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Some Families Who Purchased Health Coverage Through The Massachusetts Connector Wound Up With High Financial Burdens

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Abstract

Health insurance exchanges created under the Affordable Care Act will offer coverage to people who lack employer-sponsored insurance or have incomes too high to qualify for Medicaid. However, plans offered through an exchange may include high levels of cost sharing. We surveyed families participating in unsubsidized plans offered in the Massachusetts Commonwealth Health Insurance Connector Authority, an exchange created prior to the 2010 national health reform law, and found high levels of financial burden and higher-than-expected costs among some enrollees. The financial burden and unexpected costs were even more pronounced for families with greater numbers of children and in families with incomes below 400 percent of the federal poverty level. We conclude that those with lower incomes, increased health care needs, and more children will be at particular risk after they obtain coverage through exchanges in 2014. Policy makers should develop strategies to further mitigate the financial burden for enrollees who are most susceptible to encountering higher-than-expected out-of-pocket costs, such as cost calculators or price transparency tools.

For individuals and families without access to employer-sponsored health insurance, or those with incomes too high to qualify for Medicaid, finding affordable coverage can be challenging. Enrollees' out-of-pocket premium costs in the nongroup insurance market can be substantial without an employer's contribution, and coverage in this market often requires high levels of cost sharing, increasingly through high-deductible plans.(1,2)

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In this month's *Health Affairs*, Alison Galbraith and coauthors report on their survey of people who signed up for health insurance plans offered through the Massachusetts Commonwealth Health Insurance Connector Authority, a precursor of the exchanges created under the Affordable Care Act that will open for business in October 2013. They found that many families who signed up for unsubsidized coverage had high levels of financial burden and higher-than-expected costs – and that the phenomenon was especially pronounced for families with greater numbers of children and incomes below 400 percent of the federal poverty level.
The authors reason that more Americans may find themselves in similar situations as exchanges come on line in other states. They suggest that policy makers should develop strategies, such as cost calculators or price transparency tools, to mitigate the financial burden for enrollees who are most susceptible to encountering higher-than-expected out-of-pocket costs.

Financial burden resulting from out-of-pocket health care costs is more prevalent among people with private nongroup insurance than in any other group, including the uninsured.(3,4) High levels of cost sharing and the complexity of high-deductible plans may lead to problems paying medical bills and underuse of needed care.(5,6) Providers often do not realize that patients have problems with health care costs,(7,8) which can lead patients to forgo both essential and nonessential care.(9)

Under the Affordable Care Act, states and the federal government are now creating health insurance exchanges to offer coverage to individuals and families who buy coverage on their own, and small businesses. Exchanges are marketplaces with web portals where consumers will be able to search for insurance plans, starting with open enrollment on October 1, 2013, and are intended to provide health insurance options so that people can comply with the Affordable Care Act's individual mandate and avoid paying a tax penalty for remaining uninsured. As of February 2013, seventeen states and the District of Columbia received approval from the federal government to operate a state-based exchange, seven states intend to offer a state-federal partnership exchange, and the remaining twenty-six states have opted for a federally-facilitated exchange.(10)

Plan offerings are organized into "metallic" coverage tiers (bronze, silver, gold, and platinum) based on increasing actuarial value. Exchanges can reduce the cost of coverage for people purchasing insurance on their own by pooling large numbers of people together and creating purchasing power, encouraging comparison shopping, and lowering search and overhead costs.

Enrollment is expected to be greatest in bronze and silver plans that have higher levels of cost sharing and deductibles than the gold and platinum level plans..(11) To keep out-of-pocket costs as low as possible, people with annual incomes of less than 400 percent of the federal poverty level will be able to obtain federal premium subsidies to purchase coverage through exchanges, and those earning less than 250 percent of the federal poverty level will also be eligible for cost-sharing subsidies. By 2025, twenty-five million people are expected to be covered through exchanges.(12)

Massachusetts was one of the first states to create a health insurance exchange, called the Commonwealth Health Insurance Authority. The Connector's Commonwealth Care program offers subsidized plans to people with incomes below 300 percent of the federal poverty level from carriers participating in the state's Medicaid managed care program. The Connector's Commonwealth Choice program offers unsubsidized plans in bronze, silver, and gold tiers from six commercial carriers, and is similar to the proposed structure of exchanges under the Affordable Care Act.

The Affordable Care Act requires that exchange plans be categorized into metallic tiers based on actuarial value, the percentage of health care expenses that health plans are expected to pay, which can be used by consumers to compare the generosity of health plans. The actuarial values for bronze plans in Commonwealth Choice are lower than those proposed by the Affordable Care Act (40–50 percent versus 60 percent, respectively) (Exhibit 1).(13) The Commonwealth Choice silver and gold actuarial values approximate

those proposed in the Affordable Care Act (70 percent for silver and 80 percent for gold). In Massachusetts the majority of unsubsidized exchange enrollees have chosen bronze or silver plans.(14)

Given the cost-sharing requirements of exchange plans – that is, the various deductibles and copayments that may be required with the different "metal" levels of plans -- there is some concern about cost-related barriers for vulnerable populations, such as people with low incomes or chronic conditions and families with children. However, the prevalence of health care cost problems among families in unsubsidized exchange plans is unknown, as are the risk factors related to those problems.

In this study, we examined the experiences of 393 families in unsubsidized Connector plans. Our goal was to identify families at elevated risk for financial burden because of health care expenses and for higher-than-expected out-of-pocket costs, and to identify factors that promote patients' discussions of out-of-pocket costs with doctors. We believe that knowledge drawn from these experiences with the Connector can inform the design of risk-mitigating strategies by exchanges in other states by identifying populations at risk for health care cost problems.

Study Data And Methods

Design and Study Population

We conducted a cross-sectional survey of families enrolled through the Massachusetts Connector in unsubsidized Commonwealth Choice plans from Harvard Pilgrim Health Care, a large nonprofit New England insurer. Harvard Pilgrim has participated in the Connector's Commonwealth Choice program since 2007 and has one of the largest market shares among commercial carriers in the Connector.(15) Exhibit 1 and Appendix A provide details about the Commonwealth Choice plans' attributes.(16)

We used Harvard Pilgrim enrollment data to select families with and without children under eighteen who had been enrolled in a plan through the Connector for at least six months as of January 2010. To have adequate numbers of families with children and families covered by plans without deductibles, we first selected all eligible families in plans with no deductible, and then randomly selected equivalent numbers of families with and without children in high-deductible plans to reach a total of 800 families. High-deductible plans had annual deductibles ranging from $1,000 to $1,750 for individuals and $2,000 to $3,500 for families. Of the 800 families, we selected a random sample of 650 families to survey.

Data Collection

Between April and October 2010 we conducted a mailed survey with phone follow-up for nonresponders. We used Harvard Pilgrim enrollment and benefits data to obtain information on enrollee demographic characteristics, enrollment length, and plan attributes. Enrollees' geocoded addresses were used to link families to census block group socioeconomic data for the purpose of comparing respondents and nonrespondents. The study was approved by the Harvard Pilgrim Health Care Institutional Review Board.

Primary Dependent Variables

The study's primary dependent variables were respondents' reports of any financial burden, higher-than-expected out-of-pocket costs, or discussions of costs with doctors. To measure financial burden, we asked enrollees whether, in the prior twelve months in the Connector plan, they or a family member had had problems paying or had been unable to pay medical bills; had had to set up a payment plan with a hospital or doctor's office; or had had trouble paying for other basic needs such as food, heat, and rent because of medical costs. An affirmative answer to any of these three questions was considered an indication of financial burden.

We asked enrollees, "Did your out-of-pocket costs in the Connector plan end up being as you expected?" We classified respondents who answered "No, actual costs were higher" as having higher-than-expected out-of-pocket costs.

We also asked enrollees if they had discussed with their doctor or with their child's doctor the costs that they would have to pay for health care during the prior twelve months in the Connector plan.

Independent Variables

We collected data on family sociodemographic characteristics, including health status and chronic conditions of the enrollee and his or her children (see Exhibit 2 for a list of specific conditions). (17) (18)

Analytic Approach

All analyses were done at the family level. Bivariate analyses were done using chi-square and *t* tests. To identify characteristics associated with study outcomes, we first conducted bivariate tests of covariates that we thought a priori would be associated with the outcomes based on theory and existing evidence,(6,19,20) including parent age, sex, numbers of adults and children in the family, income, education, race or ethnicity, primary language, chronic conditions in adults and children, health status of adults and children, plan tier, high-deductible plan enrollment, and enrollment length.

For each of the outcomes, we then estimated multivariate logistic regression models that included covariates associated with the outcome at $p < 0.10$ in bivariate analyses. We excluded plan tier from the model of higher-than-expected costs because of that variable's collinearity with the high-deductible plan variable.

In this article we report results from these models as predicted probabilities of each outcome, using the study sample as the standard population. Significance of differences in predicted probabilities between groups was assessed using standard errors generated by a resampling method known as bootstrapping. We adjusted all analyses for oversampling of families with children and those without deductibles.

Limitations

Because Massachusetts was one of the first states to have an exchange similar to those being implemented under the Affordable Care Act, our study offers some of the few data available to inform policy makers about enrollees' experiences in exchanges. However, our study was based on a single health plan in one state. As a result, our results may not be generalizable to other plans or to states with different exchange designs or health insurance markets, or whose populations have different sociodemographic characteristics, than is the case in Massachusetts.

Our study population was also less socioeconomically diverse than the population of uninsured and potential exchange enrollees nationally, especially lower-income enrollees who will be eligible for subsidies in exchanges in 2014. However, the characteristics of our study sample were similar to those of the larger Harvard Pilgrim Commonwealth Choice population and those of enrollees in unsubsidized nongroup plans nationally.(21)

Given that health care costs in Massachusetts are among the highest in the nation, the prevalence of financial burden in our study may be higher than in other states.(22,23) We could not determine how rates of financial burden and unexpected costs in our study population compared with those of enrollees in subsidized exchange plans, enrollees in nongroup plans outside exchanges, or the uninsured.

Our survey was unable to measure precise household income and eligibility for subsidized plans. Self-reported income often underestimates actual income, especially for those with incomes well above the federal poverty level. However, the error is relatively modest for estimates of wages and salary,(24) the most likely income source for people near the eligibility criteria for subsidized Connector plans.

Finally, our sample size of 393 families limited our power to detect other possible predictors of study outcomes, especially within the subgroup of families with incomes greater than 400 percent of the federal poverty level—those who will be most similar to enrollees in unsubsidized exchange plans nationally in 2014. Even so, we identified a number of significant factors associated with cost-related difficulties for our full study sample. In addition, the subgroup with incomes greater than 400 percent of the federal poverty level has characteristics similar to the population with lower incomes, except that families with incomes greater than 400 percent of the poverty level are significantly less likely to have a subscriber in fair or poor health and to lack a college degree.

Study Results

The final study sample included 393 Connector enrollees, for a response rate of 61 percent. The characteristics of respondents and nonrespondents were not significantly different from each other except that respondents were significantly more likely than nonrespondents to be female, have more children, and have been enrolled for a shorter length of time (Exhibit 2).

After adjusting for oversampling of families with children and nondeductible plans, the distribution by plan tier was 53 percent bronze, 44 percent silver, and 4 percent gold

(Exhibit 2). The distribution approximated that of the overall Harvard Pilgrim Connector population, which was 60 percent bronze, 35 percent silver, and 4 percent gold. The distribution also approximated that of the larger Commonwealth Choice Connector population—exclusive of Young Adult Plans—which was 57 percent bronze, 34 percent silver, and 9 percent gold (Exhibit 1).(14)

The weighted percentages of families with incomes of less than 400 percent of the federal poverty level ranged from 45 percent in gold plans to 51 percent in bronze plans and the mean weighted number of children in the family ranged from 0.3 in bronze plans to 0.6 in silver plans (Exhibit 1).

Unadjusted Analyses

Exhibit 2 shows some of the characteristics of our study sample. The large majority of enrollees were non-Hispanic whites. In weighted analyses a quarter of the families had children, and half had incomes at or greater than 400 percent of the federal poverty level. Surprisingly, 30 percent had incomes below 300 percent of the federal poverty level, which would have made them eligible for subsidized plans in Massachusetts. In addition, the majority of respondents had a female enrollee, and 36 percent did not have a college degree (data not shown).

Thirty-eight percent of families reported financial burden, and 45 percent reported higher-than-expected out-of-pocket costs (Exhibit 3). Families with incomes below 400 percent of the poverty level were more likely to report both financial burden and higher-than-expected costs than families with higher incomes. Families with bronze plans were less likely to report financial burden but more likely to report higher-than-expected costs, compared to families with silver or gold plans.

A minority of enrollees reported discussing out-of-pocket costs with their own or their child’s doctor (26 percent and 22 percent, respectively; data not shown). Enrollees reporting financial burden were more likely to have discussed costs with their own doctors compared to enrollees without burden (42 percent versus 16 percent, respectively; $p < 0.01$), but not more likely to have discussed costs with their child’s doctor (23 percent versus 20 percent; $p = 0.61$).

Adjusted Analyses

Financial Burden—The odds of financial burden were significantly greater when families had larger numbers of children, subscribers in fair or poor health, or incomes less than 400 percent of the federal poverty level (Appendix B).(16) The odds were significantly lower for people with bronze plans compared to those with silver or gold plans.

The predicted probability of financial burden was greater for families with incomes below 400 percent of the federal poverty level than for families with higher incomes (61 percent versus 29 percent; $p < 0.01$). This higher probability of financial burden was also the case across family sizes (Exhibit 4).

Unexpected Out-Of-Pocket Costs—The odds of having higher-than-expected out-of-pocket costs were significantly greater for families with high-deductible plans, older subscribers, a larger number of children, and an income below 400 percent of poverty level (Appendix C).(16) The predicted probability of higher-than-expected costs was greater for families with incomes below 400 percent of the federal poverty level compared to families with higher incomes (53 percent versus 37 percent; $p = 0.02$). Again, this probability of higher-than-expected costs was also the case across family sizes (Exhibit 4).

Discussion Of Health Care Costs With A Doctor

The odds of an enrollee's discussing costs with his or her doctor were significantly greater when an adult in the family had a chronic condition (Appendix D).(16) The predicted probability of discussing costs was 36 percent for such families, compared to 23 percent for families without an adult who had a chronic condition ($p = 0.038$). The odds of the subscriber's discussing costs with his or her doctor were also higher for subscribers with two children than for those with none (36 percent versus 23 percent, respectively; $p = 0.008$). There was also a pattern of higher odds of discussing costs if the enrollee had fair or poor health or was nonwhite.

The odds of a subscriber's discussing costs with a child's doctor were greater for enrollees in fair or poor health and for those with a larger number of children (Appendix E).(16) The associated predicted probabilities were 50 percent for families with an enrollee in fair or poor health compared to 22 percent for families with an enrollee in excellent, very good, or good health ($p = 0.062$), and 25 percent for families with two children compared to 19 percent for those with one child ($p = 0.04$).

Families With Incomes Greater Than 400 Percent Of Federal Poverty Level

Starting in 2014, the population in unsubsidized plans available through exchanges will consist largely of people with incomes above 400 percent of the federal poverty level, because premium subsidies will be available to people with lower incomes. In analyses of families in our study with incomes greater than 400 percent of the federal poverty level, we found patterns related to risk factors for financial burden and higher-than-expected costs that were similar to those we had seen in the full study sample. For example, families with worse health and more children had increased odds of financial burden and higher-than-expected costs.

The sample size limited our power to detect significant differences in the characteristics associated with financial burden and higher-than-expected costs among families with incomes above 400 percent of the federal poverty level. However, it is worth noting that in the higher-income group, we did not see increased odds of higher-than-expected costs among people with high-deductible plans compared to traditional plans, as we did in the larger sample.

Discussion

This study is one of the first to evaluate the prevalence of and risk factors for financial burden and unexpected costs among families in unsubsidized health insurance exchange plans. Among families in such plans, those with lower incomes, worse health, and more children were at greater risk for financial burden and higher-than-expected out-of-pocket costs. Families in high-deductible plans were also more likely to have higher-than-expected costs than were families in plans with no deductible.

In addition, as the number of children in the family increased, enrollees were more likely to discuss out-of-pocket costs with their own or their child's doctor. Having an adult family member with worse self-reported health or a chronic condition also increased the likelihood that an enrollee had discussed costs with a doctor.

Levels of cost sharing and deductibles can be considerable for families purchasing plans through exchanges.(11) Although exchanges may expand access to coverage, financial barriers related to out-of-pocket costs could deter enrollees' use of needed health services. Sicker populations with greater health care needs are especially at risk for being effectively underinsured.(25,26)

Bronze and silver plans have been the most popular of the unsubsidized plans in the Massachusetts Connector, accounting for more than 90 percent of enrollment (exclusive of Young Adult Plans)(13) and uptake of these plans is likely to be prevalent among exchanges nationally in 2014.(11)

High-deductible plans are common in the bronze and silver tiers, and families will need to be aware of the magnitude of potential health care costs in such plans. High-deductible plan enrollees in our study had increased risk of unexpected out-of-pocket costs, and in other studies enrollees in such plans have been found to unwittingly incur high costs because of confusion over which services are subject to the deductible.(27,28) The Affordable Care Act requires that health insurance exchanges include cost calculators to help consumers estimate their likely out-of-pocket costs.

Ideally, providers' input should inform patients' decisions about delaying or forgoing care because of cost. However, our study and others have found that patients and their providers infrequently discuss out-of-pocket costs.(8,29) Patients may not have an opportunity to discuss costs with their doctors if high cost sharing leads them to forgo office visits.

We found that, compared to those in better health, enrollees in worse health were more likely to discuss costs, perhaps because they had more frequent contact with doctors or because they were also more likely to experience financial burden. However, the majority of families in our study who reported financial burden did not discuss costs with their providers.

Providers should be aware that their patients may have remained silent about health care cost problems which could affect patients' adherence and use of recommended care.

Policy Implications

Identifying, monitoring, and addressing affordability and cost-related problems will be important for policy makers implementing exchanges. The risk of financial burden for families in the exchanges may be mitigated by Affordable Care Act policies to be implemented in 2014.

With actuarial values set by law at 60 percent, bronze exchange plans may cover a greater proportion of health care costs than the Connector bronze plans in our study, which had actuarial values of 40–50 percent.(13) In 2014 exchanges will offer premium subsidies for people whose incomes are less than 400 percent of the federal poverty level and cost-sharing subsidies to people whose incomes are less than 250 percent of the federal poverty level. Similar subsidies could have helped the 70 percent of families with financial burden in our study whose incomes were less than 400 percent of federal poverty level.

Our findings are most relevant to families with incomes at or greater than 400 percent of the poverty level who will enroll in unsubsidized exchange plans after 2014. Almost a quarter of our respondents in this population experienced financial burden, and 39 percent reported higher-than-expected out-of-pocket costs (Exhibit 3 Our findings also have relevance to exchange enrollees in 2014 with incomes between 250 percent and 400 percent of the federal poverty level, as these people will not be eligible for cost-sharing subsidies (although they will be eligible for the premium subsidies). Those with incomes of 200–300 percent of the federal poverty level with increased health care needs will be at particular risk in the exchanges after 2014.(30)

In addition, not all eligible families obtain subsidies. In our sample 30 percent of unsubsidized plan enrollees, who made up 45 percent of those reporting financial burden, had incomes that would have qualified them for subsidies in the Connector. Some families may have consciously chosen unsubsidized plans to obtain coverage from a particular commercial carrier, to bridge a gap in employer-sponsored coverage, or because they had an employer who paid part of their premium. However, lack of awareness or confusion about plan choices may have led some eligible families to miss enrolling in subsidized plans.

Given the complexity of health insurance choices and consumers' limited understanding of health insurance benefits,(28,31) policy makers will need to provide outreach and simplified information to promote optimal plan choices.

Finally, our finding of decreased risk of financial burden for families in bronze plans raises the question of whether healthier enrollees are selecting these plans, while sicker enrollees choose other plans. If that is the case, this skewing of enrollees would suggest the need for risk-adjustment and other policies to protect exchange plans against unequal risk selection.

Conclusion

Financial burden and higher-than-expected costs are common among families with unsubsidized exchange plans in Massachusetts, especially those families with low incomes or children. In implementing the Affordable Care Act, policy makers will need to develop

strategies to mitigate financial burden and facilitate discussion between patients and providers about the value of health care choices. Cost calculators or other tools to provide out-of-pocket cost information could help enrollees anticipate potentially burdensome costs, and discussion with providers could help them understand whether lower cost alternatives are possible or whether the service could safely be forgone.

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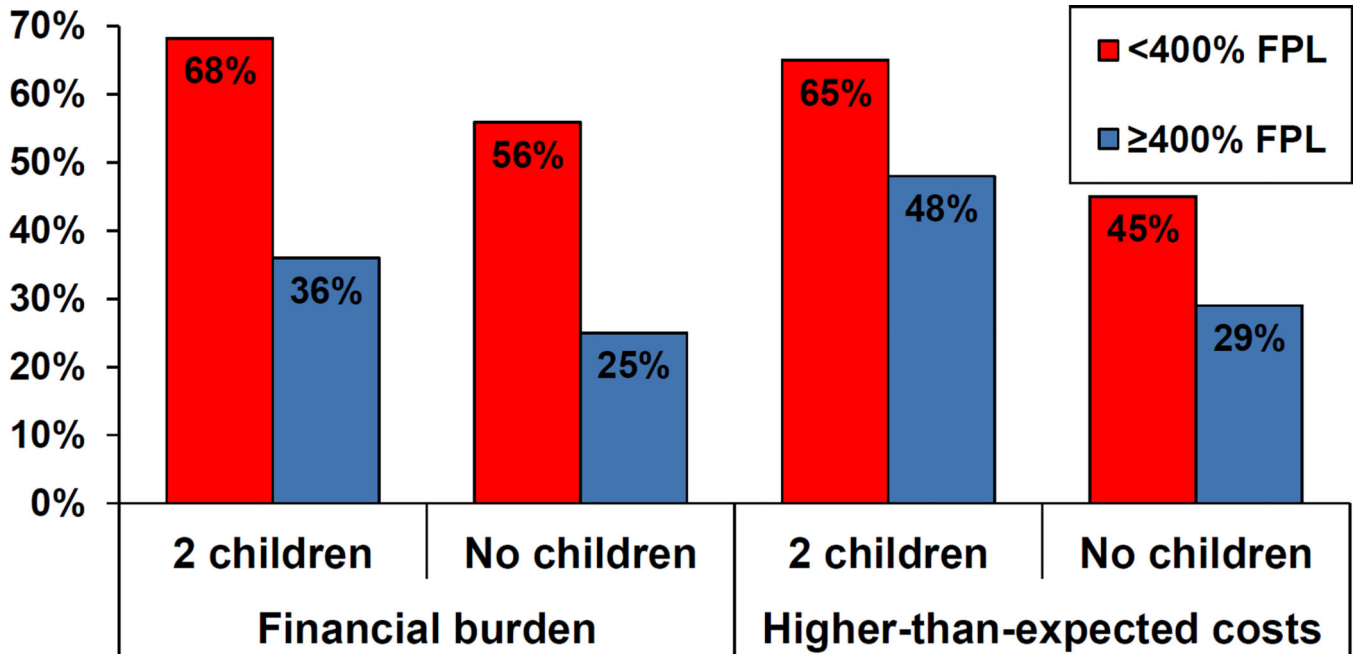

Exhibit 4.

Predicted probabilities of financial burden and higher-than-expected out-of-pocket costs

SOURCE: Authors' calculations using enrollment, claims, and survey data for Harvard Pilgrim Connector members

NOTES: Financial burden model controls for number of children, subscriber with fair/poor health, adult with chronic condition, child with chronic condition, income, and Bronze plan. Higher-than-expected costs model controls for number of adults and children, subscriber age, adult with chronic condition, child with chronic condition, income, and deductible plan. $p<0.01$ for comparisons by income for financial burden and comparison s by number of children for higher-than-expected costs.

$p < 0.05$ for comparisons by number of children for financial burden and comparisons by income for higher-than-expected costs.

Exhibit 1

Benefit Structure Of Commonwealth Choice Plans, 2010

	Plan tier		
	Bronze	**Silver**	**Gold**
Percent of all Commonwealth Choice Connector enrollees[a]	57	34	9
Percent of HPHC Commonwealth Choice Connector enrollees	60	35[b]	4
Actuarial value[c] (all Commonwealth Choice plans)	40–50%	63–75%	80–85%
Lowest monthly premium (all Commonwealth Choice plans)			
Individual	$225	$313	$390
Family	$794	$966	$1,393
Annual deductible (HPHC plans)			
Individual	$1,500–$1,750	None or $1,000	None
Family	$3,000–$3,500	None or $2,000	None
Annual out-of-pocket maximum (HPHC plans)			
Individual	$5,000	$2,000	None or $2,000
Family	$10,000	$4,000	$4,000
Survey respondents (%)			
Unweighted	36	56	8
Weighted	53	44	4
Percent of study families with annual income <400% FPL			
Unweighted	55	49	45
Weighted	51	50	45
Number of children <18 years in study families (mean)			
Unweighted	0.9	0.9	0.4
Weighted	0.3	0.6	0.4

SOURCE Authors' calculations using Harvard Pilgrim benefits data, enrollment and survey data for Harvard Pilgrim Health Care members, and Commonwealth Choice Plan data for 2010 from Massachusetts Division of Health Care Finance and Policy "Massachusetts Health Care Cost Trends: Premiums and Expenditures" May 2012.(Note 12 in text);"Health Care in Massachusetts: Key Indicators" November 2010. Boston (Massachusetts): Massachusetts Division of Health Care Finance and Policy; 2010 [cited 2013 April 6]. Available from: http://www.mass.gov/chia/docs/r/pubs/10/key-indicators-november-2010.pdf; and Massachusetts Health Connector. Connector monthly summary report—March 2010 (Note 13 in text).NOTES Percentages may not sum to 100 because of rounding. For weighted results, analyses were weighted to reflect oversampling of families with children and those in plans without deductibles. HDHP is high-deductible health plan. HPHC is Harvard Pilgrim Health Care.

[a] Excluding Young Adult Plans.

[b] 14% non-HDHP; 21% HDHP.

[c] The actuarial value is the percentage of health care expenses that the health plan will pay for a standard population.

Exhibit 2

Characteristics Of Study Families And Their Census Block Groups

Characteristic	Respondents			Nonrespondents
	Unweighted *n*	Unweighted %	Weighted %	Weighted %
Family has child <18 years	176	45	24	23
Subscriber has college degree	253	65	64	__[a]
Subscriber is non-Hispanic white	352	91	92	__[a]
Subscriber's primary language not English	16	4	5	__[a]
Annual income				
<300% FPL	97	27	30	11.5
300–399% FPL	84	24	20	__[a]
≥400% FPL	173	49	50	__[a]
Health status				
Subscriber has fair/poor health status	32	8	6	__[a]
Adult in family has chronic condition[b]	159	42	39	__[a]
Child in family has chronic condition[c]	42	11	6	__[a]
Insurance type or status				
At least one family member uninsured[d]	60	15	20	__[a]
Months enrolled in current plan (mean)	393	15	15	16**
Plan tier				
Bronze	141	36	53	47
Silver	220	56	44	48
Gold	32	8	4	5
HDHP	225	57	81	78
Census block group				
Adults without high school diploma or GED (%)	__[a]	9.5	9.6	11.5
Hispanic (%)	__[a]	3.0	2.9	3.2
Black (%)	__[a]	2.2	2.3	3.1

SOURCE Authors' calculations using enrollment and survey data for Harvard Pilgrim Health Care members.

NOTES Percentages may not sum to 100 because of rounding. Analyses were weighted to reflect oversampling of families with children and those in plans without deductibles. Significance is difference between respondents and nonrespondents. For respondents annual unweighted median household income for census block group was $64,045; weighted was $60,154. For nonrespondents annual weighted median household income for census block group was $58,172. FPL is federal poverty level. HDHP is high-deductible health plan.

[a] Not available..

[b] Abnormal uterine bleeding, arthritis, asthma, benign prostate enlargement, cancer, depression, diabetes, emphysema or lung disease, heart disease, or hypertension.

[c] Asthma, attention deficit hyperactivity disorder; developmental delay; diabetes; depression, anxiety, eating disorder, or other emotional problem; or seizure disorder.

[d] Prior to the family's enrolling in the Connector plan.

[**] $p < 0.05$

Exhibit 3

Unadjusted Percentages Of Financial Burden And Higher-Than-Expected Out-Of-Pocket Costs, By Study Group

Group	Prevalence of financial burden among respondents	Prevalence of higher-than-expected out-of-pocket costs among respondents
Overall	38	45
Annual income		
<400% FPL	56****	53**
≥400% FPL	24	39
Plan tier		
Bronze	31**	50**
Silver	47	43
Gold	34	13
Plan type		
HDHP	38	48***
Traditional	37	33

SOURCE Authors' calculations using enrollment and survey data for Harvard Pilgrim Health Care members.

NOTES Analyses are weighted to reflect oversampling of families with children and those in plans without deductibles. Financial burden is problems paying medical bills; having to set up a payment plan with a hospital or doctor's office; or having trouble paying for basic needs such as food, heat, or rent because of medical costs, all within the prior twelve months. Significance is differences in outcome across a characteristic. FPL is federal poverty level. HDHP is a high-deductible health plan.

** $p < 0.05$

*** $p < 0.01$

**** $p < 0.001$