

# Reducing the prevalence of psychological distress can help reduce the prevalence of low-back pain (LBP)

Data Sources: National Health Interview Survey, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey, 1998-2004

Using exogenous national events to identify the effect that psychological distress has on low-back pain resulted in three major findings:

About **17%** of self-reported low-back pain may be rooted in psychological distress (mood and anxiety conditions).



The reduction in psychological distress reduced medical visits for LBP by **685,000** per month.

The national reduction in prevalence of psychological distress resulted in **2.1 million** people no longer having LBP.



## Reducing the Prevalence of Low Back Pain by Reducing the Prevalence of Psychological Distress: Evidence from a Natural Experiment and Implications for Healthcare Providers

- Authors: Brown et. al., HSR 2020
- Purpose: to determine whether exogenous factors reduce low back pain (LBP)
- Outcome variable: Medical visits for LBP
- Data sources: National Health Interview Survey, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey, 1998-2004
- Study Design: Fuzzy regression discontinuity model in which a discontinuity in the prevalence of psychological distress is identified by exogenous national events. Does this discontinuity induce a corresponding discontinuity in the prevalence of LBP. We additionally estimate a regression discontinuity model to determine associated changes in medical visits with LBP
- Findings: Prevalence of LBP was discontinuously reduced by ONE FIFTH due to exogenous national discontinuous reduction in psych distress. This cannot be explained by discontinuities in employment, insurance, injuries, general health status or other factors. We find an associated 3/5ths discontinuous reduction in medical visits with LBP
- Conclusion: 2.1 million ( $p < 0.01$ ) adults ceased to suffer LBP due to national reduction in distress, and associated medical visits with LBP declined by 685K ( $p < 0.01$ )