Annual Prevalence of Suicide in Malawi

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Saint John of God's Annual Research Day, Dublin, 12 November 2019

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November 12th , 2019

INTRODUCTION

- Suicide is increasing public health concern & one of the leading causes of death in many countries (1, 2).
- Suicide rates are quite high in many countries, but there is a lack of such prevalence studies in most parts of Africa including Malawi (3-5).
- Explanation for lack of attention given to this issue is that historically African societies have been assumed to have very low rates of suicide, which is not true and based on colonial assumptions (6).
- Few studies completed in Africa, have shown an increasing trend of suicide by hangings from 5.2 per 100,000 to in South Africa alone (7), and 7.4 suicidal people per 100,000 in Zambia.

GLOBAL SUICIDE BURDEN

- Globally, suicides are the second leading cause of premature mortality in individuals aged 15 to 29 years (preceded by traffic accidents).
- Rates in high income countries are as far as 12.7 per 100,000 population
- 78% of all completed suicides occur in low- and middle-income countries.
- >800,000 people die by suicide yearly- a principal cause of death with one person dying every second.

SUICIDE BURDEN GLOBALLY

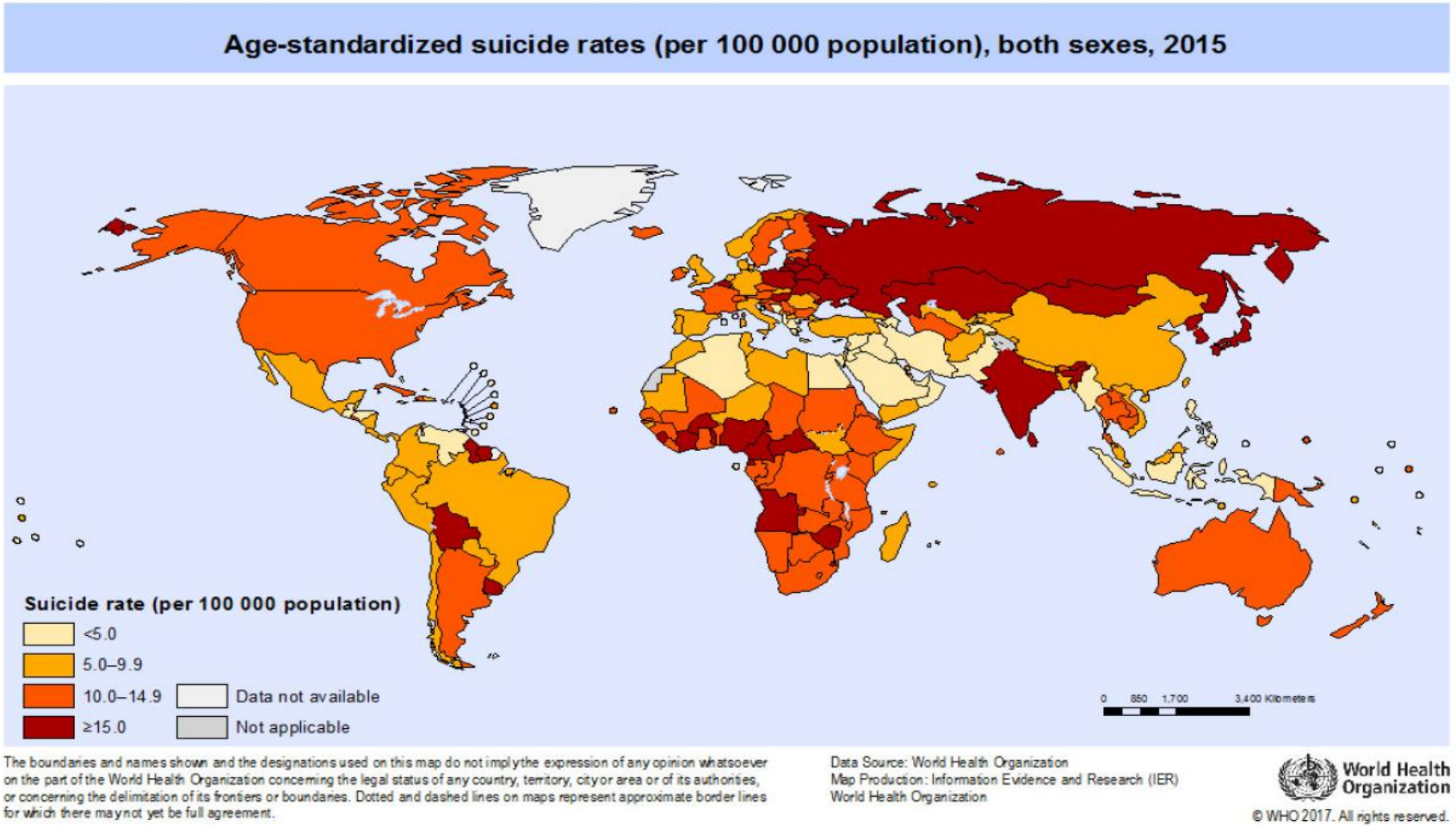

Figure 1. Suicide rates for both sexes around the world in 2015. Rates are standardized for age, because age profiles differ to a marked extent between countries. Reprinted with permission of WHO [10].

RISK FACTORS FOR SUICIDE GLOBALLY

- Risk factors for suicide include:
  - Young age (adolescents & young adults between 15 and 29 years of age).
  - Social status: Low income, unemployment, low education, and low social support.
  - Being single
  - Masculine gender (Male: female ration of 1.7).
  - Psychiatric conditions especially mood disorders
  - High levels of family conflicts
- **Mental HPs** account for majority of suicides and suicide attempts are 10 times as high as in the general population. 147 per 100,000 inpatient was given in a 2015 meta-analysis.

- **Physical problems:** Number of suicides doubles in individuals who are diagnosed with cancer & HIV-infection.

- Few studies looking at prevalence of suicide in Malawi give insights on the burden of the problem & inform development of interventions for reducing suicide cases.

OBJECTIVES

- To determine an annual prevalence of suicide in Malawi.
- To establish social demographic factors associated with suicide in Malawi.
- To identify common methods used for committing suicide in Malawi.

METHODS

- **Design:** Cross-sectional design using secondary data.
- **Study population and setting:** Data from case files for individuals who committed suicide whose records are kept at police stations and health facilities from six randomly chosen districts in Malawi (Karonga, Nkhatabay, Mchinji, Nkhotakota, Balaka and Machinga).
- **Sampling and Sample Size:**
  - A multistage cluster random sampling to sample two districts 3 regions of Malawi.
  - All case files for individuals who committed suicide in 2017 were included in the study. Names from the 2 sources were crosschecked to avoid double reporting
- **Data Collection:**
  - 24 trained research assistants collected quantitative data. A data extraction sheets were used for collecting data.
  - The data extraction sheets also had components on the deceased's demographic information, methods used to commit suicide other risk factors that have been associated with suicide.

METHODS CD/..

Ethics:

- The study's ethical clearance, institutional authorization and consent were sought from National Health sciences Research and Ethics Committee (Protocol number 18/03/2010) and from the commissioners of police, and the District Health Officers to access the information from the chosen districts respectively.

Data Management and Analysis:

- Data was coded on a computer, cleaned and analyzed using STATA.
- The prevalence of suicide was calculated by dividing the total population of the six districts with the number of suicide cases identified from the six districts.
- Crude and adjusted Risk ratios were computed to identify factors associated with suicide.

FINDINGS

- **Prevalence:** 190 suicide cases in 6 sampled districts (n=2,053, 757) in the year of 2017, representing 0.009% prevalence of suicide i.e. 9 out of 100,000 people in Malawi commit suicide annually.
- Social demographic correlates of suicide:
  - 80.3% (n=151) of the cases were males
  - Majority cases were in the age group of 21-30 years (28.5%; n=51)
  - Majority cases (43.2%) had not attended any education,
  - 97.3% (182 cases) were from the rural areas

METHODS USED TO COMMIT SUICIDE

Method used	n	%
Hanging/Strangulation/Suffocation	106	57.9
Poisoning by alcohol	24	13.1
Self-poisoning by drugs	15	8.2
Self-poisoning by unspecified chemicals	14	7.7
Self-poisoning by antiepileptic drugs	5	2.7
Self-poisoning by others	26	13.6

Discussion

Discussion

- Prevalence of suicide is higher compared to other African studies- 5.2 per 100,000 in South Africa alone and 7.4 suicidal people per 100,000 in Zambia.
  - Could be due to lack of psychosocial therapists and interventions in Malawi than in these countries.
- Methods differ from developed world
  - **Prevalence:** >12/100,000 population
  - **Strategies:** falling from high building throwing self to moving trains are common

Study limitation:

- Prevalence may be low due to non-inclusion of under age in the total population used to calculate this prevalence.
- Causal inference difficult to establish in such a cross-sectional study.

STUDY RECOMMENDATIONS

These study findings confirm the importance for care providers to:

- ✓ Educate communities about suicide as a mental health problem and services seeking behaviors
- ✓ Design culturally appropriate & specific psychosocial interventions for managing suicide
- ✓ Do community education to promote inclusiveness of people who attempt suicides, & correct myths associated with suicide.
- ✓ Intensify individual & group counseling services for people with suicide thoughts.
- ✓ Enhance psychosocial and pastoral accompaniment of people with suicide thoughts.
- ✓ Advocate for the removal of suicide attempt on the penal code

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- ✓ Participants and research assistants