

Diabetes Risk Predictions

Business Understanding

Seif Kungulio

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Introduction

A well-defined business problem sets the direction for a successful analytics project. It ensures the analysis is technically sound and aligned with public health priorities. For this project, the challenge centers on enhancing early detection efforts for diabetes—a critical objective in states like Texas, where the condition’s prevalence remains alarmingly high. A focused problem statement helps identify relevant health indicators, guide the selection of predictive modeling techniques, and deliver insights that can support targeted interventions, reduce long-term healthcare costs, and improve patient outcomes.

Initial Business Problem Statement

How can public health agencies in Texas use self-reported health behavior and demographic data to predict which adults are at high risk of developing diabetes?

I Used AI ‘You.com’ to Refine Business Problem Statement

I entered my initial business problem into an AI tool (You.com) and asked the following: *How can I make this more measurable or time-bound? What’s a better way to define what “high risk” means in this context? Can you suggest business impact language suited for public health?*

The AI tool recommended adding a defined timeline and specifying what success looks like—such as identifying individuals with a 30% or higher risk of developing diabetes within five years, using clinical markers like HbA1c and BMI. It also suggested reframing the question into a more targeted public health objective and incorporating language about potential impacts, like reducing healthcare costs and improving health equity, to make the problem more actionable and aligned with decision-making goals.

AI Review Summary

Final Revised Problem Statement with Impact Language

Primary Persona