Rising Deductibles Are Not Yet a Financial Burden, but Early Evidence Shows an Impact on Access to Care

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The 2016 Kaiser Family Foundation/Health Research and Educational Trust (Kaiser/HRET) survey on employer-sponsored insurance highlights the continued trend of rising health plan deductibles and the increased enrollment in high-deductible health plans (HDHPs). These data show that since 2006 the average deductible increased from $818 to $2,069 (a 153% increase) and that 51% of workers in 2016 are enrolled in plan with a deductible of at least $1,000. Similarly, the early results of the 2016 National Health Interview Survey (NHIS) show that 38.8% of those under age 65 with private health insurance are now enrolled in a HDHP, a sharp increase from 25.3% in 2010 (Note 1). Given the priority placed by the Trump Administration's health policy strategy on Health Savings Accounts, better understanding of the clinical and financial impact of these health plans is warranted.

Households experience two major types of medical expenditures: insurance premiums and out-of-pocket expenditures at the point of care. Premiums cover the cost of purchasing health insurance, while out-of-pocket spending consists of payments at the point of service for care that is incurred before a plan deductible is met, as a result of co-payments/co-insurance, or for services not covered. When an individual transitions to a plan with a larger deductible, the beneficiary theoretically trades lower insurance premiums for greater out-of-pocket expenses (if care is obtained).

There are two concerns related to the trend of rising deductibles. The first is that it will shift the burden of medical care expenses from employers and insurers to consumers, increasing the proportion of household incomes dedicated to medical care. The second is that larger deductibles will cause consumers to change their purchasing behavior and forgo necessary medical care. To quantify these effects, we examined the most recent data from the Bureau of Labor Statistics' Consumer Expenditure Survey (CEX) and the Agency for Healthcare Research & Quality's Medical Expenditure Panel Survey (MEPS).

Proportion of Household Incomes Dedicated to Medical Care

Using CEX data from 1984-2015, trends in insurance premiums, out-of-pocket spending, and total medical expenditures paid by the beneficiary as a percentage of after-tax income by income quintile were calculated. These data are unique in that they represent expenditures from a household perspective and best represent the actual financial burden faced by consumers while adjusting for changes in income. It is important to note these data omit medical payments from other sources, notably employer contributions to premiums and deductibles and payments from public sources like Medicaid and Medicare.

After remaining mostly flat since 1984, the average share of household after-tax income spent on premiums and out-of-pocket expenditures increased from 5.15% in 2009 to 7.18% in 2015 (a relative increase of 39%) (Exhibit 1). This is a direct result of flat incomes and rising health care expenses: between 2009 and 2015 the average family spent $1,216 more on health care, while

take-home pay actually fell by $305. The rise in health care expenditures has been most impactful for middle-class families.

Despite rising deductibles over this time period, increases in health care spending were not driven by out-of-pocket spending. Relative to income, out-of-pocket spending increased by only 2.9% since 2009 and actually fell for three of the five income quintiles (Exhibit 2). Instead, the increased health cost burden was driven almost exclusively by insurance premiums, which increased as a percent of after-tax income by 67.6% between 2009 and 2015 (Exhibit 3) (Note 2). As a result, the percent of total consumer health spending (both premiums and out-of-pocket medical care) that went towards insurance premiums increased from about 56% in 2008 to over 68% in 2015, the highest since the series began in 1984.

The data in this series represent the average US household, regardless of insurance status, and are therefore impacted by the expansion of insurance coverage as a result of the Affordable Care Act. Those who gained insurance during this time period are likely to shift a significant portion of their health expenditures from out-of-pocket to premiums, counteracting possible impacts of higher deductibles (Note 3). Therefore, to validate the CEX results, trends in premiums and out-of-pocket spending solely for the privately-insured population were analyzed using the most recent MEPS data (thru 2014/2015).

Results on insurance deductibles and premiums from the MEPS-Insurance Component survey of private-sector employers show similar trends to the Kaiser/HRET data. From 2008 to 2015 the average deductible increased across all insurance types ($869 to $1,541 for single plans and $1,658 to $2,915 for family plans). Additionally, MEPS tracks the percent of private-sector employees with a $0 deductible, which fell to 14.6% in 2015 from 29.3% in 2008. We compare these data from the MEPS/IC survey with data on medical expenditures from the household component (MEPS-HC).

The MEPS-HC data are limited to the civilian, non-institutionalized population and we further restrict our estimates to those under age 65 with private insurance as this group is most likely to be impacted by rising deductibles. If the increased deductibles are the primary cause of the rising household health expenditure burden seen in the CEX data, we would expect to find increasing out-of-pocket expenditures and flat or shrinking premium costs in this population. Yet, despite the higher average deductibles observed in MEPS-IC data, the percent of health expenditures actually paid by the consumer out-of-pocket have fallen since 2008, while total premiums and employee contributions to insurance premiums have risen for those with single plans:

	Average Individual Out-of-Pocket Costs	Percent of Medical Expenditures	Total Insurance Premium (Single Plan)	Employee Contribution to Premium	Percent Paid by Employee
2008	$ 595.47	18.6%	$ 4,386	$ 882	20.1%
2009	$ 589.13	16.4%	$ 4,669	$ 957	20.5%
2010	$ 598.37	17.1%	$ 4,940	$ 1,021	20.7%
2011	$ 600.97	16.0%	$ 5,222	$ 1,090	20.9%
2012	$ 611.63	15.8%	$ 5,384	$ 1,118	20.8%
2013	$ 626.44	16.1%	$ 5,571	$ 1,170	21.0%
2014	$ 575.68	14.8%	$ 5,832	$ 1,234	21.2%
2015	$611.53	14.9%	$ 5,963	$ 1,255	21.0%
2016	$626.35	15.7%			

The same analysis was performed for household spending and those with family plans and finds similar results:

	Average Family Out-of-Pocket Costs	Percent of Medical Expenditures	Total Insurance Premium (Family Plan)	Employee Contribution to Premium	Percent Paid by Employee
2008	$ 1,614.74	18.5%	$ 12,298	$ 3,394	27.6%
2009	$ 1,599.52	16.1%	$ 13,027	$ 3,474	26.7%
2010	$ 1,521.62	17.1%	$ 13,871	$ 3,721	26.8%
2011	$ 1,561.44	15.9%	$ 15,022	$ 3,962	26.4%
2012	$ 1,559.98	15.6%	$ 15,473	$ 4,236	27.4%
2013	$ 1,679.63	16.4%	$ 16,029	$ 4,421	27.6%
2014	$ 1,540.75	14.3%	$ 16,655	$ 4,518	27.1%
2015			$ 17,322	$ 4,710	27.2%
Change from 2008	**- $ 73.99**	**- 4.2%**	**+ $ 5,024**	**+ $ 1,316**	**(-0.4%)**

These results indicate that, on average, the rising deductibles have not increased the financial burden of expended out-of-pocket costs. Certainly individuals with high unavoidable expenses who switch to a higher deductible will face a greater financial burden, but for the average household this impact is not apparent in the CEX or MEPS data. We expect that this may be a result of a selection bias in those who select a higher deductible—it is likely that those who switch are already low-utilizers of medical care and would therefore not see dramatic changes in out-of-pocket costs as a result of switching.

Impact of Changing Healthcare Expenditures on Care Seeking Behavior

These results provide preliminary evidence that while higher deductibles are not burdening consumers in terms of total health care expenditures. However, the data demonstrating a decrease in out of pocket spending may suggest a potentially negative impact on a consumer's use of care and health and well-being (Note 4). Further research in this area that measures "burden" not only by the percentage of income spent on health care, but also by more qualitative measures such as deciding to delay care for financial reasons is warranted. Preliminary results indicate that those with a HDHP are more likely to report medical care was not received or was delayed as a result of financial concerns, while controlling for demographic, income, and baseline health characteristics. Furthermore, an analysis of the Panel 18 (2013/2014) MEPS data indicates that those who transitioned from a low or no deductible health plan in 2013 to a high deductible health plan in 2014 reduced their overall medical expenditures by about $450. Unfortunately, given the size of this subsample in the MEPS data, this result is not statistically significant. More importantly whether the reduction in spending was on high or low value care cannot be determined from these data.

Clinical Nuance and 'Smarter' Deductibles

Ideally deductibles would lead to a reduction in the use of only low-value care. For this important assumption to be achieved, consumers must be able to distinguish between high-value and low-value clinical services. Since many consumers are often unable to differentiate among services, increased cost-sharing has an important negative component by contributing to cost-related non-adherence of high-value care. There is a large and growing body of evidence reporting that, when faced with increased deductibles, patients decrease the use of evidence-based interventions and likely have worse health outcomes as a result. This research reports that low income and very sick populations are particularly vulnerable to increases consumer cost-sharing; but the general population may not experience large deleterious health effects.
Despite the limitations associated with currently used cost-sharing strategies, reliance on out-of-pocket payments in allocating medical expenditures is necessary to establish a consumer-centric system and reduce the cost of care. Yet, commonly used instruments, such as deductibles, are very blunt, in that they take a "one size fits all" approach by imposing the same financial barriers to most high- and low-value clinical services.

Efforts are under way to develop more sophisticated cost-sharing strategies that can replace traditional approaches. An alternative benefit design that encourages the use of high-value care, while at the same time reduces wasteful spending is needed. Specifically, value-based insurance design (V-BID) calls for lower cost-sharing for high-value services and higher cost-sharing for low-value services. V-BID plans are designed with 'clinical nuance' in mind, recognizing that the clinical benefit of a specific service depends on who receives it, who provides it, and where and when in the course of disease the service is provided.

Thus, a clinically nuanced insurance structure that incentivizes care based on its value could offer the benefits of reducing wasteful spending while at the same time encouraging care that provides long-term value. In recent work funded by the National Pharmaceutical Council, a number of health care stakeholders expressed a desire for this type of nuanced cost sharing structure: "I think the system should be designed to align [patients] around wanting to have higher-value care." While higher deductibles offer similar incentives for patients to reduce all types of care, V-BID can help nudge patients towards decisions that are best for long-term

outcomes: “patient preferences are an important part of care, so that [patients] can feel that they’re really engaged in their care and can fully optimize their health, but if their preferences create a situation where it’s going to result in the delivery of low-value care, then they probably need to pay more to get that.”

Regardless of whether it is paid in premiums or at the point of service, it is clear from these results that consumers are increasingly bearing the burden of rising national health expenditures. As one participant indicated: “if you develop the greatest device or procedure known to mankind, but patients can’t access it or it’s an incredible burden on them to access it, then it doesn’t really matter”. To bend the long-run cost curve, solutions that align patient incentives with care that is in their best interest—while also discouraging wasteful spending—is the most important policy change needed in today’s insurance markets.

Note 1
The National Health Interview Survey defines a HDHP as one that has a deductible of at least $1,300 for single coverage or at least $2,600 for family coverage in 2016. This is adjusted annually for inflation and was $1,200/$2,400 for the 2010 data.

Note 2
The spike in 2014 should be interpreted with some caution as a result of a change in the CEX survey methodology regarding payments for insurance. According to the BLS: “The insurance questions were changed from 3-month recall questions to questions about the amount of last payment and payment period.” This increased the number of respondents indicating a payment for health insurance and is responsible for some of the spike seen in 2014. Regardless, the trend in the share of after-tax incomes going to premium payments was apparent in 2009 thru 2013 and we believe robust despite this change.

Note 3
Much of the increased coverage has been as a result of Medicaid Expansion, which provided coverage primarily to the previously uninsured. In this data, we would expect this to decrease out-of-pocket spending costs while having little impact on premium expenditures. For those who were previously insured and now purchase their insurance on the exchanges, we would expect their out-of-pocket expenditures to remain the same and insurance premiums to fall as a result of premium subsidies. About 90% of those in the individual marketplaces have enrolled in a HDHP, but since the ACA provisions may obscure the impacts of higher deductibles, we analyze the under-65, privately-insured population in MEPS to supplement the CEX findings.

Note 4
Work in this area is ongoing, and early results indicate that HDHPs reduce spending on both low-value care/wasteful spending as well as reducing the use of high-value, preventative services. See, for example: Haviland et al. (2015).

Exhibit 1

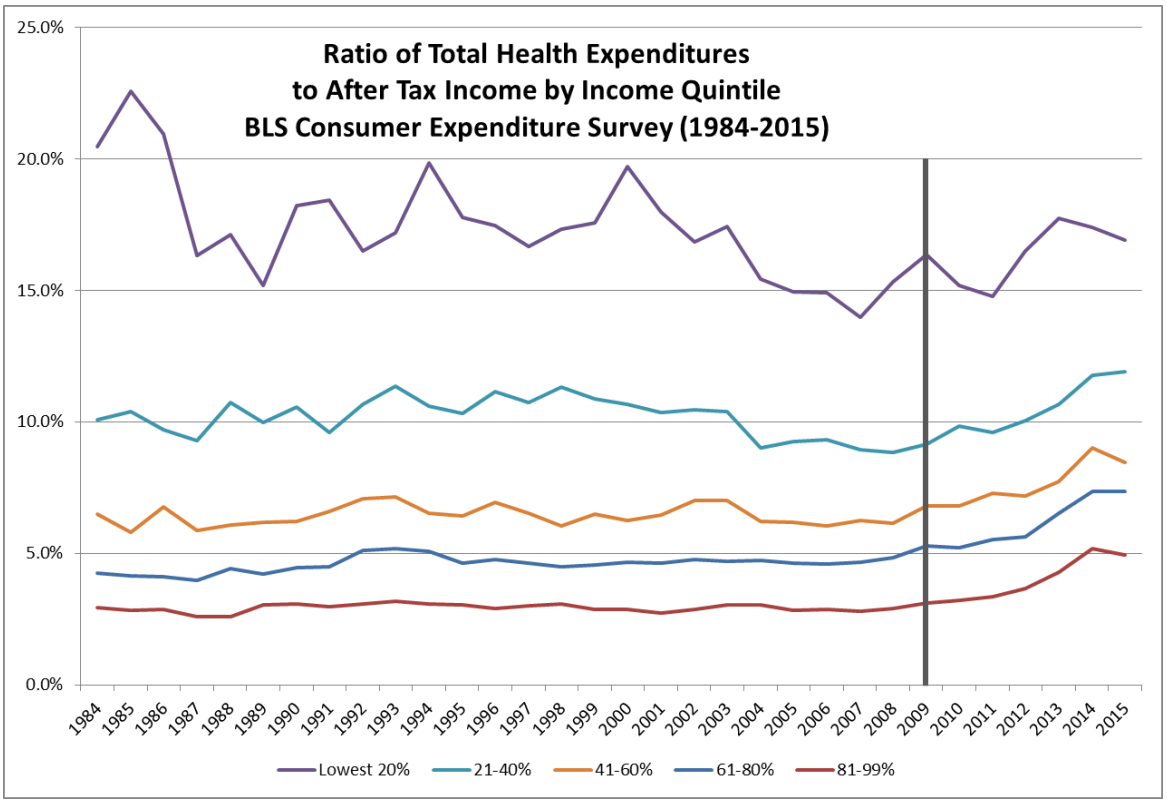


Exhibit 2

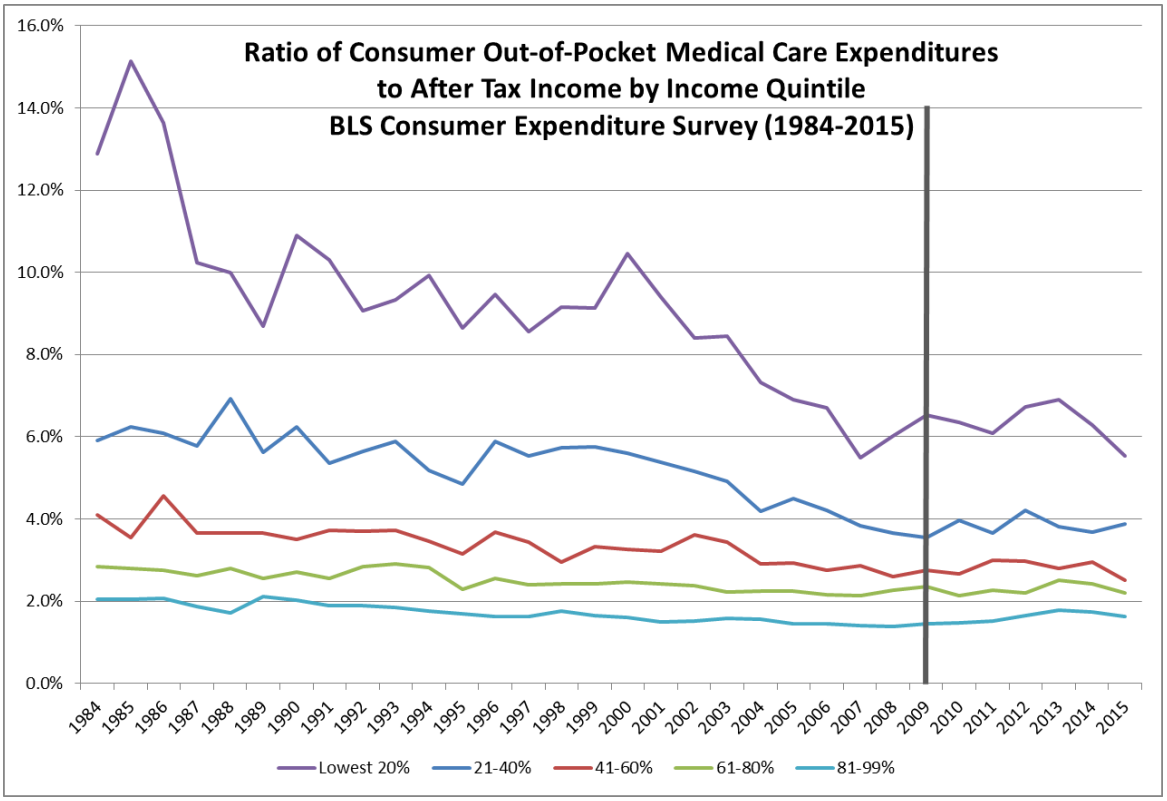
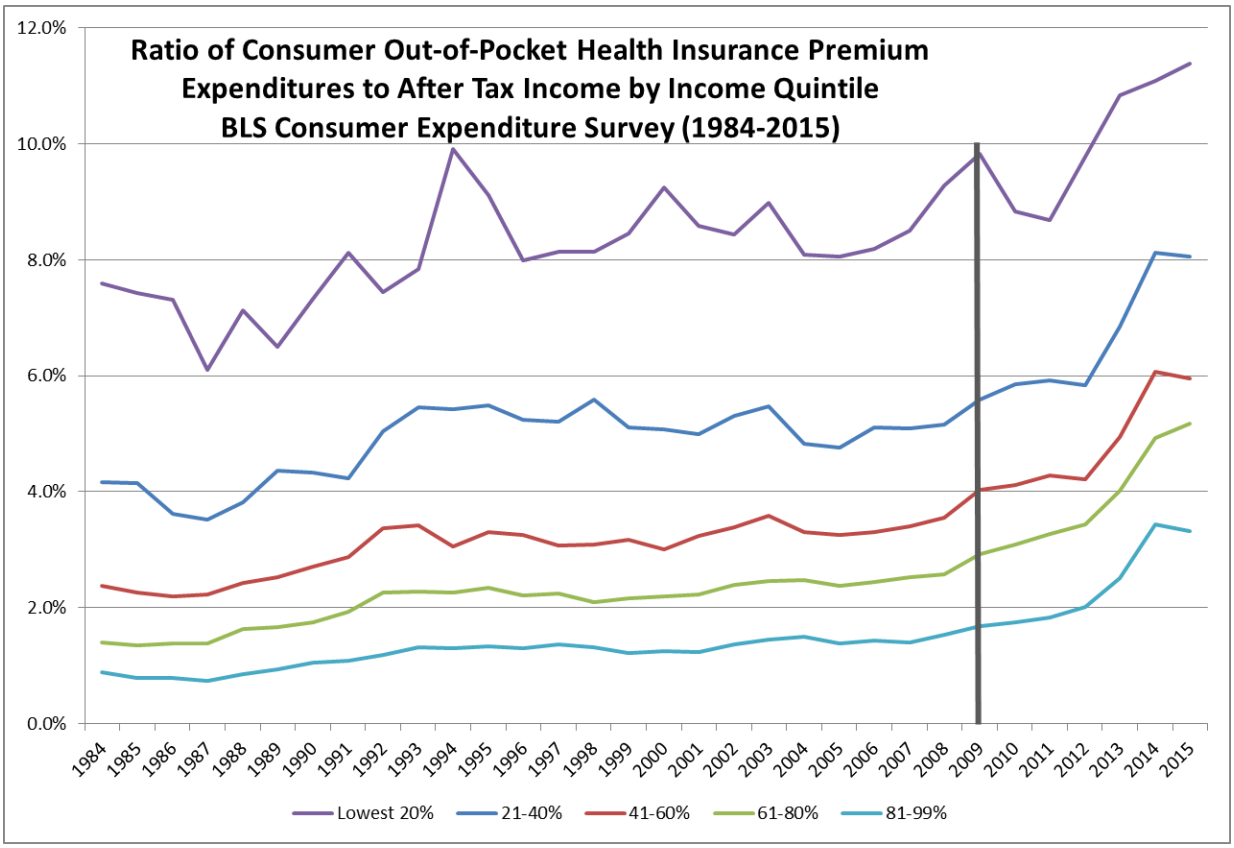


Exhibit 3


Ratio of Consumer Out-of-Pocket Health Insurance Premium Expenditures to After Tax Income by Income Quintile
BLS Consumer Expenditure Survey (1984-2015)
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
1984
1985
1986
1987
1988
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2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Lowest 20%
21-40%
41-60%
61-80%
81-99%