

# Improve Member Health and Reduce Healthcare Costs With Preventive Care Management

AI for Chronic Disease Care Management by NTT DATA

## Benefits:

- Provides timely, personalized insights to improve patient care, implement preventive measures and reduce costs
- Enables care teams to take an integrated approach that aligns with the shift to value-based healthcare
- Connects the dots between payers, providers and pharmacies for a 360-degree view of a member's health journey
- Includes a comprehensive dashboard that summarizes and organizes results into actionable metrics
- Integrates with socioeconomic indexes to enable population health management
- Aligns with federal and state goals to reduce the financial burden of chronic disease on the healthcare system

The lives of far too many people in the world are impacted by chronic conditions such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes. Six in 10 adults in the U.S. have a chronic disease while 4 in 10 adults live with two or more chronic diseases. Chronic diseases are also the leading drivers for the \$3.5 trillion in annual healthcare costs.<sup>1</sup> Federal and state healthcare agencies, as well as health plans, have created initiatives to control and manage the prevalence of chronic conditions among the population.

Chronic care treatments can be expensive due to the time and resources involved in treating patients. By advocating proactive measures, such as promoting healthy behaviors, your health plan can potentially avoid spend on high-cost treatments while providing a positive patient experience. Advanced technology also offers innovative ways to reduce the costs associated with chronic care treatments while focusing on better member care.

Advancements like artificial intelligence (AI) and machine learning enable access to patient insights throughout the health journey. Introducing AI for Chronic Disease Care Management by NTT DATA, our explainable AI-based chronic disease prediction and intervention solution for personalized care management. It lets you track health condition prevalence, severity and progression in member populations across multiple stages — from data ingestion to curation and harmonization, to chronic disease progression prediction and results visualization — to enable your health system to make timely decisions and drive better outcomes.

# AI for Chronic Disease Care Management by NTT DATA

Proactive health plans seek to identify and engage with patients who are at risk of developing chronic diseases. Today, your health plan can leverage technology such as predictive AI models to derive clinical insights from health data (claims, lab, pharmacy, health checks, etc.) for disease identification, monitoring and progression evaluation to provide timely interventions and determine the optimum treatment plan to give the best care to at-risk and diagnosed patients.

At NTT DATA Services, we can predict the risk of chronic disease progression with a high degree of accuracy before an actual diagnosis, enabling your care teams to take immediate action and improve preventive member care and reduce costs. Our AI engine is augmented with more than 60 million medical claims of over 8 million members from more than 52 payers as well as over 31 million pharmacy claims to analyze and predict these outcomes. We refer to this as powering the healthcare digital transformation with AI.



## Data Ingestion

NTT DATA's HIPAA-compliant cloud-based health data repository encompasses longitudinal, de-identified, patient-level data that spans many different data sources in the healthcare ecosystem. Longitudinal data allows us to characterize the journey that patients experience prior to getting the correct diagnosis. The abundance of data ensures that our AI model has enough data to learn, predict and validate the outcomes.



## Curation and Harmonization

With the proliferation of data from multiple sources, NTT DATA focuses on strict adherence to regulatory requirements including HIPAA and HITRUST as well as ongoing data governance. This includes filling in gaps, reconciling records, removing duplicates, and converting codes where necessary. Usually the data from multiple sources are not in standardized formats and requires curation and harmonization. NTT DATA has developed standards in harmonization and labeling the data, that supports advanced analytics in predictive modeling.



## Prediction of Chronic Disease Progression

NTT DATA's team of healthcare data scientists leveraged de-identified longitudinal patient data (historical data and real-time data) to build and train advanced Machine Learning algorithms and then iteratively evaluated, refined and validated the underlying logic to ensure precise, explainable model results. This ensured accuracy when the predictive algorithms were applied to data sets representing actual patients.



## Result Visualization

Data visualization is critical to AI implementation because it can alleviate a health plan's concern about the adoption of AI systems. With clear visual representations of member information, better conclusions can be drawn – to allow informed decision making and achieve business outcomes. NTT DATA's team has built visual dashboards that can clearly explain why our AI models makes certain predictions, thus helping health plans understand how the model works.

## Enable and expand your AI capabilities in patient care with NTT DATA

Our focus is helping you fully engage your members through intelligent insights and predictive analytics for better patient care and value-based healthcare initiatives. We understand that enabling positive member and patient experiences takes continuous innovation and insights. Our data science experts focus on transforming health data into the most actionable source of health information using our AI engine. In addition, our data science experts work closely with health plans to develop solutions by leveraging the AI engine tailored to their business needs.

### Using knowledge as a disrupter

Our innovation ambassadors serve as idea agents who solve business problems. These highly skilled consultants support conversations, both in our Innovation Studio and onsite at your business. While each of our ambassadors is an expert in a specific industry, together they offer a unique perspective on developing solutions for a wide variety of industries.

### Methodology focused on harnessing advocate insights.

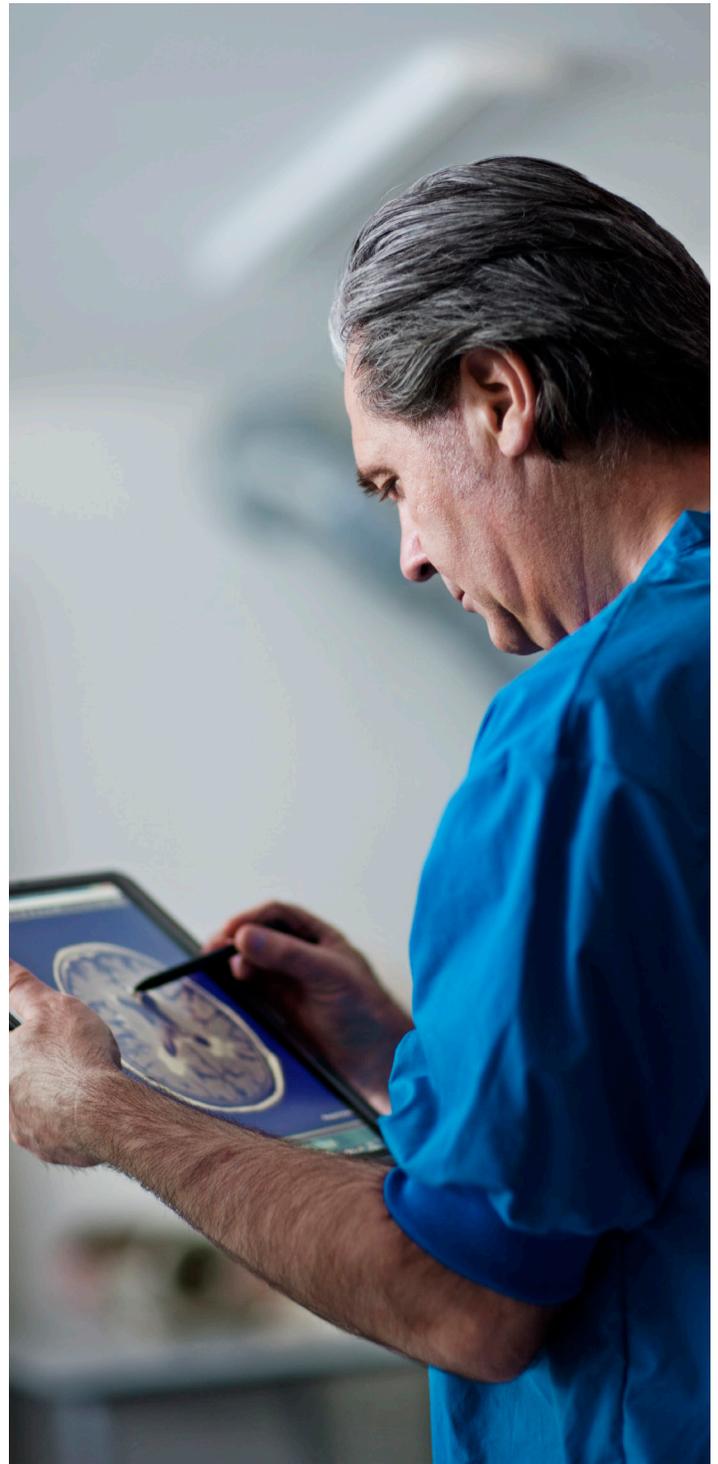
We offer a human-centric, data-driven approach that helps your business develop empathy with the people who interact with your brand locally and globally. This enables us to create solutions that drive crucial consumer, employee and partner advocacy. We like to shake things up, and we do it well.

### Digital intellectual property

Would you like VIP access to proprietary methods and tools that continuously capture user experience sentiment? As part of NTT, NTT DATA invests \$3.6 billion annually in research and development, including AI. This means you'll have access to industry-leading technology and methodologies to gain unparalleled insights and information.

### Virtual Innovation Studio

Virtual Innovation Studio allows clients to engage remotely with our innovation ambassadors in a single session or as part of a virtual executive briefing. It's our response to continuing the conversations with our clients and keeping everyone safe in this constantly changing environment.



<sup>1</sup> National Center for Chronic Disease Prevention and Health Promotion.  
<https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.html>

Visit [nttdataservices.com](https://nttdataservices.com) to learn more.

NTT DATA Services, a global digital business and IT services leader, is the largest business unit outside Japan of NTT DATA Corporation and part of NTT Group. With our consultative approach, we leverage deep industry expertise and leading-edge technologies powered by AI, automation and cloud to create practical and scalable solutions that contribute to society and help clients worldwide accelerate their digital journeys.