5.0 Recommendations:

For the selected inputs chosen in the model, there are corresponding recommendations for each input. The following sections go over recommendations for each model input:

5.1 Suicide Prevention Strategy:

National Suicide prevention strategies have been implemented in many countries to combat suicide. Many have found their own way of handling the problem, but there was not widespread acceptance and organizational response to the problem until recently. In 1993 The United Nations created a task force which teamed up with the WHO to put together a study on the causes, preventative, and rehabilitative measures of suicide, and which culminated with the release of a report in 1996 called “Prevention of suicide: guidelines for the formulation and implementation of national strategies” [19]. Before this, Finland was the only nation which had a national program for suicide prevention.

These guidelines were followed to varying degrees by different countries or local municipalities. The 1996 study was followed up with another study in 2018 [11] which contained updated recommendations and findings since 1996. For instance, the intersection of biological, psychological, social, environmental, and cultural factors which influence suicide, as well as successfully implemented policies from which countries which had a national suicide prevention program implemented. The 2018 study contained a list of all countries with “a stand-alone national suicide prevention strategy (NSPSs) adopted by the government” [20]. For our research, the indicator variable was sourced from this list.

Government policy to combat suicide allows for the “development and strengthening surveillance (of at-risk groups), and to provide and disseminate information” (3) on at-risk individuals to inform action. An implementation of a NSPS in Scotland called “Choose Live” decreased suicide rates by 20% over 10 years. This sort of improvement in suicide rates after implementing is implied in the 2018 report and lends to the recommendation that national strategies should be implemented.

We found that countries that have put a national suicide prevention strategy in place, tend to have higher incidence of suicide rates overall, this may be reactionary in nature. If a country has high suicide rates then more attention is paid to the issue and programs are put in place to combat it. Since most National suicide programs have only been emplaced in the last two decades, this may explain the counterintuitive trend observed. However, it is still advised to have a national strategy to address suicide.

Government policy to combat suicide allows for the “development and strengthening surveillance (of at-risk groups), and to provide and disseminate information” [11] on at-risk individuals to inform action. An implementation of a NSPS in Scotland called “Choose Live” decreased suicide rates by 20% over 10 years. This sort of improvement in suicide rates after implementing is implied in the 2018 report and lends to the recommendation that national strategies should be implemented.

Developing countries are recommended to take advantage of online resources for policy planners like MiNDbank a website created by the WHO with recommendations on mental health issues [9]. Countries still should consider establishing an authoritative agency, tasked with the continued investigating, formulating, and implementing of a National Suicide Prevention Strategy.  It should follow actions like those below from countries with success in reducing suicide [20]:

* Reduce access to means and methods of suicide
* View suicide as a psychological mistake
* Improve medical, psychological, and psychosocial initiatives
* Distribute knowledge about evidence-based methods for reducing suicide
* Raise skill levels among staff and other key individuals in the care services
* Perform “root cause” or event analyses after suicide
* Support voluntary organizations
* Promote public awareness campaigns highlighting the prevalence of suicide.

National strategies should not replace existing frameworks already in place in local government either. By changing public perceptions, reducing the stigmas associated with seeking help, and coming up with national strategies to combat suicide, the rate of suicide can be reduced.

[19] <https://www.suicideinfo.ca/resource/siecno-19960289/>

[11] <https://apps.who.int/iris/rest/bitstreams/1174021/retrieve>

[9] [https://www.who.int/mental\_health/mindbank/en/](https://www.who.int/mental_health/mindbank/en/%20)

[20] <https://www.who.int/mental_health/suicide-prevention/world_report_2014/en/>

5.2 Alcohol Intake:

Suicide is a complex societal problem with no singular cause. However, harmful use of alcohol is among the major risk factors for suicide. Policy makers should consider implementing measures designed to mitigate the harmful use of alcohol as a means of reducing the rate of suicide. According to the WHO, among the policy interventions that have proven effective at reducing the harmful use of alcohol are varied. One is to increase the price of alcohol via taxation, which is implemented successfully in states such as Utah. Another is to enact and enforce restrictions on alcohol advertising (across multiple types of media), out of sight out of mind. And finally, enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale), for example many “dry states” do not serve alcohol on Sundays. [12] It is not recommended to remove access to alcohol completely as seen in the disastrous US history lesson in the prohibition era. The increased violence may not have been worth the decrease in suicide. [21]

[12]  "WHO | Global status report on alcohol and health 2018 - World ...." 21 Sep. 2018,

<https://www.who.int/substance_abuse/publications/global_alcohol_report/en/>. Accessed 5 Apr. 2020.

[21] https://academic.oup.com/sf/article-abstract/68/2/513/1927193

5.3 GDP Per Capita:

There is a negative correlation between GDP per capita adjusted for Purchasing Power Parity (PPP) and suicide rates. While it is unknown why this is, we believe that money should be spent to uncover more about the relationship between income and suicide. Countries with lower GDPs tend to have higher rates of suicide, which also tend to have lower quality infrastructure, health care, and a plethora of other associated industries. [22] With these lower quality services and access to them, at risk individuals may have higher likelihood of suicide. An analysis on income of specific income groups would shed more light as to whether low income correlates to higher suicide or not. As such it is recommended invest in research to better understand potential relationships between income instability, income protection and suicide at the individual level. In addition, governments should pursue measures aimed at poverty reduction and unemployment benefits to support economic well-being.

[22] <https://interestingengineering.com/low-and-middle-income-countries-experience-the-highest-rates-of-suicide>