

# Bridging the Gap Between Published and Perceived Disease Prevalence

## INTRODUCTION

Specialty and rare diseases have undefined patient populations who are undiagnosed or misdiagnosed, health care providers (HCPs) who are unaware of disease states and their manifestations, as well as treatment journeys that are not well-understood. IPM.ai transforms real world data into real world insights that uncover the ideal patient, their treatment journey and their healthcare ecosystem so that life sciences companies can accelerate the successful development and commercialization of life-saving therapies for specialty and rare diseases that lead to optimal patient outcomes quicker, with less risk.

## THE CHALLENGE

A notable research society estimated a large population of undiagnosed and/or untreated patients for a common disease in the US. Our client, a top-10 global biopharma company with revenue over \$30 billion, wished to validate the findings as well as create a plan to address them during a resource optimization and targeting exercise.

## THE SOLUTION

IPM.ai approached patient-finding in five phases. To begin, the ideal patient population (IPP) was defined. An IPP is determined by criteria including test results, a combination of indicators from claims data such as ICD-10 codes, previous medical procedures, and prescription history. Integrating lab data, especially genetic test results, is an additional way patients were precisely qualified.

After an IPP control group was established, IPM.ai developed a lookalike model using AI/ML and scored the broader patient universe based on their similarity to the IPP.

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This phase included model diagnostics, a list of predictive variables, and triangulation metrics, which facilitated the scoring cut-off selection.

Next, this intelligence was employed to connect de-identified patients with specific, identifiable health care practitioners (HCPs) via historic claims data. Patients were attributed to a corresponding HCP based on recency of interaction, frequency of interaction, or if a visit triggered the claim. As a final step, IPM.ai delivered a list of relevant HCPs following the ML outputs. Following the delivery of the initial list at project completion, IPM.ai provided biweekly updates directly through the client's CRM system, which ensures data is constantly refreshed and new patients are accounted for on an ongoing basis.

## THE OUTCOME

IPM.ai discovered ~200k highly likely undiagnosed patients, 50% of which were identified to be managed by specialists. Based on these results, our client re-prioritized/re-tiered their existing targeting list and decided to use non-personal promotion to educate the non-targeted specialists about the benefits of early referral and diagnosis.

## About IPM.ai

IPM.ai ([www.ipm.ai](http://www.ipm.ai)), a part of Real Chemistry, is an Insights as a Service (IaaS) provider that empowers the world's leading life sciences companies to better understand and improve the lives of patients through the commercialization of precision medicine for specialty and rare diseases. IPM.ai's system of insight optimizes drug development, clinical study, product launch and commercial operations by utilizing granular-level longitudinal analytics, artificial intelligence and machine learning in conjunction with a real world data universe of over 300 million de-identified patient journeys and 65 billion anonymized social determinants of health signals.