# TEG Analytics

INSIGHTS @SPEED OF BUSINESS

Leveraging publicly available data to gain competitive advantage

Imagine a world in which private Medicare Insurers knew exactly what comprises their target market - if they had information on the county eligible population, ageing profiles of counties, spending patterns of their senior citizen target market, and exactly knew the mix of benefits, drug packages and provider networks this market would prefer. If Insurers knew the primary diagnosis that are generated by county, by age-group, or the most common types of services demanded, whether it is ambulance, orthopedic or pediatric. Medicare Insurers would then create products that were tailor made for this market, leading to higher welfare for their medically vulnerable citizen, better, faster, personalized service delivery, resulting in higher brand equity and goodwill.
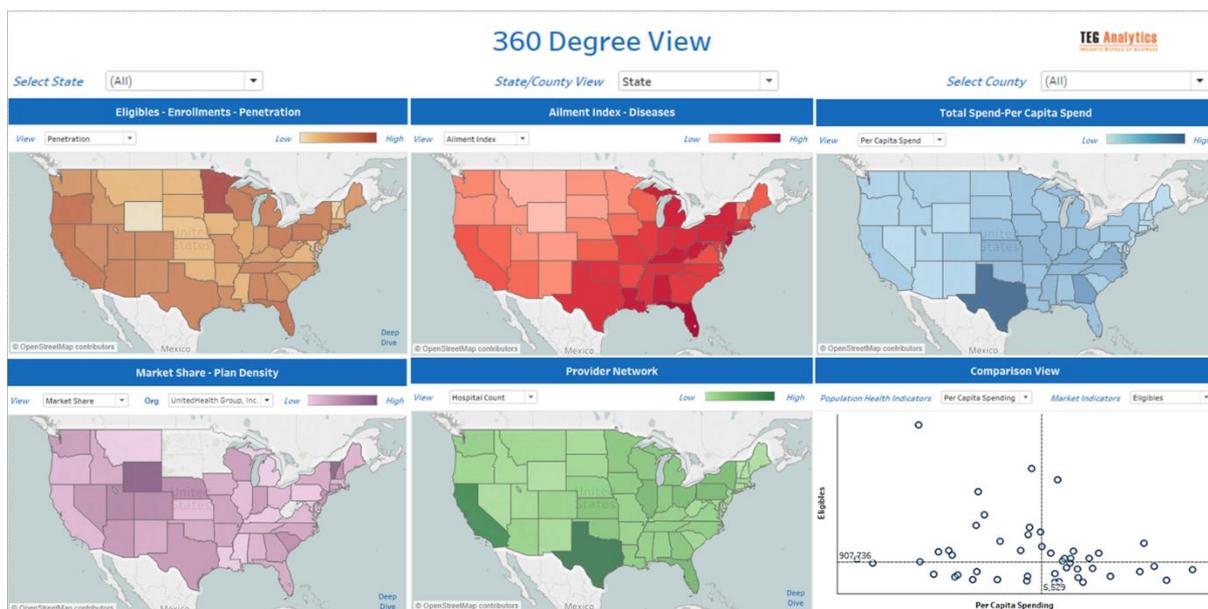
Sounds like close to Utopia?

This kind of world is not far off, really. The ability to derive meaningful, just-in-time, surgically precise and actionable insights from data is the first step towards creating this world - with machine learning and artificial intelligence on a strong analytical engine sifting through mounds of data that is already collected by many of the government's medical programs. With predictive analytics, Medicare insurers can potentially have a near real-time analysis that allows them to analyse competitors plans offerings, compare their plans with the competitors, simulate the impact of plan attributes and use this to tailor their plan offerings, and best of all, close the loop on what attributes customers prefer.
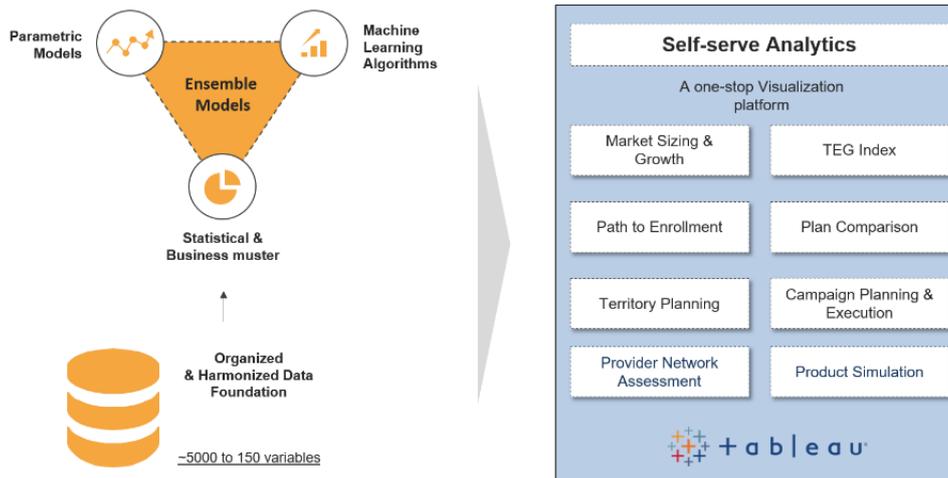
So why Medicare Advantage?

Medicare Advantage plans have been increasing in penetration over the past decade as the share of Medicare beneficiaries enrolled has steadily climbed up the charts. Currently, as of 2018, one in three people with Medicare is enrolled in a Medicare Advantage Plan. This has occurred despite a steep fall in the payments to plans after enactment of the Affordable Care Act of 2010. That's a whopping 20 million people enrolled country-wide in the Medicare Advantage plans, and this only seems to be growing in numbers. As firms compete in this market space, their ability to profitably serve their client needs is highly dependent on having the right product that caters to the specific market along with the right messaging and call to action.

Insights@Speed of Business

At TEG Analytics, the HealthWorks Medicare Insurance practice is a growing obsession. TEG Analytics has solutions that replicates customer's choice models on various plan attributes across different plans floated in their county: cost and MOOP considerations, the bouquet of benefits or the pecking order of drug deductibles - our HealthWorks platform has all these and more. Specifically, TEG's HealthWorks Platform assists Medicare Insurers with the following steps

a) Rank the factors that lead to higher plan performance in a specific county. For instance, which are the top 5 factors that influence purchase behaviour in Alameda county?

b) Quantify the impact of these critical factors. It helps answer questions such as - what is the impact of a 1% increase in my MOOP on market share and enrolments?

c) Simulate plan features. If my competitors increased their drug deductibles and our firm kept it at the current level, is there likely to be a material impact on enrolments?

d) Get a quick birds eye view of all competitor analysis. How many plans are there in the Boulder county, and which organisations do they belong to? What is the market share of the top 5 plans by enrolments in the state of MA?

e) Obtain a sneak peek into the prospects. How many people do we expect to be added into Medicare eligible by County/State, and what is the likely income of the 60-65 age group? What lifestyle concerns does this demographic face?

The math behind this engine is a complex, ensemble model which uses forecasting techniques and machine learning to appropriately predict the enrolments of each of the plans in the Medicare Advantage program. Models are distilled from around 5000 variables including plan types, costs and MOOP, historical plan performance, stickiness of enrolments, brand equity of the parent organisation, county level eligibles and income growths factors, plan level attributes including all varieties of benefits and drug deductibles. Mapping algorithms take care of re-mapping plans that have changed, merged or undergone any ANOC level changes across years. Models are built at plan level both on market share and on enrolment, training the models using both historical data over

the last three AEP cycles as well as current data, incorporating current trends in plan enrolments. All this information is synthesized to provide insights on plan competitiveness, market attractiveness and plan performance.

The end result: Medicare Insurers can now focus on making their plans competitive and precisely targeted to the county, using TEG's HeathWorks platform which mimics customers choice models.

Snapshot of publicly available data

Watch TEG HealthWorks in action

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About TEG

TEG Analytics is a data-science-as-a-services company and helps organizations make better decisions at the intersection of business, technology, and applied mathematics. Our vision is to deliver Insights @ Speed of Business. TEG helps market leaders across industry verticals (like Healthcare, Retail, CPG, BFSI) in shaping strategy powered by analytics.

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