

# Age-related and culturally specific causes of depression underdiagnosis among older adults: Results from the Study on global AGEing and adult health (SAGE)

JOAN E. HICKS<sup>1,2</sup>, ALICIA M. DELOUIZE<sup>1</sup>, J. JOSH SNODGRASS<sup>1</sup>

<sup>1</sup>Global Health Biomarker Lab, University of Oregon, <sup>2</sup>McNair Scholars Program

## SAGE

- WHO's SAGE: Study on global AGEing and adult health
- Longitudinal study in 6 middle-income countries: China, Mexico, Russia, Ghana, South Africa, and India
- Cross-nationally comparable self-report, anthropometric, performance, and health data

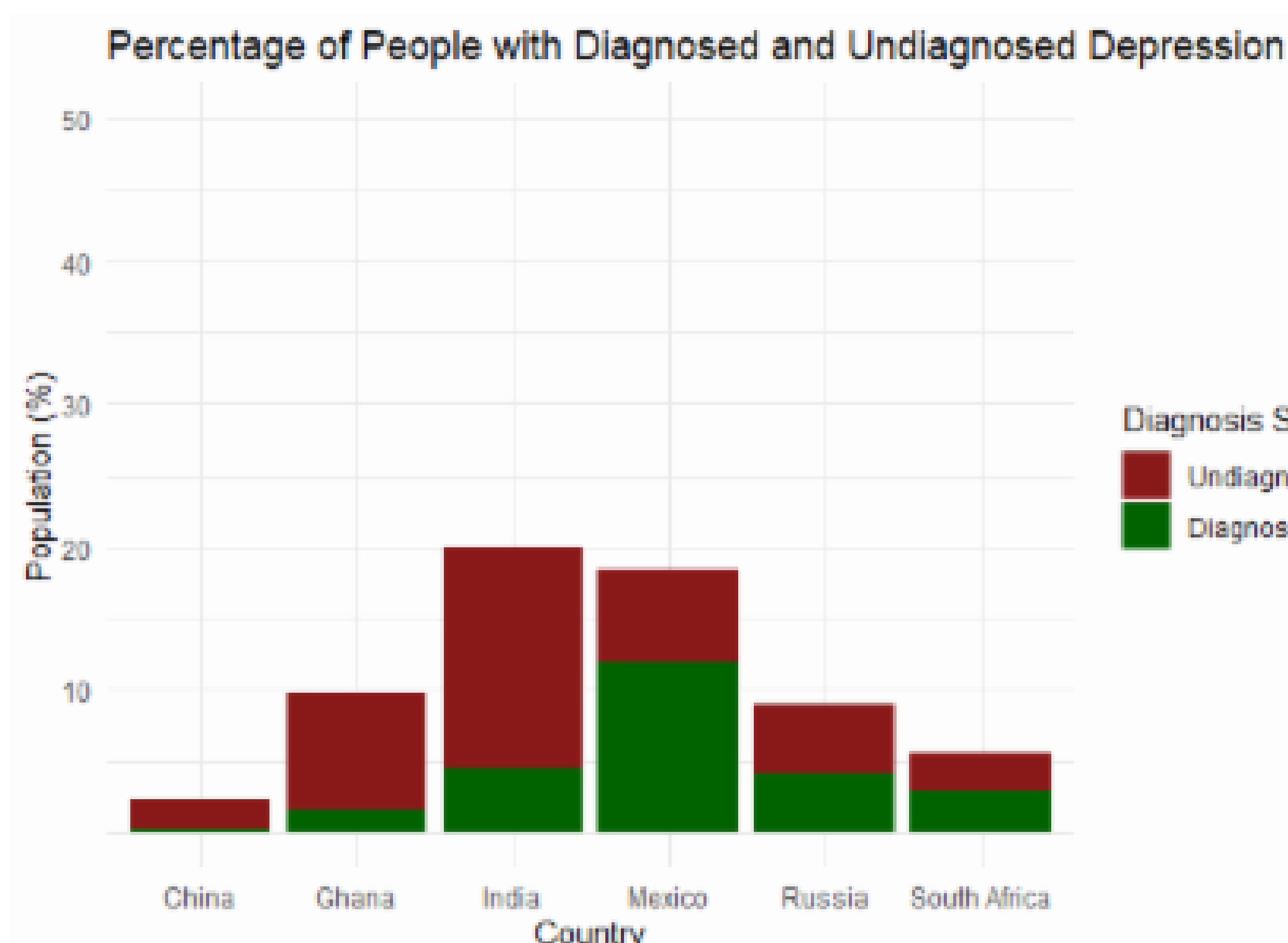
## HYPOTHESES

We predict that the underdiagnosis of depression will be associated with

1. Poor functional quality of life
2. Higher levels of stigma
3. Poor quality of healthcare

## INTRODUCTION

- Due to depression being globally prevalent, underdiagnosed populations should be prioritized in order to understand ways in which cases are remaining undetected
- Contextualizing cultural differences is crucial to the diagnosis and treatment of depression
- Previous epidemiological research focuses on depression in older adults, but there is a lack of focus on underdiagnosed depression encompassing many middle-income countries
- Varying social determinants influence the development of depressive symptoms, illustrating the importance of cross-culturally analyzing factors that place individuals at higher risk of depression
- In different countries the concept of depression can be greatly influenced by societal hierarchies, stigma, cultural beliefs, and other determinants



## METHODS

### Participants

- $N = 37,733$
- Age: 50+ years old ( $M = 63.56$ ,  $SD = 9.79$ )
- Nationally representative samples

### Variables

- Depression: World Mental Health Survey version of the Composite International Diagnostic Interview validated against doctor's DSM diagnoses
- Depression Diagnosis: "Do you have a diagnosis of Depression?"
- Marriage: Married included people who were married and cohabiting, not married included those who were divorced, separated, and widowed.
- Functional QOL: 24 item questionnaire about physical functioning difficulties (e.g., "In the last 30 days, how much difficulty did you have in walking 100 meters?")
- Quality of Healthcare: "How would you rate the way health care in your country involves you in deciding what services it provides and where it provides them?"
- Social Cohesion: 9 item questionnaire about involvement with friends and community (e.g., "How often in the last 12 months have you had friends over to your home?")
- Stigma: "Do you think that most people who are sad will tell us they are sad?"



### Binomial Logistic Regression B's Predicting Depression Underdiagnosis

	China	Ghana	India	Mexico	Russia	South Africa
Female	.33*	.22	.21*	.42	.13	.04
Age	-.04***	.01	.00	-.02	-.03*	-.05**
Marriage	-.27	-.26	.00	.08	-.40	-.18
Income	-.75***	-.15	-.43***	-.34	.17	.12
Poor Memory	.41***	-.15	-.20**	.23	.30	.11
Poor Functional QOL	.04***	.02***	.04***	.02***	.03***	.03***
Poor Quality of Healthcare	.07	.49***	.18*	.12	.07	.02
Social Cohesion	.00	.04***	.02*	-.05*	.01	.03
Stigma	.02	.50***	-.35***	.03	.01	-.48

## RESULTS

- 2% to 15% of people have had depression in the past year, but do not have a diagnosis
- Russia, South Africa, and Mexico have lower rates of depression underdiagnosis while Ghana, India, and China have higher rates of depression underdiagnosis
- Poor physical functioning strongly predicted having depression without a diagnosis in all 6 countries
- Beyond this, different countries had different significant predictors of the underdiagnosis of depression

## DISCUSSION

- With results showing large disparities between those diagnosed with depression and underdiagnosed with depression in India and Ghana, additional research should further investigate these differences
- Poor functional quality of life being a significant predictor of depression underdiagnosis in each country suggests that poor QoL increases one's risk of experiencing underdiagnosed depression, potentially decreasing their ability to seek access to help for these symptoms
- Overall, this study demonstrates the importance of highlighting depression in middle-income countries in order to address health disparities that are impacted by social influences

