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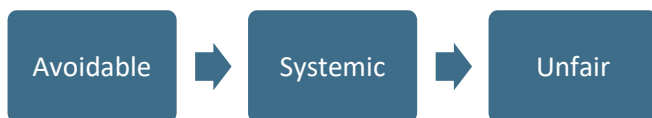
Advancing Health Equity
Data Driven Approach

Generating analytic insights for measuring population-based health equity, as the basis for critical action

Health Equity Defined

Health Equity means that everyone has an equal opportunity to achieve the healthiest life possible. It is achieved through the removal of unfair, avoidable and/or remediable difference among groups of people, whether those groups are defined socially, economically, demographically, or geographically.

Avoidable ➡ Systemic ➡ Unfair

As a construct, Health Equity is closely aligned with a focus on Social Determinants of Health (SDOH), except that when most organizations say they are pursuing health equity, it explicitly includes extending efforts into the community to identify and help address root causes. In many cases, this entails supplying analytic insights to help pinpoint areas of vulnerability including the following:

1) Direct involvement with community resources in up-front identification.
2) Using analytics to confirm and add additional insight, and
3) Assessing the success of actions taken to address root causes.

Find Best Opportunities

Without a clear understanding of precisely where inequities exist, well intentioned strategies may have minimal impact. Clarity is best accomplished via first establishing relevant baseline population groupings, monitoring their health progression overtime, selecting laser focused interventions, and continuously monitoring results. Some overarching guiding principles include:

Challenging conventional thinking and assumptions by accessing and utilizing the best data available. Start by looking at the population as a whole, mapped according to where they are relative to their health journey.

Taking a Targeted Approach by selecting health outcomes of interest to assess and measure improvements over time, stratified by select demographic and socioeconomic characteristics. Where possible, use data sources that allow you to stratify by factors such as age, race, physical location.

**Engage Community Members in Data Collection and Interpretation.** The perspective of community members can bring static data to life, refining priorities and developing solutions.

A common approach for identification of populations of interest involves development of predictive models. However, to get predictive models to work well in the context of identifying those at risk due to health inequities, there are too many variables required, which are hard to source and successfully integrate within the analytic model.

Health Journey Progression as a Health Equities Analytic Framework

We have found a more useful and practical approach for identifying individual health risk that is based on where people are in their **health journey** (mix of select chronic conditions, and other health related factors such as lifestyle and burden of disease) typically found in health payer datasets.

Chronic Conditions → Lifestyle Factors → Illness Burden
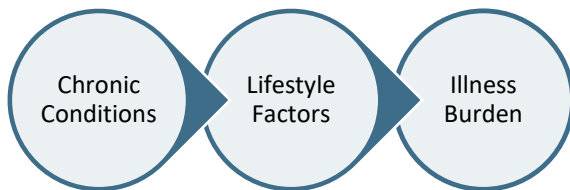
These elements are aggregated and analyzed using weighing factors derived from medical literature and clinical interpretation. The model output reveals patterns that tell us more about individuals– not just what conditions they have but where they are in the progression of their overall health and associated risk factors.

The advantage of this approach is that it does not principally rely on health care cost and utilization to identify populations of interest but rather looks at how different subgroups progress over time relative to changes in health status.

There is less chance of missing important demographic distinctions relative to the frequency with which certain subgroups progress in their health journey toward higher risk and greater burden of illness - before they would be flagged at risk based solely on their cost and utilization profile. This approach will find individuals who appear healthy (lack of chronic conditions) at baseline but have demographic and other SDOH factors that place them at higher risk of developing conditions that may progress to poorer overall health in the future.

Case Example:

As mentioned above, early intervention on developing lifestyle conditions reduces illness burden and reduced quality of life. Our analysis on population health journey has revealed a marked movement of certain demographically defined populations of individuals with no lifestyle related chronic conditions (no evidence of health risk or illness related to lifestyle) to the presence of such conditions (e.g., hyperlipidemia, hypertension, diabetes), during the study period (within one year).

Progression Difference in Healthy Population
Newly identified lifestyle related condition

Health Risk Condition	Demographic Health Trend Variation
Diabetes	**50%** higher trend in newly identified diabetes for all minority groups except Hispanics, compared to the White population.
Hyperlipidemia	**33%** higher trend diagnosis for all females compared to men.
Obesity	**25%** higher trend in new obesity diagnosis for the black population.
Hypertension	**8%** higher trend in new hypertension diagnosis for black individuals.

Source Data: 2017- 2019 CMS LDS Medicare Fee for Service

Call To Action:

Even though these individuals generally still appeared healthy as measured by their overall health profile, large variation in demographic trends of early risk indicators are a proactive place to start in supporting Health Equity. In other words, stop the demographic variable trends from compounding into future, more severe adverse health risk and outcomes within these demographics.

Based on findings such as these, health care organizations and providers will be able to reach out into the community and target proactive health management programs to specific demographic groups to reduce increased future illness burden.

Intervention Design Tips:

Programs can be designed and aimed at engaging these specific demographic groups, regardless of whether they currently have a target health condition.

Efforts working in tandem with community leaders and resources can focus on identifying root cause, helping to avoid potential health consequences of health inequities that may impact specific demographic groups.