



Value-based success, informed by life.

Fully Understanding Members to Anticipate Their Needs and Improve Their Overall Experience

Nascate Client Case Study

About Nascate

Nascate is a healthcare technology company that helps payers, providers and healthcare organizations put the person first and deliver measurable value. We enable our clients, and their partners, to improve the lives they are responsible for by translating imperfect information into improved awareness, better decisions and more effective actions.

Nascate's dedicated team of healthcare experts and data science specialists bring together a unique perspective and advanced data modeling/AI to help you focus on matching people and providers, and predicting better healthcare.

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Introduction

A regional Health Plan in the Northeast US has engaged with Nascate in an effort to more fully understand members, beyond clinical illness burden, and leverage that information and Nascate's models to anticipate member needs and improve the overall experience of members. The Nascate products have been used by our client to enable a variety of functions, with the focus here around health management for the members and performance measurement.

Nascate uses member demographics, eligibility and claims from the plan, and healthcare provider information from the plan. We ingest this information on a regular basis. This member information is enriched through Nascate processes and leverages Nascate benchmark data, geographic information, provider data and Social Determinant of Health (SDOH) data. This resultant set is then processed with Nascate models to segment the population into Personas, produce a Social Complexity Index, produce details on how the member utilizes the health care system, and predict member needs with Nascate models and metrics. An example of a Nascate model is the Early Action model, which predicts members that will likely experience a sharp increase in utilization and cost within the following six months. An example of measuring how a member utilizes the health care system is the determination of the member's relationship with providers, including a measurement of the strength of that relationship.

The results of these Nascate metrics and models are available via Nascate Aware™, a secure, SaaS based platform that the plan can access. The content is also provided via the Nascate Aware Data Exchange™. Through the Data Exchange, the results of the models are returned to the plan in a secure transfer process that delivers the content as attributes of members and/or providers. The plan's IT team incorporates the Nascate product into the plan's own data warehouse (and other systems) to enable the use cases discussed below. This approach allows the plan to: 1- leverage Nascate content in conjunction with other information known about the members; and 2- integrate the content into existing work streams.

Person Profile

Nascate analyzes various social and clinical characteristics to create a profile of the whole person. This profile is a unique depiction of the healthcare journey for every person in a given population. Specific results are generated from: Nascate Personas; Social Complexity Index; the measured Strength of Relationship Score that a person enjoys with their healthcare provider; Flag indicators identifying issues with treatment burden as well as social and clinical complexity; and, depending on where the person is in their healthcare journey (i.e., pre or post- acute), Nascate offers Data Models that anticipate the needs of

the individual. Major aspects of the features and data flags found in the profile are described below:

Personas - Nine all-encompassing groups that represent different types of healthcare users. These categorical classifications are foundational to Nascate's approach to population segmentation. Personas are built based on patient demographics, diagnoses, and locations of services. Personas can be accurately determined even with limited claims data. In addition, Personas do not rely on cost data which helps to make them resilient and stable over time. Personas were discovered through statistical procedures and revised over time to represent simple-to-understand groups that could serve several healthcare analytic needs.

Social Complexity Index (SCI) - A score representing patient risk. The SCI score is unique in that the risk represents social, clinical, and treatment burden factors detrimental to health and proper healthcare utilization. People scoring high on this index are more vulnerable when facing health challenges because of a combination of elements such as (a) poverty, geography, and other social-related deficits, (b) clinical conditions that limit their ability to properly care for themselves, and (c) a high burden of treatment due to their extensive interactions with the healthcare system. The SCI is useful in that it provides an ordered list of individuals who could especially benefit from support and intervention.

Nascate's Strength of Relationship Score - Measures the concentration of a person's relationship with his or her main provider. Nascate algorithms, based on social graph theory, yield patient lists and quantify Strong/Medium/Weak designations for each person in a population. Nascate has developed sophisticated insights into those relationships, and in turn, they serve as key drivers for performance.

Flags - Nascate provides a specific list of the most important circumstances impacting a person's life. There are three domains that we account for: Social Complexity (household composition, support, social vulnerability, etc.); Clinical Complexity (chronic condition counts and medical condition); and Treatment Burden (healthcare days). Collectively, these provide a 360-degree view of the person and inform next actions in the delivery of care.

Nascate Data Models - Reliant on the elements found in the person profile, and temporal in that they allow us to accurately anticipate the needs of people in a population depending on where the person is in their healthcare journey. Examples of this are found below:

Early Action Risers - ranked lists of people who are likely to experience significant increases in healthcare utilization and cost in the near future. These people are often classified as healthy or non-users of care prior to the increase in utilization.

Future analysis will allow the plan to compare uptake (member activation) and outcomes of the program pre and post implementing this new approach to targeting.

In collaboration with a health system, the plan targets members that would most benefit from Home Health Visits. These visits are conducted to better understand the members' needs through a consultation and inform any needed adjustments to their care plans or any additional resources needed. In identifying members for this program, Early Action Riser and Social Complexity Index were top predictors for targeting. Additionally, the Persona, Behavioral Health tag, Social Determinant flags, and Provider Relationship were useful in determining the most appropriate intervention. Examples of assessments include:

- Determining if there are barriers to care for the identified members that are in the Non-User Persona, to see if there are unmet needs and barriers to care.
- For the identified Aging Complex and Aging Complex Behavioral Persona members, evaluating if there are home or social issues complicating their care plan.
- Evaluating need for home care and additional support for access to care for identified members in the Active Treatment Persona.
- For the identified members in the Frail Persona, evaluating if they are able to follow their care plans and identifying barriers to following the plan.

Predictive Modeling

The Advanced Analytics team from the plan has incorporated some of the Nascate metrics and models output as features into their own predictive models.

Metabolic Monitoring for Children and Adolescents on Antipsychotics: The team has conducted analysis of adolescents 1-17 years of age who had two or more antipsychotic prescriptions and had blood glucose testing and cholesterol testing. The analysis incorporated multiple Nascate models including Social Determinant flags, family dynamics, health care utilization burden, and Care Density. Their findings included: "As the level for care density indicator increases, the odds of a child getting their metabolic testing completed increases as well. The odds for a child go as high as 2.4 times as likely as someone who has a low care density indicator." With these findings, the team demonstrated the importance of Care Density in testing and meeting this particular measure, giving the medical management team an actionable task of assessing and improving care density for this group of children.

Breast Cancer Screening: This client has incorporated Nascate models to predict eligible members who will and will not meet the breast cancer screening recommendation. Various models have been developed, but the model using the

Nascate Persona and Care Density as features performed the best with accuracy of 87.58%. By reliably predicting members for compliance, the team can support medical management in outreach to engage members, improving their experience and improving the plan's quality scores.

Statin Therapy: The plan evaluates the percentage of males 21–75 years of age and females 40–75 years of age during the measurement year, who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD) and met the following criteria:

1. Received Statin Therapy. Members who were dispensed at least one high-intensity or moderate-intensity statin medication during the measurement year.
2. Statin Adherence 80%. Members who remained on a high-intensity or moderate-intensity statin medication for at least 80% of the treatment period.

A number of factors were identified that when singularly changed resulted in the members being more likely to pass the quality measure of Statin Adherence 80%. Among those features that changed and then improved the outcome was the Nascate Provider Relationship Strength score. Specifically, our client found that when moving members from weak relationships to medium or strong relationships, the impact was that their members were more likely to adhere to their statin therapy.