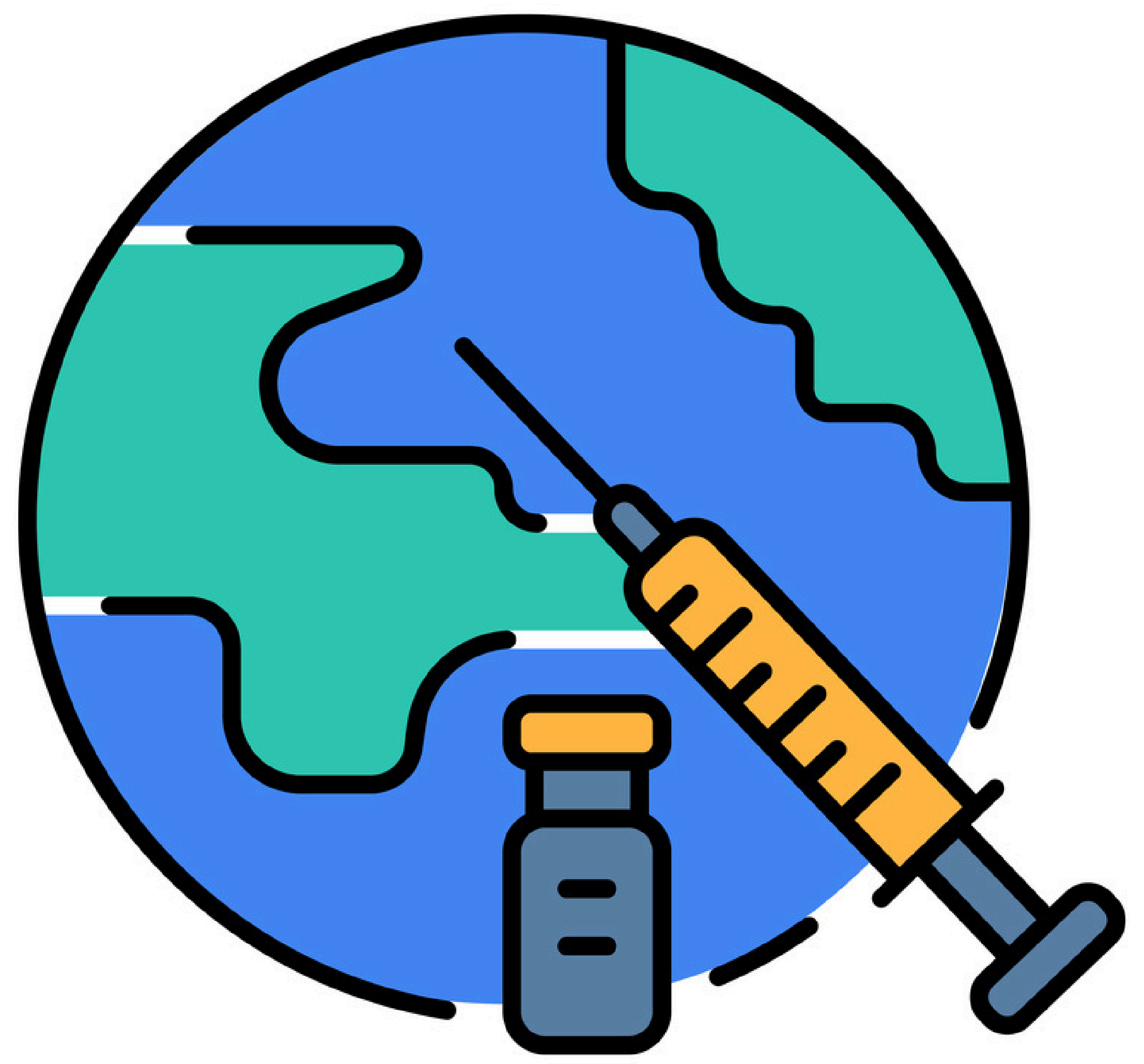


AI-Powered Vaccine Uptake Intelligence Delivers **60% Increase** in Vaccine Coverage



Turning complex vaccination data into measurable public-health outcomes

A leading global biopharmaceutical company partnered with OpenSky to transform how it measures and improves real-world vaccination uptake.

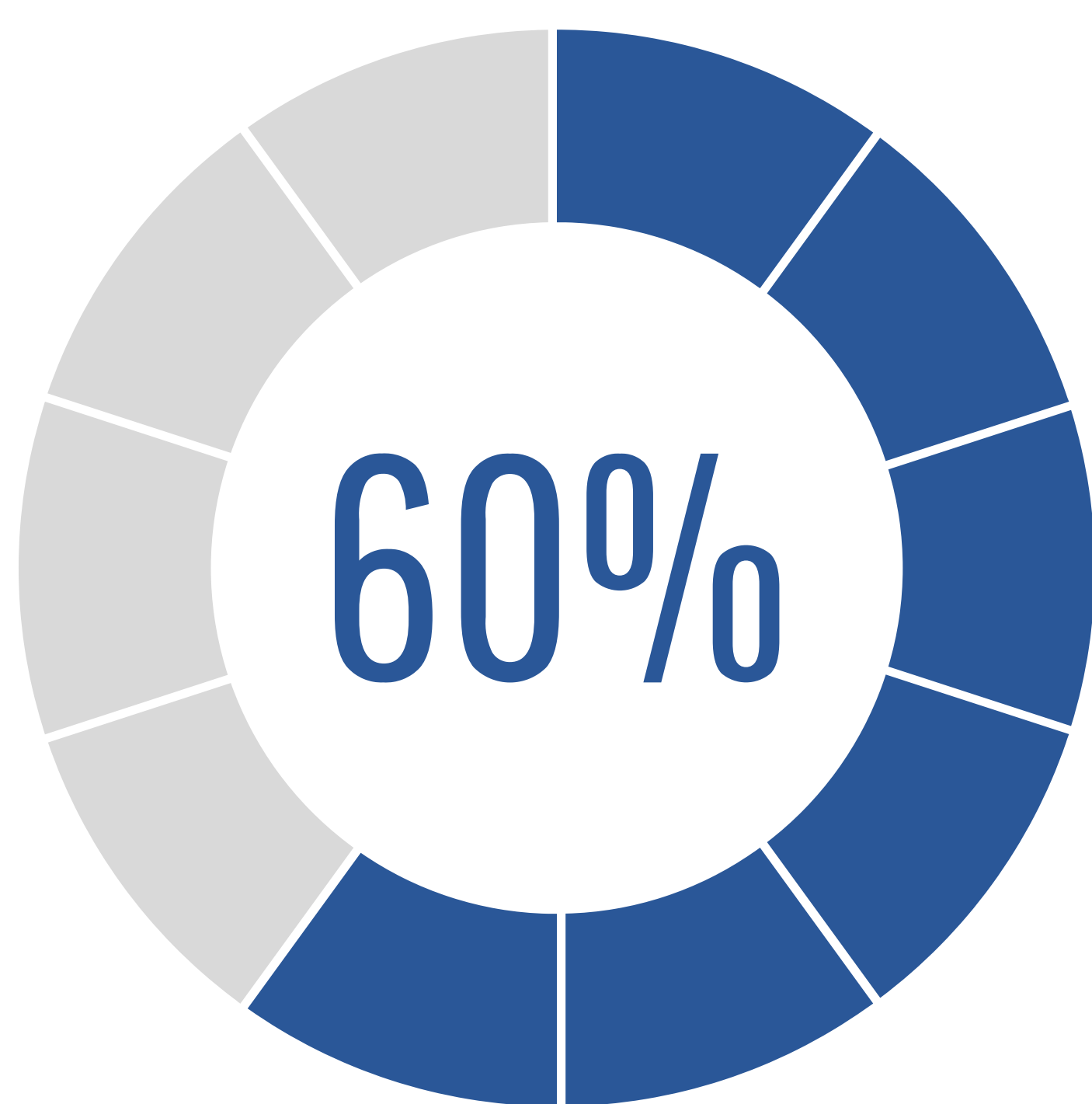
Using the Uptake Intelligence platform and consulting expertise by OpenSky - AI, machine learning, and advanced analytics were applied to reveal the behavioural and healthcare factors influencing vaccination rates—and to guide precisely targeted interventions that produced measurable impact.

The Challenge: Understanding What Drives Real-World Uptake

Even for established vaccines, identifying why adoption varies across regions and populations remains one of pharma's most complex challenges.

The client needed a clear view of the drivers and barriers influencing specific disease vaccination, and a faster, data-backed way to decide where to focus investment, digital activation, and HCP (health care professional) engagement. Traditional dashboards could describe the “what”—but not the “why.”

The Results: 60% year-on-year increase in vaccination coverage, driven by AI-informed activation and engagement strategies.



Supporting Results:

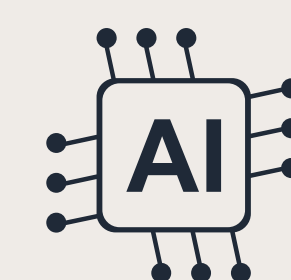
- Campaign efficiency up: Digital activation achieved a 29% reduction in cost-per-click while improving audience conversion.
- Stronger demand signals: Private-channel vaccination centres recorded nearly 200% growth in priority areas.
- Unified decision-making: Market Access, Medical, and Commercial teams shared one evidence base for planning and evaluation.

The Solution – AI Insight Engine + Human Expertise



Integrated data foundation:

Combined internal market and campaign data with external sources including pharmacy panels and National Health Institute statistics.



Explainable AI modelling:

Analyzed social, behavioural, and clinical factors—such as vaccine confidence, HCP influence, and digital activation intensity—to identify the strongest predictors of uptake.



Weighted prioritisation:

A data-driven framework scored each area by its potential for improvement, ensuring resources were directed where real-world results were most likely.



Human-led consulting:

OpenSky's data and domain experts worked directly with the client's Market Access and Medical Affairs teams to interpret model outputs and translate them into action.

How the Uptake Intelligence Engine Works:

1. Ingest & Connect: Integrate internal and external sources (CRM, registry, claims, public health) securely in Microsoft Fabric.
2. Analyze & Identify: AI uncovers behavioural, social, and clinical factors influencing adoption
3. Measure & Evaluate: Quantify the real-world impact of interventions and equity progress.
4. Recommend & Optimize: AI agents propose targeted recommendations, validated by OpenSky consultants.
5. Visualize & Collaborate: Power BI dashboards enable collaboration around shared insight.



The engine continually learns. Each new data refresh retrains the AI models, integrating fresh outcomes and feedback to enhance accuracy and insight relevance.