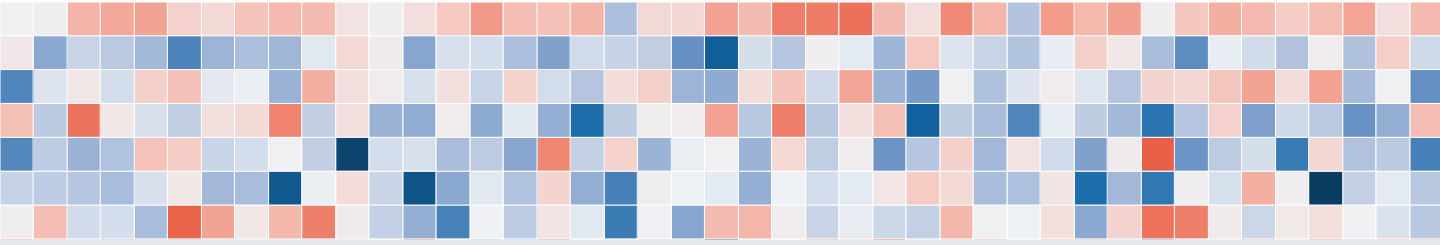




HEALTH CARE COST INSTITUTE



HCCI Brief: Trends in Primary Care Visits

Among people with employer-sponsored insurance, a decline in visits to primary care physicians was partially offset by increases in visits to nurse practitioners and physician assistants



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Office visits to primary care physicians declined 18% from 2012 to 2016

Context

In our [2016 Health Care Cost and Utilization Report](#) (HCCUR), we found an **18% decrease in office visits to primary care physicians (PCPs)** between 2012 and 2016. We examined visits per 1,000 people under age 65 who were covered by employer-sponsored insurance (ESI).

We also found a corresponding **14% increase in office visits to all other providers** (Figure 1). The two types of visits were about equally common initially – so combined, these trends resulted in a 2% overall drop in total office visits per 1,000 across all types of providers.

This focus on declining visits to PCPs comes at a time when we are better understanding the importance of primary care:

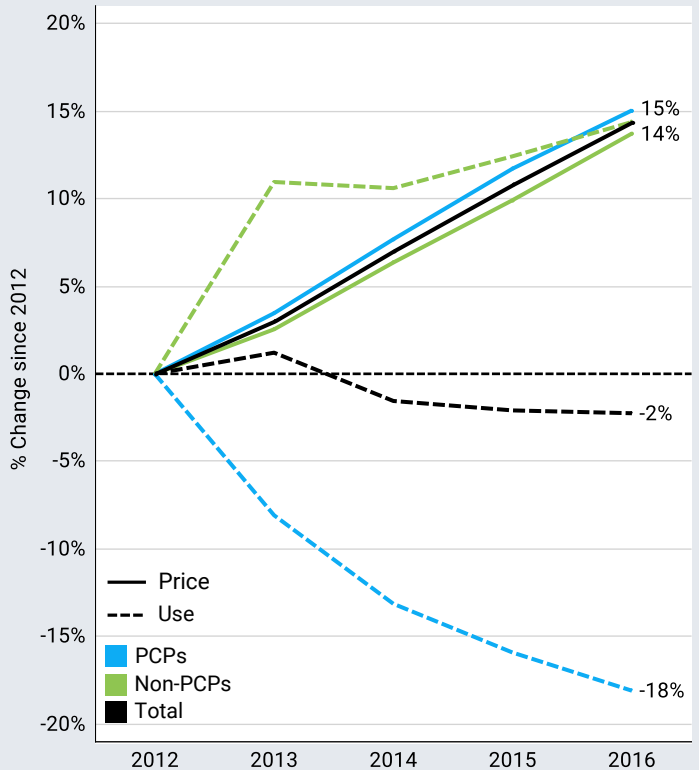
- [Access to PCPs](#) helps keep health care costs low, as spending is [lower](#) on PCPs than specialists or emergency care.
- Primary care also helps keep people [healthier](#) and out of [emergency rooms](#).

At the same time, primary care is increasingly provided by non-physician providers. Specifically, the number of nurse practitioners (NPs) and physician assistants (PAs) in the US has been [expanding](#), as has their role in providing primary care. Having more NPs and PAs provide primary care may [ease potential shortages](#) in PCPs and allow PCPs to focus on more clinically complex primary care. However, the laws governing scope of practice for these non-physician providers vary widely by state. In some states, [NPs](#) and [PAs](#) have full practice authority, while in others they are restricted from independent practice and require the oversight and billing of a physician. Our work demonstrates that there is geographic variation in office visit utilization, which is likely influenced by differences in these laws, but more research is needed on those relationships.

Categorization of Provider Types

In order to better understand the health care providers that Americans are utilizing for their office visits, we expanded our categorization of providers. The PCP category includes only medical doctors but the non-PCP category is divided into four categories: MD specialists (all non-PCP MDs), NPs and PAs, all other non-MD providers (other non-physicians), and visits to facilities or where the provider was unknown (facility/unknown).

Figure 1: Cumulative Change in Office Visit Price and Utilization





Office visits to PCPs declined 18% from 2012 to 2016, while visits to NPs and PAs increased 129%

In 2012, the majority (51%) of office visits for the employer-sponsored insurance population ages 0-64 were to primary care physicians; in 2016, the PCP share of total office visits fell to 43% (Figure 2).

- Office visits to PCPs declined 18% between 2012 and 2016 (Figure 3), from 1,510 visits per 1,000 members in 2012 to 1,237 in 2016 (Figure 2).
- Office visits to NPs and PAs increased by 129% between 2012 and 2016, from 88 per 1,000 members in 2012 to 201 in 2016.
- The office visit rate to specialists and other non-physician providers remained relatively unchanged between 2012 and 2016.

Figure 2: Office Visits per 1,000 Members by Provider Type

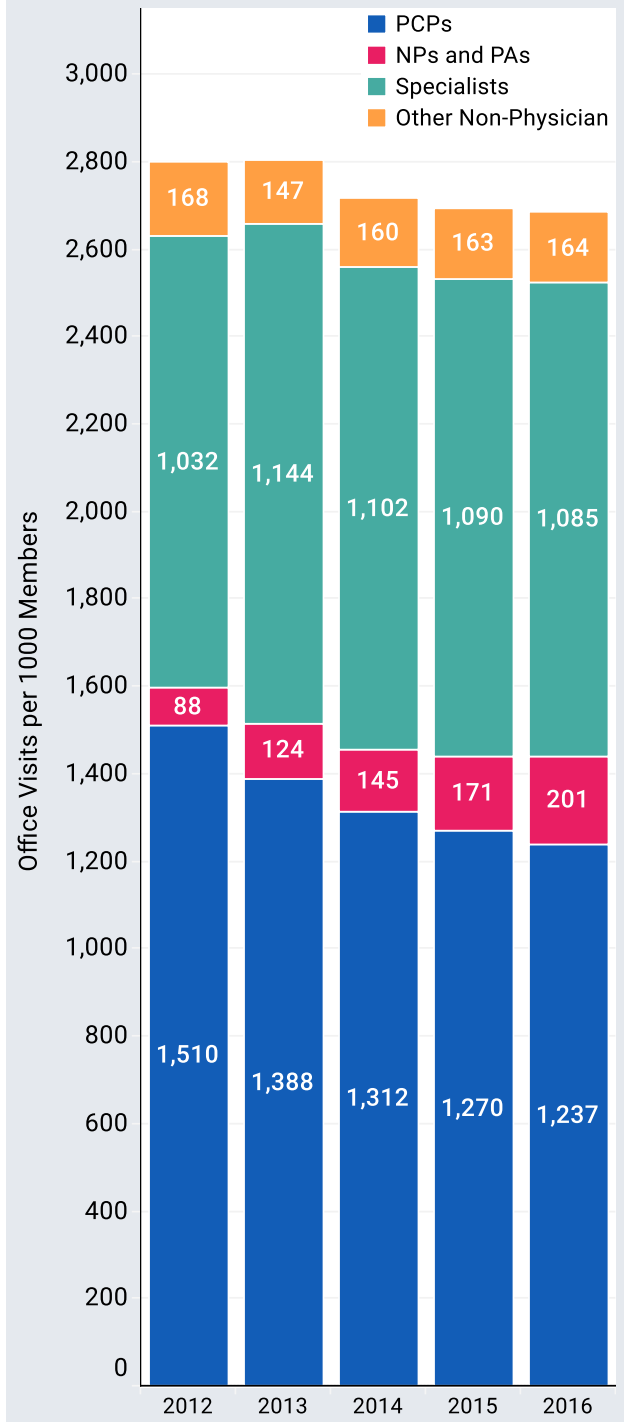
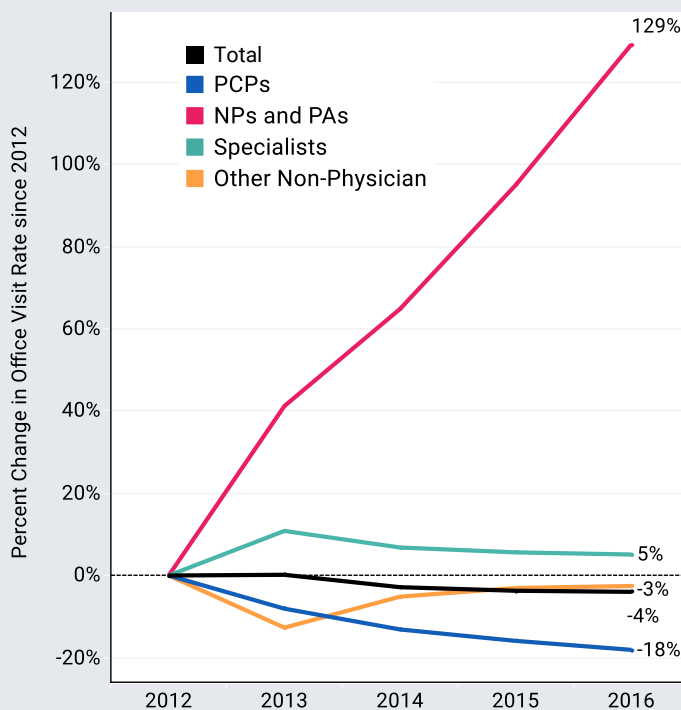


Figure 3: Cumulative Change in Office Visit Utilization, 2012-2016





Increases in visits to NPs and PAs accounted for only 42% of the decline in PCP visits

From 2012 to 2016, office visits to NPs and PAs increased each year. These visits to NPs and PAs may have substituted for some of the visits to primary care physicians, partially offsetting the overall decline in visits to primary care physicians.

However, the total increase in NP and PA visits accounts for just 42% of the total decline in PCP visits between 2012 and 2016.

- From 2012 to 2016, the rate of decline in PCP visits slowed, while the rate of increase in NP and PA office visits stayed relatively constant.
- Some visits to NPs and PAs may not have been for primary care, so the 42% offset may be an upper bound.

The average cost of an office visit to a PCP (\$106 in 2016) was about the same as an office visit to NPs and PAs (\$103 in 2016) (Figure 5). Any substitution of providers did not result in cost savings.

Figure 4: Annual Change in Office Visit Utilization to PCPs and NPs and PAs

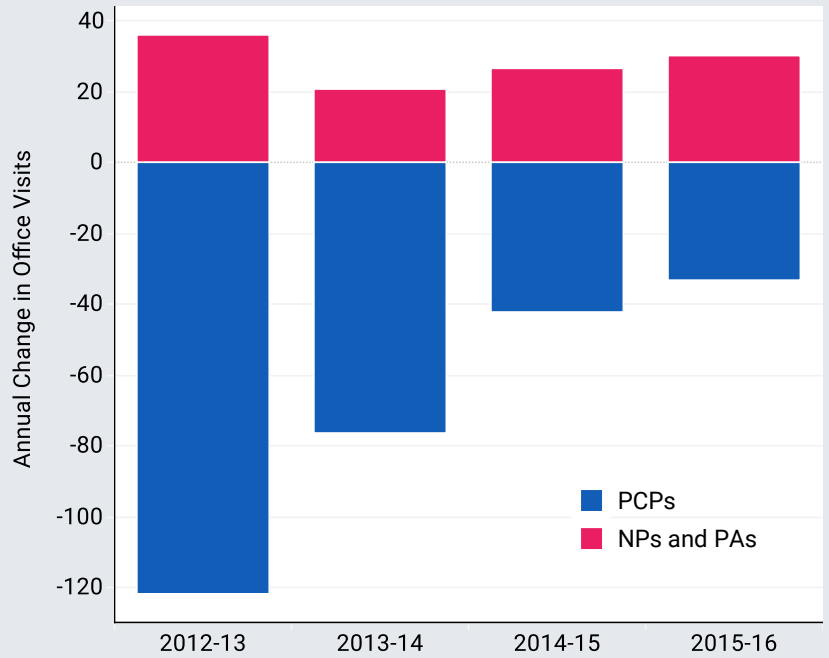
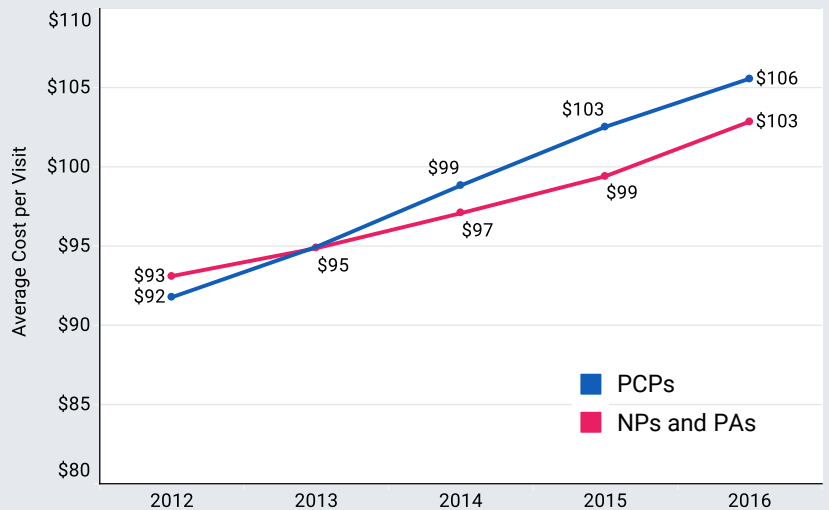


Figure 5: Average Cost per Office Visit





Every state saw a decline in PCP office visits between 2012 and 2016

Comparing across states, we see that office visits to PCPs decreased in every state from 2012 to 2016.

- The cumulative decline in visits ranged from 6% in Washington, D.C. to 31% in North Dakota.
- The decline in the absolute number of visits ranged from 73 fewer visits per 1,000 members in Washington, D.C. to 596 fewer visits per 1,000 members in Kentucky (Figure 6).

NP and PA office visits increased in every state from 2012 to 2016.

- The cumulative increase ranged from 37% in New Mexico to 285% in Massachusetts.
- The absolute number of visits ranged from 13 more visits per 1,000 members in California to 465 more visits per 1,000 members in North Dakota (Figure 7).

Many factors likely influenced the trends described in this brief, including state policies, variation in insurance benefit design, and changes in access to different types of providers.

Figure 6: Cumulative Declines in Office Visits to PCPs by State, 2012-2016

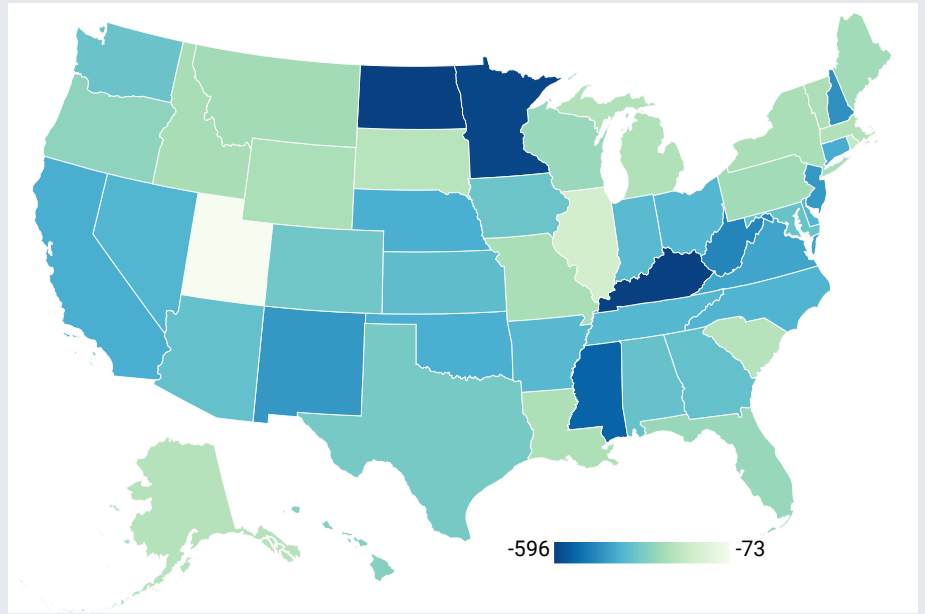
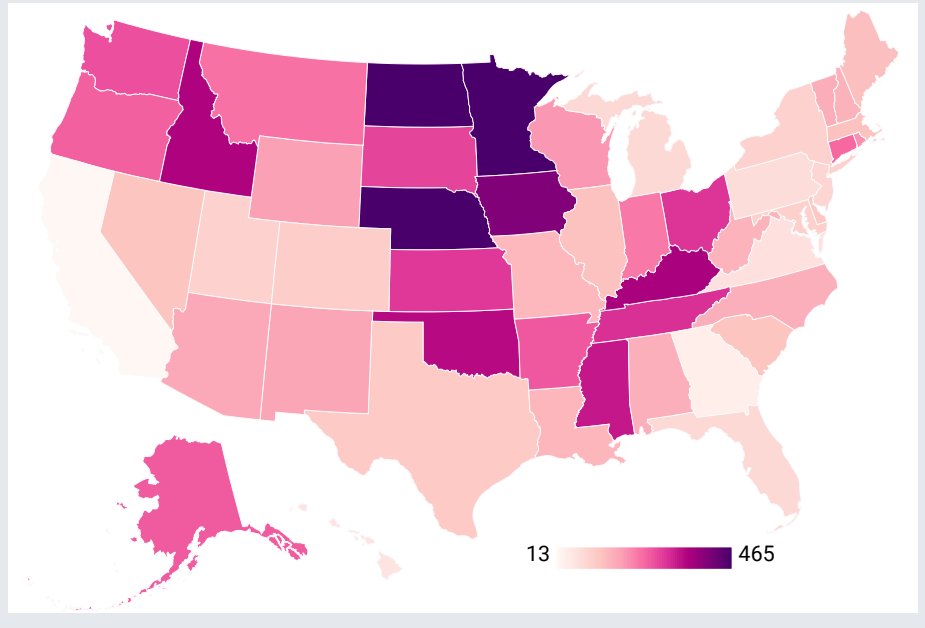


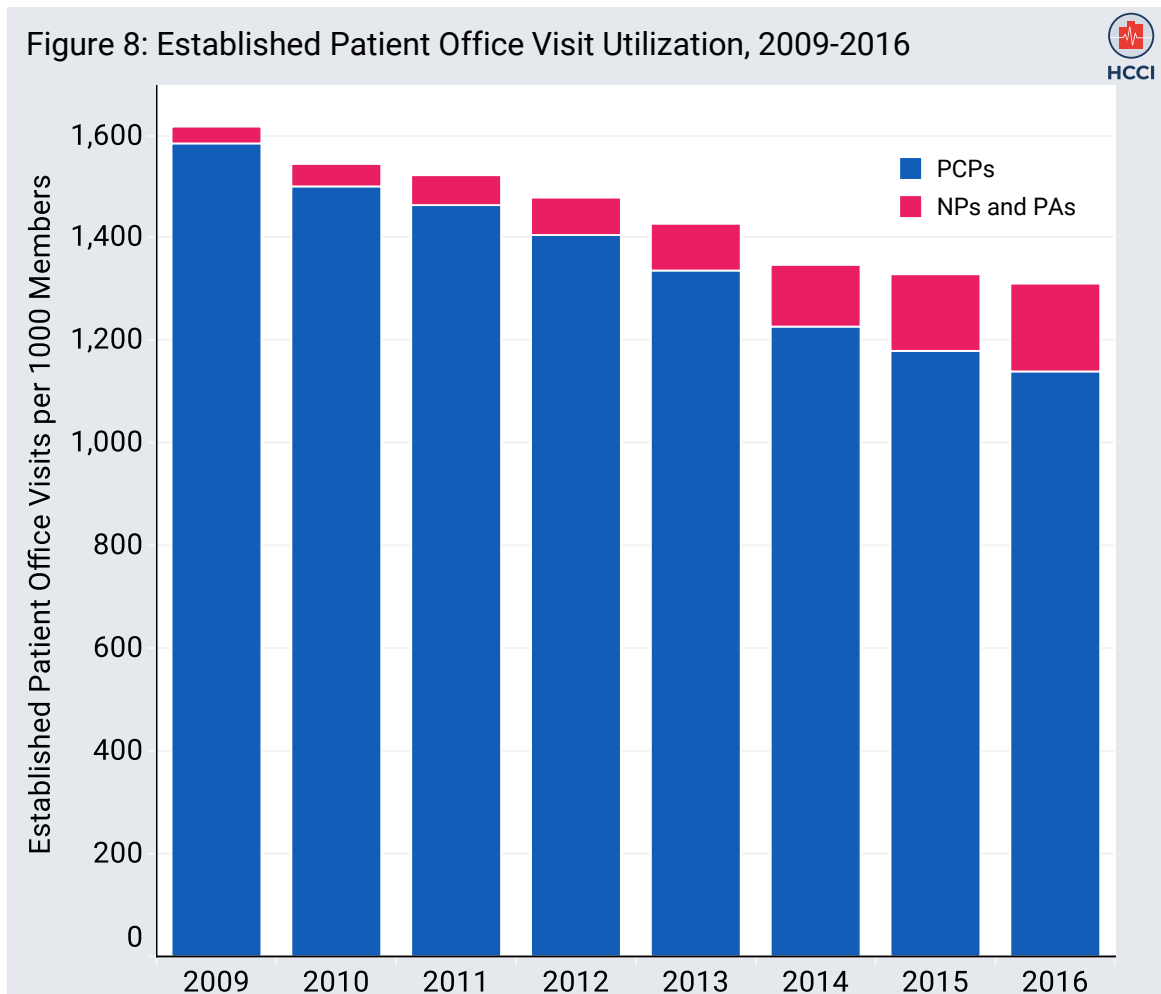
Figure 7: Cumulative Increases in Office Visits to NPs and PAs by State, 2012-2016



The decline in visits to PCPs began before 2012

To assess the robustness of our findings, we examined the trend from 2009 to 2016 for a single type of office visit: established patient office visits (EPOVs). EPOVs are the most common type of office visit, and their utilization trends may be less sensitive to changes in insurance coverage and plan design. EPOVs are also important in the context of primary care for patients with chronic conditions that require regular evaluation and management.

- EPOVs to primary care physicians declined every year, from 1,582 fewer visits per 1,000 members in 2009 to 1,140 fewer visits in 2016 (Figure 7).
- EPOVs to NPs and PAs increased every year, from 34 more visits per 1,000 members in 2009 to 170 more visits in 2016 (Figure 8).
- The previously identified trends of declining PCP visits and increasing NP and PA visits accelerated beginning in 2013.





Data and methods

Data

HCCI data holdings contain de-identified commercial health insurance claim lines for the years 2007 through 2016. Four major health insurers contributed data to HCCI for the purposes of producing a national, multi-payer, commercial health care claims database: Aetna, Humana, Kaiser Permanente, and United Healthcare. HCCI's claims dataset is one of the largest ever assembled on the privately-insured population.

Analytic Samples

Two analytic data samples were constructed for this issue brief. The first analytic sample included claims from all four data contributors, consisting of all claims for plan members younger than age 65 and covered by employer-sponsored insurance (ESI) for the years 2012 through 2016, and population weighted to be representative both nationally and at the state level. The methods used to create this analytic sample are the same as those used in the [2016 Health Care Cost and Utilization Report](#), and are described in the [Methodology](#) document available on the [HCCI website](#). This sample was used to analyze the trends in utilization of office visits per 1,000 members between 2012 and 2016. Office visits are defined using current procedure terminology (CPT) codes 99201–99215 and 99341–99350. Office visit providers were classified into five categories: primary care physicians (PCPs); MD specialists (all non-PCP MDs); nurse practitioners (NPs) and physicians assistants (PAs); all other non-MD providers (other non-physicians); and visits where the performing provider was listed as a facility or unknown (facility/unknown). Because differences across state laws create geographic differences in how NPs and PAs bill insurance companies, research efforts using claims data may undercount the number of visits to NPs and PAs. Visits to retail clinics for specific procedures may not require an office visit and may contribute to the decline observed in this brief; however the utilization of retail clinics in claims data is relatively rare.

The second analytic sample includes data from Aetna, Humana, and United Healthcare, consisting of claims for plan members younger than age 65 and covered by ESI for the years 2009 through 2016. The sample was limited to plan members with valid age, gender, and geographic information and in a preferred provider organization (PPO), health maintenance organization (HMO), point of service (POS), or exclusive provider organization (EPO) plan. The second analytic sample was used to analyze trends in utilization of established patient office visits (EPOVs) per 1,000 members. EPOVs are defined as CPT codes 99201-99205. Patients were counted as having multiple EPOVs to the same provider on the same day if the claim included the procedure modifier codes 24, 25, 27, 58, 76, 78, or 79. Two categories of providers were examined: PCPs, and NPs and PAs. Specialties included as PCPs were family medicine, pediatrics, internal medicine, preventive medicine, and geriatric medicine. NPs and PAs also include some “other” non-physician providers that we are not able to classify into other specialties.

