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” [1]. Before this Finland was the only national government to 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 in 2018 with a study called “National suicide prevention strategies; progress, examples, and indicators” [2] 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 successful policies which countries which countries which had national suicide prevention programs had implemented. It is from this 2018 study which contained a list of all countries which “stand-alone national suicide prevention strategy (NSPSs) adopted by the government” was drawn for our research.

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 a programs are put in place to combat it, thus 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” [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. This topic is however nuanced, take the Figure 1 below for historical rates suicide rates of different countries [4][5][6][7]. When we look specifically at the Sweden and Switzerland’s rates, they both fall in ~1972 and 1981 respectively. By comparing historical events of each country some interesting hypotheses can be drawn. Governmental changes coinciding in 1971 for both countries did not dramatically improve the rate. Cultural events which affected how masses might view a social issue had much greater temporal impacts on their rates. For instance, Euthanasia in the 1980s Switzerland coincided with an inversion of the curve of its rate. The cultural perception of suicide as a “bad” thing became more accepted in certain circumstances and may have translated to individual self-perceptions of suicidal thoughts to be a more normal occurrence which would not be cause for social abandonment. Sweden’s “Sexual Revolution” translated to an acceptance of a group, LGBT identifying individuals, which today has been identified as an at-risk population. While government implementation of NSPSs in time may lead to a reduction in suicide, it may also be the cultural recognition of the issue, in addition to specific policy actions which decrease overall suicide.

A close up of a map

Description automatically generated

Figure 1: Historical Suicide rates for different countries, and historical events

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 [4]:

* 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.

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

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

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

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

[5] <https://en.wikipedia.org/wiki/Suicide_in_Switzerland>

[6] <https://en.wikipedia.org/wiki/Switzerland>

[7] <https://en.wikipedia.org/wiki/Sweden>

[8] <https://en.wikipedia.org/wiki/Riksdag>

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. [1] It is not recommended to remove access to alcohol completely as seen in the disastrous US history lesion in the prohibition era. The increased violence may not have been worth the decrease in suicide. [2]

[1]  "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.

[2] 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. [1] 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.

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