Predictive Analytics for a Medicare Advantage Plan

BACKGROUND

A medical group with a population size ~25,000 Medicare lives required AI/ML based predictive analytics that can predict future medical cost and predict probability of ER events (visits + Admission) in the next 6 to 12 mo.

SPECIFICATIONS

- ~25,000 Medicare lives with claims (Pharmacy + Medical) and Eligibility data
- Include Census data to understand the patient demographics and social determinants of health
- Create the Datawarehouse at a time month level for performance analytics and other use cases
- Create AI/ML models to predict member future cost
- Create AI/ML models to predict ER events (Visits + Admission) in the next 12 months
- Implement an operational plan to execute the predict patient list program
- Inability to identify the patterns and characteristics to reduce un-necessary emergency room utilization by proactive care management

Solution and Approach

- Multi-dimensional cost/outcomes/risk analysis based on this prediction, that identifies opportunities for utilization and care management.
- Developed proprietary predictive algorithms using Clinical and Non-Clinical (SDoH) that proactively identify member behavior by understanding past network care gap patterns, historic utilization resources, and referral and medication compliance.
- This analysis was used to prioritize which patients to target and intervene before they ended up in an inpatient setting
- Created performance dashboard to view trend (cost and outcomes) and compare between clinics, zip codes and physicians