



UNIVERSITY OF OREGON

# Suicidal thoughts and attempts in the Study of global AGEing and adult health (SAGE)

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World Health Organization

## SAGE

WHO's SAGE: Study on global AGEing and Adult Health

- Longitudinal study on patterns and determinants of aging in 6 low and middle-income countries (LMIC's): China, Mexico, Russia, Ghana, South Africa, and India.
- Cross-nationally comparable self-report, anthropometric, and performance health data on older adults ( $N > 42,000$ ).



## Introduction

- Suicide accounts for around 800,000 deaths per year, worldwide, with the majority (79%) occurring in LMIC's.
- Most research surrounding suicidality (as well as mental health more generally) is focused on high income countries.
- We used the WHO's SAGE data to further research suicidality in LMIC's and more specifically to better understand the variance that occurs in these data.
- Predictors: Poor health, age, wealth, memory, marriage and social cohesion

## Study Objective/Hypotheses

**Objective:** Describe suicide rates in 6 different LMIC countries and better understand its predictors.

**Hypothesis:** Suicidality rates (among the depressed population) will be different for people in different countries, with differences being primarily driven by socioeconomic and cultural factors.

## Participants & Methods

### Participants and Sampling Method

- Age 50 + years
- Wave 1 was conducted between 2007 and 2010
- Samples were nationally representative
- This study analyzed the subset of participants in this study that endorsed having at least some symptoms of depression ( $N = 2,383$ ).

### Variables and Measures

- **Depression.** A symptom-based algorithm was used to select the subset of participants
- **Suicide.** The Composite International Diagnostic Inventory asks "Did you think of death, or wish you were dead?" and "During this period, did you ever try to end your life?"
- **Wealth.** Cumulative wealth and assets as determined by household amenities and standardized by nation.
- **Marriage.** 1 = Married or cohabiting, 2 = Divorced, Separated, or Widowed
- **Health.** Self rated health from 1 very good health to 5 very poor health
- **Social Cohesion.** Composite score from 9 items about involvement in community and with friends

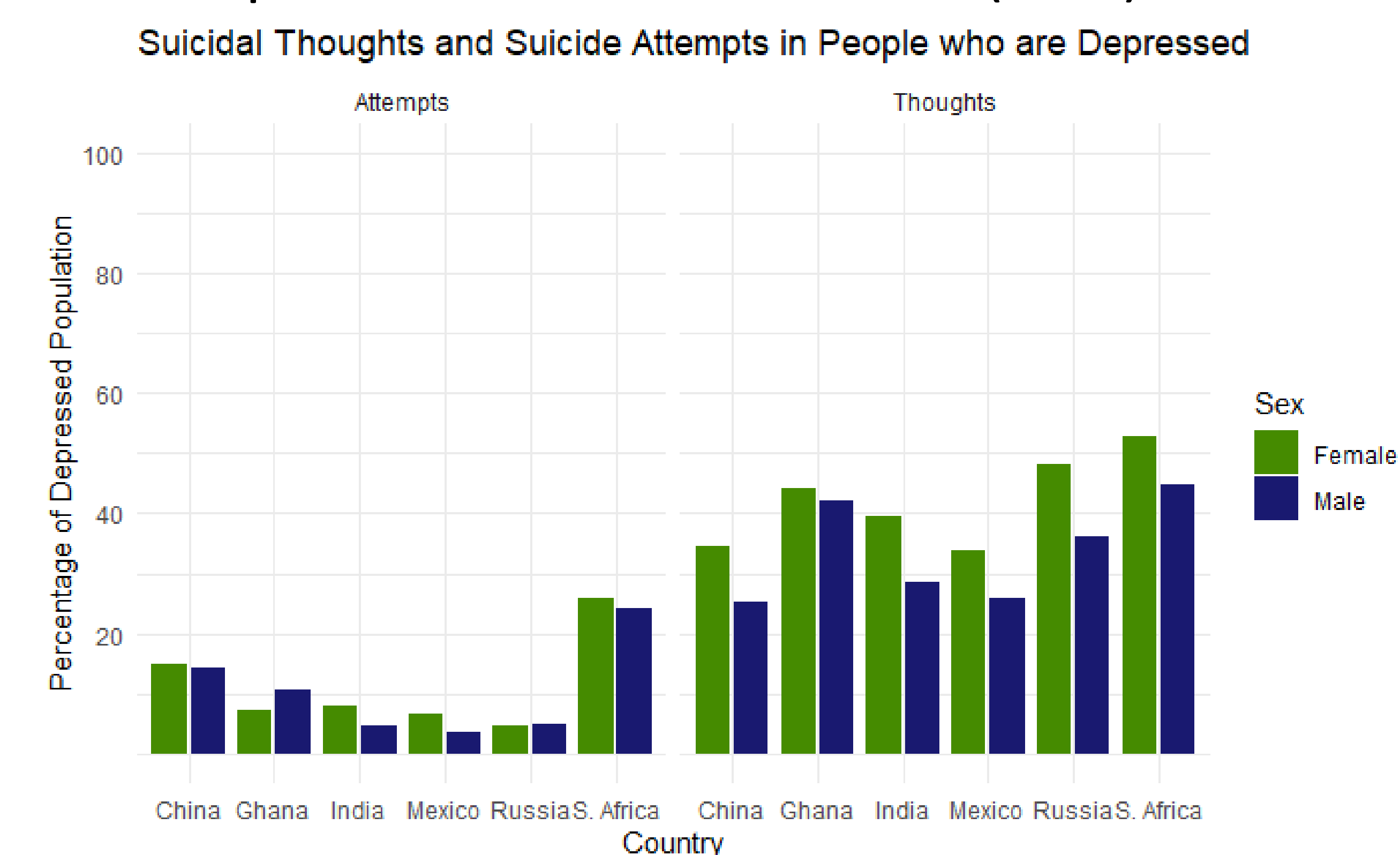
### Binomial Logistic Regression B's Predicting Attempts at Suicide and Thoughts of Suicide

	China		Russia		Mexico		India		Ghana		South Africa	
	M	F	M	F	M	F	M	F	M	F	M	F
n	98	177	56	162	53	165	491	604	156	228	46	67
<b>Suicide Attempts</b>												
Age	-.09 <sup>†</sup>	-.05 <sup>†</sup>		-.07		-.03	.02	.01	.06*	.03	.03	-.14 <sup>†</sup>
Wealth	-2.71*	-.21		-.84		.59	.03	.25	-.49	.25	.92	1.03
Marriage	-1.85	-.61		.77		.15	.18	-.05	.07	-.45	-1.53	1.73 <sup>†</sup>
Memory	.53	-.17		.47		-.36	-.29	.13	.18	-.05	-.33	-.31
Health	2.20**	.99**		.92		.20	.53	.62**	-.65	.43	.72	1.06
Social Cohesion	-.05	-.07		-.05		-.06	.04	.05	.01	.04	.11	-.10
<b>Suicide Thoughts</b>												
Age	-.02	-.04 <sup>†</sup>	.07 <sup>†</sup>	-.00	.01	-.05*	-.02 <sup>†</sup>	-.00	.00	.01	-.04	-.01
Wealth	-2.08*	-.44	-1.81	.63	.77	.46	-.18	-.31	-.74 <sup>†</sup>	-1.43***	.52	.31
Marriage	-.15	-.56	-.41	-.81 <sup>†</sup>	.14	.10	-.10	-.40*	-.24	.20	1.77 <sup>†</sup>	.22
Memory	-.15	.14	-.78	.52 <sup>†</sup>	-.57	-.03	.11	.11	.21	-.27	.09	.72*
Health	1.60**	.66**	1.20 <sup>†</sup>	.81**	.56	.25	.48**	.45**	.10	.58**	-.58	.53
Social Cohesion	.09	-.01	.13	-.05	.08	-.01	-.01	-.04 <sup>†</sup>	-.02	-.03	-.16*	-.05

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## Results

- Predictors of suicidal thoughts and attempts varied widely by country and gender.
- Poor health was the most common predictor.
- Other relevant factors were wealth, age memory, marriage, and social cohesion.
- One striking result is the large percentage of attempts in seen in South Africa (27%).



## Discussion

- Suicidality was high in LMICs, with different countries having 25% to 53% of people who were depressed having suicidal thoughts and 4% to 26% of people who were depressed having attempted suicide.
- Limitations include that in order to answer questions regarding suicidality one had to screen positive for depression.
- Predictors of suicidal thoughts and attempts varied widely by country and gender, with poor health being the most common predictor.
- Our results demonstrate that while these predictors vary widely, they are often affected by socioeconomic status and culture (mainly societal behaviors and expectations). For example, in South Africa, wealth was one of the most impactful factors on suicidality.
- In our research, we hope it allows for a broader look into where these differences in the predictors come from, specifically when looking at culture, socioeconomic status, health, and gender relations.



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