

## The Impact of Expanding Pre-Deductible Coverage in HSA-Eligible Health Plans on Use of Health Care Services

By Paul Fronstin, Ph.D., and Eden Volkov, Ph.D., Employee Benefit Research Institute

---

### AT A GLANCE

IRS Notice 2019-45 allows health savings account (HSA)-eligible health plans the flexibility to cover 14 medications and other health services used to prevent the exacerbation of chronic conditions prior to meeting the plan deductible. In this *Issue Brief*, we use claims data to quantify the effect of expanding pre-deductible coverage on use of health care services.

#### Key Findings:

- Overall, we found that between 2018 and 2021, the IRS notice increased the use of 3 of the 7 medical services by more in HSA-eligible plans compared with non-HSA-eligible plans. Use of low-density lipoprotein (LDL) testing, hemoglobin A1C (HbA1C) testing, and retinopathy screening increased by a larger percentage among enrollees in HSA-eligible plans compared with those health plans not targeted by this policy change, suggesting that the IRS contributed to increased use of these services.
- In addition, use of selective serotonin reuptake inhibitors (SSRIs), statins, and angiotensin-converting enzyme (ACE) inhibitors increased by a larger percentage among enrollees in HSA-eligible plans compared with those health plans not targeted by this policy change, suggesting that the IRS also contributed to increased use of these prescription drugs.

Use of health services may not have changed for all targeted services and prescription drugs because many employers substituted copayments and/or coinsurance for deductibles. Past EBRI research found that the percentage of employers that eliminated cost sharing for the preventive services identified in the IRS notice ranged from a low of 25 percent to a high of 40 percent depending on the service examined. In other words, 59 percent to 75 percent of employers substituted either copayments or coinsurance for the deductible, depending on the service or drug.

Employers would exclude additional preventive services if allowed by the IRS, according to past EBRI research. If employers' goal is to increase use of those services, they should consider their approach to cost sharing.

This study was conducted through the EBRI Center for Research on Health Benefits Innovation (EBRI CRHBI), with the funding support of the following organizations: Aon, Blue Cross Blue Shield Association, ICUBA, JP Morgan Chase, Pfizer, and PhRMA.

Paul Fronstin is Director of Health Benefits Research at the Employee Benefit Research Institute (EBRI). Eden Volkov is a Health Research Associate at EBRI. This Issue Brief was written with assistance from the Institute’s research and editorial staffs. Any views expressed in this report are those of the author and should not be ascribed to the officers, trustees, or other sponsors of EBRI, Employee Benefit Research Institute-Education and Research Fund (EBRI-ERF), or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

**Suggested Citation:** Fronstin, Paul, and Eden Volkov, “The Impact of Expanding Pre-Deductible Coverage in HSA-Eligible Health Plans on Use of Health Care Services,” *EBRI Issue Brief*, no. 588 (Employee Benefit Research Institute, August 17, 2023).

**Copyright Information:** This report is copyrighted by the Employee Benefit Research Institute (EBRI). You may copy, print, or download this report solely for personal and noncommercial use, provided that all hard copies retain any and all copyright and other applicable notices contained therein, and you may cite or quote small portions of the report provided that you do so verbatim and with proper citation. Any use beyond the scope of the foregoing requires EBRI’s prior express permission. For permissions, please contact EBRI at [permissions@ebri.org](mailto:permissions@ebri.org).

**Report Availability:** This report is available on the internet at [www.ebri.org](http://www.ebri.org)

## Table of Contents

Introduction .....	4
Background.....	6
Data and Study Sample.....	7
Methods .....	8
Results .....	8
Use of Medical Services .....	9
Use of Pharmacy Services.....	14
Discussion.....	17
Conclusion .....	19
References.....	20
Endnotes .....	22

## Figures

Figure 1, Percentage of Persons Enrolled in a High-Deductible Health Plan (HDHP), by Employer Contribution to HSA or HRA, Among Those With Private-Sector Health Coverage and Employee-Only Coverage, 2016–2022 .....	4
Figure 2, Chronic Disease Management Services in the Expanded Safe Harbor .....	5
Figure 3, Sample Sizes for Enrollees With Health Conditions .....	8
Figure 4, Percentage of Plan Enrollees Using Medical Service, by Type of Health Plan.....	10
Figure 5, Average Spending on Health Care Services per Enrollee With Diagnosis Pertaining to IRS Notice 2019-45, 2018 .....	10
Figure 6, Quantity of Medical Services Used, Among Enrollees Using Service, by Type of Health Plan.....	11
Figure 7, Percentage of Plan Enrollees Using Medical Service, Among Enrollees With Health Conditions, by Type of Health Plan .....	12

Figure 8, Quantity of Medical Services Used, Among Enrollees With Health Conditions Using Service, by Type of Health Plan..... 13

Figure 9, Percentage of Plan Enrollees With Prescription Drug Fill, by Type of Health Plan ..... 14

Figure 10, 30-Day Adjusted Prescription Drug Fills, Among Enrollees Using Service, by Type of Health Plan ..... 15

Figure 11, Percentage of Plan Enrollees With Prescription Drug Fill, Among Enrollees With Health Conditions, by Type of Health Plan ..... 16

Figure 12, 30-Day Adjusted Prescription Drug Fills, Among Enrollees With Health Conditions Using Service, by Type of Health Plan ..... 17

Appendix Figure 1, Statutory HSA Limits, 2004–2023 ..... 20

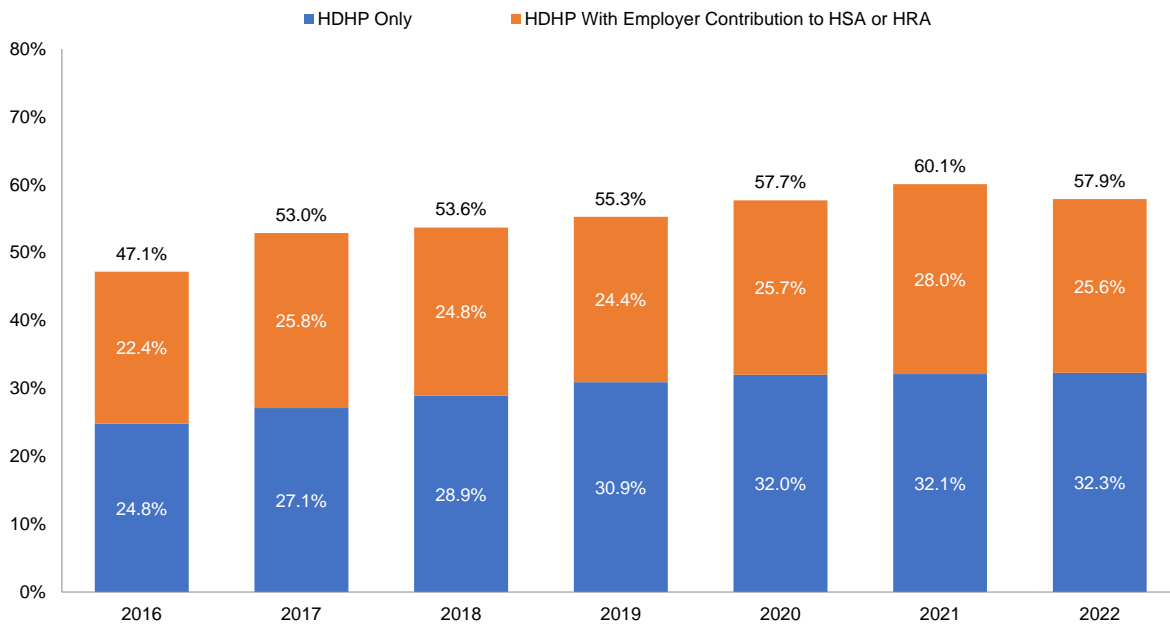
# The Impact of Expanding Pre-Deductible Coverage in HSA-Eligible Health Plans on Use of Health Care Services

By Paul Fronstin, Ph.D., and Eden Volkov, Ph.D., Employee Benefit Research Institute

## Introduction

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) included a provision that created what are commonly known as high-deductible health plans (HDHPs). At the time, these plans had to have a deductible of at least \$1,000 for individual coverage and \$2,000 for family coverage (see Appendix Figure 1). As will be discussed in more detail below, HDHPs may provide coverage of certain preventive services prior to the satisfaction of the health plan deductible. Enrollees in plans that meet these and other requirements are allowed to open and contribute to a health savings account (HSA) on a tax-preferred basis. Thus, these plans are also commonly known as HSA-eligible health plans. In 2023, these plans must have a deductible of at least \$1,500 for individual coverage and \$3,000 for family coverage. Enrollment in HSA-eligible health plans accounts for over one-half of those with private health coverage (Figure 1).<sup>1</sup>

Figure 1  
Percentage of Persons Enrolled in a High-Deductible Health Plan (HDHP), by Employer Contribution to HSA or HRA,\* Among Those With Private-Sector Health Coverage and Employee-Only Coverage, 2016–2022



\* HSA = health savings account, HRA = health reimbursement arrangement.  
Source: Medical Expenditure Panel Survey - Insurance Component (MEPS-IC).

Under the initial IRS guidance, until the deductible is met, coverage does not include "any service or benefit intended to treat an existing illness, injury, or condition, including drugs or medications" (Internal Revenue Service 2004). This narrow definition of the "safe harbor" has likely caused some plan members to go without needed care, as it is well established that increases in cost sharing for health care have been associated with deleterious consequences. Thus, the U.S. Department of Treasury issued guidance 15 years later in 2019 via IRS Notice 2019-45 to further increase the flexibility of HSA-eligible health plans to cover specific low-cost preventive services on a pre-deductible basis to prevent the exacerbation of chronic conditions (Figure 2).<sup>2</sup>

**Figure 2  
Chronic Disease Management Services in the Expanded Safe Harbor**

Preventive Care Service	For Individuals Diagnosed With
Angiotensin-converting enzyme (ACE) inhibitors	Congestive heart failure, diabetes, and/or coronary artery disease
Antiresorptive therapy	Osteoporosis and/or osteopenia
Beta blockers	Congestive heart failure and/or coronary artery disease
Blood pressure monitor	Hypertension
Inhaled corticosteroids	Asthma
Insulin and other glucose-lowering agents	Diabetes
Retinopathy screening	Diabetes
Peak flow meter	Asthma
Glucometer	Diabetes
Hemoglobin A1c testing	Diabetes
International normalized ratio (INR) testing	Liver disease and/or bleeding disorders
Low-density lipoprotein (LDL) testing	Heart disease
Selective serotonin reuptake inhibitors (SSRIs)	Depression
Statins	Heart disease and/or diabetes

Source: <https://vbidcenter.org/initiatives/hsa-high-deductible-health-plans-2/>

Much work has been done to examine the impact of the IRS notice on the response of employers and health plans, as well as the impact on premiums. A 2021 EBRI survey found that 76 percent of employers with 200 or more employees increased the number of drugs and services covered pre-deductible in HSA-eligible health plans as a result of IRS Notice 2019-45 (Fronstin and Fendrick 2021). Pre-deductible coverage was often added for health care services related to heart disease and diabetes care. Two-thirds added pre-deductible coverage for blood pressure monitors and insulin/glucose-lowering agents, 61 percent added coverage for glucometers, and 54 percent added coverage for beta blockers. Health care services least likely to have pre-deductible coverage were peak flow meters and INR testing (25 percent each). Most employers did not eliminate cost sharing for the pre-deductible services that were added. The percentage eliminating cost sharing ranged from 25 percent to 40 percent, depending on the service. The 2021 EBRI survey also found that most employers would add pre-deductible coverage for additional health care services if allowed by law (Fronstin and Fendrick 2021). A 2021 AHIP survey of health plans also found that three-quarters of health plans expanded pre-deductible coverage as a result of the IRS notice.<sup>3</sup>

When it comes to the impact of expanding pre-deductible coverage on premiums, three studies have been conducted. The 2021 AHIP survey of insurers mentioned above noted that most reported either no premium increase or premium increases of less than 1 percent. Although estimates are reported, a great deal of uncertainty regarding the effect of Notice 2019-45 on premiums remains. In the AHIP survey, 15 percent of fully insured plans and 29 percent of self-insured plans noted that it was too early to know what impact the notice had on premiums. Another 7 percent of fully insured plans and 17 percent of self-insured plans reported “other” when asked about the impact of the notice on premiums. No context was given for the “other” responses, but we can conclude that 22 percent of fully insured plans and 46 percent of self-insured plans still did not know what impact the notice had on premiums.

EBRI research using claims data and assumptions about behavioral responses confirmed the findings from the AHIP survey (Fronstin, Roebuck, and Fendrick 2022). In general, the impact on premiums of expanding pre-deductible coverage as allowed in IRS Notice 2019-45 was small. Estimated premium increases ranged from virtually zero to 1.5 percent. There was no premium increase in the conservative scenario where deductibles were replaced by coinsurance, use of health care services were assumed not to increase due to lower cost sharing, and enrollees’ related diagnoses were required. We found a 0.87 percent increase in premiums when use of health care services was assumed to increase because of the lower cost sharing and employers did not impose any cost sharing. If all 14 services were excluded from pre-deductible coverage with no cost sharing, use of health care services increased, and the services were covered whether or not an enrollee had a related diagnosed condition, premiums increased by 1.5 percent.

Other research has examined how expanding pre-deductible coverage to medications to manage chronic conditions has been conducted as well. One such study was conducted before IRS Notice 2019-45 was released and examined 57 drug classes used to treat 11 chronic conditions (VBID Health n.d.). It found that covering all these drug classes pre-deductible with a combination of copayments and coinsurance would increase premiums by 1.7 percent. More recently, an EBRI study used claims data to estimate the effect of expanding pre-deductible coverage beyond IRS Notice 2019-45 to 116 classes of medications. The impact on premiums of expanding pre-deductible coverage to 116 drug classes related to chronic disease management medications in HSA-eligible health plans would be relatively small, ranging from 1.3 to 4.7 percent.

We recently started to examine the impact of the IRS Notice on plan enrollees. Fronstin and Volkov (2023) examined the impact of the notice on enrollment from HSA-eligible health plans and found that we are not seeing more enrollees in HSA-eligible health plans with conditions such as heart disease, hypertension, depression, diabetes, and asthma than in the past. We also examined the impact of the notice on enrollee cost sharing, with the key question being whether we are seeing fewer enrollees in HSA-eligible health plans with deductibles for services such as insulin and inhaled corticosteroids, and found that cost sharing shifted from deductibles to copayments and coinsurance among enrollees in HSA-eligible health plans for a number of services impacted by IRS Notice 2019-45. The same shift was not observed for enrollees in other types of health plans. Yet, the IRS Notice appears to have had a negligible impact on overall cost sharing as a percentage of total spending on a number of services impacted by the notice. This may be because employers were more likely to shift cost sharing from deductibles to copayments and coinsurance instead of eliminating it.

In this *Issue Brief*, we examine the impact of IRS Notice 2019-45 on use of health care services among enrollees in HSA-eligible health plans. More specifically, we examine whether the notice affected use of insulin and other glucose-lowering agents, selective serotonin reuptake inhibitors (SSRIs), statins, beta blockers, antiresorptive therapy, inhaled corticosteroids, angiotensin-converting enzyme (ACE) inhibitors, blood pressure monitors, peak flow meters, hemoglobin A1c (HbA1C) testing, international normalized ratio (INR) testing, low-density lipoprotein (LDL) testing, glucometers, and retinopathy screening.

## Background

Until IRS Notice 2019-45 was released on July 17, 2019, when it came to providing pre-deductible coverage of health care services in HSA-eligible health plans, employers were guided by the Internal Revenue Service (IRS) safe harbor section 223(c)(2)(C) of the Internal Revenue Code (IRC). Employers could only provide coverage of the following services prior to the satisfaction of the plan deductible:

- Preventive services recommended by the U.S. Preventive Services Task Force (USPSTF), the Advisory Committee on Immunization Practices (ACIP), the Health Resources and Services Administration's (HRSA's) Bright Future Project, and HRSA and the Institute of Medicine (IOM) committee on women's clinical preventive services (required by Section 2713 of the Patient Protection and Affordable Care Act of 2010 (ACA) and IRS Notice 2013-57) (Kaiser Family Foundation 2015; Internal Revenue Service 2013).
- Periodic health evaluations such as annual physicals and select preventive screenings not listed above (optional, per Internal Revenue Service (2004)).
- Obesity weight-loss programs and tobacco cessation programs (optional, per Internal Revenue Service (2004)).
- Drugs taken by asymptomatic individuals to prevent the manifestation of disease (optional, per Internal Revenue Service (2004)).

Increases in consumer out-of-pocket costs for health care have been associated with deleterious consequences. These include financial stress, worse disease control, increases in hospitalizations, and exacerbation of health disparities, particularly for those with chronic medical conditions and lower household incomes.<sup>4</sup> Peer-reviewed literature has demonstrated that selectively lowering cost sharing for high-value chronic disease management medications can

meaningfully improve adherence, reduce the risk of adverse health outcomes, and, in some cases, reduce expenditures (Lee et al. 2013).

With IRS Notice 2019-45 in place, HSA-eligible health plans are now able to adopt a more flexible benefit design, offering more protection for certain medical services through a value-based insurance design (V-BID) plan structure. As the market for HSA-eligible health plans grows, it is important that these plans use this flexibility to allow for effective health management for all beneficiaries. A targeted strategy exploring coverage for certain high-value, clinically indicated health services prior to meeting the deductible will produce more effective, clinically nuanced designs without fundamentally altering the original intent and spirit of these plans. Adoption of voluntary, clinically nuanced expanded HSA-eligible health plan benefit designs has the potential to mitigate cost-related non-adherence, enhance patient-centered outcomes, allow for lower premiums than most PPOs and HMOs, and substantially reduce aggregate health care expenditures.

According to Notice 2019-45, the list of preventive services that can be covered pre-deductible will be reviewed on a periodic basis. In fact, the guidance specifically states that the periodic review is expected to occur approximately every five to 10 years. For patients and employers alike, 10 years may be a long time to wait for such coverage decisions, given the pace of research on plan design and medical innovation. There are already examples of services that may meet the criteria for pre-deductible coverage that were omitted from Notice 2019-45. For example, the notice identifies ACE inhibitors to prevent exacerbations for individuals diagnosed with congestive heart failure (CHF), diabetes, and/or coronary artery disease. Patients who either do not respond to or who have an adverse reaction to ACE inhibitors are usually switched to angiotensin receptor blockers (ARBs) to prevent the same exacerbations. However, ARBs are not included in the list of 14 services in Notice 2019-45, and thus they cannot be covered pre-deductible in HSA-eligible health plans. Similarly, serotonin-norepinephrine reuptake inhibitors (SNRIs) may be an effective treatment for patients with depression who do not respond to SSRIs.

Furthermore, there is already an appetite for adding more services, as evidenced by The Chronic Disease Management Act, which was reintroduced in the U.S. Congress as recently as March 2023. This bipartisan, bicameral legislation would give HSA-eligible health plans additional flexibility to provide pre-deductible coverage for services that prevent the exacerbation of chronic conditions.

## **Data and Study Sample**

For the present study, we utilized the 2018 and 2021 Marketscan® Commercial Database. Data from 2018 were used because it represents the last full year preceding IRS Notice 2019-45. Data from 2018 were compared with 2021 for several reasons. For one, 2021 was the first year in which we observed a larger percentage of employers adopting some form of pre-deductible coverage. Furthermore, a crucial component of this analysis is using diagnoses codes to identify enrollees with conditions affected by the IRS notice, namely diabetes, depression, heart disease, asthma, liver disease, bleeding disorders, and osteoporosis/osteopenia. Individuals were less likely to seek out treatment in inpatient and outpatient settings due to the COVID-19 pandemic, the exact settings that issue the diagnoses codes needed by this analysis to identify affected enrollees. Thus, we use 2021 to measure the impacts of the 2019 IRS policy change. Using diagnosis codes from the inpatient and outpatient service files, we defined health condition indicators. We also used procedure and medication codes from the inpatient, outpatient, and prescription drug files to identify the medications and services utilized by enrollees throughout the plan year.

Member health insurance eligibility information, as well as medical (inpatient and outpatient) and pharmacy claims, comprised the database. Our sample in both years include policyholders, spouses, and dependents, all under age 65, who were enrollees in their health plan for the full year. We also require that an individual's claim data have full information on prescription drug and mental health services spending. In 2018, our sample included 2.1 million enrollees in HSA-eligible health plans and 11.3 million enrollees in other health plans. In 2021, our sample included 1.7 million enrollees in HSA-eligible health plans and 6.8 million enrollees in other health plans. Sample sizes for enrollees with various health conditions are shown in Figure 3.

**Figure 3**  
**Sample Sizes for Enrollees With Health Conditions**

Health Condition	Sample Size in 2018	Sample Size in 2021
Heart disease	1,630,186	1,034,939
Depression	525,126	374,525
Diabetes	728,239	478,128
Asthma	392,657	208,874
Liver disease	195,195	139,754
Bleeding disorder	44,725	262,398
Osteoporosis/osteopenia	4,254	1,166

Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

## Methods

To capture the impact of IRS Notice 2019-45, we examined overall use and also compared use of health care services among enrollees with health conditions impacted by the notice in HSA-eligible health plans and other health plans between 2018 and 2021. Specifically, we focused on enrollees with diabetes, depression, heart disease, hypertension, asthma, liver disease, bleeding disorders, and osteoporosis/osteopenia, because IRS Notice 2019-45 gave employers the option to expand coverage of prescription drugs and services used by these enrollees outside of their plan deductible.

In our analysis, we studied the change in the use of health care services for the entire population and among those with these affected health conditions from 2018 to 2021 to evaluate whether the IRS notice led to a change in health care use. We compared use of health care services among enrollees in HSA-eligible health plans vs. other health plans between 2018 and 2021. We also evaluated changes in health care use among enrollees with the relevant health conditions to see if the IRS notice had impacted use of health care differently by type of health plan. We specifically focused on changes in use of health care for all 14 classes of medication and services specified as the prescription drugs and services that could now be covered pre-deductible by the IRS notice. The medications are insulin and other glucose-lowering agents, SSRIs, statins, beta blockers, antiresorptive therapy, inhaled corticosteroids, and ACE inhibitors. The medical services are blood pressure monitors, peak flow meters, HbA1C testing, INR testing, LDL testing, glucometers, and retinopathy screening.

We evaluated changes over time among enrollees without the relevant conditions in HSA-eligible health plans, but we also used the comparison group of the unaffected enrollees (those in other health plans) to show how use of health care services would have likely trended in the absence of the IRS intervention.

## Results

In this section, we present the findings on the impact of expanding pre-deductible coverage in HSA-eligible health plans on use of health care services. Specifically, we look at the impact on use of the following medical and pharmacy services:

### *Medical services:*

- Blood pressure monitors.
- Peak flow meters.
- HbA1C testing.
- INR testing.
- LDL testing.
- Glucometers.
- Retinopathy screening.



### *Pharmacy services:*

- Insulin and other glucose-lowering agents.
- SSRIs.
- Statins.
- Beta blockers.
- Antiresorptive therapy.
- Inhaled corticosteroids.
- ACE inhibitors.

### **Use of Medical Services**

IRS Notice 2019-45 allowed employers and health plans to expand pre-deductible coverage to services related to the treatment of heart disease, hypertension, depression, diabetes, asthma, osteoporosis/osteopenia, liver disease, and bleeding disorders. As a result, we would expect to see an increase in the percentage of plan members using health care services related to these conditions. For example, diabetics in HSA-eligible health plans might increase their use of insulin and retinopathy screenings once they were no longer subject to the plan's deductible. Similarly, enrollees with heart disease might increase their use of LDL testing and statins.

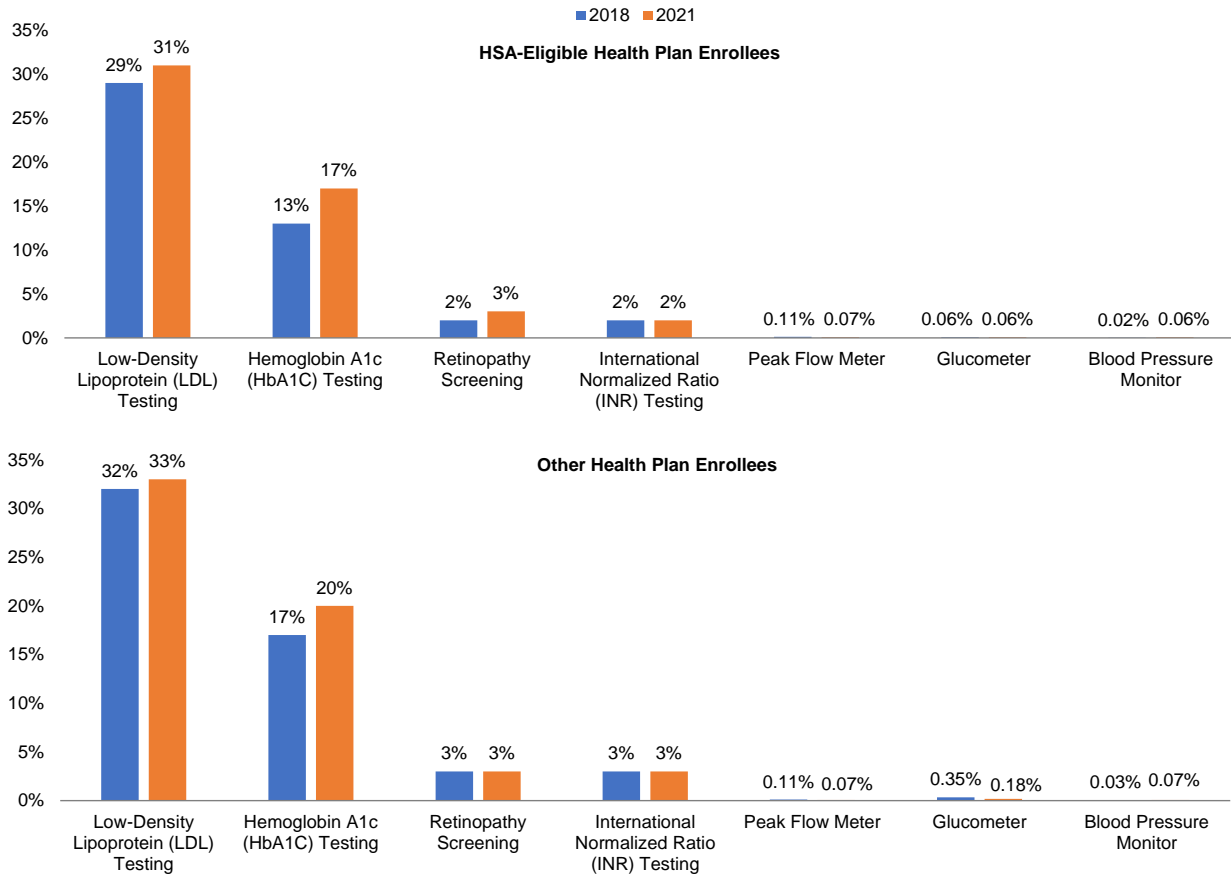
We examined all 14 services in the IRS notice to see if and how use of health care services was affected by the notice. Overall, we found increases in use of 3 of the 7 medical services among HSA-eligible health plan enrollees that exceeded the percentage increase in the use of these services among enrollees without HSA-eligible plans. Among enrollees in HSA-eligible plans, use of LDL testing increased from 29 percent to 31 percent of the sample (Figure 4). Use of HbA1C testing increased from 13 percent to 17 percent of the sample, and use of retinopathy screening increased from 2 percent to 3 percent of the sample. We did not see an increase in use of INR testing or glucometers. Use of peak flow meters fell, and use of blood pressure monitors increased, but in both cases, very few enrollees filed claims for those services. This may be due to the fact that the cost of those services is relatively low, and they are available over the counter. When examining claims data for these services, the average spending per enrollee with a relevant diagnosis was \$71 for blood pressure monitors and \$38 for peak flow meters in 2019 (Figure 5). However, these services can often be found over the counter for as little as \$20.

We conclude that the IRS notice increased use of LDL testing, HbA1c testing, and retinopathy screening among HSA-eligible health plan enrollees, as we observed larger percentage increases in use among HSA plan enrollees as compared with other health plan enrollees.

While use of select services increased, the number of services employed among users did not change between 2018 and 2021 among HSA-eligible health plan and other health plan enrollees. On average, use was very low among enrollees using the services (Figure 6). This is not a surprise, as these services are typically not used more than once or twice per year when they are used.

Among enrollees with the relevant health conditions, we find the same pattern with respect to the percentage of enrollees using medical services and the quantity of services used. The main difference between the findings for all enrollees and those with health conditions is that the smaller sample with health conditions is more likely to use health care services (Figure 7), and the quantity used is slightly higher (Figure 8).

**Figure 4**  
**Percentage of Plan Enrollees Using Medical Service, by Type of Health Plan**



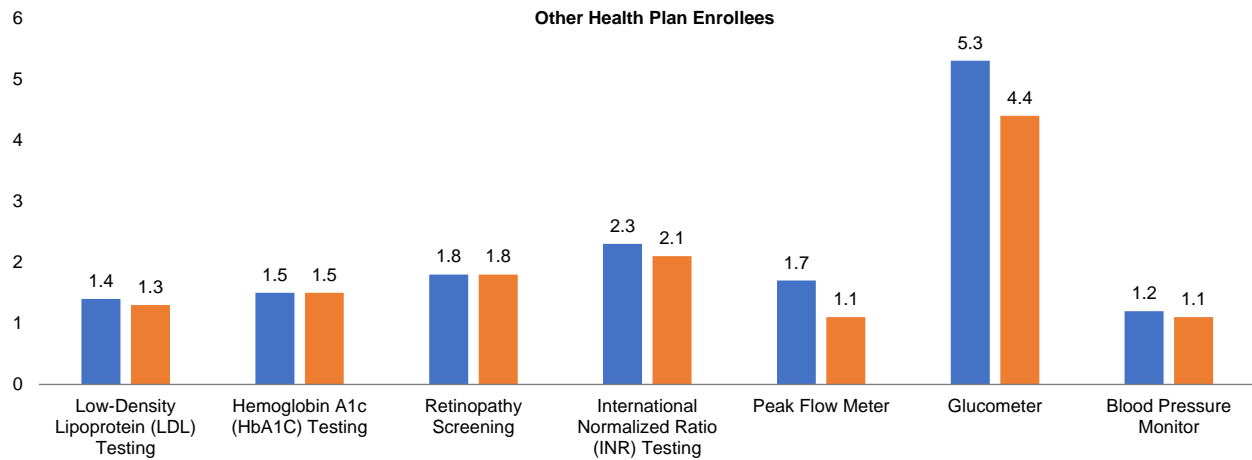
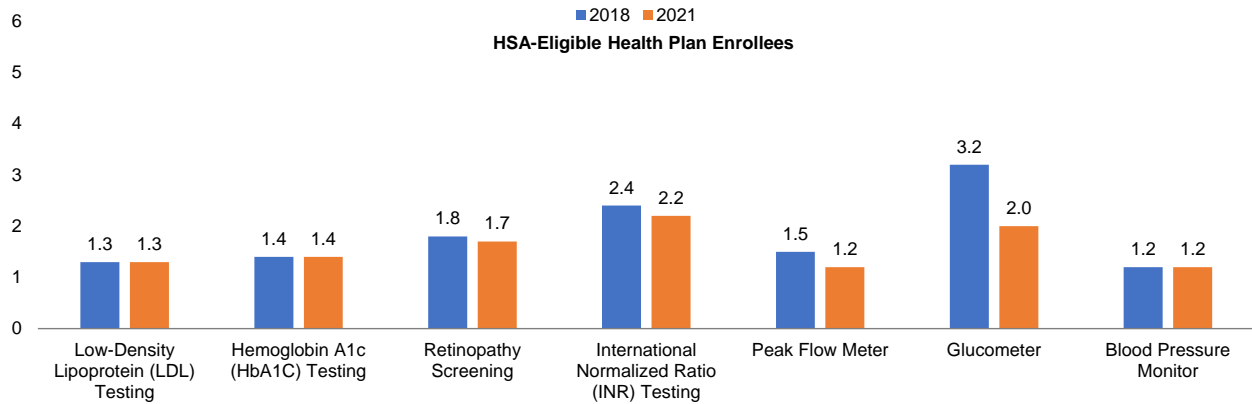
Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

**Figure 5**  
**Average Spending on Health Care Services per Enrollee**  
**With Diagnosis Pertaining to IRS Notice 2019-45, 2018**

Medications		Medical Services	
Antiresorptive therapy	\$634	Blood pressure monitor	\$71
Angiotensin-converting enzyme (ACE) inhibitors	\$37	Peak flow meter	\$38
Beta blockers	\$126	Glucometer	\$310
Inhaled corticosteroids	\$960	Retinopathy screening	\$262
Insulin and other glucose-lowering agents	\$3,627	Hemoglobin A1c (HbA1C) testing	\$38
Selective serotonin reuptake inhibitors (SSRIs)	\$104	International normalized ratio (INR) testing	\$82
Statins	\$126	Low-density lipoprotein (LDL) testing	\$34

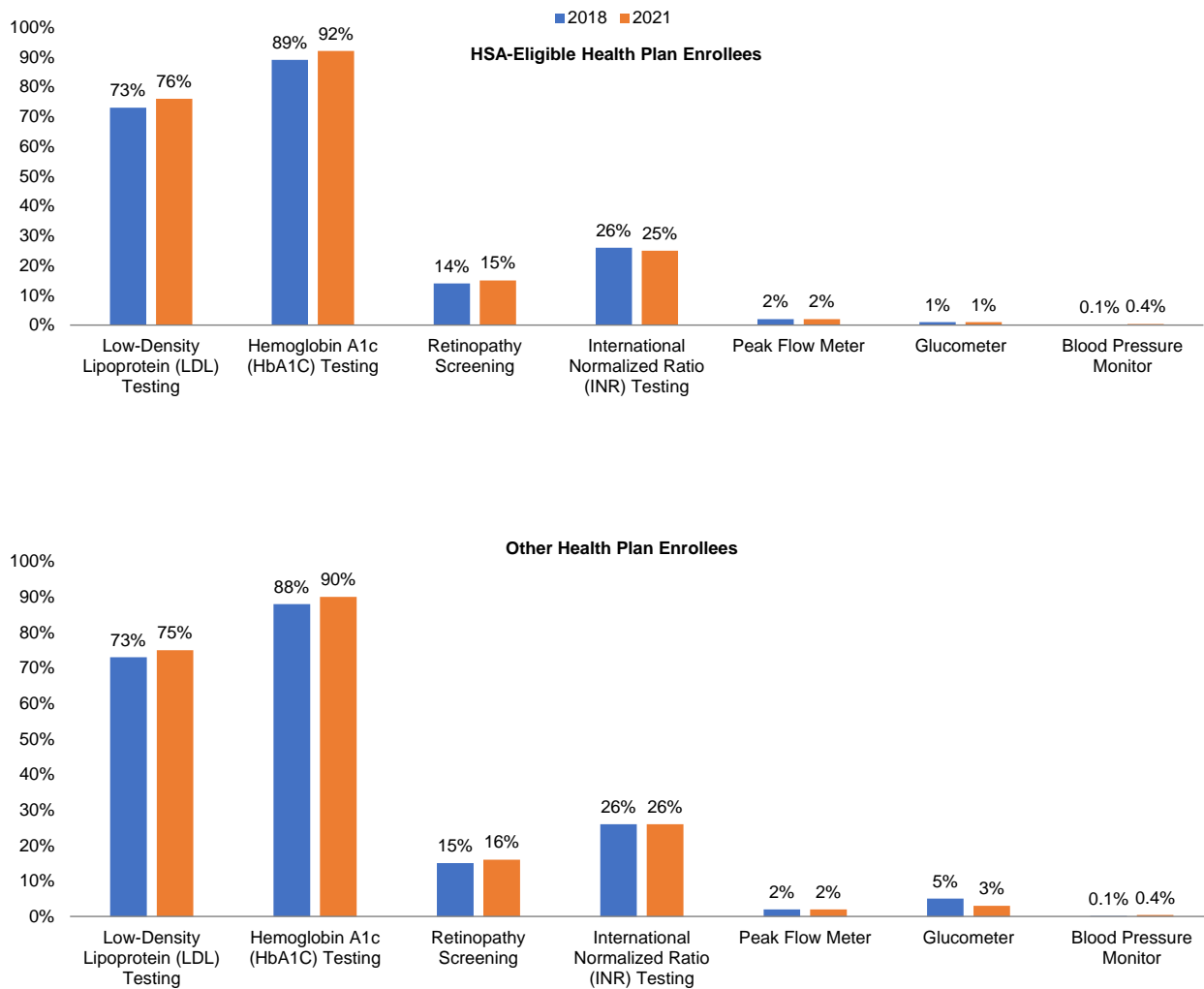
Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

Figure 6  
**Quantity of Medical Services Used, Among Enrollees Using Service, by Type of Health Plan**



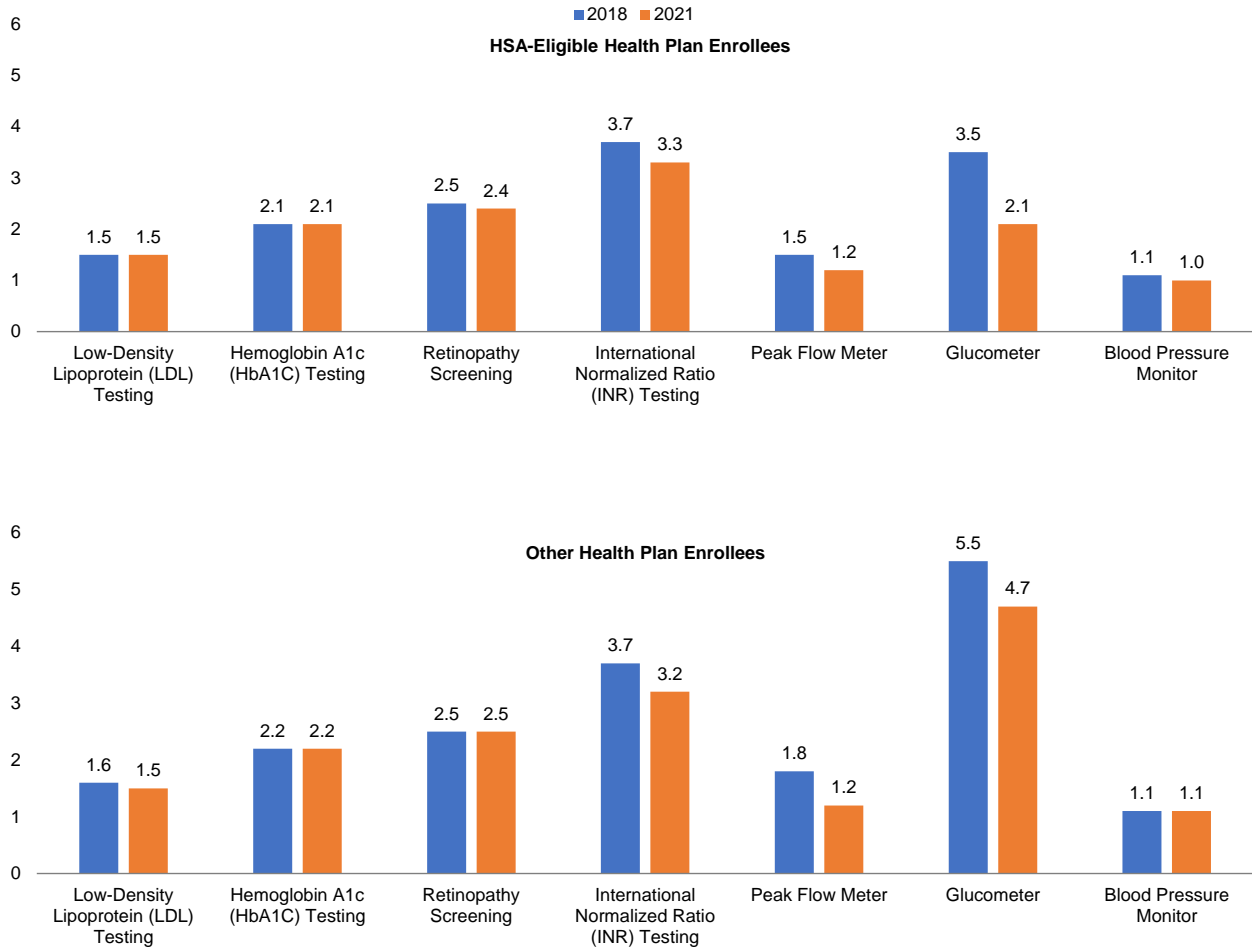
Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

Figure 7  
**Percentage of Plan Enrollees Using Medical Service, Among Enrollees With Health Conditions, by Type of Health Plan**



Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

Figure 8  
**Quantity of Medical Services Used, Among Enrollees With Health Conditions Using Service, by Type of Health Plan**

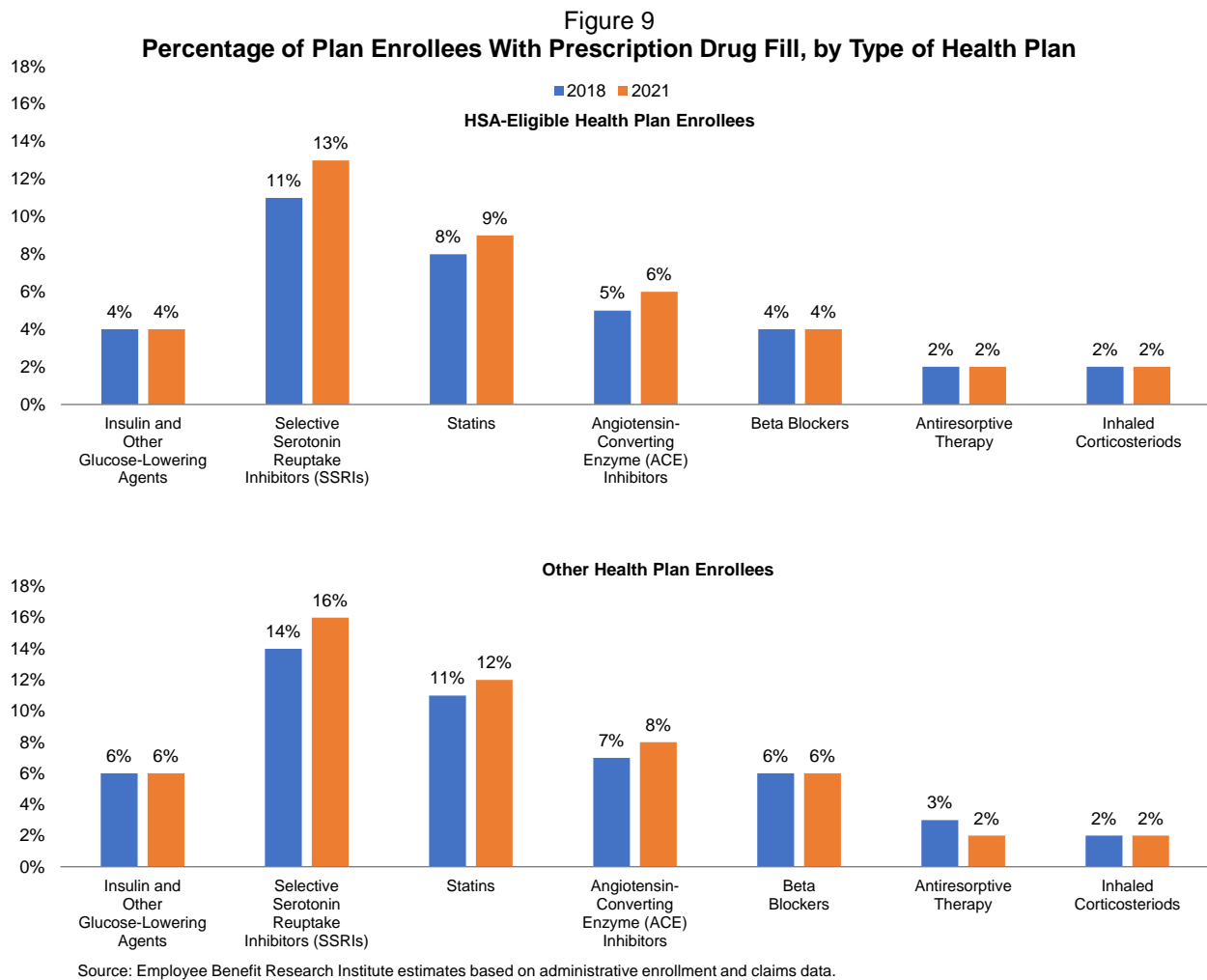


Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

## Use of Pharmacy Services

Like the findings on medical services, we found increases in use of prescription drugs among HSA-eligible health plan enrollees between 2018 and 2021. Use of SSRIs increased from 11 percent to 13 percent of the sample (Figure 9). Use of statins increased from 8 percent to 9 percent of the sample. And use of ACE inhibitors increased from 5 percent to 6 percent of the sample. We did not see increases in use of insulin and other glucose-lowering agents, beta blockers, antiresorptive therapy, or inhaled corticosteroids.

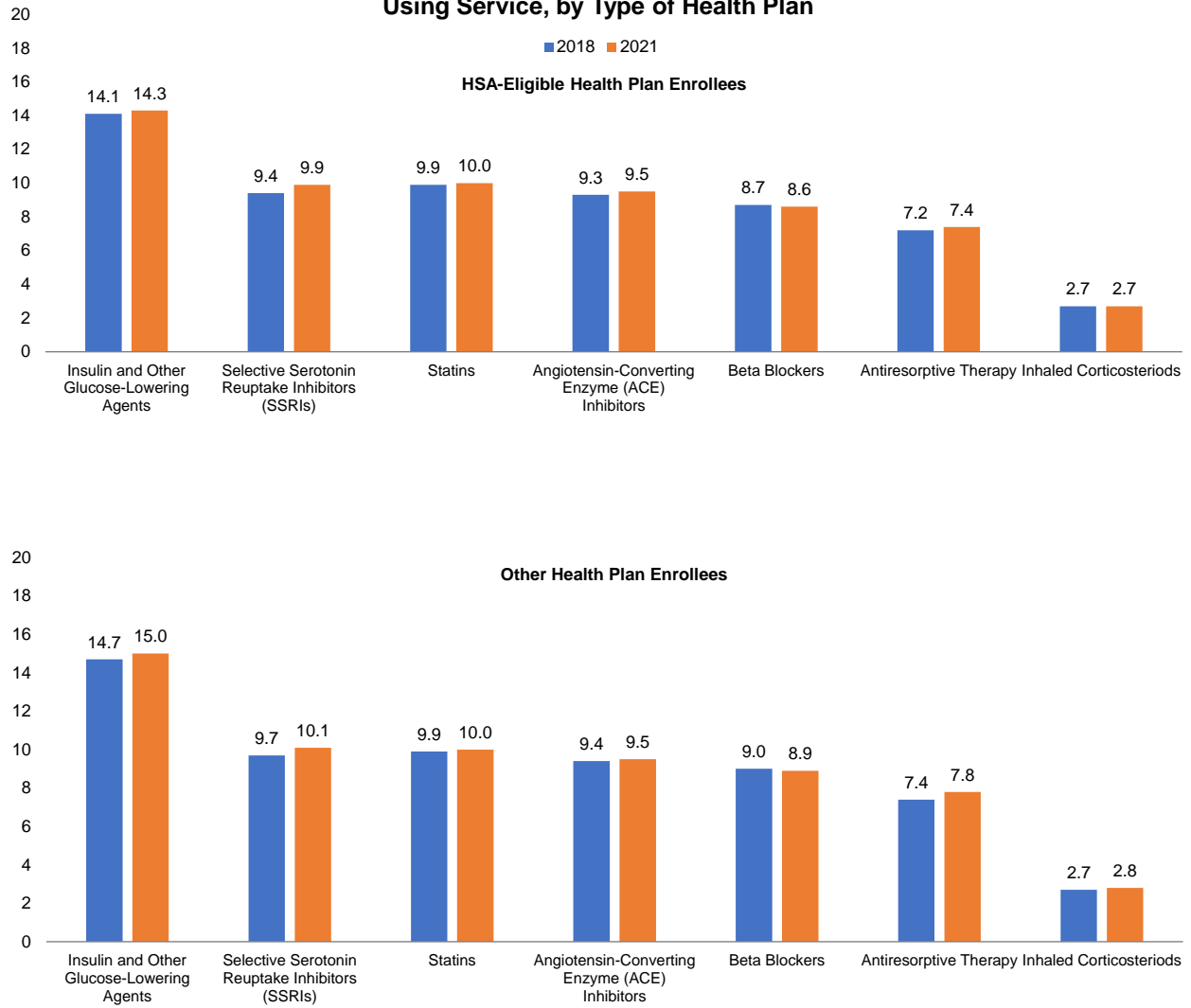
Similarly, we conclude that the IRS notice increased the use of SSRIs, statins, and ACE inhibitors because we observed larger percentage increases among HSA plan enrollees than among other health plan enrollees.



Among enrollees filling prescriptions, the number of drug fills increased slightly for insulin and other glucose-lowering agents, SSRIs, statins, ACE inhibitors, and antiresorptive therapy among both HSA-eligible health plan enrollees and other health plan enrollees (Figure 10).

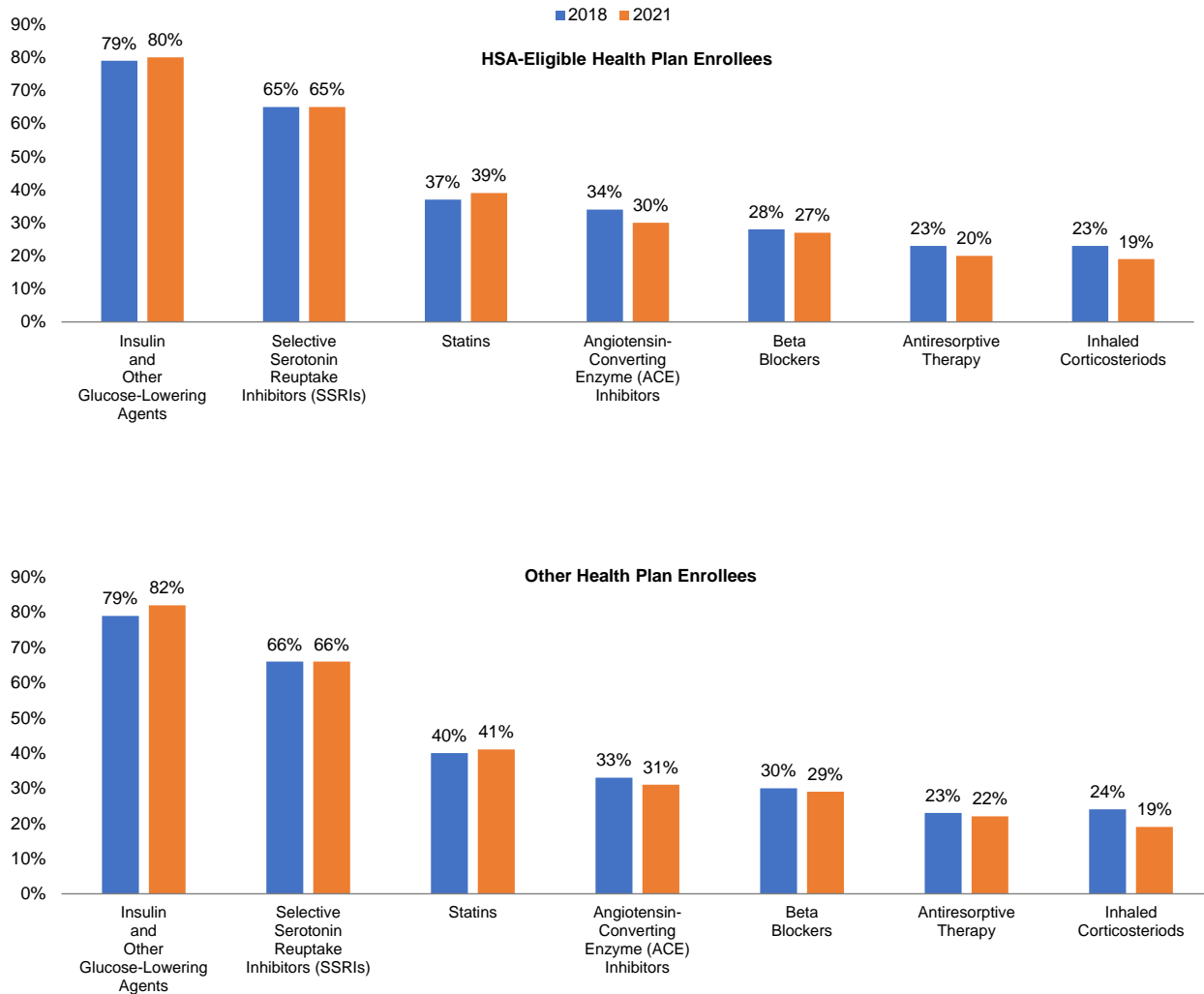
Among enrollees with the relevant health conditions, we find the same pattern with respect to the percentage of enrollees filling prescriptions and the number of prescriptions filled. The main difference between the findings for all enrollees and the findings for those with health conditions is that the smaller sample with health conditions is more likely to use health care services (Figure 11), and the quantity used is slightly higher (Figure 12).

Figure 10  
**30-Day Adjusted Prescription Drug Fills, Among Enrollees  
 Using Service, by Type of Health Plan**



Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

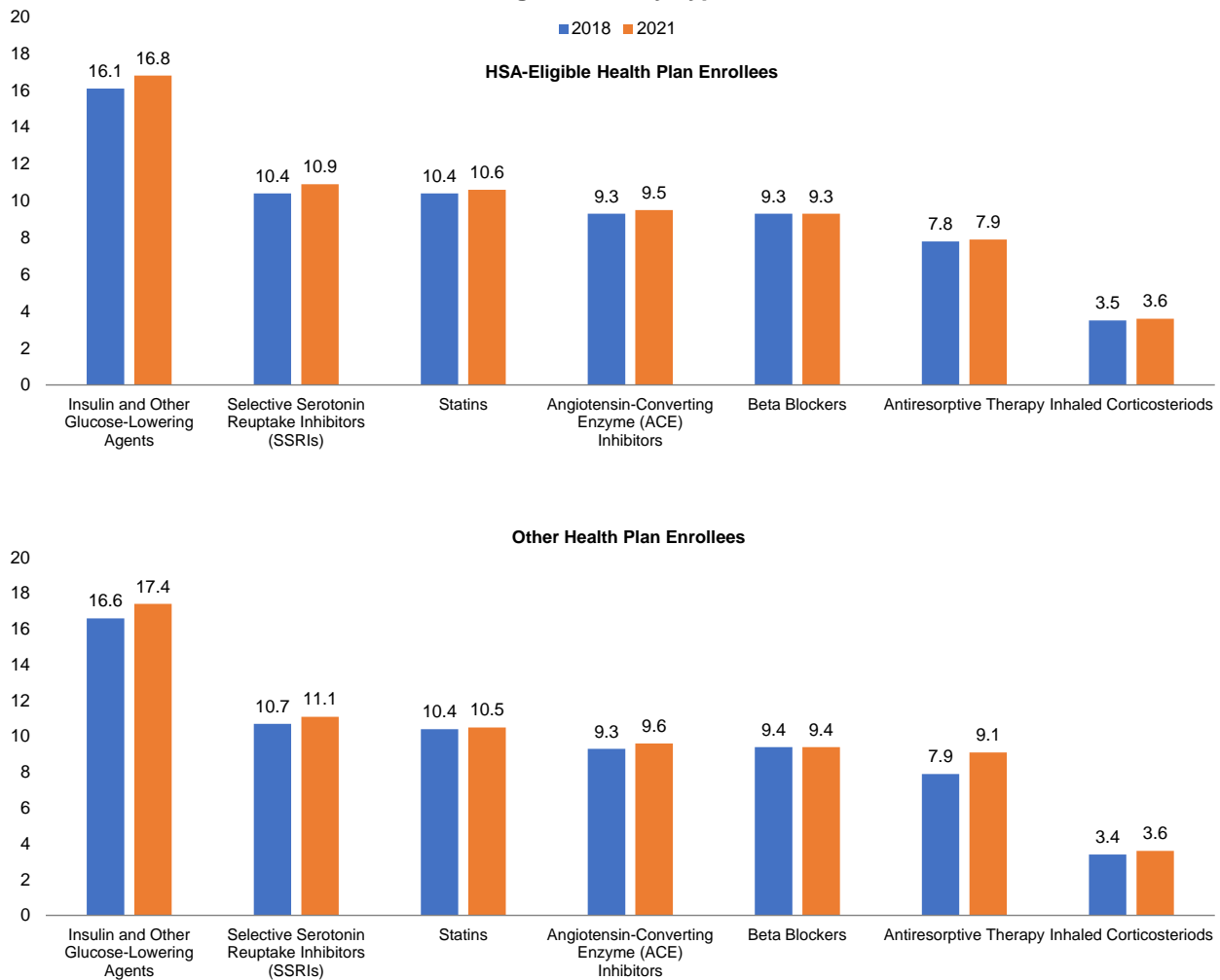
Figure 11  
**Percentage of Plan Enrollees With Prescription Drug Fill, Among Enrollees With Health Conditions, by Type of Health Plan**



Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.



Figure 12  
**30-Day Adjusted Prescription Drug Fills, Among Enrollees With Health Conditions Using Service, by Type of Health Plan**



Source: Employee Benefit Research Institute estimates based on administrative enrollment and claims data.

## Discussion

The fact that we do not see a change in use of all targeted services and prescription drugs as a result of the IRS notice is not surprising. This may be due to the reduction in use of health care services due to the COVID-19 pandemic. It may also be due to other factors. For instance, 2021 was the first year that many employers expanded pre-deductible coverage. It may take time for enrollees with the above health care conditions to learn that their health plan has changed coverage for certain preventive services. They may not be aware of the change in plan design, despite employers' best efforts to inform enrollees of a plan design change that is considered an improvement in benefits. In fact, EBRI research indicates that 63 percent of enrollees with an HSA-eligible health plan spend less than 30 minutes choosing a health plan.<sup>5</sup> Furthermore, the employers themselves may or may not have done a good job educating their employees about the change.

Finally, use of some health services may not have changed because many employers substituted copayments and/or coinsurance for deductibles. Fronstin and Fendrick (2021) found that the percentage of employers that eliminated cost sharing for the preventive services identified in the IRS notice ranged from a low of 25 percent to a high of 40 percent depending on the service examined. In other words, between nearly one-half and two-thirds substituted a copayment from employees, depending on the health care service. Another 4 percent to 19 percent substituted coinsurance for the

deductible. Overall, 59 percent to 75 percent of employers substituted either copayments or coinsurance for the deductible, depending on the service.

The fact that employers moved toward covering services on a pre-deductible basis once they were allowed to comes at a critical period of time. When the ACA passed in 2010, it included provisions requiring that employers and health plans cover certain preventive services in full. These include services such as screenings for cancer and other health conditions, vaccinations, and birth control. Plan sponsors have been prohibited from imposing any form of cost sharing (i.e., deductible, copayments, or coinsurance) on participants receiving these services.

On September 7, 2022, Judge Reed O'Connor of the U.S. District Court for the Northern District of Texas found a key part of the preventive service provision unconstitutional. Specifically, the decision in *Braidwood Management Inc. v. Becerra* refers to the part of the ACA that requires coverage of preventive services without cost sharing to which the U.S. Preventive Services Task Force (USPSTF) — a group the Agency for Healthcare Research and Quality has been authorized by the U.S. Congress to convene since 1998 — assigns a rating of “A” or “B”.

If this court decision is upheld, employers and health plans could impose some form of cost sharing for these preventive services. Yet, employers may continue to provide these services at no or low cost to members for at least a few reasons, including:

1. Employers may not want to cut benefits during a time when unemployment is low and recruitment and retention of workers is of concern.
2. Employers may believe that incentivizing the use of these services reduces aggregate health spending in the long term.
3. There is precedent for covering these services without cost sharing in the absence of the ACA mandate. When health reimbursement arrangements (HRAs) were introduced in the early 2000s, some employers provided first-dollar coverage for preventive services (Fronstin 2002). Comparable generous coverage was implemented when health savings account (HSA)-eligible health plans were introduced (Fronstin, Sepúlveda, and Roebuck 2013a). And of course, the 2021 EBRI survey mentioned above found that when the IRS allowed employers and health plans to cover certain preventive services outside HSA-eligible health plan deductibles, about three-quarters of them chose to do so, often without cost sharing (Fronstin and Fendrick 2021).<sup>6</sup>

Two recent surveys find support among employers for the continuation of providing preventive services without cost sharing. A 2022 EBRI survey found that 80 percent of HR decision makers said they would continue to cover preventive services in full.<sup>7</sup> Similarly, a 2023 survey found that 72 percent of employers expect to continue providing coverage for all preventive services without cost sharing.<sup>8</sup>

Nearly 20 years after passage of the MMA, only one-quarter of smaller employers and one-half of larger employers offer an HSA-eligible health plan.<sup>9</sup> Employers may be holding back from adopting HSA-eligible health plans because of evidence that they may be associated with a reduction in appropriate preventive care and medication adherence (Agrawal, Mazurenko, and Menachemi 2017). The savings or medical cost offsets from providing incentives to get preventive care are often difficult to quantify. Yet employers often invest in such care in the absence of evidence. Because of constraints around preventive care and HSA-eligible health plans, employers appear to have moved toward higher deductibles in PPOs, while some have adopted HRA plans instead, possibly with flexible spending accounts (FSAs). The IRS notice may not only cause employers offering HSA-eligible health plans to adopt pre-deductible coverage, but might also result in more employers offering such plans.

Yet, while employers could incentivize the use of preventive services in non-HSA plans, not all employers have done so. The IRS notice may move such employers toward changing their plan design to incentivize the use of preventive services for several reasons. First, they may do so because the IRS notice has legitimized it. Second, as health plans make it easier to offer preventive services on a pre-deductible basis in HSA plans, it is just as easy for employers to adopt the strategy in other types of health plans.

## **Congressional Efforts to Further Expand Pre-Deductible Coverage**

Building on the momentum of Executive Order 13877 and IRS Notice 2019-45, Sens. John Thune (R-SD) and Tom Carper (D-DE) introduced the Chronic Disease Management Act of 2019 in the Senate (S. 1948), followed by the introduction of the companion bill in the House of Representatives (H.R. 3709) by Reps. Earl Blumenauer (D-OR) and Tom Reed (R-NY). This bipartisan, bicameral legislation would give HSA-eligible health plans additional flexibility to provide coverage for services that manage chronic conditions prior to meeting the plan deductible. The bill was reintroduced in the Senate in January 2020 (S. 3200), April 2021 (S. 1424), and March 2023 (S. 655), and it was reintroduced in the House of Representatives in May 2021 (HR. 3563), building on the IRS guidance and previous versions to further increase pre-deductible coverage for chronic disease management.

## **Conclusion**

In response to IRS Notice 2019-45, three-quarters of large employers and health plans offering HSA-eligible health plans expanded pre-deductible coverage for medications and services that prevent the exacerbation of chronic conditions (Fronstin and Fendrick 2021). The impact on premiums of expanding pre-deductible coverage for 14 services in HSA-eligible health plans as allowed in IRS Notice 2019-45 is small (Fronstin, Roebuck, and Fendrick 2022). Further expanding pre-deductible coverage to 116 drug classes that are used mostly for chronic disease medication management also has a small impact on premiums (Fronstin, Roebuck, and Fendrick 2022). Enrollment into HSA-eligible health plans has been unaffected, but enrollees are paying a smaller share of the total cost of services as cost sharing has shifted from deductibles to copayments and/or coinsurance (Fronstin and Volkov 2023).

Our analysis confirms that use of health care services has so far been unaffected by the IRS notice. This may be because the majority of employers substituted copayments and/or coinsurance for deductibles instead of eliminating cost sharing completely. It may also be due to lack of enrollee knowledge about plan design changes that were introduced to incentivize use of preventive services. Employers would exclude additional preventive services if allowed by the IRS, according to EBRI's survey results. However, if their goal is to increase use of those services, they should consider their approach toward cost sharing.

Employers and policymakers have an appetite for more flexible plan designs or "smarter" deductibles because rising health care spending has created serious fiscal challenges. Smarter deductibles accommodating services preventing the exacerbation of chronic conditions might be a natural evolution of health plans. Value-based reimbursement promotes the delivery of evidence-based, high-quality care that encourages use of — rather than creating barriers to — high-value services. Interventions that improve patient-centered outcomes while maintaining affordability may be found in the form of a clinically nuanced HSA-eligible health plan that better meets workers' clinical and financial needs.

## Appendix

Appendix Figure 1							
Statutory HSA Limits, 2004–2023							
	Minimum Deductible		Maximum Contribution		Maximum Out-of-Pocket Limit		Per-Person Catch-up Contribution Limit
	Individual	Family	Individual	Family	Individual	Family	
2004	\$1,000	\$2,000	\$2,600	\$5,150	\$5,000	\$10,000	\$500
2005	1,000	2,000	2,600	5,150	5,000	10,000	600
2006	1,050	2,100	2,700	5,450	5,250	10,500	700
2007	1,100	2,200	2,850	5,650	5,500	11,000	800
2008	1,100	2,200	2,900	5,800	5,600	11,200	900
2009	1,150	2,300	3,000	5,950	5,800	11,600	1,000
2010	1,200	2,400	3,050	6,150	5,950	11,900	1,000
2011	1,200	2,400	3,050	6,150	5,950	11,900	1,000
2012	1,200	2,400	3,100	6,250	6,050	12,100	1,000
2013	1,250	2,500	3,250	6,450	6,250	12,500	1,000
2014	1,250	2,500	3,300	6,550	6,350	12,700	1,000
2015	1,300	2,600	3,350	6,650	6,450	12,900	1,000
2016	1,300	2,600	3,350	6,750	6,550	13,100	1,000
2017	1,300	2,600	3,400	6,750	6,550	13,100	1,000
2018	1,350	2,700	3,450	6,900	6,650	13,300	1,000
2019	1,350	2,700	3,500	7,000	6,750	13,500	1,000
2020	1,400	2,800	3,550	7,100	6,900	13,800	1,000
2021	1,400	2,800	3,600	7,200	7,000	14,000	1,000
2022	1,400	2,800	3,650	7,300	7,050	14,100	1,000
2023	1,500	3,000	3,850	7,750	7,500	15,000	1,000

## References

- Agrawal, Rajender, Olena Mazurenko, and Nir Menachemi. 2017. "High-Deductible Health Plans Reduce Health Care Cost And Utilization, Including Use Of Needed Preventive Services." *Health Affairs* 36 (10): 1762-1768. doi:10.1377/hlthaff.2017.0610.
- Brot-Goldberg, Zarek C., Amitabh Chandra, Benjamin R. Handel, and Jonathan T. Kolstad. 2017. "What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics." *The Quarterly Journal of Economics* 132 (3): 1261-1318. <http://www.nber.org/papers/w21632.pdf>.
- Bundorf, M. Kate. 2012. "Consumer-Directed Health Plans: Do They Deliver?" *Research Synthesis Report No. 24* (Robert Wood Johnson Foundation). <http://www.rwjf.org/content/dam/farm/reports/reports/2012/rwjf402405>.
- Chandra, Amitabh, Jonathan Gruber, and Robin McKnight. 2010. "Patient Cost-Sharing and Hospitalization Offsets in the Elderly." *American Economic Review* 100 (1): 192-213. doi:10.1257/aer.100.1.193.
- Chernew, Michael, Teresa B. Gibson, Kristina Yu-Isenberg, Michael C. Sokol, Allison B. Rosen, and A. Mark Fendrick. 2008. "Effects of Increased Patient Cost Sharing on Socioeconomic Disparities in Health Care." *Journal of General Internal Medicine* 23 (8): 1131-1136. doi:10.1007/s11606-008-0614-0.

- Collins, Sara R., Petra W. Rasmussen, Sophie Beutel, and Michelle M. Doty. 2015. *The Problem of Underinsurance and How Rising Deductibles Will Make It Worse: Findings from the Commonwealth Fund Biennial Health Insurance Survey, 2014*. New York, NY: The Commonwealth Fund. Accessed August 15, 2023.  
[https://www.commonwealthfund.org/sites/default/files/documents/\\_\\_\\_media\\_files\\_publications\\_issue\\_brief\\_2015\\_may\\_1817\\_collins\\_problem\\_of\\_underinsurance\\_ib.pdf](https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_issue_brief_2015_may_1817_collins_problem_of_underinsurance_ib.pdf).
- Congressional Budget Office. 2012. *Offsetting Effects of Prescription Drug Use on Medicare's Spending for Medical Services*. Congressional Budget Office. <http://www.cbo.gov/sites/default/files/cbofiles/attachments/43741-MedicalOffsets-11-29-12.pdf>.
- Fronstin, Paul, "Can "Consumerism" Slow the Rate of Health Benefit Cost Increases?", *EBRI Issue Brief*, no. 247 (Employee Benefit Research Institute, 2002).
- Fronstin, Paul, and A. Mark Fendrick, "Employer Uptake of Pre-Deductible Coverage for Preventive Services in HSA-Eligible Health Plans," *EBRI Issue Brief*, no. 542 (Employee Benefit Research Institute, 2021).
- Fronstin, Paul, and M. Christopher Roebuck, "Do Accumulating HSA Balances Affect Use of Health Care Services and Spending?," *EBRI Issue Brief*, no.482 (Employee Benefit Research Institute, 2019).
- Fronstin, Paul, and M. Christopher Roebuck, "Health Care Spending after Adopting a Full-Replacement, High-Deductible Health Plan With a Health Savings Account: A Five-Year Study," *EBRI Issue Brief*, no. 388 (Employee Benefit Research Institute, 2013).
- Fronstin, Paul, and M. Christopher Roebuck, "Managing Use of Health Care Services After People Satisfy Their Deductible: What Do Copayments and Coinsurance Do?" *EBRI Issue Brief*, no. 519 (Employee Benefit Research Institute, 2020).
- Fronstin, Paul, M. Christopher Roebuck, and A. Mark Fendrick, "Premium Impact of Expanding Pre-Deductible Coverage to Chronic Disease Management Medications in HSA-Eligible Health Plans," *EBRI Issue Brief*, no. 563 (Employee Benefit Research Institute, 2022).
- Fronstin, Paul, M. Christopher Roebuck, and A. Mark Fendrick, "The Impact of Expanding Pre-Deductible Coverage in HSA-Eligible Health Plans on Premiums," *EBRI Issue Brief*, no. 558 (Employee Benefit Research Institute, 2022).
- Fronstin, Paul, M. Christopher Roebuck, Jason Buxbaum, and A. Mark Fendrick, "Do People Choose Wisely After Satisfying Health Plan Deductibles? Evidence From the Use of Low-Value Health Care Services," *EBRI Issue Brief*, no. 516 (Employee Benefit Research Institute, 2020).
- Fronstin, Paul, Martin J. Sepulveda, and M. Christopher Roebuck. 2013a "Consumer-Directed Health Plans Reduce The Long-Term Use Of Outpatient Physician Visits And Prescription Drugs." *Health Affairs* 32 (6): 1126-1134.
- Fronstin, Paul, Martin J. Sepulveda, and M. Christopher Roebuck. 2013b. "Medication Utilization and Adherence in a Health Savings Account-Eligible Plan." *American Journal of Managed Care* 19 (12): e400-e407.
- Fronstin, Paul, and Eden Volkov, "The Impact of Expanding Pre-Deductible Coverage in HSA-Eligible Health Plans on Employee Choice of Health Plan and Cost Sharing," *EBRI Issue Brief*, no. 587 (Employee Benefit Research Institute, 2023).
- Gatwood, Justin, Teresa B. Gibson, Michael E.F. Chernew, Amanda M. Farr, Emily Vogtmann, and A. Mark Fendrick. 2014. "Price Elasticity and Medication Use: Cost Sharing Across Multiple Clinical Conditions." *Journal of Managed Care & Specialty Pharmacy* 20 (11).

- Goldman, Dana P., Geoffrey F. Joyce, and Yuhui Zheng. 2007. "Prescription Drug Cost Sharing: Associations With Medication and Medical Utilization and Spending and Health." *JAMA* 61-69. doi:10.1001/jama.298.1.61.
- Internal Revenue Service. 2004. "Part III - Administrative, Procedural, and Miscellaneous: Health Savings Accounts - Additional Qs & As, Notice 2004-50." Accessed August 15, 2023. <https://www.irs.gov/pub/irs-drop/n-04-50.pdf>.
- Internal Revenue Service. 2013. "Preventive health services required under Public Health Service Act section 2713 and preventive care for purposes of Health Savings Accounts." Accessed August 15, 2023. <https://www.irs.gov/pub/irs-drop/n-13-57.pdf>.
- KFF. 2015. *Preventive Services Covered by Private Health Plans under the Affordable Care Act*. Washington, DC: KFF. Accessed August 15, 2023. <https://www.kff.org/health-reform/fact-sheet/preventive-services-covered-by-private-health-plans/>.
- Lee, Joy L., Matthew L. Maciejewski, Shveta S. Raju, William H. Shrank, and Nitesh K. Choudhry. 2013. "Value-Based Insurance Design: Quality Improvement But No Cost Savings." *Health Affairs* 32 (7): 1251-1257. doi:10.1377/hlthaff.2012.0902.
- Newhouse, J. and the Insurance Experiment Group. 1993. *Free For All? Lessons from the RAND Health Insurance Experiment*. Cambridge (MA): Harvard University Press.
- Roebuck, M. Christopher. 2012. *Three Essays on the Economics of Prescription Drugs*. Dissertation, Baltimore, MD: Univ. of Maryland Baltimore County.
- Roebuck, M. Christopher, J. Samantha Dougherty, Robert Kaestner, and Laura M. Miller. 2015. "Increased Use Of Prescription Drugs Reduces Medical Costs In Medicaid Populations." *Health Affairs* 34 (9): 1586-1593. doi:10.1377/hlthaff.2015.0335.
- Trivedi, Amal N., Husein Moloo, and Vincent Mor. 2010. "Increased Ambulatory Care Copayments and Hospitalizations among the Elderly." *New England Journal of Medicine* 362 (4): 320-328. doi:10.1056/NEJMs0904533.
- VBID Health. n.d. "Financial Impact of HSA-HDHP Reform to Improve Access to Chronic Disease Management Medications." Accessed August 15, 2023. <https://vbidhealth.com/docs/HSA-HDHP-Reform-Brief.pdf>.
- Wharam, J. Frank, Fang Zhang, Emma M. Eggleston, Christine Y. Lu, Stephen B. Soumerai, and Dennis Ross-Degnan. 2018. "Effect of High-Deductible Insurance on High-Acuity Outcomes in Diabetes: A Natural Experiment for Translation in Diabetes (NEXT-D) Study." *Diabetes Care* 41 (5): 940-948. doi:10.2337/dc17-1183.
- Wharam, J. Frank, Fang Zhang, Emma M. Eggleston, Christine Y. Lu, Stephen Soumerai, and Dennis Ross-Degnan. 2017. "Diabetes Outpatient Care and Acute Complications Before and After High-Deductible Insurance Enrollment: A Natural Experiment for Translation in Diabetes (NEXT-D) Study." *JAMA Internal Medicine* 177 (3): 358-368. doi:10.1001/jamainternmed.2016.8411.

## Endnotes

<sup>1</sup> In 2021, 60.1 percent of individuals with health coverage through a private-sector establishment were in a plan with a deductible that met the deductible requirements to be HSA eligible. However, we do not know how many of these enrollees were in an HSA-eligible health plan. Some were enrolled in a health plan with a health reimbursement arrangement (HRA). Others were in health plans that met the deductible requirement but may have not met other requirements, such as the restriction on preventive services.

<sup>2</sup> See <https://www.irs.gov/pub/irs-drop/n-19-45.pdf>.

---

<sup>3</sup> See [https://ahiporg-production.s3.amazonaws.com/documents/202109-AHIP\\_HDHP-Survey.pdf](https://ahiporg-production.s3.amazonaws.com/documents/202109-AHIP_HDHP-Survey.pdf).

<sup>4</sup> See the literature reviews in Bundorf (2012) and Agrawal, Mazurenko, and Menachemi (2017) as well as research in Brot-Goldberg, Chandra, Handel, and Kolstad (2017); Chandra, Gruber, and McKnight (2010); Chernew et al. (2008); Collins, Rasmussen, Beutel, and Doty (2015); Fronstin and Roebuck (2019); Fronstin and Roebuck (2013); Fronstin and Roebuck (2020); Fronstin and Roebuck (2014); Fronstin and Roebuck (2016); Fronstin, Sepúlveda, and Roebuck (2013a); Fronstin, Sepúlveda, and Roebuck (2013b), Fronstin, Roebuck, Buxbaum, and Fendrick (2020); Goldman, Joyce, and Zheng (2007); Trivedi, Moloo, and Mor (2010); Wharam et al. (2017); and Wharam et al. (2018).

<sup>5</sup> See <https://www.ebri.org/publications/research-publications/fast-facts/content/many-have-a-choice-of-health-plans-during-open-enrollment>.

<sup>6</sup> Also see [https://ahiporg-production.s3.amazonaws.com/documents/202109-AHIP\\_HDHP-Survey.pdf](https://ahiporg-production.s3.amazonaws.com/documents/202109-AHIP_HDHP-Survey.pdf) and <https://www.irs.gov/pub/irs-drop/n-19-45.pdf>.

<sup>7</sup> See <https://www.ebri.org/publications/research-publications/fast-facts/content/will-employers-introduce-cost-sharing-for-preventive-services-findings-from-ebri-s-first-employer-pulse-survey>.

<sup>8</sup> See <https://www.nationalalliancehealth.org/news/immunization-remains-critical/>.

<sup>9</sup> See Figure 8.3 in <https://www.kff.org/report-section/ehbs-2022-section-8-high-deductible-health-plans-with-savings-option/>.