Predict Social Determinants of Health Risk

Our AI-Powered Model Helps Customers Develop New Strategies to Reduce Costs and Improve Population Health

▶ **THE PROBLEM**

There's long been widespread recognition that factors outside a clinician's control — the Social Determinants of Health (SDOH) — have a major impact on healthcare outcomes and total cost of care. It's been less clear what healthcare organizations can do about it.

THE **SOLUTION**

Certilytics built an AI-powered model that not only predicts a patient's SDOH risk but also leverages deep learning to tell you what's driving that risk and what you can do about it, at both the individual and population levels.

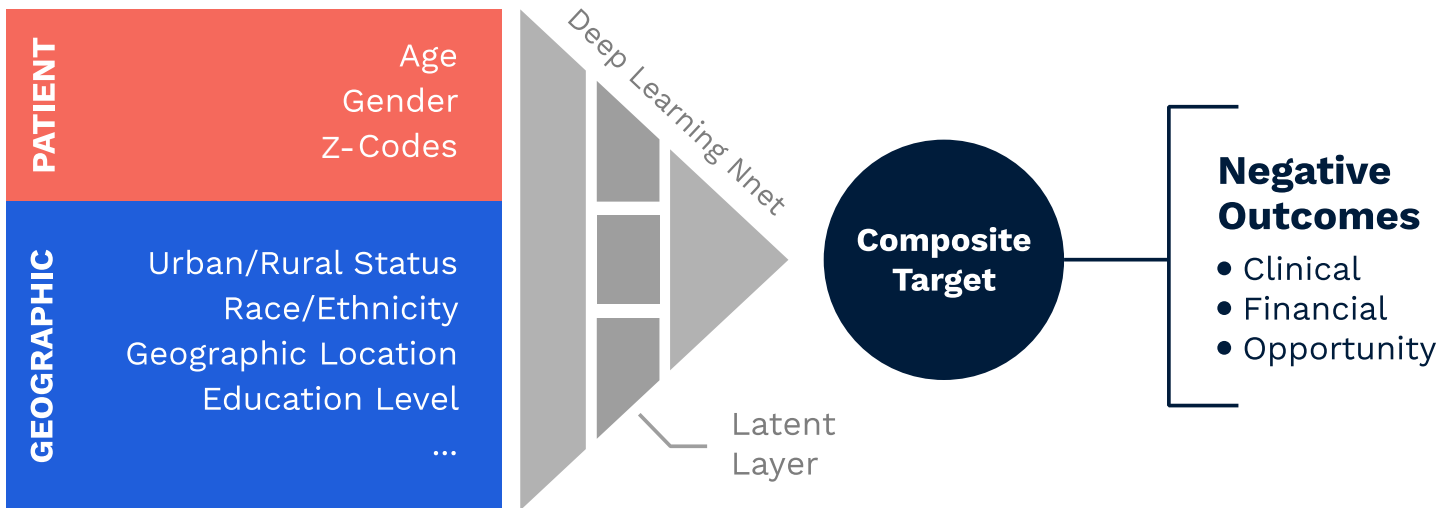## The Certilytics Patient SDOH Index (PSI) Score:

At the Patient Level

- Predicts each patient's SDOH risk on a scale of 0-100

- Leverages deep learning to create a SDOH "persona" for each patient that tells you which factors are driving risk to support personalized intervention strategies

- Answers not just the "who" and "where" of SDoH risk, but the "why" and "how" — Why is a given patient high risk? How can we reduce that risk?

- Enables patient risk stratification to optimize the allocation of medical management resources

At the Population Level

- Enables data-backed decision-making into non-clinical resources that have the greatest impact on health outcomes and cost

- Measures which SDOH factors have the greatest impact on adverse clinical outcomes for better prioritization of outreach initiatives

- Aggregate data provides unique, actionable insights into SDOH risk across a population

- Identifies SDOH "hotspots" for more targeted resource allocation, such as educational initiatives, placement of new clinics, or targeted telehealth outreach

MODEL SCHEMATIC

PATIENT

Age
Gender
Z-Codes

GEOGRAPHIC

Urban/Rural Status
Race/Ethnicity
Geographic Location
Education Level
...

Deep Learning Nnet

Latent
Layer

**Composite
Target**

**Negative
Outcomes**

- Clinical
- Financial
- Opportunity

The underlying PSI model uses patient and county level SDOH data to predict the composite target with a deep learning neural net architecture.

Unlock the opportunity in your data

" *By understanding SDOH risk, health plans, employers, and provider health systems can better meet goals such as advancing health equity, boosting member engagement, improving population health and well-being, and driving down costs. Healthcare leaders now have an AI-powered approach for testing hypotheses prior to implementing new programs or partnerships to ensure they're creating real value.*

— Kevin Prybol, Certilytics Senior Vice President, Data Science

certilytics

Where Data Meets Opportunity

Learn More

For a free consultation with our team of experts, contact us:
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