Open Journal of Social Sciences, 2015, 3, 45-56
Published Online November 2015 in SciRes. http://www.scirp.org/journal/jss
http://dx.doi.org/10.4236/jss.2015.311007

Globalization: Revisiting Neglected Tropical Diseases Such as Malaria and Measles

Park E. Atatah[1], Catherine W. Kisavi-Atatah[2]

[1]College of Security and Criminal Justice "Social Behavioral Sciences", University of Phoenix, Phoenix, USA
[2]Department of State Health Services, Houston, USA
Email: peatatah12345@email.phoenix.edu, peatatah@yahoo.com, catherine.atatah@dshs.state.tx.us, ckisavi@yahoo.com

Received 28 September 2015; accepted 8 November 2015; published 11 November 2015

Abstract

This study examines the roles globalization plays in the spread of neglected tropical diseases like malaria and measles from region to region. Based on the analyzed data in 7 global regions, the study found that measles dropped from 1755 measles cases in all measured regions to 19 measles cases, 92.3 times, or 923% between 2000 and 2005. Conversely, the study found an unexplainable symmetrical increase between 2010 and 2014 from the original 19 measles cases to 1540 cases, 81.05 times, or approximately 811% regionally worldwide. The study also found that neglecting tropical diseases by presumed and assumed safer regions' leaders as defensive mechanisms, were ineffective, inefficient, and in proficient; because malaria and measles continue to spread from region to region worldwide; regardless of efforts. The implication of this study is to assist international public health officials, public policy officials, and global leaderships to rethink, refocus, and revisit their treatments modalities, spread prevention methodologies, and practical approaches in addressing tropical neglected diseases such as malaria and particularly measles, which could eventually bring some positive social changes regionally; worldwide.

Keywords

Globalization, Vaccinations, Public Policy, Collaboration, Prevention

1. Introduction

The purpose of the study was to analyze the role globalization in the spread of neglected tropical diseases like malaria and measles. Normally developing countries are the ones which are affected by neglected tropical diseases because of various underlying factors like malnutrition, poverty, sanitary, conditions plus economic factors as

well as climate conditions. But, globalization has changed, all these authors have tried to analyze the changes in the pattern taking two common infectious diseases, measles and malaria. Globalization serves as assistance to infected measles carrier (person) from one region to another; but, it assists malaria required insect vectors such as mosquito to accomplish the same goal as well. Additionally, those who were infected prior to traveling to other regions often seek treatments and recorded in these regions [1] [2].

This study looked into the relationships between globalization "global village" and the spread of originally tropically neglected diseases such as malaria and particularly measles across 7 major international geographical areas between 2000 and 2014. Statistical analyses of this study pinpointed the impacts of measles in 7 major geographical areas in 14 years. These areas were African Region, Region of the Americas, Eastern Mediterranean Region, European Region, South-East Region, Asia Region, and Western Pacific Region, to be specific. These areas accounted for the major measles affected areas between 2000 and 2014. The findings of this study should shed some lights on the roles globalization plays in the spreading of originally tropically neglected diseases such as malaria and measles worldwide; and, how to systematically control them before they become international epidemics.

2. Malaria

It is undeniable that public health officials have to remain vigilant and change the way they perceive the spread of disease form one area to another. Over the years, as the world becomes more global, many western countries are beginning to realize the impact of malaria importation. Over the years importation of malaria is becoming prevalent and many reported cases are becoming evident [3] [4]. Malaria importation is described as patients who have traveled form endemic area and thereafter been diagnosed in non-endemic areas. While many countries in Africa have been and continue to be significantly impacted by this deadly infection, this has not been the case in many western countries [5] [6].

However, over the years malaria is presenting itself in countries otherwise known to have completely eradicated malaria. As health care personalities, we have to realize that we are no longer isolated as countries but we are all connected in one inescapable network and whatever touches one will eventually touch the other. With that in mind, it is imperative that health care officials come together and create intervention measures that help elevate the overall impact on imported diseases. As such, health care officials all over the world have to partner and work collaboratively with other nations, especially those mostly impacted by malaria and implement intervention measures that will benefit all parties.

3. Measles

Beside the above pinpointed neglected tropical diseases, measles is yet another disease Americans are currently experiencing in California, and Florida, among other places just to mention a few. According to Caserta [7], "**Measles**, also known as **morbilli** or **rubeola**, is a highly contagious infection caused by the measles virus" (para. 1). Measles had been well documented as one of the most deadly and most contagious diseases in the world; due to its ability to overwhelm the world's population upon its arrival. According to historic records, measles killed approximately 20% of Hawaii population in 1850; in 1875, measles killed 40,000 of Fijians or approximately 33% of the population and in the 19 Century Measles killed 50% of the Andamanese population [8]-[15]. Based on these staggering historic statistical records, the negative impacts of measles as a disease on humanity cannot be undermined or understated. Yet, tropical diseases such as measles are still being neglected worldwide; but, globalization has redefined our outlooks when dealing with measles as well as other tropical diseases.

Who Health Organization (WHO, 2006) [12] and other researchers, estimated that between 1990 and 2011 there was almost 400% drop of deaths caused by measles from 630,000 in 1990 to 158,000 deaths in 2011 [16]-[21]. They pinpointed that measles is more common in developing countries with a ratio of 1 to 2 cases within 1000 poll calculation to draw data from with a statistical ratio of (00.1% to 00.2%). Not surprisingly, developing countries with low nutrition or malnutrition often lack the needed healthcare applications, approaches, and modules which eventually speed up the death rates and ratios symmetrically in no time. According to United Nations (UN) [20], measles death rate in developing countries was as low as 10% initially; however, due to lack of treatments, malnutrition, and other factors, these rates are systematically and symmetrically increased higher than anticipated levels. Future estimate indicated that additional associative complications that follow these hig-

hlighted issues could increase the mortality from 10% to between 20%, and possibly 30% [13] [14] [19]. These statistical estimates are disturbing.

However, this disease is no longer limited to developing countries as previously predicted by public health experts, social scientists, as well as leaderships. For example, while there has been a significant reduction of measles infections worldwide since 1990s to the early 2000s, measles is currently on the increase worldwide due to multiple factors. These multiple factors include lack of measles vaccine immunization, lack of environmental sustainability known as critical community size (CCS), and globalization just to mention a few [21]; [16]-[18] [22] [23]. Furthermore, according to Center for Disease Control and Prevention [24], as complicated measles had been in the past and still today, globalization of the world known "Global Village" has immensely contributed to the speedy spread of measles across the world in the late 20 century into the early 21st century. For example, "…in 2006-07 there were 12,132 cases in 32 European countries: 85% occurred in five countries: Germany, Italy, Romania, Switzerland and the UK. 80% occurred in children and there were 7 deaths" (BBC, 2006 as Cited In McNeil, 2009, p. 1) [25]. The statistical analyses of the reoccurrences of measles globally, especially in the western world will be conducted in this study.

4. Methodology

This research study investigated the globalization roles in spreading measles worldwide using a Non-Experimental Descriptive Statistics measurements design concentrating on measles spread between 2000 and 2014 in 7 pinpointed geographical regions worldwide. Non-Experimental Descriptive study statistically examines or secondary data and makes some social scientific senses out of the outcomes of data analyses. The statistical measurements of this study concentrated on general descriptive statistics, percentile values, central tendencies, dispersions, and distribution of data, along with one-way sample statistics test, and a confidence interval differences test. Non-Experimental Descriptive study relies on the statistical analyses of existing secondary data, through comprehensive measurements of the above mentioned measurements' perimeters [26]-[29].

4.1. Data Collection

These database analyses examined the overall of spread of measles in 7 major geographical areas as a result of globalization effects. This research study implemented a specific purposeful "multiple case study" by collecting samples from 7 regions using the application of "cluster data sampling" sample collection technique. The data were collected through a comprehensive collaboration of WHO and CDC from 1980 to 2014; but, in this study, only data from 2000 to 2014 were analyzed because they were more current. Since all needed secondary data were available, Atatah, Rutledge, Thomas, and Settles [30], Statistical Significant Differences Multiplier (SSDM) was not needed for future data projections or estimations in this study.

This quantitative research study investigated two major research questions. These questions were;

1) Research Question 1. *RQ* 1: What are the relationships between globalization "Global Village" and the spread of contagious tropical neglected diseases such as malaria and measles from one region to another worldwide?

2) Research Question 2. *RQ* 2: What are the motivating factors in spreading the tropical neglected diseases such as malaria and measles from one region to another worldwide?

4.2. Data Analyses

These areas examined in this study were African Region, Region of the Americas, Eastern Mediterranean Region, European Region, South-East Region, Asia Region, to the Western Pacific Region. This statistical calculation ranged from 2000 to 2005 coded as (2005) records, from 2005 to 2010 coded as (2010) records, and from 2010 until 2014 coded as (2014) records into Statistical Package for Social Sciences (SPSS, 2015) as shown in the tables and figures below.

Table 1 indicated active secondary statistical data from 2000 to 2014 of measles cases in pinpointed affected areas. These areas ranged from African Region, Region of the Americas, Eastern Mediterranean Region, European Region, South-East Region, Asia Region, to the Western Pacific Region. These areas accounted for the measles affected areas between 2000 and 2014. For statistical analyses reason, the data were broken down into three major years which were 2005, 2010, and 2014. The maximum **(Max)** measles cases were 520,102,

316,224, and 34,310 respectively; while minimum **(Min)** were 19, 1540, and 1755. The Standard Deviation **(SD)** ranged from 186,186 to 12,075 respectively (see **Table 1** as shown below).

Table 2 indicated active secondary statistical data from 2000 to 2014 of measles cases in pinpointed affected areas. The maximum **(Max)** measles cases were 520,102, 316,224, and 34,310 respectively; while minimum **(Min)** were 19, 1540, and 1755. The Standard Deviation **(SD)** ranged from 186,186 to 12,075 respectively as shown in **Table 7**. The summations were 838,338 in 2000, 582,292 in 2005, and 57,733 in 2014. However, the most statistical significant differences were the mode **(MD)** of 1755 in 2005, 19 in 2010, and 1540 in 2014 and the was no statistical significant differences in Skewness **(SK)** and Std. Error of Skewness **(S.ES)** (see **Table 2** as shown below).

Table 1. Descriptive statistics of measles cases in 2000, 2005, and 2014.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
2005	7	1755.00	520,102.00	119,762.5714	186,186.29076
2010	7	19.00	316,224.00	83,184.5714	112,964.78247
2014	7	1540.00	34,310.00	8247.5714	12,075.31349
Valid N (listwise)	7				

Table 2. Statistical analyses of measles cases 2000, 2005, and 2014.

Statistics					
		Measles	2005	2010	2014
N	Valid	8	7	7	7
	Missing	0	1	1	1
Mean			119,762.5714	83,184.5714	8247.5714
Std. Error of Mean			70,371.80327	42,696.67447	4564.03950
Median			38,592.0000	37,332.0000	2430.0000
Mode			1755.00[a]	19.00[a]	1540.00[a]
Std. Deviation			186,186.29076	112,964.78247	12,075.31349
Variance			34,665,334,866.952	12,761,042,077.619	145,813,195.952
Skewness			2.161	1.817	2.208
Std. Error of Skewness			0.794	0.794	0.794
Kurtosis			4.768	3.399	4.879
Std. Error of Kurtosis			1.587	1.587	1.587
Range			518,347.00	316,205.00	32,770.00
Minimum			1755.00	19.00	1540.00
Maximum			520,102.00	316,224.00	34,310.00
Sum			838,338.00	582,292.00	57,733.00
Percentiles	25		2000.0000	2005.0000	2014.0000
	50		38,592.0000	37,332.0000	2430.0000
	75		176,493.0000	128,016.0000	12,125.0000
	100		520,102.0000	316,224.0000	34,310.0000

[a]Multiple modes exist. The smallest value is shown.

Table 3 indicated the measles outbreaks in 7 major regions cumulative frequencies. African region showed 12.5%, European showed 12.5% and South East Asia and Western regions showed the same 12.5% as well. There were no missing data (see **Table 3**).

Table 4 showed frequencies distribution of 12.5%, valid frequencies of 14.3, and cumulative frequencies of 14.3 as well. There were no missing data (see **Table 4**).

Table 5 showed a similar cumulative frequencies distribution as **Table 5** and as usual, there were no missing data as well (see **Table 5** as shown above).

Table 6 showed a similar cumulative frequencies distribution as **Table 6** and there were no missing data based on the cumulative frequencies distribution. Also, there were no missing data (see **Table 6**).

Table 7 showed a One-Sample statistics of measles outbreaks from mid 2000 to 2014. The number of cases (**N**) represented 7 regions, the collective measles mean **(M)** were 83185 and 8248 while the Std. Error Mean (**SEM)** were 42697 and 4564 respectively (see **Table 5**).

Table 8 showed a One-Sample Test of Measles Outbreaks from 2000 to 2014 **tests (t) w**ere 1.95 and 1.81, **(df)** were 6 and 6, while the **Sig (2-tailed) or (*P-Value*)** <0.05 or >0.95 were 0.099 and 0.121 respectively. In fact,

Table 3. Measles cumulative frequency in 7 major regions.

Measles					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	12.5	12.5	12.5
	African	1	12.5	12.5	25.0
	Eastern	1	12.5	12.5	37.5
	EM Region	1	12.5	12.5	50.0
	European Region	1	12.5	12.5	62.5
	SE Region	1	12.5	12.5	75.0
	Asian Region	1	12.5	12.5	87.5
	Western Pacific Region	1	12.5	12.5	100.0
	Total	8	100.0	100.0	

Table 4. Measles cumulative frequency in 2005.

2005					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1755.00	1	12.5	14.3	14.3
	2000.00	1	12.5	14.3	28.6
	37,421.00	1	12.5	14.3	42.9
	38,592.00	1	12.5	14.3	57.1
	61,975.00	1	12.5	14.3	71.4
	176,493.00	1	12.5	14.3	85.7
	520,102.00	1	12.5	14.3	100.0
	Total	7	87.5	100.0	
Missing	System	1	12.5		
Total		8	100.0		

Table 5. Measles cumulative frequency in 2010.

2010					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19.00	1	12.5	14.3	14.3
	2005.00	1	12.5	14.3	28.6
	15,069.00	1	12.5	14.3	42.9
	37,332.00	1	12.5	14.3	57.1
	83,627.00	1	12.5	14.3	71.4
	128,016.00	1	12.5	14.3	85.7
	316,224.00	1	12.5	14.3	100.0
	Total	7	87.5	100.0	
Missing	System	1	12.5		
Total		8	100.0		

Table 6. Measles cumulative frequencies in 2014.

2014					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1540.00	1	12.5	14.3	14.3
	2014.00	1	12.5	14.3	28.6
	2214.00	1	12.5	14.3	42.9
	2430.00	1	12.5	14.3	57.1
	3100.00	1	12.5	14.3	71.4
	12,125.00	1	12.5	14.3	85.7
	34,310.00	1	12.5	14.3	100.0
	Total	7	87.5	100.0	
Missing	System	1	12.5		
Total		8	100.0		

Table 7. One-sample statistics of measles outbreaks from 2000 to 2014.

One Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Measles	7	83,184.5714	112,964.78247	42,696.67447
2000 to 2014	7	8247.5714	12,075.31349	4564.03950

Table 8. One-Sample test of measles outbreaks from 2000 to 2014.

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Measles	1.948	6	0.099	83,184.57143	−21,290.4273	187,659.5702
2000 to 2014	1.807	6	0.121	8247.57143	−2920.2309	19,415.3738

data showed no statistical significant differences since measurements simply concentrated singularly on measles spreading across 7 regions worldwide, ranging from Africa region to Western region between 2000 and 2014 (see Table 8).

Table 9 showed the malaria cases in United States between 2005 and 2011 seconding data obtained from CDC. Valid number **(N)** was 4 years which were 2005, 2008, 2010, and 2011 in the United States. The maximum **(Max)** cases was 1925 in 2011 and the minimum **(Min)** was 1505 in 2008. The median **(Med)** was approximately 1610 cases, the mean **(Me)** 1662 and the standard deviation **(Std. D)** was approximately 194 cases (see Table 9).

Table 10 showed the cumulative frequency distribution between 2005 and 2011 in the United States There was no missing cases because 2005 equaled 1528 malaria cases 2008 equaled 1505 malaria cases 2010 equaled 1691 malaria cases and 2011 equaled 1925 malaria cases (see Table 10).

5. Results of the Study

5.1. Measles' Results

Based on available dataset analyses in this study, we found that minimum spread of measles in the 7 selected

Table 9. Descriptive statistics of malaria cases in US from 2005 to 2011.

Descriptive Statistics		
N	Valid	4
	Missing	0
Mean		1662.2500
Std. Error of Mean		96.87395
Median		1609.5000
Mode		1505.00[a]
Std. Deviation		193.74790
Variance		37,538.250
Skewness		1.087
Std. Error of Skewness		1.014
Kurtosis		−0.009
Std. Error of Kurtosis		2.619
Range		420.00
Minimum		1505.00
Maximum		1925.00
Sum		6649.00

a. Multiple modes exist. The smallest value is shown.

Table 10. Malaria cumulative frequency distribution from 2005 to 2011 in US.

Malaria Cumulative Frequency					
	Cases of Malaria	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1505.00	1	25.0	25.0	25.0
	1528.00	1	25.0	25.0	50.0
	1691.00	1	25.0	25.0	75.0
	1925.00	1	25.0	25.0	100.0
	Total	4	100.0	100.0	

research samples decreased from 1755 cases to 19 cases, 92.3 times, or 923% from 2000 to 2005. Contrarily, it increased from 19 cases to 1540 cases, 81.05 times, or 811% in 2014. This was an alarming finding in this study because an almost all regional eliminated disease such as measles resurfaced with stronger contagious strings in less than 5 years. The maximum cases of measles decreased 520,102 in 2000 to 316,224 or 61% in 2005. Furthermore, the cases dropped from 316224 in 2005 to 34,310 or 0.108% or approximately 11% in 2014. We further found that the measles mean cases dropped from 119,763 to 83,185 or 69% between 2000 and 2005. Also, between 2005 and 2014 the cases dropped from 83,185 to 8248 or 0.099% according to the analyzed data. The measles standard deviation cases dropped from 186,186 to 112,965 or 61% between 2000 and 2005; and dropped again between 2005 and 2014 from 112,965 to 12,075 or 0.106% or approximately 11% in measles cases. Based on the above analyses, we found that tropical neglected diseases such as malaria and measles in particular, are resurfacing from one geographical location to another due to the concept of globalization or "Global Village" phenomenon. A phenomenon that makes it possible for one infested person to travel to another region knowingly or unknowing, and eventually infest whomever he or she has comes in contact with, particularly when dealing with contagious disease such as measles.

Additionally, we also found that the three major contributing factors in spreading of originally tropically neglected diseases such as malaria and measles were transportation (importations or exportations) immigration of people, easy transportation accessibility, and internal conflict regions. Based on the data reviewed, we found that there was a direct relationship between conflict periods and the increase in the resurfacing of tropical diseases such as malaria and measles to be specific. For example, between 2000 and 2005, measles counts were at its minimum number of 19 cases; this was a less human conflicting period in many targeted study's critical community regions. However, we surprisingly found that as human regional conflicts intensified between 2005 and 2014, as such, the minimum measles counts jumped from 19 to 1540, 81.05 times, or 811% cases in less than 10 years. This showed that human immigration (importations or exportations), transportation, and uncontrollable regional human conflicts were some of the pinpointed motivating factors in the spreading originally tropically neglected diseases such as malaria and particularly measles from one region to another.

5.2. Malaria's Results

We found that between 2005 and 2008 malaria decreased from 1528 to 1505 or 0.015% and between 2008 and 2010 the cases increased from 1505 to 1691 or 11% and between 2010 and 2011 it again increased from 1691 to 1925 or approximately 13% see **Table 9** and **Table 10** as shown above. CDC records showed that in 2012, approximately 1683 out of 1687 or 99% of malaria cases in United States were imported. This is significant indicators that people who were infected travel to the United States to seek treatments, but be counted as malaria cases knowingly or unknowingly; regardless.

Finally, we found that the cases of malaria and measles which were originally controlled in western world are currently resurfacing from critical community regions to presumed safe regions where such diseases were almost eliminated for generations. Above all, we further found that malaria and measles in particular are resurfacing or mushrooming throughout African Region, Region of the Americas, Eastern Mediterranean Region, European Region, South-East Asia Region, and even Western Pacific Region, to be specific. In late 2014 and early 2015 for example, measles that was regarded as old gone and eliminated tropical disease from the western world, actually resurfaced and mushroomed its way into some assumed safe critical communities in some states in the United States of America. Based on these findings, we summed that malaria and measles are no longer regarded as tropically neglected diseases. Instead, they are now resurfacing as international epidemics that the world public health, public policy officials, and leaderships need to carefully tackle, before they systematically become international epidemics or possibly quagmires.

6. Statistical Analyses of the Findings

In this study, we found that there was a direct relationship between globalization "Global Village" and the spread of tropically neglected diseases such as malaria and particularly measles from regions to regions. As such, we rejected the **Null Hypothesis $H_0$1:** That there was no relationship between globalization "Global Village" and the spread of tropically neglected diseases such as malaria and particularly measles worldwide. Instead, we accepted the **Alternative Hypothesis $H_1$1:** That there was a direct relationship between globalization "Global Village" and the spread of tropically neglected diseases such as malaria and particularly measles from one

region to another.

Based on these findings, we rejected the Null Hypothesis and accepted the Alternative Hypothesis. Also, kurtosis showed 4.768 in 2005, 3.399 in 2010, and 4.879 in 2014. Also, skewnesses were 2.161 in 2005, 1.817 in 2010, and 2.208 in 2014. However, there was a balance statistical data distribution in this study because the Std. Error of Skewnees (Std.ES) were 0.794 in 2005, 2010, and 2014 while the Std. Error of Kurtosis (Std. EK) were 1.587 in 2005, 2010, and 2014. This indicated a statistical balanced data distribution in this study as such we rejected the Null Hypothesis and accepted the Alternative Hypothesis (see **Table 2** as shown above). Above all, there was a statistical significant difference between globalization "Global Village" mentality and the spread of tropical diseases such as malaria and measles from one region to another. The records showed that approximately 99% of all malaria cases in the United States were somehow imported.

7. Implication of the Study

This quantitative research study shed two major lights as implications for the world to address today and tomorrow to come. First, this research study showed that the days of allowing certain diseases such as tropical diseases like malaria and measles to be fully neglected, are over. This is the case because old but newer phenomenon such as globalizations "Global Village" actually accelerates the spreading of such diseases from regions to regions like wild fires. Secondly, the world should realize that as previously echoed by historic intellectual psychologists and prophets in the past, "We are all tied together as one inescapable network; that whatever touches one directly, touches the rest us indirectly eventually" (Dr. Martin Luther King, Jr. 1963-1968, personal communication). These are some of the pressing implications the world should and must collectively and holistically address before they become international endless quagmires for all. Furthermore, this study should bring some positive social changes to the rest of the world eventually; if, some of the recommendations are holistically reviewed, initiated, developed, and implemented.

8. Discussion and Conclusion

In summation this comprehensive study made it possible to look into a historic phenomenon of globalization "Global Village" inputs in the spread of tropical neglected diseases from one region to another. This study showed that factors such as exportation and importation of goods and human encourage the spread of tropical neglected diseases particularly measles from one region to another expeditiously. Also, according to a pinpointed personal communication in a public radio by Baylor University Center for Tropically Neglected Diseases department in 2015, one of the largest factors responsible for the spread of tropical diseases from region to region is humanistic crisis. For example, Ebola (a contagious disease) was and is still more prevalent in Guinea, Sierra Leone, and Liberia in Africa which have been repeatedly decimated by internal civil wars (humanistic crisis) for generations. He summed that there is a direct relationship between uncontrollable domesticated civil wars and the mobilizations of neglected tropical diseases from one crisis area to another.

In should be noted that last year (2014), Baylor University become the first higher learning institution in America to open a full flagged school/department to deal singularly with majority of tropical neglected diseases' old and new phenomena [31]-[33]. But, Baylor University should understand that singular approach never wins. On average, western experts have limited understanding of the metamorphisms of tropically neglected diseases evolution. As such, collective collaboration of further experts' inclusiveness, rather than experts' exclusiveness is always superior to all. This falls under the philosophical belief of "Divided we fall; and united we stand" (Dr. M. L. King, Jr. 1963-1968, personal communication). This is the case because neglected diseases are resurfacing symmetrically worldwide; yet, we have no definite control over their revalidations. This analysis falls under the social constructionism of the reality of ideological theory; which was developed by Berger and Luckmann in 1966 [34]. In fact obviously, skewed ideologies lead to skewed public policies initiations, developments, and implementations; which usually leads to fundamental holistic counterproductive outcomes across the board, in the final analysis.

Another interesting finding of this comprehensive study is to showcase the issues associated with neglected diseases implications and how to address them before they become unsustainable quagmires. Therefore, the findings of this study serves as a drawing board for public health officials to constructively rethink and revisit the dynamics associated with tropically neglected diseases and find out ways to address them comprehensively. For example, tropical neglected diseases lack the ability, capability, and capacity to move from one region to

another without any humanistic assistance. Precisely, this is where globalization "global village" ideology plays a pivotal role in the form of transportation, exportation, and importation, among others, just to mention a few. In other words, there is a significant marginal propensity relationship between "globalization" and the spread of tropical neglected diseases such as malaria and particularly measles from one coast to another coast; worldwide.

In conclusion the world should know that majority of neglected tropical diseases are currently mushrooming into a new and modern phenomena that need to be comprehensive and collaboratively addressed internationally. Failure to address these neglected tropical diseases such as malaria and particularly measles will give them the opportunity to develop stronger concentrated strings that could pose unsustainable challenges for the world to deal with periodically; and possibly repeatedly. In the final analysis, one thing is clear. Globalization appears to be the genesis of importation and exportation of neglected tropical diseases worldwide. For example, Ebola outbreak in 2014 and 2015 is a classical example of the old but new phenomena that was previously ignored by the world; yet, it resurfaced internationally changing the ways public health care personalities have to deal with tropically neglected diseases outlooks. Finally, public health care personalities around the world should collaborate and understand that globalization is now a new phenomenon that has changed the ways public health crisis are addressed. These are lessons learned and insights gained the world should remember when dealing with the spreading of any contagious diseases in general; but, particularly measles worldwide.

9. Recommendations

The recommendations of this study are as follows:

Tropical Regions:

1) First, it should be noted that tropical neglected diseases such as malaria and measles are common in the tropical regions; and, tropical regions public health officials and public policymakers should develop better systematic ways in addressing them repeatedly; instead of waiting until they become epidemics.

2) Tropical regions leaderships should be self-sufficient; instead of being repeatedly reliant on the rest of the world to rescue them from tropical diseases they could successfully tackle themselves.

3) Also, tropical regions should find ways to develop and implement resources for the regions; and, they should stay away from "dreadlock corruptions mentalities" that have plagued tropical regions for centuries.

Other Regions:

1) Other regions should know that the impacts of globalization (Global Village) make tropically neglected diseases like malaria and particularly measles closer to home, than ever.

2) Secondly, other regions should understand that whatever happens in the tropical regions could easily mushroom tropically; but, resurface in other regions symmetrically; instead of systematically.

3) CDC should continue to develop and implement international public health policies that could eventually bring some positive social changes to the rest of the world prior to becoming epidemics; regardless of their locations.

4) Also, charity organizations should find better ways of financially sponsoring developments and implementations of assistances without allowing such resources to end up in the hands of corrupt tropical leaderships. As such, positive collaboration is a must in achieving success when dealing with contagious diseases particularly measles.

5) Finally, other regions in particularly tropical regions in general should understand that measles is an extremely contagious disease; and, vaccination is a must; regardless of one's historic traditions, culture, or religious beliefs.

References

[1] Center for Disease Control and Prevention (CDC) (2005) Malaria Morbidity and Mortality Weekly Report (MMWR). http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6102a1.htm

[2] Centers for Disease Control and Prevention (CDC) (2011) "Complications of Measles". http://www.cdc.gov/measles/about/complications.html

[3] Romi, R., *et al.* (2010) Incidence of Malaria and Risk Factors in Italian Travelers to Malaria Endemic Countries. *Travel Medicine and Infectious Disease*, **8**, 144-154. http://dx.doi.org/10.1016/j.tmaid.2010.02.001

[4] Centers for Disease Control and Prevention (CDC) (2012) Malaria. http://www.cdc.gov/Malaria/

[5] Ungger, H.W., *et al.* (2011) Imported Malaria in Scotland—An Overview of Surveillance, Reporting and Trends. *Travel Medicine and Infectious Disease*, **9**, 289-297. http://dx.doi.org/10.1016/j.tmaid.2011.10.001

[6] World Health Organization (WHO) (2013) Department of Communicable Disease Surveillance and Response. http://www.who.int/csr/resources/publications/surveillance/plague.pdf

[7] Caserta, M.T., Ed. (September 2013) "Measles". Merck Manual Professional. Merck Sharp & Dohme Corp. Retrieved 23 March 2014.

[8] Maurice, R. and Hilleman, D. (2005) Dies; Created Vaccines. The Washington Post. April 13, 2005.

[9] Rima, B.K., Earle, J.A., Yeo, R.P., Herlihy, L., Baczko, K., TerMeulen, V., Carabaña, J., Caballero, M., Celma, M.L. and Fernandez-Muñoz, R. (1995) Temporal and Geographical Distribution of Measles Virus Genotypes. *The Journal of General Virology*, **76**, 1173-1180. http://dx.doi.org/10.1099/0022-1317-76-5-1173

[10] Byrne, J.P. (2008) Encyclopedia of Pestilence, Pandemics, and Plagues: A-M. ABC-CLIO. p. 413.

[11] Torrey, E.F. and Yolken, R.H. (2005) Their Bugs Are Worse than Their Bite. Washington Post, April 3, B01.

[12] WHO (2006) Global Summary on Measles, 2006. https://www.google.com/webhp?sourceid=chrome-instant&rlz=1C1TSND_enUS450US450&ion=1&espv=2&ie=UTF-8#q=WHO.+(2006).+Global+summary+on+measles%2C+2006

[13] WHO (2014) Measles Surveillance Data after WHO, Last Updated 2014-3-6. http://www.who.int/immunization/monitoring_surveillance/burden/vpd/surveillance_type/active/measles_monthlydata/en/

[14] WHO (2014) Measles Reported Cases by WHO in 2014. http://www.ibtimes.com/measles-outbreak-2014-592-cases-reported-us-after-disease-eliminated-2000-1681352

[15] Fisher, D.L., Defres, S. and Solomon, T. (2014) Measles-Induced Encephalitis. *QJM*, **108**, 177-182. http://dx.doi.org/10.1093/qjmed/hcu113

[16] Lozano, R., Naghavi, M., Foreman, K., Lim, S., Shibuya, K., Aboyans, V., Abraham, J., Adair, T., Aggarwal, R., Ahn, S.Y., *et al.* (2012) Global and Regional Mortality from 235 Causes of Death for 20 Age Groups in 1990 and 2010: A Systematic Analysis for the Global Burden of Disease Study 2010. *The Lancet*, **380**, 2095-2128. http://dx.doi.org/10.1016/S0140-6736(12)61728-0

[17] Black, F.L. (1966) Measles Endemicity in Insular Populations; Critical Community Size and Its Evolutionary Implications. *Journal of Theoretical Biology*, **11**, 207-211. http://dx.doi.org/10.1016/0022-5193(66)90161-5

[18] Centers for Disease Control and Prevention (CDC) (2014) Measles Prevention: Recommendations of the Immunization Practices Advisory Committee (ACIP). https://www.google.com/search?q=Centers+for+Disease+Control+and+Prevention+(CDC).+(2014).+

[19] WHO (2012) World Health Organization Measles Fact Sheet No. 286. Updated February 2014.

[20] United Nations (UN) (2013) Millennium Development Goals Reports. United Nations, New York.

[21] World Health Organization WHO (2014) Measles, World Health Organization Fact Sheet No. 286. Updated February 2014.

[22] Offit, P.A. (2007) Vaccinated: One Man's Quest to Defeat the World's Deadliest Diseases. Smithsonian, Washington DC.

[23] WHO (2014) Millennium Development Goals (MDGs), Fact Sheet No. 290. WHO.

[24] Center for Disease Control and Prevention (CDC) (2011) Malaria Morbidity and Mortality Weekly Report (MMWR). http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6102a1.htm

[25] BBC News (2006) Measles Hits Rare Andaman Tribe. BBC News. 16 May 2006. Live Attenuated Measles Vaccine. *EPI Newsletter/C Expanded Program on Immunization in the Americas*, **2**, 6.

[26] Creswell, J.W. (2009) Research Design: Qualitative, Quantitative, and Mixed Methods Approach. 3rd Sage Publications, Inc., Thousand Oaks.

[27] Miller, R.G. (1981) Simultaneous Statistical Inference. 2nd Edition, Springer-Verlag, New York. http://dx.doi.org/10.1007/978-1-4613-8122-8

[28] Morrow, J. (2011) The T-Tests for Independent Variables/Introduction to Hypothesis, Baltimore. Walden Study Resources, Week 7, RCSH-8200P-2. Laureate Education, Inc. (2011 Executive Producer), (Walden, [DVD]).

[29] Frankfort-Nachmias, C. and Nachmias, D. (2000) Research Methods in the Social Sciences. 6th Edition, Wadsworth, New York.

[30] Atatah, P., Rutledge, P., Thomas, D. and Settles, T. (2013) Analysis of Variance in Recidivism between Special Needs Offenders and Regular Offender Populations in Texas. Statistical Significant Differences Multiplier. (SSDM). Published Dissertation, Walden University, Minneapolis.

[31] Center for Disease Control and Prevention (CDC) (2008) Malaria Morbidity and Mortality Weekly Report (MMWR). http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6102a1.htm

[32] Center for Disease Control and Prevention (CDC) (2010) Malaria Morbidity and Mortality Weekly Report (MMWR). http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6102a1.htm

[33] Centers for Disease Control and Prevention (CDC) (2014) Complications of Measles. CDC, DeKalb County.

[34] Berger, P.L. and Luckmann, T. (1966) The Social Construction of Reality: A Treatise in the Sociology of Knowledge. Doubleday & Company, New York.