Healthentic

MEASUREMENT WITHIN REACH

Measuring population health with readily available data

Measurement Within Reach

Measuring population health with readily available data

Employers pay for health insurance and wellness programs, but they often only have a vague idea of the actual health of their insured population and what problems need to be addressed. This paper discusses readily available metrics employers should use to measure, track, and improve the health of their insured population.

Employers commonly have access to two types of aggregated health data: administrative data from insurance claims and data from health questionnaires and screenings. Both sets of data are useful in measuring population health.

Metrics Based on Claims Data

Per Member Per Month (PMPM)

Claims data can identify trends in per-member-per-month (PMPM) health care expenditures for the overall insured population as well as subgroups identified by age, gender, and diagnostic categories. While PMPM is not a direct measure of health, it is an important key metric for businesses that are paying for health care and wellness programs and who want to lower costs without sacrificing wellness. Metrics related to PMPM, such as the percent of dispensed drugs that are generic and the percent of medications provided by mail-order pharmacies, provide businesses information on the modifiable utilization patterns that can lower PMPM without adversely affecting population health.

Prevalence of Diagnosable Conditions

Claims (including medical, pharmaceutical, and dental) have either a primary diagnosis or procedure code that identifies the reason for the health care encounter. With this information an employer can estimate the prevalence of various common conditions among their insured population. For example, if 10% of the insured population in a given time period has health care services or drug prescriptions that are closely identified with hypertension (chronic high blood pressure), it is a reasonable estimate that about 10% of the population have hypertension. The total disease burden in a population is in part measured by the prevalence of major conditions (diabetes, hypertension, depression, heart disease, etc.), and the proportion of the population that have zero, one, or two or more chronic conditions. Indirect costs of chronic illnesses, such as missed work days, can also be estimated based on the prevalence of the conditions.

Severity of Illness

In addition to prevalence estimates, claims data is a record of health care utilization that can help an employer measure the severity of illnesses in their insured population. Hospital admissions are associated with more serious and costly illness and injury and thus the lower the hospitalization rate, the healthier the population. Emergency room visits likewise reflect a degree of uncared for illness or lack of injury prevention and thus a lower ER visit rate is usually an indication of a healthier population.

Treatment Adherence

For certain chronic conditions (such as diabetes, high blood pressure, and high cholesterol) consistent long-term pharmaceutical management is associated with lower medical expenditures and hospitalization rates. Using pharmacy claims, it is possible to calculate the medication possession ratio, a proxy measure of medication treatment adherence. Likewise, certain chronic conditions, specifically diabetes, have established standards of care that are detectable in the claims data, allowing employers to estimate the proportion of the diabetic population who are not meeting the standard of care for their health condition.

Metrics Based on Health Questionnaires and Screenings

Many employers provide health questionnaires and biometric screenings to their insured population as a health promotion intervention, often annually at the time of health insurance enrollment. Health questionnaire and screening data can identify health risks that are not apparent in claims as well as measure readiness to change and interest in health promotion programing. Matching health questionnaire and screening data to a person's individual claims data makes it possible to identify potential gaps in care that can be addressed through targeted health promotion outreach or disease management. The higher the response rate for the health questionnaire and biometric screening, the more useful the resulting data is for population health management.

Key metrics based on questionnaires and biometric screenings are:
- Prevalence of elevated biometrics (blood pressure, blood sugar, Body Mass Index (BMI), waist circumference)
- Prevalence of persons with risky behaviors or conditions (physical inactivity, excessive drinking, smoking, high levels of stress, etc.)

Selected Metrics for Population Health Management

The following table summarizes readily available metrics employers can use to measure population health. Trending such metrics over time can help employers evaluate the potential impact of wellness programs on the health of their insured population and on the direct and indirect costs related to illness and injury.

Metric	Source	Implication
Per member per month costs (PMPM)	Claims	Changes in PMPM could be related to changes in the rates of illness or injury, changes in health benefit plan, variation in treatment adherence, or trends in prices for health related services.
Prevalence of conditions, risks, and comorbidity	Claims	Lower prevalence of conditions is better. Lower rates of comorbidity (having two or more chronic conditions at the same time) are better. In a 3-5 year time scale, prevalence and comorbidity are primarily determined by who is in the population, not by wellness programs. However, employers can use prevalence and comorbidity to determine if disease management is needed.
Hospitalization and emergency room visit rate	Claims	Overall increase in hospitalization/ER visit rate indicates worsening population health profile. Identifying the most common diagnoses related to hospitalization can help guide wellness and disease management programs. Identifying top diagnosis for ER visits may inform health benefit plan design.
Treatment adherence	Claims, Biometrics Questionnaire	The percentage of persons with conditions who are non-adherent with or not responding to treatment (medical or lifestyle) can help evaluate disease management and wellness programs.

About Healthentic

Healthentic diagnoses and prescribes population health solutions so employers can target the right issues and people to make improvements. Our Population Health Dashboard (PhD) combines all of your health care data inputs into one place, giving you the industry's easiest to use population health measurement platform. Finally, you can focus on answering the questions that matter.

Learn more by visiting our website at http://www.healthentic.com