What are we trying to prevent anyway?

The evolution of preventive services

Barbara Collier, FSA, MAAA
Michelle Klein, FSA, MAAA

Preventive services are a key component of many health insurance plans. Historically, preventive service status has been determined based on clinical evidence. This paper examines the evolution and future of preventive services.

Background

The introduction of the Patient Protection and Affordable Care Act (ACA) brought about many legislative changes intended to improve the health of people in the United States. One such change was the introduction of mandatory coverage with no cost sharing for services determined to be "preventive."

Preventive services as defined by the ACA are limited to services on the "A" and "B" Recommendation list defined in Figure 1 by the U.S. Preventive Services Task Force (USPSTF). Examples of services included on this list are far-reaching and varied, including blood pressure screening for adults, depression screening for adolescents and adults, intimate partner violence screening for women of reproductive age, and skin cancer behavioral counseling.[1]

FIGURE 1: USPSTF ACA PREVENTIVE SERVICE CRITERIA[2]

The service has a high probability that the net benefit is substantial
Or there is a high probability that the net benefit is moderate
Or there is a moderate probability that the net benefit is moderate to substantial

The USPSTF regularly updates its recommendations and the ACA preventive services list has been modified many times since the introduction of the ACA in 2014 (in 2018 alone, eight services, including obesity screening and counseling for adults and cervical cancer screening, were added to the USPSTF list[3]). Another recent addition was HIV pre-exposure prophylaxis (PrEP), for use by individuals a high risk of infection with HIV. Generally, modifications to the list are made based on evidence from research (i.e., a service no longer deemed clinically beneficial will be removed while a service newly determined to be clinically beneficial will be added). Figure 3 on page 2 shows some highlights of the history of the preventive list.

Preventive coverage can be found across most markets although the ACA preventive list is a fairly common reference point throughout. Medicare uses a list similar to the ACA preventive services list, though other statutory and regulatory provisions define the specific services covered by Medicare. Employees with group healthcare coverage through their employers often benefit from additional services covered as preventive beyond the list required by the ACA. Common additional benefits include weight loss programs and certain generic drugs. Medicaid also provides preventive service coverage, though the financial impact to beneficiaries is generally not significant because member cost sharing is typically minimal for all covered services. Figure 2 summarizes preventive services by market and the characteristics of each market that drive differences in utilization patterns.

FIGURE 2: PREVENTIVE SERVICES BY MARKET

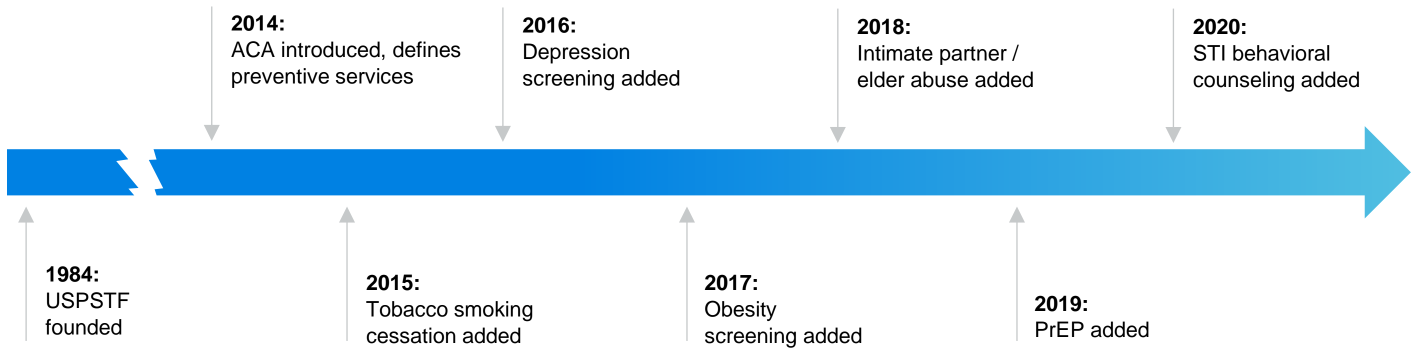
INDIVIDUAL	GROUP	MEDICARE	MEDICAID
USPSTF list	USPSTF list, with enhancements	USPSTF list, with modifications	USPSTF list, but most services are no cost anyway
Under 65 population with wide-ranging needs	Under 65 population, generally healthier than ACA market	Over 65 population, more complex health care needs	Low income population, pregnancies are common

[1] USPSTF. A and B Recommendations. Retrieved November 6, 2020, from https://www.uspreventiveservicestaskforce.org/Page/Name/uspstf-a-and-b-recommendations/.

[2] USPSTF. Grade Definitions. Retrieved November 6, 2020, from https://www.uspreventiveservicestaskforce.org/Page/Name/grade-definitions.

[3] Ibid.

FIGURE 3: HIGHLIGHTS OF THE HISTORY OF THE PREVENTIVE LIST



Nevertheless, the designation of a service as preventive is particularly important for the ACA-enrolled population because it ensures coverage at no cost to the member and many unsubsidized ACA members are enrolled in plans that would otherwise require substantial cost sharing.

Individual states can remove cost sharing from additional services in the form of copay limits (i.e., capping member cost sharing for a particular service at $0).

In this paper, we explore other considerations, mainly in regard to historical utilization and cost of existing preventive services, which can inform future changes to the ACA preventive list.

Current utilization

The current ACA preventive list contains a variety of services, some utilized more than others. We summarized 2017 medical data across four markets—individual, group, Medicare, and Medicaid—to get a picture of how beneficiaries use preventive services. We found that, while beneficiaries use some services frequently, others are hardly used at all. Note that our metric of utilization is dependent on the availability of a claim for the service, and as such services that are not covered or not accurately or completely coded within claims data may appear to have low utilization in this analysis.

Figure 4 shows the most highly utilized preventive services in each market. Individual claims are grouped based on the preventive measure they align with, using Milliman's preventive definitions.[4]

FIGURE 4: MOST UTILIZED PREVENTIVE SERVICES

Rank	Individual	Group	Medicare	Medicaid
1	Preventive Visit	Preventive Visit	Immunization	Preventive Visit
2	Immunization	Immunization	Breast Cancer Screen	Immunization
3	Breast Cancer Screen	Breast Cancer Screen	Preventive Visit	Hearing Screen
4	Cervical Cancer Screen	Cervical Cancer Screen	Colorectal Cancer Screen	Blood Draws for Preventive Screens
5	Colorectal Cancer Screen	Colorectal Cancer Screen	Tobacco Cessation	STI/HIV Screen

* Based on 2017 medical service utilization.

Across all markets, preventive visits and immunizations are among the most highly utilized preventive services. It is worth noting preventive visits may be considered clinically unnecessary in some circumstances, as some clinicians believe that preventive visits are needed less frequently for healthy patients, rather than annually, or they may not be covered because they are not recommended for most individuals by the USPSTF.[5]

[4] Milliman identifies preventive services based on a proprietary algorithm that uses a combination of Healthcare Common Procedure Coding System (HCPCS) codes and demographic, diagnosis, and other information as applicable. Milliman's definition is used for the creation of the Milliman Health Cost Guidelines and serves as a proxy for the USPSTF definitions, though the two definitions do not perfectly align as the Milliman definition is supplemented by other sources.

[5] Ejnes, Y.D. et al. Presentation: The Annual Visit: What's the Evidence? Retrieved November 6, 2020, from https://www.acponline.org/system/files/documents/about_acp/chapters/ri/14mtg/ejnes.pdf.

Figure 5 shows the least utilized preventive services in each market.

FIGURE 5: LEAST UTILIZED PREVENTIVE SERVICES

Rank	Individual	Group	Medicare	Medicaid
1	Cardiovascular Aspirin Use	Cardiovascular Aspirin Use	Cardiovascular Aspirin Use	Cardiovascular Aspirin Use
2	Abdominal Aortic Aneurysm Screen	Iron Deficiency Screen	Preventive Medical-Covered Dental	Iron Deficiency Screen
3	Iron Deficiency Screen	Abdominal Aortic Aneurysm Screen	Lead Screen	Abdominal Aortic Aneurysm Screen
4	Sickle Cell Screen	Sickle Cell Screen	Development Testing	Genetic Counseling
5	Lung Cancer Screen	Lung Cancer Screen	Sickle Cell Screen	Lung Cancer Screen

* Based on 2017 medical service utilization.

Health needs and, therefore, preventive services recommended or covered, vary by market based on underlying population demographic and health characteristics. Generally aspirin use to prevent cardiovascular disease, abdominal aortic aneurysm screening, and iron deficiency screening services are some of the least utilized services.

Figure 6 shows the preventive services with the fastest growth in utilization since the effective date of the ACA in 2014.

FIGURE 6: CATEGORIES OF PREVENTIVE SERVICES WITH FASTEST GROWTH IN UTILIZATION

Rank	Individual	Group	Medicare	Medicaid
1	Lung Cancer Screen	Depression Screen	STI/Hepatitis Screen	Substance Abuse Screen
2	Tuberculosis Screen	Substance Abuse Screen	Depression Screen	Depression Screen
3	Breast Feeding Education	Tuberculosis Screen	Tuberculosis Screen	Obesity Screen
4	STI/Hepatitis Screen	Obesity Screen	Obesity Screen	Breast Feeding Education
5	Obesity Screen	Breast Feeding Education	Lung Cancer Screen	Tuberculosis Screen

* Measured from 2014 through 2017.

Depression screening utilization is growing quickly across most markets. Obesity screening, substance use disorder screening, and tuberculosis screening are all also trending high over the past four years.

On the other end, Figure 7 shows the preventive services with the slowest growth in utilization since 2014.

FIGURE 7: CATEGORIES OF PREVENTIVE SERVICES WITH SLOWEST GROWTH IN UTILIZATION

Rank	Individual	Group	Medicare	Medicaid
1	Cholesterol Screen	Cholesterol Screen	Cholesterol Screen	Osteoporosis Screen
2	Diabetes Screen	Diabetes Screen	Blood Draws for Preventive Screens	Cholesterol Screen
3	Hearing Screen	Blood Draws for Preventive Screens	Cervical Cancer Screen	Breast Cancer Screen
4	Cervical Cancer Screen	Breast Cancer Screen	Genetic Counseling	Cervical Cancer Screen
5	Blood Draws for Preventive Screens	Cervical Cancer Screen	STI/Other Screen	Blood Draws for Preventive Screens

* Measured from 2014 through 2017.

Several of the slowest-growing services—specifically cervical cancer screening, breast cancer screening, and osteoporosis screening—tend to be services targeted toward women.

Each market has different healthcare needs. Some preventive services are targeted to specific populations (e.g., breastfeeding primary care interventions would not be common in the Medicare market given the older age of the Medicare population) and have differing recommended frequencies (e.g., annual or less frequently). The specific healthcare needs and demographics in each market likely play into the utilization of preventive services and how those results vary by market.

Additionally, there are several reasons preventive services may have varying utilization patterns, including:

- Preventive services may result in more timely diagnosis of health conditions and, thereafter, the same services provided in follow-up would no longer be considered preventive services
- Preventive services may not be fully observed in claims data (e.g., aspirin use for primary prevention of cardiovascular disease is not reflected because it is purchased over-the-counter)
- Certain services (e.g., preventive dental) might not be covered—or coverage might not be at the same level—across markets

Therefore, it is difficult to definitively say what causes any specific service to appear in the high-growth or low-growth lists for each market.

Preventive considerations

Preventive services as defined by the Centers for Disease Control and Prevention (CDC) include two main categories:

1. Primary prevention: Intervening before health effects occur, through measures such as vaccinations, altering risky behaviors (poor eating habits, tobacco use), and banning substances known to be associated with a disease or health condition.
2. Secondary prevention: Screening to identify diseases in the earliest stages, before the onset of signs and symptoms, through measures such as mammography and regular blood pressure testing.

The current preventive services list published by the USPSTF coincides with these two categories of preventive care, generally focusing on preventing illnesses, disease, or health problems from occurring or identifying conditions so treatment can be initiated (commonly through screenings).

The list of services that meet this definition has evolved over time, as the evidence base has changed (i.e., as emerging research supports the clinical benefit of additional services they are added to the preventive services list based on an "A" or "B" recommendation).

Recent additions to the preventive services list reflect changes in evidence surrounding the efficacy of certain services. In June 2019, the USPSTF added PrEP for the prevention of HIV infection to its recommendations. Then, in August 2020, the USPSTF added behavioral counseling for the prevention of sexually transmitted infections. It is likely that additional services could be added in the future as the evidence base continues to grow (i.e., there is an incentive to conduct research that provides an evidence base for specific preventive services so they can be added to the preventive services list).

Preventive services in 2020

The COVID-19 pandemic has undoubtedly changed the U.S. healthcare landscape. Stay-at-home orders have resulted in many delayed or forgone healthcare services, including preventive services.[6]

Further, the increased uncertainty and isolation have contributed to a spike in mental health and substance use disorders. According to Kaiser Family Foundation, almost half of adults in the United States reported negative mental health impacts related to the pandemic.[7]

The combination of reduced preventive care and increased mental health and substance use disorder issues has created the perfect storm. Insureds who may already have existing health conditions (whether known to them or not) are unable or reluctant to see their doctors for screenings or treatment. Further, mental health and substance use disorder issues are known to worsen other comorbid conditions.[8]

The emergence of COVID-19 has already prompted Congress to pass legislation that removes cost sharing for COVID-19-related testing and treatment, including the presumed eventual vaccine. This new environment could also prompt government organizations, individual states, or health plans to consider waiving cost sharing for mental health and substance use disorder services to assist with returning the public to a healthier state as quickly as possible.

Beyond issues raised by COVID-19, the future of healthcare in the United States continues to be in flux. The idea of Medicare for all, or some variation of Medicare for all, has been widely covered in the media. One variation gaining traction, particularly among family physicians and health plans, is the idea of primary care for all.[9] The details of primary care for all vary by proposal but the general theme is to provide people in the United States with more affordable access to primary care.

Preventive services represent an important portion of primary care services. Primary care for all provides a platform to increase the focus on preventive services going forward, whether the idea comes to fruition or not.

---

[6] Cox, C., Kamal, R., & McDermott, D. (August 6, 2020). How Have Healthcare Utilization and Spending Changed So Far During the Coronavirus Pandemic? Exhibit: Spending on Health Services Dropped Sharply in March and April 2020. Retrieved November 6, 2020, from https://www.healthsystemtracker.org/chart-collection/how-have-healthcare-utilization-and-spending-changed-so-far-during-the-coronavirus-pandemic/#item-year-over-year-percent-change-in-personal-consumption-expenditures-on-health-care-services-january-1960-june-2020.

[7] Panchal, N. et al. (August 21, 2020). The Implications of COVID-19 for Mental Health and Substance Use. Kaiser Family Foundation. Retrieved November 6, 2020, from https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/.

[8] Davenport, S., Matthews, K., Melek, S.P. et al. (January 2018). Potential Economic Impact of Integrated Medical-Behavioral Healthcare: Updated Projections for 2017. Milliman Research Report. Retrieved November 6, 2020, from https://www.milliman.com/insight/potential-economic-impact-of-integrated-medical-behavioral-healthcare-updated-projections.

[9] Cheney, C. (July 15, 2020). Primary care for all among proposals to address healthcare disparities. HealthLeaders. Retrieved November 6, 2020, from https://www.healthleadersmedia.com/clinical-care/primary-care-all-among-proposals-address-healthcare-disparities.

Conclusion

Preventive services have the potential to help improve health outcomes in several major U.S. healthcare markets by preventing beneficiaries from contracting conditions, identifying diseases before symptoms occur, or by preventing the spread of conditions to other people.

The current environment created by recent policy proposals and the COVID-19 pandemic has opened the door to renewed focus on preventive services.

Providers are likely to administer new preventive services, when clinically appropriate, because they can be billed back to the plan. Plans may want to understand their historical preventive service utilization and understand the financial impacts of potential future changes to the preventive services list. The projection of financial impacts of changes to the preventive services list can benefit from actuarial modeling and strategic expertise.

Caveats, limitations, and qualifications

This paper was developed to examine preventive service utilization across the individual, group, Medicare, and Medicaid markets. This information may not be appropriate, and should not be used, for other purposes. We do not intend this information to benefit, and assume no duty or liability to, any third party who receives this work product. Any third-party recipient of this paper that desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its specific needs.

In preparing our analysis, we relied upon public information from the USPSTF, Milliman's 2014 through 2017 Consolidated Health Cost Guidelines™ Sources Database of nationwide medical claims, and other publications listed and footnoted above.

We are not attorneys and do not intend to provide any legal advice or expertise related to the topics discussed here. The opinions included here are ours alone and not necessarily those of Milliman.

We are actuaries for Milliman, members of the American Academy of Actuaries, and meet the qualification standards of the Academy to render the actuarial opinion contained herein. To the best of our knowledge and belief, this information is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in life insurance and financial services, property & casualty insurance, healthcare, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

milliman.com

CONTACT

Barbara Collier
barbara.collier@milliman.com

Michelle Klein
michelle.klein@milliman.com

© 2020 Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.