



WHITE PAPER

Measuring the Impact of Preventive Primary Care



“Will it lower my healthcare costs?”

As employers struggle with the ever-growing cost of healthcare, the success of any effort to improve population health comes down to this question. In this white paper, we share thoughts about how to approach the important question of cost savings as well as other measures that prove the value of investing in the health and well-being of your people.

Measuring success begins with asking the right questions

An important place to start in measuring the impact of preventive primary care is to ask key questions that guide

the approach you take. While there is clearly a central question to be asked — does it lower costs? — other questions should be considered to get a fuller picture of the impacts and value of the program.

For more than a decade, the healthcare field has had a simple framework called the “triple aim” (developed by the Institute for Healthcare Improvement¹) that states three health program performance goals:

1. Deliver a better healthcare experience
2. Improve the health of the population
3. Reduce the cost of health care

The table below shows the key measurement questions that align with the triple aim:

TRIPLE AIM DIMENSION	KEY MEASUREMENT QUESTIONS
Better Care Experience	<ul style="list-style-type: none">• Is the care experience for users of the program better compared to the community standard?• Does the program deliver a more complete preventive experience?
Population Health Improvement	<ul style="list-style-type: none">• Does the program reduce risks in unhealthy, returning patients?• Does the program demonstrate greater motivation to change at-risk or unhealthy patients?
Lower Cost	<ul style="list-style-type: none">• Does the program achieve lower total cost of care and over what time period?• Does the program result in less avoidable care in areas such as emergency room use and inpatient admissions?

These questions are examples of what you may want to consider but are not meant to be definitive. Employers may have unique characteristics or concerns about their healthcare program that require additional questions. This may include measuring improvements in access to care in key locations and whether their programs meet the needs of under-served population subgroups.

Employers need to evaluate more than just the healthcare cost of their workforce since programs that positively influence population health likely deliver other benefits. For example, does improving population health through preventive primary care positively impact other areas — such as disability benefits or workers’ compensation? In this case, measures may focus on lowering rates or the duration of disability/lost work time.

Another benefit may be whether users of the program are more likely to stay with the employer. Knowing retention rate differences in users and non-users may highlight great economic benefits beyond the medical claims. This is particularly important to employers whose costs in attracting and training new employees is high. In some cases, financial benefits in these other areas may be much greater than the savings in the medical plan.

Once the measures are agreed upon, the analytical plan can be defined and should address data sources to be used, the time frames required, the methodology and, finally, the findings and conclusions.

Measurement is more than questions — methodology matters

Well-designed measurement studies include a variety of analytic methods in order to deliver statistically reliable results. Below are several methodological areas to consider, which are vital for meaningful health program evaluation studies.

STUDY DESIGN

Some of us have heard of what is referred to as the “gold standard” in comparative analysis — the randomized, controlled study (RCT). This method involves randomly assigning eligible participants to an intervention or control group and then following each group over a specified time period. The benefit is the ability to reduce bias in comparing groups. Unfortunately, employer sponsored programs do not benefit from analyses conducted this way because of the costs and time involved.

More commonly, employers use what are called retrospective cohort studies to compare the groups who participated and did not participate in the program. The lack of randomization in a retrospective approach can result in biases when comparing participants to non-participants. The use of the retrospective cohort approach, therefore, needs to follow additional steps to minimize the influence of these biases so that comparisons on key measures are more reliable. The following provides some insights.

COHORT DEFINITIONS

A cohort is a group of individuals with a common attribute. To illustrate how cohorts might be defined when evaluating the use of preventive primary care of the EHE Health program, for example, we have used the following:

- Adults who had a preventive visit with EHE Health in the last year
- Adults who had a preventive visit outside of EHE Health
- Adults who have not had a preventive exam in the last year.

Once these groups are defined, additional criteria are used to measure the program’s impact, sometimes over two or even three-year periods, depending upon the availability of data.

INCLUSION/EXCLUSION CRITERIA

These cohort definitions clarify which groups will be compared to each other. Much thought of who to include and exclude is important. In our experience, these three criteria are the most common:

- **Eligibility:** Some individuals may not be eligible to participate in the program and, therefore, should be excluded from the non-participant groups.
- **High-cost claimants:** Because some high-cost claimants can incur more than \$1 million in costs in a single year, they can significantly impact comparative analysis. Fortunately, most analytical and reporting platforms can accommodate the need to exclude and/or adjust for the presence of high-cost claimants. At the very least, looking at results with and without high-cost claimants is an important consideration in comparing results.
- **Tenure (time on plan):** A common challenge of analyzing employer health programs is addressing the time-frame needed to produce results. Here are examples. Someone uses the program in March and then leaves the employer in May. Are they included or excluded? Some preventive benefits are near-term (an avoided emergency room visit) versus longer term (avoided cancer treatment due to early detection). It’s worthwhile to include individuals in the analysis who have had continuous plan and program eligibility periods. We have used at least 12 months and, more preferably, 24 months when analyzing differences over longer time frames.

DEMOGRAPHIC/RISK ADJUSTMENT

Defining the cohorts and deciding who to include and exclude from the analysis will not necessarily solve for demographic or clinical differences in each population. Some of the more basic methods of adjustment will normalize findings of each cohort based on an age/sex distribution. More rigorous methods will adjust for clinical risk differences through third-party risk adjusters that use claims data to measure illness burden differences. There are even more sophisticated techniques, like propensity score matching, which applies statistical techniques to create an artificial control group. All these are methods used to decrease the biases that may be present among the different cohorts.

The important takeaway here is not to accept a finding for each cohort at face value. A common criticism of many wellness-oriented initiatives is that they attract healthy people. By adjusting for demographic/clinical risk differences, it allows for more credible comparisons of key findings across cohorts.



Financial Measures

If one of the key goals of the triple aim is to lower costs, the question becomes — what “cost measure” should be used? We know that in healthcare, the provider’s charge is not necessarily what they agree to receive as full payment for their service. We also know that what they agree to receive may be paid in part by the plan (the employer’s net cost) with the remaining amount paid by the patient (i.e., through cost sharing provisions like deductibles, co-payments or coinsurance).

Because the analysis is focused on total cost of care, the impact of member out-of-pocket costs on employer net costs might differ among cohorts, especially when an employer offers different types of plans. The simplest recommendation here is to measure the differences in:

- **Allowable amounts:** this essentially includes what the plan (employer) and member paid together for all services the member received.
- **Net paid amounts:** this is the employer’s direct costs after employee out-of-pocket costs.

Lastly on this topic, financial measures are often referred to in per capita terms — per member per month/year or per employee per month/year. Adjustment methods, as described above, can then be used to control for differences in cohort cost profiles.



Utilization Measures

Claims-based studies lead to a variety of measures about how people use health care services, including inpatient admissions, emergency rooms, doctor visits, ancillary services and prescription drugs. Measuring changes in all

the services can be overwhelming, but few would argue about the goal of keeping people out of the hospital. Today, an inpatient admission can cost \$20,000 or more. Emergency room visits now exceed \$2,000 per visit, on average. Measuring changes in utilization for a preventive program should, at a minimum, include inpatient admissions and emergency room encounters since these are expected to decline as people engage in their health through primary care.



Quality Measures

The COVID pandemic highlighted concerns around deferred preventive care, such as the expected increase in incidence of late-stage cancer detection. Including key measures of quality related to prevention is important and available through standardized metrics developed by the National Committee on Quality Assurance (NCQA). Many employers can access these measures through their health plan partners or data warehouse vendors. Key adult-focused prevention measures to track include:

- Adult wellness visits
- Cervical cancer screening
- Breast cancer screening
- Colorectal cancer screening



Experience Measures

The patient experience of primary care is a concern. With primary care net promoter scores (NPS) very low (negative digits), the care experience needs to be measured. While claims data are the source for measures of cost and utilization, surveys are used to measure the patient experience. It may be difficult to develop comparable measures of performance among the cohorts. But what is key here is that the program is delivering a great experience. NPS scores above 50 can be used to define whether success was achieved.²



Health Status Measures

Various approaches are available to measure changes to population health status across cohorts. Risk adjusters can be one source, but other methods are available to focus on individuals with chronic conditions (single or multiple conditions) and their severity when other data sources are available (lab data, biometrics, health risk assessment data). This data may not be equally available across the cohort groups, but they will be useful in following risk profile changes and to answer the question of whether the program is moving the needle in the right direction on population health.

Who does all this work?

Executing the methodology above may seem challenging, but the good news is that these steps are not out of reach. It just requires a strong partnership among the various stakeholders — the program vendor for their participation and other data, medical and pharmacy vendors who serve as the source of claims information (or a data warehouse, when available) and analytical experts in these organizations, the employer or their consultant. What matters is ensuring that your program partners are committed to sharing the data required and following sound methods to produce credible results. Most evaluation studies described here can be accomplished in reasonably short time-frames (8 to 12 weeks) once all the data is available.

Final Thoughts

There is a tremendous opportunity to increase preventive care for adults in the US. We firmly believe that it is the right thing to do for your people and your bottom line. If you'd like to collaborate with EHE Health, the nation's leading adult preventive program solution, please feel free to contact us.

In this article, we've outlined a variety of important considerations so you can confidently decide whether a program focused on preventive care can save money. Having partners aligned with the goals of your healthcare strategy and committed to the measurement plan is important; without that, it will be difficult to measure success. We welcome the opportunity to discuss how to create a solid foundation to measure and prove the beneficial impacts of increasing engagement in adult prevention with your organization.

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¹Additional information on the Triple Aim and suggested measures can be found at <https://www.ihl.org/Engage/Initiatives/TripleAim/Pages/MeasuresResults.aspx>.

²For additional discussion on the NPS scores for primary care, see our white paper entitled, "Guiding Principles and Best Practices in Preventive Primary Care", under Guiding Principle #4.