Flattening the curve: A country's culture as a predictor of Covid-19 outcomes

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ABSTRACT

The purpose of this study is to examine the relationship between a country's cultural makeup with regard to Hofstede's six cultural dimensions and three Covid-19 outcomes (vaccination rates, number of deaths, and number of cases) across 94 countries. First, when it comes to vaccination rates, power distance was inversely related, whereas long-term orientation and indulgence were positively related. Additionally, there was no significant relationship between masculinity and vaccination rates. Second, uncertainty avoidance was positively related with the number of deaths, while there was no significant relationship between masculinity and the number of deaths. Third, as it relates to the number of cases, masculinity was inversely related, whereas individualism, uncertainty avoidance, and long-term orientation were positively related. These findings provide further understanding of what factors influenced the outcomes of the Covid-19 pandemic across the world. Lastly, the findings indicate that when creating public health campaigns, especially across different countries, social marketers will need to take into consideration a country's cultural makeup.

Keywords: culture, Hofstede, social marketing, vaccination, Covid-19

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INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared the outbreak of Covid-19 as a global pandemic (Ducharme, 2020). Countries across the world implemented a number of preventative measures (e.g., mask mandates, capacity restrictions, and lockdowns) to help reduce the spread of the novel virus (e.g., fewer cases and deaths). In addition to reducing the spread, one preventative measure (i.e., a vaccine) quickly became a point of emphasis as countries attempted to encourage their citizens to get vaccinated. However, even with these preventative measures, there are differences across countries as it relates to the number of cases, deaths, and vaccinated individuals. For instance, as of February of 2022, Denmark, Slovenia, and Georgia were among the countries with the highest number of cases and deaths per million, whereas China, Tanzania, and Taiwan were among those with the fewest. Furthermore, in April of 2022, total vaccination rates were higher in Portugal, Chile, and Malta than in Tanzania, Burkina Faso, and Nigeria.

The uneven nature of vaccination rates, deaths, and cases highlight the importance of social marketing. Social marketing is a specific form of marketing that involves activities that are used to influence people's behaviors for the benefit of both individuals and society (Melovic et al., 2020). For instance, in the case of the Covid-19 pandemic, advertising agencies around the world including Hadeel Mostafa Designs, based out of Cairo, Egypt, and Creative Energy, based out of Johnson City, Tennessee, in the US, have put together promotional efforts to encourage social distancing and mask wearing along with other preventative measures. That being said whether marketers are focused on selling the next big product or promoting activities that can help curb the spread of the Covid-19 virus, they must be aware of cultural differences.

This study examines the impact of a country's cultural makeup in terms of Hofstede's six cultural dimensions on three Covid-19 related outcomes: vaccination rates, number of deaths, and number of cases. By investigating the impact of a country's culture on the number of vaccinated individuals, deaths, and cases, this study contributes to the literature that has focused on the link between culture and Covid-19 (Voegel and Wachsman, 2022; Ashraf et al., 2022). Second, this study contributes to research in social marketing (Evans and French, 2021; Cho et al., 2022) by providing insight with regards to implementing initiatives that aim to promote participation in preventative measures and thereby reducing the spread of the Covid-19 pandemic. Thus, the findings provide practical implications for social marketers and public health initiatives.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Social Marketing and Public Health

Social marketing is a specific form of marketing in which proven concepts and techniques (e.g., marketing mix, human reactions to messages and message delivery, etc.) that are drawn from commercial business with the intent of influencing people's behavior (e.g., promote desirable social change and avoid undesirable social change) for the benefit of both individuals and society (Andreason, 1995; Chin and Mansori, 2018); Melovic et al., 2020). According to the National Cancer Institute (2002), there are six basic stages of social marketing: (1) development and planning of strategies, (2) selecting communication channels and materials, (3) development of materials and pretesting, (4) implementation of the strategies, (5) assessing

effectiveness with regards to exposure and awareness, and (6) refining future communications based off the feedback.

With regards to the "marketing" part of social marketing, social marketers have used a wide range of communication strategies to reach their intended audience including mass media (i.e., radio, television, and print), mediated efforts through a healthcare provider, and interpersonal (Evans, 2006). Additionally, social marketers have used a variety of marketing methods such as "message placement, promotion, dissemination, and community level outreach" to reach people (Evans, 2006). In addition to traditional forms of marketing communications, social marketers can also utilize the digital space and the influential power of social media to help with health-related issues. For instance, in 2014 social media became the driving force behind the "ALS Ice Bucket Challenge" that promoted awareness for the disease amyotrophic lateral sclerosis (ALS). The challenge raised $115 million in donations for The ALS Association which was able to "increase its annual funding for research around the world by 187%" (The ALS Association, 2019). That being said, those working in social marketing also face challenges including "increased numbers and types of health issues competing for the public's attention, limitation in people's time, and increased numbers and types of communication channel" (Evans, 2006).

Prior literature has examined many areas through a social marketing lens including public health and safety issues such as immunization (Opel et al., 2009), smoking prevention and cessation (Golechha, 2016), nutrition (Young et al., 2004), vaccination and children's health (Melovic et al., 2020), and occupational safety (Sublet and Lum, 2008). One recent public health and safety concern that has started to gain attention from researchers with regards to a social marketing perspective is the Covid-19 pandemic. Prior research has examined social marketing's role as it relates to the Covid-19 vaccine in terms of vaccine hesitancy (Evans and French, 2021), vaccination intentions (Twum et al., 2021), promotional efforts to increase vaccine uptake (French et al., 2020; Bardus et al., 2023; Hong, 2023), and misconceptions of the vaccine (Coffie et al., 2022). In addition to the Covid-19 vaccine, researchers have also considered social marketing as it relates to the spread of the Covid-19 virus (Lee, 2020; Cho et al., 2022).

Culture and Cultural Dimensions

For those in charge of developing and implementing efforts to reduce the spread of the Covid-19 virus, cultural differences must be considered. Culture is defined as a collection of shared values, beliefs, norms, and behaviors that are used to distinguish one society from another (Chiu and Hong, 2006). According to Hofstede (2011), there are six cultural dimensions that are essential for distinguishing societies from each other including power distance, individualism vs. collectivism, masculinity vs. femininity, uncertainty avoidance, short-term vs. long-term orientation, and indulgence vs. restraint.

Culture and Public Health

If a person walks into a McDonald's in various countries around the world, they will undoubtedly notice that there will be differences in the items listed on the menu. These differences are in part due to the cultural differences from one country to the next. Just as cultural differences play a role in menu items for various fast-food chain locations, it is also likely to impact public health. According to Kindig et al. (2004), cultural health beliefs influence

"how people think and feel about their health and health problems, when and from whom they seek health care, and how they respond to recommendations for lifestyle change, health-care interventions, and treatment adherence". Therefore, it is important for those who provide health information or healthcare along with those in charge of health promotion and communication efforts to ensure that cultural differences are considered.

Prior research examining the connection between culture and public health has demonstrated the importance of culture with regards to health communication effectiveness (Kreuter and McClure, 2004), health disparities (Thomas et al., 2004), nutrition (Parker and Grinter, 2014), and online health promotion (Paek et al., 2009). As for the Covid-19 pandemic, prior literature has indicated that culture plays a role when it comes to the preventative measures including social distancing (Biddlestone et al., 2020; Huynh, T.L.D., 2020; Wang, 2021; Ashraf et al., 2022; Courtney et al., 2022), mask wearing (Courtney et al., 2022; Lu et al., 2021), vaccination intentions (Betsch et al., 2017; Courtney et al., 2022; Leonhardt and Pezzuti, 2022), and vaccination support (Lucas et al., 2022). Lastly, prior research has examined the impact that culture has on the number of Covid-19 cases (Gokmen et al., 2021; Maaravi et al., 2021; Voegel and Wachsman, 2022; Cho et al., 2022; Chen and Biswas, 2022) and deaths/mortalities (Kumar, 2021; Maaravi et al., 2021; Chen and Biswas, 2022; Kaffer and Mahlich, 2022).

Power Distance (PD)

Hofstede (2011) states that power distance refers to the extent to which power and authority are distributed throughout society. In higher power distance societies, those with less power in a society accept and expect power to be distributed in an unequal manner (Hofstede, 2011). Whereas, in lower power distance societies there is less of a hierarchical structure and power is more equally distributed among everyone. Therefore, in the event of a global pandemic, higher power distance societies will have a weaker sense of mutual obligation among its members which in turn may lead to greater spread of the Covid-19 virus (Hofstede, 2020; Ibanez and Sisodia, 2022). Additionally, societies that are higher in power distance may have to employ harsher controls, rules, and force in order to get its members to abide by the preventative measures (Ibanez and Sisodia, 2022). However, this could backfire due to an increase in social unrest in reaction to the stricter approaches and thereby the control measures would be less effective (Ibanez and Sisodia, 2022). Thus, the following is hypothesized:

H1: Countries with high power distance will experience (a) lower vaccination rates, (b) higher number of deaths, and (c) higher number of cases.

Individualism vs. Collectivism

According to Hofstede (2011), individualism vs. collectivism implies that there are differences to the degree in which individuals are integrated into groups. Individualistic societies demonstrate a stronger likelihood to have looser ties between individuals and look after themselves (Hofstede, 2011). On the other hand, in a collectivist society there is a greater emphasis placed on being a part of a strong, cohesive, and integrated group (Hofstede, 2011). Therefore, in the event of a global pandemic, individualistic societies are less likely to engage in preventative behavior (Cho et al., 2022) including mask use (Lu et al., 2021) and stringent social distancing policies (Ashraf et al., 2022). In addition to a resistance towards measures that could

help to prevent the further spread of the Covid-19 virus, individualistic societies also demonstrate a greater hesitancy towards vaccine acceptance (Leonhardt and Pezzuti, 2022) and vaccine willingness (Betsch et al., 2017). Thus, the following is hypothesized:

H2: Countries with high individualism will experience (a) lower vaccination rates, (b) higher number of deaths, and (c) higher number of cases.

Masculinity vs. Femininity

Masculinity vs. femininity refers to the distribution of values between the genders in a society when it comes to various things such as assertiveness and caring (Hofstede, 2011). According to Hofstede (2011), with a more assertive or "masculine" society, men are expected to be assertive, ambitious, and competitive. In contrast, women might be expected to demonstrate these three qualities in a masculine society, but not to the same extent as men in order to demonstrate a difference between the values of men and women (Hofstede, 2011). On the other hand, in a more feminine society men and women have the same modest and caring qualities. However, in the event of a global pandemic, neither of the characteristics associated with a masculine or feminine society appear to result in efforts to reduce the spread of the Covid-19 virus. For instance, prior research has demonstrated no relationship between masculinity and social distancing (Wang, 2021; Ashraf et al., 2022) and various Covid-19 metrics (i.e., cases, deaths, etc.) (Duarte et al., 2022). Thus, the following is hypothesized:

H3: There will be no significant effect of a country's masculinity-femininity on (a) vaccination rates, (b) number of deaths, and (c) number of cases.

Uncertainty Avoidance (UA)

Hofstede (2011) states that uncertainty avoidance is related to a society's tolerance of ambiguity and uncertainty. Societies with higher uncertainty avoidance try to minimize the possibility of unstructured situations through strict behavioral laws and rules (Hofstede, 2011). On the other hand, societies that are uncertainty-accepting (i.e., lower uncertainty avoidance) are more comfortable with ambiguity and want fewer rules put in place (Hofstede, 2011). Therefore, in the event of a global pandemic, societies higher in uncertainty avoidance have demonstrated less likelihood to participate in gatherings (Huynh, T.L.D., 2020) which in turn can help to reduce the spread of the COVID-19 virus. Additionally, higher uncertainty avoidance societies experience less vaccine hesitancy over time as the number of individuals receiving the vaccine increases (Lu, 2022). Thus, the following is hypothesized:

H4: Countries with high uncertainty avoidance will experience (a) higher vaccination rates, (b) fewer number of deaths, and (c) fewer number of cases.

Long-Term vs. Short-Term Orientation

According to Hofstede (2011), long-term vs. short-term orientation suggests that there are differences as it relates to when important events in life will occur. Societies with a long-term orientation are more focused on the future and believe that the most important life events will

occur in the future (Hofstede, 2011). Whereas societies with a short-term orientation are more focused on the present and believe that the most important life events are taking place now or already have (Hofstede, 2011). Therefore, in the event of a global pandemic, societies with a long-term orientation are less willing to quarantine (Ma et al., 2022) and are less supportive of mandatory quarantines (Lucas et al., 2022). Additionally, long-term oriented societies are less likely to socially distance (Wang, 2021) along with being less likely to impose stringent social distancing policies (Ashraf et al., 2022). Thus, the following is hypothesized:

H5: Countries with a long-term orientation will experience (a) lower vaccination rates, (b) higher number of deaths, and (c) higher number of cases.

Indulgence vs. Restraint

Indulgence vs. restraint refers to a society's pursuit of gratification through things that are enjoyable, fun, and provide pleasure (Hofstede, 2011). Indulgent societies focus on fulfillment of basic human desires that are related to enjoying life (Hofstede, 2011). In contrast, societies with more restraint experience stricter social norms along with imposed control over the gratification of needs (Hofstede, 2011). Therefore, in the event of a global pandemic, it is posited that indulgent societies are less likely to implement preventative measures to reduce the spread of the Covid-19 virus in order to maintain an individual's ability to find gratification and enjoy life. Thus, the following is hypothesized:

H6: Countries with high indulgence will experience (a) lower vaccination rates, (b) higher number of deaths, and (c) higher number of cases.

METHODOLOGY

For this study, the Hofstede Insights website was used to gather the six cultural dimensions values. The Hofstede's Insights website includes cultural dimension data for 119 countries. Of those 119 countries, 94 were included in this study (25 countries were dropped from the sample because of missing cultural dimension data). Each of Hofstede's cultural dimensions were measured on a scale of 0 to 100. As for a country's vaccination rates, number of deaths, and number of cases, data as reported on the Our World in Data website was used. Specifically, vaccination rates were measured as the percentage of a country's population that was vaccinated (both fully and partially) as of April 2022. Lastly, the number of deaths and cases that a country experiences were both measured as the cumulative number of confirmed Covid-19 deaths and cases relative to the country's population (i.e., per million) as of February 2022.

RESULTS

Hofstede's six cultural dimensions have been shown in many instances to affect as well as predict a variety of public health-related outcomes. Specifically, the Covid-19 pandemic presented a relatively long-term period (approximately two years) in which to observe various types of Covid-related variables. In this study, three OLS regressions in SPSS using the six Hofstede cultural dimensions as the independent variables, and vaccination rates, number of deaths, and number of cases as the dependent variables were conducted. For all three OLS

regressions, reported R and R-squares were modest, indicating that the regressions did not explain a high percentage of the variance in the dependent variable.

As indicated in Table 1 (Appendix), the first regression (DV = vaccination rates) demonstrates that three of the six cultural dimensions were significant at p = .05 or lower. Specifically, power distance was inversely related (t = -2.706; p =.008), while long-term orientation (t = 2.340; p = .022) and indulgence (t = 2.372; p = .020) were positively related. This regression indicates that countries with higher power distance experience lower vaccination rates. Thus, supporting H1a. Additionally, there was no significant relationship between masculinity and vaccination rates (t = .305, p = .761). Thus, supporting H3a. Lastly, the regression had an R-square of .258, meaning that the independent variables explained roughly 26% of the differences in vaccination rates.

As indicated in Table 2 (Appendix), the second regression (DV = number of deaths) demonstrates that one of the six cultural dimensions was significant at p = .05 or lower. Specifically, uncertainty avoidance (t = 4.852; p < .001) was positively related. Furthermore, there was no significant relationship between masculinity and number of deaths (t = .326, p = .745). Thus, supporting H3b. Lastly, the regression had an R-square of .276, meaning that the independent variables explained roughly 28% of the differences in the number of deaths.

As indicated in Table 3 (Appendix), the third regression (DV = number of cases) demonstrates that four of the six cultural dimensions were significant at p = .05 or lower. Specifically, masculinity was inversely related (t = -2.453; p =.016), while individualism (t = 4.029; p <.001), uncertainty avoidance (t = 2.369; p = .020), and long-term orientation (t = 2.233; p = .028) were positively related. This regression indicates that countries with higher individualism and long-term orientation experience a higher number of cases. Thus, supporting H2c and H5c. Lastly, the regression had an R-square of .424, meaning that the independent variables explained roughly 42% of the differences in the number of cases.

DISCUSSION

The Covid-19 pandemic certainly impacted various aspects of society including public health, business, and education. So, in an effort to reduce the spread of the virus, countries across the world implemented preventative measures. However, as the pandemic unfolded, it was evident that some countries were more effective at “flattening the curve” and getting its citizens vaccinated. In part, a country’s ability to effectively combat the Covid-19 pandemic can be attributed to a country's culture and the impact that country’s culture has on the behavior of its citizens with regards to engaging in preventative measures (e.g., mask wearing, social distancing, etc.).

The purpose of this study was to examine the impact that a country's cultural makeup has on vaccination rates, number of deaths, and number of cases. The results indicate that some of Hofstede’s cultural dimensions have an effect (or in some cases no effect) on a country’s vaccination rates, number of deaths, and number of cases. The application of Hofstede’s cultural dimensions to three different Covid-related outcomes is the largest contribution of this study. Given that there were multiple possible outcomes during the Covid period, from infections and deaths to vaccinations, the door was left open to several levels of investigation.

The results make several contributions to prior literature that has examined the relationship between a country’s culture and public health, specifically the Covid-19 pandemic. First, with respect to the Covid-19 vaccine, the results provide insight that culture not only

impacts vaccine intention and support, but also a country's vaccination rates. Specifically, the findings demonstrate that power distance is inversely related to vaccination rates, whereas long-term orientation and indulgence are positively related. Additionally, masculinity was found to have no effect. Second, as for the number of deaths that a country experiences, the findings indicate a positive relationship between uncertainty avoidance and the number of deaths. Furthermore, the findings indicate that masculinity has no relationships with Covid-19 deaths, thus consistent with prior research. Third, with regards to a country's number of cases, findings provide more evidence for the notion that individualism has a positive relationship with the number of cases. The results also indicate that there is a positive relationship between the number of cases, and uncertainty avoidance and long-term orientation. Lastly, the findings indicate an inverse relationship between masculinity and the number of cases, thus contradicting prior research.

The findings also contribute to research focusing on social marketing's importance as it relates to public health by further demonstrating the role that culture plays when it comes to effectively influencing people's behavior for the benefit of individuals and society. In addition to adding to prior literature, the findings also provide practical implications for social marketers and public health initiatives. For instance, when creating public health campaigns, especially across different countries, social marketers will need to be mindful and consider the cultural makeup of those countries.

LIMITATIONS AND FUTURE RESEARCH

While the study does provide evidence that there is a relationship between a country's cultural makeup and certain Covid-19 outcomes, the research does have its limitations. First, no attempt was made to differentiate Covid-19 vaccination rates based on the various vaccine producers (i.e., Pfizer, Moderna, and Johnson & Johnson). Furthermore, no data was collected to reflect specific national or regional efforts to inform and persuade citizens to get vaccinated, it was assumed that the decision to get vaccinated was strictly a personal decision made within the cultural ethos of one's country of residence. Second, no attempt was made to include information that reflected individual policies as it relates to the management of, and confinement during, the pandemic, which ranged from complete lockdowns to limited efforts. Lastly, no data was collected to examine the impact of a country's population density or overall population on vaccination rates, number of deaths, and number of cases that a country experiences. Furthermore, national demographic variables such as education, median age, median income, and personal political affiliations were also not considered. It is possible that any or all of these may have influenced the outcomes of the three dependent variables, aside from any explaining power of Hofstede's cultural dimensions.

In addition to the previously mentioned limitations, there are also limitations that center around the collection of the Hofstede data. First, no indication is given in the Hofstede data as to the dates of survey, nor whether all of the nations in the set are from a similar time frame. Therefore, a country's representative data along these six cultural dimensions may be "old" relative to other countries. Additionally, these cultural values may have changed over time. Second, it was implicitly assumed that all of the countries included in the sample were at least somewhat comparable. This means that Hofstede's measures were applicable across the board for each country, thus able to capture all of the nuances of each local culture. Furthermore, while Hofstede's measures have been used in many countries over time, there is an assumption that

they are equally capable of working in a developed first-world nation as they are in a developing or undeveloped third-world nation.

Third, another limitation is that on the surface the Hofstede data considers all countries as equals with regards to political structure, economic prosperity, and demographics. However, there is quite a bit of variation between countries when it comes to these three aspects. For instance, a country's political structure can vary from democratic republic or monarchy to dictatorship or communism. As for economic prosperity, countries will differ when it comes to several key economic measures including gross domestic product (GDP), unemployment rate, and inflation. As a result, a relatively poor nation may view these constructs through a very different lens than someone from a wealthy nation. Lastly, from a demographic standpoint, countries will vary in the age of the population with some being significantly older on average than others. For instance, in 2022 the median age in the US and Japan were 37.90 and 48.70, respectively (Our World in Data, 2022). Fertility rates also differ between nations, meaning that some nations are not statistically replacing themselves, such as Japan, the US, and some European nations. In 2021, fertility rates in the US and Japan were 1.66 and 1.30, respectively (Our World in Data, 2022). This provides an indication as to whether a nation has an overall focus on youth or age. Therefore, it is possible that vaccination tendencies, as well as cases and deaths, could be influenced by this broader social construct. For instance, a culture that values its elderly may be more inclined to abide by social marketing initiatives aimed at getting vaccinated than those favoring youth, who may be viewed as more resilient and able to survive the pandemic. Fourth, there are countries that have not yet been measured. It is possible that there could be significant differences between those in the sample, and those not yet observed. This is a little different from any survey in which there are those not measured, whether by their own choice or because they were not included.

Fifth, another limitation is the assumption that Hofstede data is applicable to a global pandemic, an event not seen at that level of cases and deaths in a century. However, since there are no comparisons for applying Hofstede data to an event of this magnitude, there is room for error. Lastly, it is possible that the Hofstede framework does not capture all of the factors that could have influenced the dependent variables in this study. While these constructs have been used and vetted many times in prior research, they have also been expanded upon over time. Thus, leaving the door open to additional variables deemed potentially explanatory. In light of these limitations, the findings, as well as those of prior studies utilizing Hofstede in relation to fewer dependent variables, are important first steps in applying what are otherwise valid and reliable constructs and measures to a setting that may never occur again.

Future research could investigate what public health campaign efforts to inform and persuade citizens to engage in preventative measures along with getting vaccinated were most impactful at the national, regional, or even state level. Additionally, future studies could examine the underlying factors that lead to an individual's adherence to their home country's culture and thus impact their decision to participate in preventative measures along with getting vaccinated. Lastly, future research could also examine what political, economic, and demographic factors impact Covid-19 vaccination rates, deaths, and cases.

CONCLUSION

This study's findings have extended the application of Hofstede from the incidence of Covid-19 cases and deaths, to also include vaccination rates. By virtue of this, the aspect of

social marketing has been included, specifically as it would pertain to individual nations urging citizens to engage in preventative measures that would help reduce the spread of the Covid-19 pandemic along with getting vaccinated. Furthermore, in spite of limitations inherent in the third-party data available, as well as broad-based assumptions that had to be made to compare and contrast many nations while using the Hofstede paradigm, this study contributes to the larger understanding of how and why Covid-related statistics varied considerably between nations as a result of the pandemic.

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APPENDIX

Table 1 OLS #1 DV = Vaccination Rate

	Unstand. **β**	Std. Error	Stand. **β**	t	p-value
Constant	67.375	18.643		3.614	<.001
Power Distance	-.435	.161	-.384	-2.706	.008
Individualism	-.045	.143	-.043	-.317	.752
Masculinity	.036	.118	.029	.305	.761
Uncertainty Avoidance	-.009	.109	-.008	-.085	.932
Long-Term Orientation	.245	.105	.255	2.340	.022
Indulgence	.277	.117	.269	2.3272	.020

R = .508; R-square = .258; Adj. R-square = .207; Std Err. of Est. = 20.80527; df = 93; F = 5.053; *p* <.001

Table 2 OLS #2 DV = Deaths Per Million

	Unstand. **β**	Std. Error	Stand. **β**	t	p-value
Constant	-1860.298	1113.418		-1.671	.098
Power Distance	4.868	9.608	.071	.507	.614
Individualism	16.015	8.560	.252	1.871	.065
Masculinity	2.304	7.068	.030	.326	.745
Uncertainty Avoidance	31.671	6.527	.473	4.852	<.001
Long-Term Orientation	6.226	6.265	.107	.994	.323
Indulgence	-.934	6.965	-.015	-.134	.894

R = .525; R-square = .276; Adj. R-square = .226; Std Err. of Est. = 1242.544; df = 93; F = 5.528; *p* <.001

Table 3 OLS #3 DV = Cases Per Million

	Unstand. **β**	Std. Error	Stand. **β**	t	p-value
Constant	13745.154	87519.556		.157	.876
Power Distance	-700.992	755.269	-.116	-.928	.356
Individualism	2710.827	672.869	.484	4.029	<.001
Masculinity	-1362.755	555.595	-.205	-2.453	.016
Uncertainty Avoidance	1215.601	513.055	.206	2.369	.020
Long-Term Orientation	1099.628	492.461	.215	2.233	.028
Indulgence	69.813	547.475	.013	.128	.899

R = .651; R-square = .424; Adj. R-square = .384; Std Err. of Est. = 97669.457; df = 93; F = 10.660; p <.001