# SQL\_mini\_project\_unmet\_mental\_health\_needs\_as\_predictor\_of\_exit\_from\_work

## Executive Problem Statement (Ask)

Do adults who report unmet need for mental health care show higher rates of being unemployed or out of the labor force?

## Business Outcome Value Thesis:Hypothesis 4:Unmet Mental Health Need and Workforce Detachment

## **Decision Use-Cases & KPIs** (retention, vacancy cost, coverage capacity)

## **Scope & Constraints** (populations, years, exclusions)

## **Data Sources & Variables** (NSDUH: AMHTXND2, employment; TEDS-A: EMPLOY, PSYPROB)

## **Operational Definitions** (how you define “unmet need,” “workforce detachment,” etc.)

## **Analysis Plan (Plan/PACE)** (methods at a high level; no results)

## Risks & Assumptions

## **Deliverables & Formats** (exec one-pager, slide deck, SQL/Notebook appendix)

## Milestones & Owners

## Executive Summary (to be completed after results)

# Strategy from conception forward

Begin data the hunt for useable, meaningful data.

We began with some questions that might help us find relationships between mental health/addiction and other factors, such as productivity. Our hypothesis is limited to available data, however, it does dig deeper into current unknowns in the field. We aim in this study to discover something meaningful in regards to these factors that may be useful to HR executives across industries and possibly government stakeholders who fund programs.

I asked AI to survey the available datasets that would contain variables that we can test our hypothesis. Some SAMSHA data sites show 403 Errors, meaning the current administration has shut them down and completely defunded and dissolved SAMSHA. We consider ourselves lucky to have been able to access the following datasets:

## National Survey on Drug Use and Health (NSDUH)

<https://www.samhsa.gov/data/data-we-collect/teds-treatment-episode-data-set/datafiles/teds-a-2019?utm_source=chatgpt.com>

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### Treatment Episode Data Set: Admissions (TEDS-A)

My thinking on this project is to first find data that we can use that focuses on mental health, addiction, and labor—data that could lead to insights about productivity. I’m trying to provide stakeholders with an understanding of whether there are differences across industries in addiction and treatment patterns within communities or, rather, within industries.

Your project aligns with current research showing that mental health [*consider completing this sentence to clarify how it aligns—e.g., “mental health significantly impacts workforce outcomes”*].

This is where I’m starting my thinking. The AI generated about a dozen hypotheses around mental health and employment, looking for business questions that have not yet been answered. The question I’m most interested in—based on the analysis of available data through AI—is the one I’ve highlighted here, because it’s of personal and professional interest to me.

My background is in the healthcare industry. I completed my undergraduate and graduate work in research psychology for the social sciences, with a focus on statistics and research methods. I’ve used that academic training and my previous experience to support the research for my bestselling books on addiction, as well as for my podcast, blogs, and other content I’ve created.

My idea is to find something that’s both personally meaningful and professionally relevant—specifically, to explore employers’ awareness of mental health and addiction issues, what kinds of treatment programs are available, what can be done, what is being done, and what has been shown to work. These are the types of questions that interest me.

Because this is a mini project, we’ll need to narrow that broad, declarative brainstorm into specific, operational definitions, which we discuss below.

I asked AI to examine the data dictionaries and published data to find some questions that are unanswered. I got some very interesting results. Namely that the government data is probably used more for policy and funding decisions, so while the main findings are published, they haven’t been studied in a scientific way to prove business value. Here’s what we came up with:

## Hypothesis 4. Unmet Mental Health Need as a Predictor of Exit From Work Question: Do adults who report unmet need for mental health care show higher rates of being unemployed or out of the labor force?

Status in the literature:  
– There are studies linking mental illness to reduced labor force participation or worse labor outcomes. [PMC](https://pmc.ncbi.nlm.nih.gov/articles/PMC9254556/?utm_source=chatgpt.com)  
– There are studies on unmet mental health need and who has it (cost barriers, etc.). [PMC+1](https://pmc.ncbi.nlm.nih.gov/articles/PMC6683484/?utm_source=chatgpt.com)  
– I did not find a result that explicitly ties self-reported unmet need for mental health treatment (NSDUH-style “I needed care and didn’t get it”) to current employment status categories in a way that quantifies “this is your likely-to-exit population.” The labor papers usually use diagnosed mental illness or serious psychological distress, not “perceived unmet need,” and they don’t package it as a predictive HR risk metric.

Verdict:  
This combination (unmet need ➜ employment detachment ➜ forecasted turnover cost) is not answered in executive language. It passes.

Why it’s still new for execs:  
You are reframing unmet need as an early-warning KPI for preventable headcount loss. Existing research treats it as an access-to-care equity marker, not a turnover predictor for employers.