

NASCATE PROVIDER RECOMMENDATION ENGINE

Using latent information and collective intelligence contained in individual provider referral decisions to rank provider performance.

The Nascate Provider Recommendation Engine uses aggregated referral decisions, across multiple data sources, to develop recommendations that **best align with improving performance.**

WHAT IT IS

Providers continuously make referral decisions that must account for a variety of expressed and latent clinical, social and temporal preferences. We develop and organize the *collective intelligence* embedded in these referrals to recommend provider choices that will promote value. These insights can be used to curate networks and inform provider referral decisions.



HOW WE DID IT

We analyze referrals made by primary care providers. By leveraging machine learning and social graphs, this analysis helps us understand the relationship between a PCP's choices and performance. The social graph represents an aggregation of local referral decisions that are measured by performance and serve as the basis for recommendation. We replicated a similar process for post-acute referrals. We observed substantial improvement in overall network performance. Performance is reflective of supply of providers, access, and geography.

WHY WE DID IT

Understanding performance, curating networks, and managing referrals is often frustrated by the lack of sufficient provider data and nuanced patient requirements. This leads to ambiguity and uncertainty, which impede referral decision-making. With the combination of enhanced data and innovative analytic insights from existing referrals patterns, we address these deficiencies and enable aggregate performance improvement. Our methods are resilient and scalable so that the recent shifts in historical trends created by COVID-19 are seamlessly incorporated into the recommendations and results. Ultimately, we are able to recommend providers who are likely to achieve strong performance- in aggregate and over time.

