for care provided, but when they participate in an insurer's provider network, will accept as full payment the charge allowed by the insurer – usually a lesser amount. Billed charges are unique to each provider, but they are typically not relevant to what an insured person will pay. Because health insurers' fee schedules are unique and proprietary, we also did not have access to actual allowed charges for each plan studied. Instead, we used a single, state-wide estimate of the allowed charge for each service and item.

To do this, we contracted with Thomson Reuters to provide allowed charge data from the MarketScan® Commercial Claims and Encounters Database†† for the period of January-December, 2007. These data included individual-level, de-identified health insurance claims

†† MarketScan® is a registered trademark of Thomson Healthcare Inc.

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 each billing code, Thomson Reuters provided median allowed charge data for different geographic regions – national, Massachusetts, and regional (North East, North Central, South, and West – 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.

To arrive at total allowed charges for each scenario, we applied the MarketScan® median allowed charge observed in Massachusetts for each item listed in the scenario. For a small number of claims for which the MarketScan® data did not provide a state-specific number, usually because of a low number of observations (N<100) in the database, we used other means of obtaining a value.

For most of the physician codes, the sample size was adequate to use the specific medians for Massachusetts. In most cases where the sample size was low (N<100), we derived an adjuster for Massachusetts based on a weighted average of the multiples across all services for several different patient scenarios and applied it to the national median. For a few cases where neither the state median nor the national median was suitable, we used either Medicare fee schedule data or data from MHIP. Finally, for a few inexpensive items such as diabetes supplies, values were obtained through drugstore.com. In all cases, we compared values from other available sources to ensure face validity of the values used.

For each hospital stay in the scenarios, we examined charges based on lengths of stay higher and lower than specified in the scenario to ensure that the data used were appropriate. In each case, the median value for the length of stay in the scenario showed a reasonable relationship to the median across different lengths of stay, even where the number of cases with a particular length of stay was small. Because of the small number of hospital claims for a given scenarios, we used several different hospital scenarios to calculate an overall adjuster for Massachusetts and applied that adjuster to the national median values for a particular hospital stay to get a value for the state.

When care continued for more than one year, we assumed allowed charges would be held constant over all years in the scenario.

2. Determination of What Policies Cover

We obtained the evidence of coverage (EOC) for each policy studied and analyzed the document in its entirety. When language in the EOC was unclear or information was missing, we attempted to contact the insurer directly for clarification. If uncertainty remained, we contacted the insurer again to verify the information provided. In a few instances when we received contradictory advice, we contacted the insurer a third time and relied on the answer provided most often. In general, we did not estimate that a medical care service, drug, or other item would not be covered unless we found explicit language in the EOC or other plan documents or other advice from the insurer so indicating.

In addition, we reviewed information available to the general public regarding the content of health insurer formularies, medical guidelines, and other rules and procedures that might affect coverage. To determine coverage for specific drugs, when we could not access plan formularies, we assumed the drug would be covered under the generic or brand drug tier, as applicable.

3. Estimation of Patient Costs

The final step in our analysis was to simulate the processing of claims for the scenarios under each policy. We assumed claims would be received and processed in the order services were provided. We further assumed no claims would be denied (other than when an explicit coverage exclusion applied.) We assumed all care was received from providers in the insurer's network, and all required authorizations and other coverage requirements were met. For each claim processed, we recorded whether the service would be covered and how deductibles, coinsurance, co-pays, benefit limits, and OOP limits would apply. Totals by type of service and patient expense were tallied for each condition under each health plan.

APPENDIX 2

Descriptive Information and Coverage Results for Five Additional Policies

Figure 4. Key Policy Features for Five Policies Sold through the Commonwealth Connector

	A. Fallon Premium Saver 500 (Silver)	B. Fallon Direct Care Premium Saver 2000/500 (Bronze)	C. HPHC Core Coverage (Bronze)	D. BCBS Blue Basic Value (Bronze)	E. BCBS Essential Blue (YA)
Cost Sharing:					
Annual Deductible	$500	$2,000	$2,000	n/a	n/a
Annual OOP Max	$2,000	$4,000	$5,000	$5,000	$5,000
Includes deductible?	Yes	Yes	Yes	Yes	Yes
Includes medical coinsurance?	n/a	n/a	Yes	Yes	Yes
Includes medical copays?	Yes	Yes	Yes	Yes	No
Includes Rx cost sharing?	No	No	No	No	No
Includes mental health cost sharing?	No	No	Yes	Yes	No
Coinsurance after deductible	n/a	n/a	20% most services	35% most services	30% most services
Co-pays (medical)	• $20 OV • $100 ER (waived if admitted)	• $25 primary care OV • $40 specialist OV • $100 ER (waived if admitted) • $250 outpatient surgery • $500 inpatient hospital	• $25 1st three OV • $250 ER (waived if admitted)	• $25 primary care OV, outpatient mental health, and cardiac rehab • $40 specialist OV and chemotherapy and radiation t'py • $150 ER (waived if admitted)	• $10 primary care OV • $25 specialist OV, outpatient mental health, and cardiac rehab • $250 ER (waived if admitted)
Co-pays (Rx drugs)	$10/$25/$50	$10/$50/$100	$15/50%	$15/$30/$50	$15/$30/$50
Services for which no coinsurance or co-pays applied	• Hospital • Surgery • Chemotherapy • Radiation therapy • X-ray, lab • DME	• Chemotherapy • Radiation therapy • X-rays, lab • DME	none	none	none
Covered Benefits:					
Diabetes drugs, items covered as:	Rx	Rx	Rx	Rx	Rx
Significant exclusions, benefit limits (annual)	• $1,500 cap on DME • Alcohol swabs	• $1,500 cap on DME • Alcohol swabs	• 24 visit limit on mental health* • $1,000 cap on DME • Alcohol swabs	• 24 visit limit on mental health* visits • $750 cap on DME • Alcohol swabs	• 24 visit limit on mental health* visits • $750 cap on DME • Alcohol swabs

** For non-biologically based mental health conditions only*

Figure 5. Estimated patient out-of-pocket costs for breast cancer treatment scenario under 5 MA plans

[$143,180 total treatment costs over 87 weeks, beginning May 1]

Estimated patient expenses (% of total allowed charges)			F. Fallon Select Care Premium Saver 500 (Silver)	G. Fallon Direct Care (Bronze)	H. HPHC Core Coverage (Bronze)	I. BCBS Blue Basic Value (Bronze)	J. BCBS Essential Blue (YA)
			$3,384 (2.4%)	**$7,983 (5%)**	**$12,181 (8.5%)**	**$8,279 (6%)**	**$12,783 (9%)**
Care type:	**# billed**	**Total allowed charges ($143,180)**					
Office Visit	48	4,387	940	1,605	419	1,175	1,185
Office Procedure	47	466	194	194	217	118	74
Radiology	12	5,789	234	433	951	1,600	947
Laboratory	40	2,924	72	279	585	818	542
Surgery	1	3,386	0	1333	1,097	1,165	1,005
Hospital	1	3,293	0	0	659	1,153	988
Inpat Med Care	1	174	0	0	35	61	52
Rx Drugs	36	5,473	584	959	2,155	698	698
Prostheses	1	360	0	0	72	126	108
Chemotherapy	36	98,124	0	694	4,192	520	5.600
Mental Health	36	2,894	720	900	273	525	900
Radiation Therapy	35	15,911	640	1,586	1,526	320	684
Expense type:							
Deductible			1,000	4,000	3,000	n/a	n/a
Coinsurance			n/a	n/a	6,850	3,237	10,055
Co-pays			2,384	3,983	2,331	5,042	2,728
Non-covered services			0	0	0	0	0
Policy highlights:							
Annual Deductible			$500	$2,000	$1,500	None	None
Coinsurance			n/a	n/a	20% most	35% most	30% most
Annual OOP Max			$2,000	$4,000	$5,000	$5,000	$5,000
Includes medical co-pays? **Includes Rx cost sharing?** **Includes mh cost sharing?**			Yes No No	Yes No No	Yes No Yes	Yes No Yes	No No No
Patient costs meet/exceed annual OOP in: **Year 1** **Year 2** **Year 3**			 Not meet Not meet Not meet	 Exceed† Not meet Not meet	 Exceed Exceed Not meet	 Exceed Not meet Not meet	 Exceed Exceed Not meet
Co-pays (medical)			$20	$25/$40/ $250/$500	$25**	$15/$25/$40	$10/$25
Co-pays (Rx drugs)			$10/$25/$50	$10/$50/$100	$15/50%	$15/$30/$50	$15/$30/$50
Services for which no coinsurance or co-pays apply after deductible			Hospital, surgery, chemo, radiation, Lab, DME	Lab, x-ray, DME	None	None	None
Significant exclusions, benefit limits			-	-	-	-	-

** *co-pays apply only to first 3 office visits per year*

† *Member does not satisfy OOP, but expenses exceed OOP due to cost sharing not limited by OOP*

Figure 6.

Estimated patient out-of-pocket costs for heart attack treatment scenario under 5 MA plans

[$89,644 total treatment costs over 56 weeks, beginning May 1]

Estimated patient expenses (% of total allowed charges)			F. Fallon Premium Saver 500 (Silver)	G. Fallon Direct Care Premium Saver 2000/500 (Bronze)	H. HPHC Core Coverage (Bronze)	I. BCBS Blue Basic Value (Bronze)	J. BCBS Essential Blue (YA)
			3,102 (3%)	**6,237 (7%)**	**8,074 (9%)**	**6,945 (8%)**	**8,538 (10%)**
Care type:	**# billed**	**Total allowed charges ($89,644)**					
Ambulance	1	618	500	618	618	216	185
Hospital	2	60,425	0	0	2,015	1249	1,785
Inpat. Med. Care	14	3,319	0	259	71	1038	890
Office Visit	6	982	120	150	196	50	150
Office Procedure	13	341	13	38	8	5	4
Radiology	2	867	0	195	56	205	175
Laboratory	7	1,026	137	283	82	230	197
Surgery	2	13,701	0	1782	2,241	2110	1,808
Prescription Drugs	64	1,768	612	787	954	864	865
Cardiac Rehab.	36	2,497	720	875	0	0	900
Mental Health	50	4,099	1000	1,250	1,833	978	1,579
Expense type:							
Deductible			650	2150	3000	n/a	n/a
Coinsurance			0	0	3567	5,053	5,045
Co-pays			2,425	4060	1002	1,387	2,988
Non-covered services			27	27	505	505	505
Policy highlights:							
Annual Deductible			$500	$2,000	$1,500	None	None
Coinsurance			n/a	n/a	20% most	35% most	30% most
Annual OOP Max			$2,000	$4,000	$5,000	$5,000	$5,000
Includes medical co-pays? **Includes Rx cost sharing?** **Includes mh cost sharing?**			Yes No No	Yes No No	Yes No Yes	Yes No Yes	No No No
Patient costs meet/exceed annual OOP in: **Year 1** **Year 2**			 Exceed† Not meet	 Exceed Not meet	 Exceed Not meet	 Exceed Not meet	 Exceed Not meet
Co-pays (medical)			$20	$25/$40/ $250/$500	$25**	$15/$25/$40	$10/$25
Co-pays (Rx drugs)			$10/$25/$50	$10/$50/$100	$15/50%	$10/$30/$50	$15/$30/$50
Services for which no coinsurance or co-pays apply after deductible			Hospital, Surgery, Lab, imaging, DME	Lab, imaging, DME	None	None	None
Other					• 24 visit limit on mental health**	• 24 visit limit on mental health**	• 24 visit limit on mental health**

*** Non-biologically based mental health conditions only*

† Member does not satisfy OOP, but expenses exceed OOP due to cost sharing not limited by OOP.

Figure 7. Estimated patient out-of-pocket costs for diabetes treatment scenario under 5 MA plans

[$7,850 total treatment costs over one year]

Estimated patient expenses (% of total allowed charges)			F. Fallon Select Care Premium Saver 500 (Silver)	G. Fallon Direct Care Premium Saver 2000/500 (Bronze)	H. HPHC Core Coverage (Bronze)	I. BCBS Blue Basic Value (Bronze)	J. BCBS Essential Blue (YA)
			$2,716 (35%)	**$4,383 (56%)**	**$4,126 (53%)**	**$2,213 (28%)**	**$2,068 (26%)**
Care type:	**# billed**	**Total allowed charges ($7,850)**					
Office Visit	7	805	145	280	535	280	160
Office Procedure	6	155	155	155	155	54	46
Laboratory	10	352	345	352	352	123	107
Glucose Meter	1	0	0	0	0	0	0
Glucose Test Strips (box 100)	14	1,680	350	700	840	420	420
Lancets (box 100)	14	138	138	138	69	138	138
Alcohol Swabs (box 100)	14	42	42	42	42	42	42
Syringes (box 30)	14	226	226	226	113	226	225
Lantus Insulin	9	1,303	450	900	651	270	270
Humalog Insulin	14	2,142	700	1400	1071	420	420
Glucagon Kit	1	176	25	50	88	30	30
Other RX	14	831	140	140	210	210	210
Expense type:							
Deductible			500	507	967	n/a	n/a
Coinsurance			n/a	n/a	0	178	152
Co-pays			2,174	3,834	3,117	1,994	1,874
Non-covered services			42	42	42	42	42
Policy highlights:							
Annual Deductible			$500	$2,000	$1,500	None	None
Annual OOP Max			$2,000	$4,000	$5,000	$5,000	$5,000
Includes medical co-pays? **Includes Rx cost sharing?**			Yes No	Yes No	Yes No	Yes No	No No
Patient costs meet/exceed annual OOP?			Exceed†	Exceed†	Not Meet	Not meet	Not meet
Co-pays (medical)			$20	$25/$40	$25**	$15/$25/$40	$10/$25
Co-pays (Rx drugs)			$10/$25/ $50	$10/$50/ $100	$15/50%	$15/$30/ $50	$15/$30/$50
Services for which no coinsurance or co-pays apply after deductible			Lab, DME	Lab, DME	None	None	None
Diabetes items covered as:			Rx	Rx	Rx	Rx	Rx
Significant exclusions, limits			Alcohol swabs	Alcohol swabs	Alcohol swabs	Alcohol swabs	Alcohol swabs

*** co-pays apply only to first 3 office visits per year*

† *Member does not satisfy OOP, but expenses exceed OOP due to cost sharing not limited by OOP.*

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