

Georgia State University

ScholarWorks @ Georgia State University

Public Health Theses

School of Public Health

Spring 5-4-2021

Understanding the Demographics, Behaviors, Attitudes and the Perceived Barriers that Impede Covid-19 Public Health Mitigation Measures among Residents Of Metro Atlanta

Yomi Bello

Georgia State University School of Public Health

Follow this and additional works at: https://scholarworks.gsu.edu/iph_theses

Recommended Citation

Bello, Yomi, "Understanding the Demographics, Behaviors, Attitudes and the Perceived Barriers that Impede Covid-19 Public Health Mitigation Measures among Residents Of Metro Atlanta." Thesis, Georgia State University, 2021.

https://scholarworks.gsu.edu/iph_theses/745

This Thesis is brought to you for free and open access by the School of Public Health at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Public Health Theses by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

UNDERSTANDING THE DEMOGRAPHICS, BEHAVIORS, ATTITUDES, AND THE PERCEIVED BARRIERS THAT IMPEDE COVID-19 PUBLIC HEALTH MITIGATION MEASURES AMONG RESIDENTS OF METRO ATLANTA.

**By
Yomi Bello**

ABSTRACT

INTRODUCTION: The novel COVID-19 is responsible for enormous medical costs, lost earnings, diminished economy, and thousands of deaths in the United States. Face mask-wearing, social distancing, and handwashing habits are effective prevention methods for minimizing the spread of COVID-19 virus infection. However, despite the U.S. Centers for Disease Control and Prevention (CDC) and the Public Health Advisory Committee (PHAC) recommendations in favor of the above non-pharmacological methods, many people are hesitant to adhere to COVID-19 virus infection mitigations guidelines.

AIM: This study aims to describe the characteristics, attitudes, behaviors, and perceived barriers of American adults in adhering to face mask-wearing, social distancing, and handwashing habits for mitigating COVID-19 infection.

METHODS: Forty-four Metro Atlanta area participants completed a questionnaire that was administered using survey monkey. All study participants (≥ 18 years of age) consented to study participation. Basic statistics, including means and frequencies, were used to describe attitudes, behaviors, and barriers associated with face mask-wearing, social distancing, and handwashing habits for mitigating COVID-19 infection.

RESULTS: A total of 44 respondents (65.9% female, 34.1% male) aged between 19 and 81 years consented to participate in the study. Almost all participants (97.7%) practiced social distancing; 95.5% practiced handwashing, while all participants wore face masks. Out of the total, 29.5% and 65.9% agreed or strongly agreed that mask-wearing is vital in protecting against COVID-19 infection. In contrast, only 4.5% strongly disagreed that mask-wearing is essential for the prevention of COVID-19 transmission. About 73.5% of the black participants

agreed/strongly agreed that wearing a face mask is crucial in mitigating COVID-19 infection compared to 60.0% of white participants. All conservatives agreed/strongly agreed that wearing face mask is for the public good. Out of the 20 who considered themselves politically liberal, 95.0% (19/20) agreed/strongly agreed that wearing a face mask is for the public good. All participants in the independent category strongly agreed that wearing a face mask is for the public good. Regarding perceptions of face mask-wearing, 43.2% of study participants felt uncomfortable, 52.3% agree/strongly agreed it makes hearing difficult, while 6.8% describe face masks as unappealing.

DISCUSSION: This study suggests the need for strong public health messages to avoid misunderstanding regarding COVID-19. Public health messages should be tailored to specific at-risk groups. Framing good public health messaging may reduce adverse attitudes, behaviors, and barriers associated with COVID-19, including vaccination hesitancy in at-risk US populations.

**UNDERSTANDING THE DEMOGRAPHICS, BEHAVIORS, ATTITUDES, AND THE
PERCEIVED BARRIERS THAT IMPEDE COVID-19 PUBLIC HEALTH
MITIGATION MEASURES AMONG RESIDENTS OF METRO ATLANTA.**

By

Yomi Bello

June 2021

**A Thesis Submitted to the Graduate Faculty of
Georgia State University in Partial Fulfillment
of the Requirements for the Degree**

Master of Public Health

Atlanta, Georgia

30303

GEORGIA STATE UNIVERSITY

June 2021

Approved:

Professor. Ike Okosun

Committee Chair

Professor Collins Airhihenbuwa

Committee Member

Chinedu Egbuonu, MPH

Committee Member

June 2021

Date

Acknowledgments

I would first like to express my gratitude to my thesis committee chair Professor. Ike Okosun for his inspiring guidance and invaluable constructive criticism throughout the completion of this thesis. I am sincerely grateful to my committee members Professor Collins Airhihenbuwa and Chinedu Egbonu, for their unwavering supports, comments, and enlightening views on subjects related to my explorations and data interpretations.

I would also like to thank Georgia State University School of Public Health faculty and staff for their guidance and support. Also, I am grateful to my Spouse Monika and my son Noah for their steadfast provision, inspirational ideas, and unwavering support.

All glory and honor be unto God.

Author's Statement Page

In presenting this thesis as partial fulfillment of the requirements for an advanced degree from Georgia State University, I agree that the Georgia State University library shall make this thesis available for inspection and circulation per its regulations governing materials of this type. I agree that permission to quote from, to copy from, or to publish this thesis may be granted by the author or, in his absence, by the Professor under whose direction it was written, or in his absence, by the Associate Dean, Georgia State University School of Public Health. Such quoting, copying or publishing must be solely for scholarly purposes and will not involve potential financial gain. It is understood that any copying or publication of this dissertation that involves potential financial gain will not be allowed without the author's written permission.

Yomi K. Bello

Signature of Author

Table of Contents

ABSTRACT	1
Acknowledgments	5
Author's Statement Page	6
CHAPTER 1-INTRODUCTION	9
1.0 Background	9
CHAPTER II- LITERATURE REVIEW	11
2.0 Genesis of COVID-19	11
2.1 COVID-19 Risk factors	12
2.2 Social Gatherings	12
2.3 Frequent Hand Washing	13
2.4 Face Mask Use	13
CHAPTER III- METHODOLOGY	16
3.0 Design and Data Source	16
3.1 Consent and Ethical Approval	17
CHAPTER IV- RESULTS	18
4.0 Demographic Characteristics	18
4.1 Public Health Advisory Influenced Wearing Face Masks	20
4.2 Prevention Practices for COVID-19	21
4.3 COVID-19 status of participants and their relatives Influenced Wearing Face Masks	22
4.4 Knowledge that face masks could reduce COVID-19 transmission.	23
4.5 Knowledge on awareness of being at risk.	24
4.6 Participants concern about contracting COVID-19	25
4.7 Study participants Perception of wearing face masks.	26
CHAPTER V- DISCUSSION AND CONCLUSION	28
5.0 Discussion	28
5.1 Strengths and Limitations	29
5.2 Conclusion	29
INSTITUTIONAL REVIEW BOARD APPROVAL	31
SURVEY INSTRUMENT	34
REFERENCES	39

List of Tables

Table 1: Relationship Between Demographic Characteristics and Compliance to Mask-Wearing.....19

Table 2: Perceptions of wearing face masks.27

List of Figures

Figure 1: COVID-19 prevention practices among participants.....21

Figure 2: COVID-19 diagnosis status of participants and their relatives22

Figure 3: Knowledge that face mask-wearing reduces transmission.23

Figure 4: Awareness of being at risk of getting infected with COVID-19.....24

Figure 5: Concerned about getting infected with COVID-19.25

CHAPTER 1-INTRODUCTION

1.0 Background

COVID-19 scourge was first recognized in Wuhan, China, and subsequently classified as a pandemic on March 11, 2020 (WHO, 2020),(Li et al., 2020). COVID-19 is a transmissible virus that causes acute respiratory syndrome, including fever, hack, weariness, windedness, pneumonia, and less common symptoms: headache, dizziness, abdominal pain, diarrhea, nausea, and vomiting. (Chen et al., 2020). As of April 24, 2021, the United States has the highest number of cases and mortality compared to other countries (<https://www.worldometers.info/coronavirus/>, 2021) (WHO, 2020). As of June 24, 2021, over 33 million cases and more than 590,000 US fatalities, 21,158 deaths in the State of Georgia (4% of US deaths), 1,128,690 reported and confirmed cases in Georgia (Approx. 4 % of US cases) were reported. (COVID-19 Dashboard by the Center for Systems Science Engineering at Johns Hopkins University).

COVID-19 infection is depicted by fever, hack, weariness, windedness, pneumonia, and other respiratory parcel indications (Chen et al., 2020).

The global burden of COVID-19 infection is significant in terms of mortality and economic hardships (Maria Nicola, 2020). According to the world economic forum journal, COVID-19 would cost 500 times more than other pandemic prevention measures (Schwab, 2020). In the US, the COVID-19 epidemic has impacted all communities., particularly among older adults. Analyses indicate that more than one

out of five Americans aged 65 years or older reside in counties where high infection rates and high economic insecurity risks co-occur (Karmakar, 2021). These findings underscore the overlap between current infection patterns and subsequent challenges to financial security impacting older people.

According to World Health Organization and CDC, face mask use, hand washing, and social distancing are inexpensive, easy, and non-pharmacological ways for mitigating the increasing incidence and prevalence of COVID-19 infections. Transmission of the COVID-19 virus can be reduced by wearing face masks to avoid infected droplets, hand washing to prevent transmission via contamination, and social distancing of at least 6 feet to lessen transmission by coughs and sneezing.

Despite the above evidenced-based recommendations by WHO and CDC, many Americans do not practice or adhere to the suggestions. Medical mistrust and lack of knowledge of the clinical characteristics of COVID-19 have been the common reasons participants claim to impede following Public Health regulations. In addition, recent social media debates also suggest political affiliation as a potential factor associated with lack of adherence to COVID-19 preventive measures. Consequently, this research aims to determine the risk factors of non-adherence to the guidelines for preventing COVID-19, including face mask use and social distancing among adults in Atlanta Metro Areas.

CHAPTER II- LITERATURE REVIEW

2.0 Genesis of COVID-19

The COVID-19 pandemic has gripped the World for over a year. SARS-COV 2 was identified as a new coronavirus (severe acute respiratory syndrome coronavirus 2, SARS-CoV-2) and later named COVID-19 (Qiu et al., 2020). While COVID-19 originated in the city of Wuhan in the Hubei province of China, it has spread rapidly across the world, resulting in a human tragedy and severe economic damage. As of June 2021, 176 million people have been infected globally, 3,798,361 global deaths were reported from the pandemic outbreak of COVID-19. (WHO)(John Hopkins.,2021)

At the onset of the pandemic, the transmission dynamics of COVID-19 were initially inconclusive; however human-to-human infection was determined to be the most common and challenging form of transmission COVID-19 is relatable to the 1918 influenza pandemic (CDC, 2020). In addition, the mode of transmission of COVID-19 is analogous to other viral respiratory infections, covering the mouth and nostrils, avoiding proximity gatherings, and proper sanitary habits such as hand washing/ sanitizers would help to alleviate its airborne transmission impact (WHO, 2020).

2.1 COVID-19 Risk factors

During the 2007-2008 influenza season, a cluster-randomized intervention trial involving 1,178 university students showed a significant reduction in respiratory illness (Aiello *et al.*, 2012). Therefore, it was deduced that the simultaneous use of facemasks and hand hygiene might reduce the devastating effects of contagious respiratory illnesses in confirmed community settings.

2.2 Social Gatherings

During a highly contagious pandemic, social gatherings have demonstrated the potential to culminate to super spreader outcomes (Laguipo, 2021).

Proximity gatherings such as White House parties, political rallies, nightclubs, and bars are recipes for a cataclysmic spreading event. During the climax of the ongoing pandemic in the summer of 2020, the United States government had defied the recommendations of Federal and local Public Health advisories by organizing a high-profile event on the confirmation of Supreme Court Justice Amy Barrett. As a result, the President of the United States and several dignitaries in attendance had contracted SARS-CoV-2 and had to be hospitalized along with 50 individuals. A recent modeling study has demonstrated physical distancing of at least 6ft, and avoidance of gathering events has shown effectiveness in mitigating contagious respiratory diseases such as COVID-19 (Koo, 2020).

2.3 Frequent Hand Washing

Handwashing has always been an efficient method of keeping transmissible diseases at bay. Handwashing is one of the most priceless hygiene that has proven to be a cornerstone in the war against infectious diseases. Hand hygiene should be a fundamental routine of our daily lives, especially since there has been a credible link to the incidence of COVID-19 and contaminated surfaces (WebMD, 2021).

Handwashing is also one of the critical cornerstones of COVID-19 prevention. Now more than ever, as we embrace the new normal and live with COVID-19, hand hygiene needs to become an integral part of our daily routine and our lives as we live through the pandemic. Scientific studies have shown that proper use of soap, active chlorine or any active cleanser ingredient will exponentially decrease the risk of dispersing or acquiring contagious surface pathogens (Ma, 2020).

2.4 Face Mask Use

A face mask is an effective non-pharmaceutical prevention for minimizing the spread of illness in the event of a COVID-19 pandemic.

The efficacy of facemasks/ coverings has been a source of debate in the case of COVID-19 mitigation. As aforementioned, the COVID-19 virus's most common transmission mode is via respiratory droplets and aerosols from breathing, coughing, or sneezing. Therefore, a proposed mandatory facemask-wearing policy seemed logical to curb the dispersion of the virus.

However, the United States Public Health has had challenges getting the public to comply with public health advisory to wear masks due to ideologies. Suddenly, both local and federal Public Health officials now had a crisis of being in the cross-hairs of protesters and anti-Government uprisings due to the Public Health mask mandates.

The public has been sluggish in comprehending the devastating effects of a pandemic, even though scientific evidence supports that facemask significantly reduces the spread of respiratory infections (Larson, 2020).

Except for few cities in the US, wearing a face mask in public has not been strictly enforced. So far, only the health care and business environments have adhered to wearing facemasks. Most grocery shops are beginning to make mask-wearing mandatory for entry. However, its effectiveness in the general population is uncertain due to improper use and lack of compliance. There are public debates about which type is suitable, medical facemask or locally made (cloth) facemask. As simple as it may seem, many protocols regarding its proper use exist but are not readily available to the public. A study by van der Sande and others (2008) assessed transmission reduction potential provided by personal respirators, surgical masks, and homemade masks. The homemade mask was found to decrease exposure to viral aerosols but was the least protective compared to the others. Being least effective does not rule out its potential of helping the masses, as it is the most affordable barrier that can be purchased or designed at home.

Using a homemade facemask reduces the artificial shortages of surgical masks required in health care settings. In addition, the use of homemade facemasks, because of their affordability and re-usability, encourages regular use. A prospective cluster-randomized trial showed that the use of facemasks during severe pandemics is high, and transmission in households could be reduced (MacIntyre, 2009)

CHAPTER III- METHODOLOGY

3.0 Design and Data Source

This study was conducted using descriptive quantitative analysis. The descriptive-analytical methods describe characteristics of a phenomenon in terms of persons, place, and time. Descriptive epidemiologic methods allow for developing hypotheses for subsequent testing.

This study created and utilized a consent and online survey questionnaire to collect Metro Atlanta residents' demographics, behavior, and opinions on Public Health advisory guidelines for mitigating the pandemic.

Forty-four Metro Atlanta area participants completed a questionnaire that was administered using the online survey monkey. All study participants (≥ 18 years of age) consented to study participation. Basic statistics, including means and frequencies, were used to describe attitudes, behaviors, and barriers associated with face mask-wearing, social distancing, and handwashing habits for mitigating COVID-19 infection.

3.1 Consent and Ethical Approval

Study participants were required to complete electronic consent prior to starting the questionnaire; consent language was thoroughly screened and approved by Georgia State University Institutional Review Board (IRB) approval (See attachment below).

CHAPTER IV- RESULTS

4.0 Demographic Characteristics

In total, 44 participants aged between 19 and 81 years (mean = 41.95, SD = 16.54) consented and answered the questionnaire. Out of this total, 65.9% (29/44) were female, while 34.1% (15/44) were male. As well, 77.3% (34/44) were black while 22.7 (10/44) were white. Majority, 45.5% (20/44) were liberal in terms of political lineage, while the remaining were either conservative, independent, or had no political affiliation(s). Most participants, 59.1% (26/44), had either bachelor or associate degrees, with the remaining distributed evenly among the graduate, high school, and college categories. Most responses came from the suburban and urban communities, 95.5% (42/44), with 4.5% (2/44) coming from rural Atlanta (Table 1).

Table 1: Relationship Between Demographic Characteristics and Compliance to Mask-Wearing

Wear face mask because of public health					
Age	No. Participants n=44	Agree	Strongly agree	Disagree	Strongly disagree
	n (%)	n (%)	n (%)	n (%)	n (%)
<30	11(25.0)	4(9.1)	6(13.6)	1(2.3)	-
30-34	10(22.7)	1(2.3)	7(15.9)	2(4.5)	-
35-39	2(4.5)	1(2.3)	1(2.3)	-	-
40-44	5(11.4)	1(2.3)	1(2.3)	2(4.5)	1(2.3)
45-49	3(6.8)	2(4.5)	1(2.3)	-	-
50-54	2(4.5)	1(2.3)	1(1.3)	-	-
55-59	2(4.5)	-	2(4.5)	-	-
60+	9(20.5)	3(6.8)	2(4.5)	3(6.8)	1(2.3)
Gender					
Male	15(34.1)	6(13.6)	7(15.9)	-	2(4.5)
Female	29(65.9)	7(15.9)	14(31.8)	8(18.2)	-
Race					
Black	34(77.3)	9(20.5)	16(36.4)	7(15.9)	2(4.5)
White	10(22.7)	5(11.4)	1(2.3)	1(2.3)	-
Political Affiliation					
Liberal	8(18.2)	7(15.9)	9(20.5)	3(6.8)	1(2.3)
Conservative	5(11.4)	2(4.5)	4(9.1)	2(4.5)	-
Independent	20(45.5)	-	4(9.1)	-	1(2.3)
None	7(15.9)	2(4.5)	4(9.1)	1(2.3)	-
Others	4(9.1)	2(4.5)	-	2(4.5)	-
Atlanta Region					
East	27(61.4)	8(18.2)	12(27.3)	6(13.6)	1(2.3)
North	2(4.5)	-	1(2.3)	1(2.3)	-
South	13(29.5)	5(11.4)	8(18.2)	-	-
West	2(4.5)	-	-	1(2.3)	1(2.3)
Population Density					
Sub-urban	27(61.4)	-	1(2.3)	-	1(2.3)
Urban	15(34.1)	7(15.9)	13(29.5)	7(15.9)	-
Rural	2(4.5)	6(13.6)	7(15.9)	1(2.3)	1(2.3)
Education					
Associate	12(27.3)	5(11.4)	4(9.1)	2(4.5)	1(2.3)
Bachelors	14(31.8)	5(11.4)	7(15.9)	2(4.5)	-
Graduate	4(9.1)	1(2.3)	1(2.3)	2(4.5)	-
High school	3(6.8)	1(2.3)	2(4.5)	-	-
Others	2(4.5)	-	2(4.5)	-	-
Some College	9(20.5)	1(2.3)	5(11.4)	1(2.3)	1(2.3)

4.1 Public Health Advisory Influenced Wearing Face Masks

Approximately 30% (13/44) of study participants agreed that mask-wearing is essential for the public's good, while 47.7 (21/44) strongly agreed. The remaining, 22.7% (10/44) either disagreed or strongly disagreed ($X^2 = 18/12$, $p = 0.641$). More females, 47.7% (21/44), either agreed or strongly agreed that wearing a face mask is for the public good compared to 29.5% (13/44) males ($X^2 = 8.852$, $p = 0.031$). About 73.5% (25/34) of the black participants agreed/strongly agreed that wearing a face mask is for the public good compared to 90% (9/10) of white participants. Out of the 20 liberals, 80.0% (16/20) agreed/strongly agreed that wearing face mask is for the public good, compared to 20.0% (4/20) who disagreed/strongly disagreed. Also 80.0% (4/5) among the participants with independent political lineage agreed/strongly agreed, compared to 75.0% (6/8) of the conservatives who agreed/strongly agreed ($X^2 = 12.484$, $p = 0.408$). The majority of participants, 74.1% (20/27) in the sub-urban grouping, agreed/strongly agreed that wearing a face mask was for the public good; likewise, 86.7 (13/15) of participants in urban Atlanta.

4.2 Prevention Practices for COVID-19

The three essential prevention practices, social distancing, handwashing, and mask-wearing were analyzed. From Figure 1, 97.7% (43/44) practiced social distancing, 95.5% (42/44) practiced handwashing, while all participants responded wearing face masks. As well, 2.3% (1/44) did not practice social distancing, while 4.5% (2/44) did not practice handwashing (Figure 1).

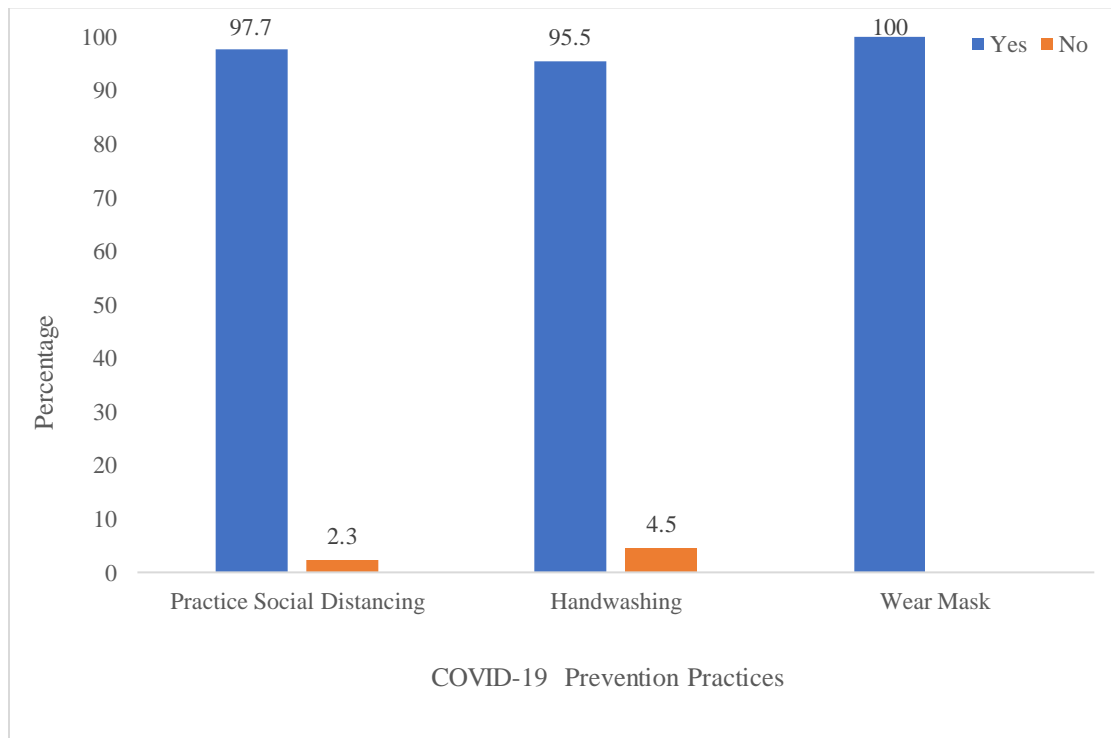


Figure 1: COVID-19 prevention practices among participants

4.3 COVID-19 status of participants and their relatives Influenced Wearing Face Masks

Out of the total, 6.8% (3/44) of the study participants reported being diagnosed with COVID-19, while the remaining had not been diagnosed. Similarly, 54.5% (24/44) of the total number of participants had relatives diagnosed with COVID-19 (Figure 2).

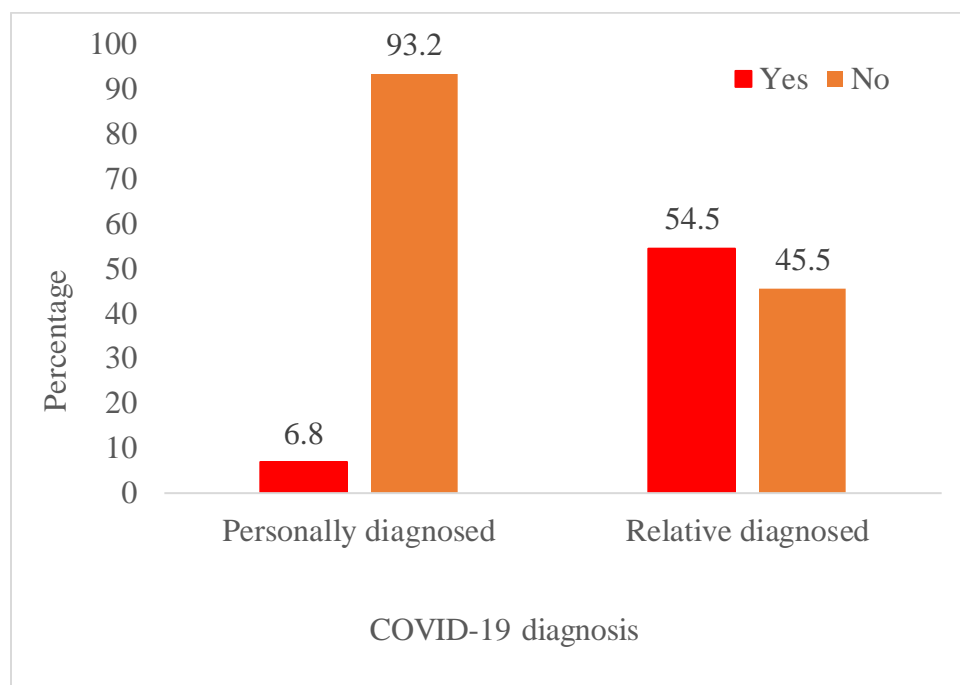


Figure 2: COVID-19 diagnosis status of participants and their relatives

4.4 Knowledge that face masks could reduce COVID-19 transmission.

To determine if study participants understood the importance of face masks in reducing COVID-19 transmission, they were asked to respond to whether they believe that wearing face masks play a role in reducing transmission. With this question, 29.5% (13/44) agreed that face masks are essential in preventing COVID-19 transmission, 63.7% (28/44) strongly agreed, while 6.8% (3/44) disagreed (Figure 3).

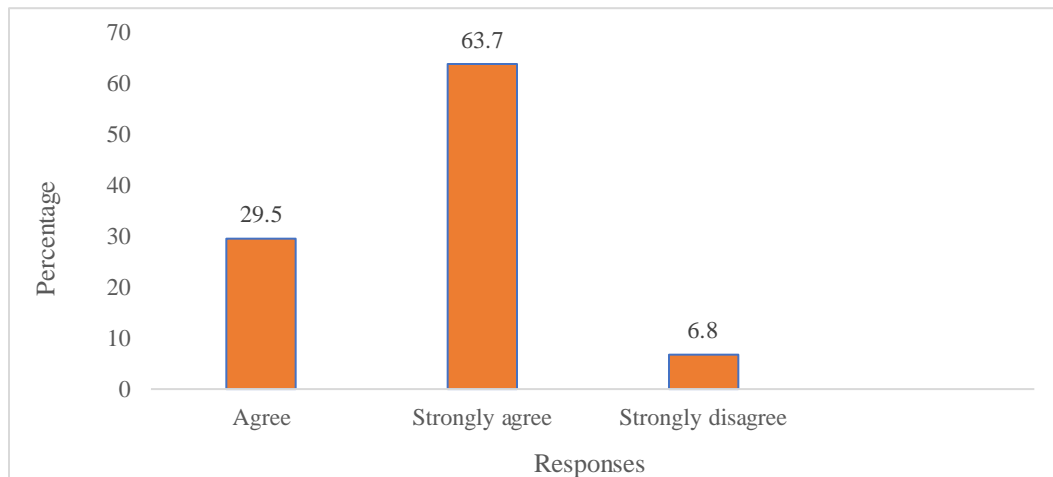


Figure 3: Knowledge that face mask-wearing reduces transmission.

4.5 Knowledge on awareness of being at risk.

Figure 4 represents responses on whether participants appreciated being at risk of COVID-19 infection. Of the total, 36.4% (16/44) agreed, while 9.1% (4/44) strongly agreed that they were at risk of acquiring the COVID-19 infection. The remaining, 54.5% (24/44), disagreed that they were at risk of contracting the virus.

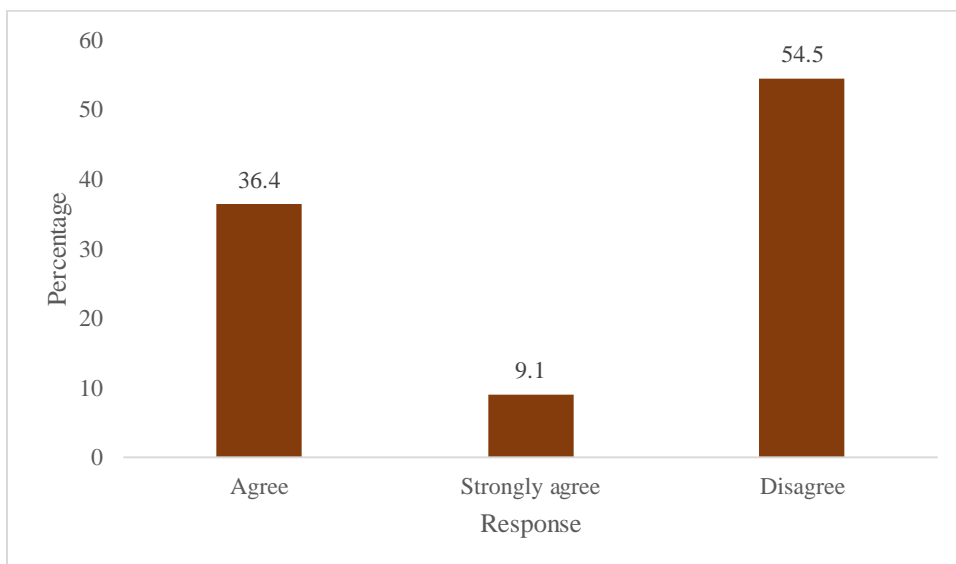


Figure 4: Awareness of being at risk of getting infected with COVID-19.

4.6 Participants concern about contracting COVID-19.

To determine if study participants were concerned about getting infected, they were asked to decide whether they were worried about contracting COVID-19. Of the total, 11.4% (5/44) agreed to be concerned, while 4.5% (2/44) strongly agreed to acquire the infection. In contrast, 47.7% (21/44) disagreed with having concerns about contracting COVID-19, while 36.3% (16/44) strongly disagreed that COVID-19 causes any concern.

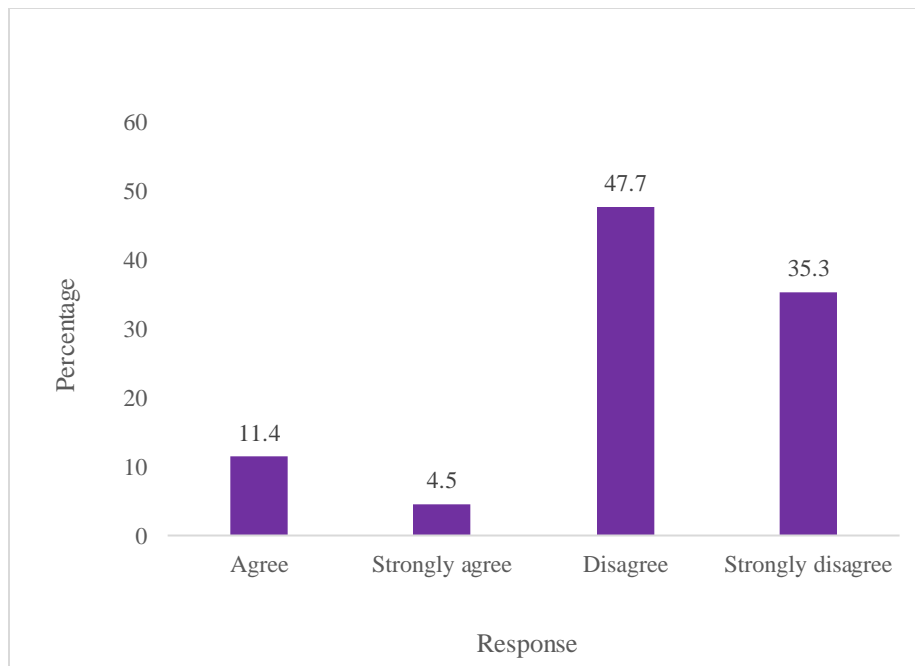


Figure 5: Concerned about getting infected with COVID-19.

4.7 Study participants Perception of wearing face masks.

Table 2 lists the reasons for participants using or not using face masks. Of the total, 43.2% (19/44) agreed that face masks are uncomfortable, while 6.8% (3/44) strongly agreed. The remaining 50.0% (22/44) either disagreed/strongly disagreed. Some reported that using face coverings Causes speaking difficulty. Of the total, 34.1% (15/44) agreed that face masks make it difficult for them to speak, while 4.5 (2/44) strongly agreed. Over 61.3% either disagreed/strongly disagreed that face coverings cause speaking difficulty (27/44).

Regarding whether wearing face masks causes hearing difficulty, 45.5% (20/44) agreed, while 6.8% (3/44) strongly agreed. The remainder, 47.8% (21/44), disagreed/strongly agreed that wearing a face mask caused hearing difficulty. Participants who agreed or strongly agreed that they could be criticized for wearing face masks due to their political lineage constituted 11.4% (5/44) and 2.3% (1/44), respectively. The remaining 86.4% (38/44) either disagreed or strongly disagreed.

6.8% (3/44) agreed/strongly agreed that wearing a face mask is not appealing, while 93.2% (41/44) either disagreed/strongly disagreed. Thus, an overall of 93.2% (41/44) agreed/strongly agreed that wearing a face mask provides protection, while 6.8% (3/44) disagreed/strongly disagreed. Similarly, 91.0% (40/44) agreed /strongly agreed that wearing face masks protected others from contracting COVID-19, while the

remaining 9.1% (4/44) either disagreed /strongly disagreed. For about 22.7% (10/44) of the participants disagree that wearing face masks as a protective means is subjective.

Table 2: Perceptions of wearing face masks.

Merits and demerits of mask-wearing	Agree (%)	Strongly agree. (%)	Disagree (%)	Strongly disagree. (%)
Masks are uncomfortable	43.2	6.8	27.3	22.8
Masks make speaking difficult	34.1	4.5	40.9	20.4
Masks make hearing difficult	45.5	6.8	34.1	13.7
I feel I will be criticized	11.4	2.3	27.3	59.1
Wearing masks is unappealing	2.3	4.5	31.8	61.4
Wearing mask protects me	31.8	61.4	4.5	2.3
Wearing a mask protects others	27.3	63.7	6.8	2.3
Wearing mask is subjective	11.4	11.3	22.7	54.6

CHAPTER V- DISCUSSION AND CONCLUSION

5.0 Discussion

The study conducted shows that numerous barriers could hinder a positive response from the public towards the department of public health recommendations to adopt face masks, physical distancing frequent handwashing as a personal preventative measure against the transmission of novel COVID-19 in Atlanta and presumably the United States as a whole.

A primary concern is educating the public and anti-maskers to adhere to public health guides, especially since COVID-19 has decimated and caused global humanitarian health and financial crises.

There is supporting evidence that wearing a Face mask, frequent hand washing, and other public health advisory mandates used in mitigating the transmission of COVID-19 appears to limit person-to-person transmission of COVID-19. Thus, the administration needs to mandate that these measures are followed.

Every individual in the society should be responsible for their action and each other's well-being rather than the country's de-sensitization concerning the hundreds of thousands of infections and deaths. In other words, when a community has an increasing and overwhelming number of COVID-19 cases that can potentially overwhelm its health system, it is imperative to collectively abide by rules regarding physical distancing, face masks, hand washing.

People with loose mindsets, who take infringements on their sovereignty very utterly, may find this challenging. It is more effective to remind everyone that these constraints are temporary and that the more diligently they're applied, the sooner restrictions would be eased.

5.1 Strengths and Limitations

The limitation of this study was the sample size of the study. As aforementioned, only Atlanta metro residents are included and eligible in this study, so the information may not be in line with other parts of Georgia or the United States as a whole.

Secondly, due to the current pandemic constraint, it was difficult to get participants to participate in large numbers(44 participants instead of target 84), which was the essence of web/internet solicitation.

5.2 Conclusion

Conclusively, public health guide/ policy might not be the most conclusive means of preventing the transmission of COVID-19 but wearing a face mask is the most critical method used to reduce the influx of aerosols or droplets from entering the mouth or nostrils. The pandemic's uncertain nature makes it necessary to propose a pressing mandatory use of face masks in public. To make this possible, the administration, philanthropists, and non-governmental organizations should support supplying free face masks to people. In addition, it should be mandatory for businesses to provide face

coverings to clients who do not have face masks before service. Massive public education in print and electronic media will go a long way in keeping the public informed. The Department of Public Health, which will oversee this implementation, could liaise with law enforcement agencies to distribute face masks, especially to people found on the streets without them. Providing free face masks to the public and making their use mandatory could reduce the spread of COVID-19 among the population. In other words, there is a need to overhaul and invest in the recreation of robust public health infrastructure.

It is time for us to listen to public health experts in particular; after all, they are the reason why the world weathered outbreaks like the 1918 Spanish flu and Ebola in the past. No doubt, for a country that lionizes the idea of liberty, this pandemic has illuminated the problematic public health inequities. But right now, those who are used to doing what they want need to come to grips with putting others first and following public health recommendations to avoid health care impediments as we are experiencing.



INSTITUTIONAL REVIEW BOARD APPROVAL

Mail: P.O. Box 3999 In Person: 3rd Floor

Atlanta, Georgia 30302-3999 58 Edgewood Phone: 404/413-3500

FWA: 00000129

December 04, 2020

Principal Investigator: Solomon Ike Okosun, PhD

Key Personnel: Airhihenbuwa, Collins O; Bello, Yomi; EGBUONU, Chinedu F; Okosun, Solomon Ike, PhD

Study Department: School of Public Health

Study Title: Examination of practices that are associated with COVID-19 preventions in Atlanta metro areas

Submission Type: Exempt Protocol Category 2

IRB Number: H21240

Reference Number: 362916

Determination Date: 12/03/2020

Status Check Due By 12/02/2023

The above-referenced study has been determined by the Institutional Review Board (IRB) to be exempt from federal regulations as defined in 45 CFR 46 and has evaluated for the following:

1. The determination that it falls within one or more of the eight exempt categories allowed by the institution; and
2. The determination that the study meets the organization's ethical standards

If there is a change to your study, you should notify the IRB through an Amendment Application before the change is implemented. The IRB will determine whether your study continues to

qualify for an exemption or if a new submission of an expedited or full board application is required.

A Status Check must be submitted three years from the determination date indicated above.

When the study is complete, a Study Closure Form must be submitted to the IRB.

This determination applies only to study activities engaged in by the personnel listed on this document.

It is the Principal Investigator's responsibility to ensure that the IRB's requirements as detailed in the Institutional Review Board Policies and Procedures For Faculty, Staff, and Student Researchers (available at gsu.edu/irb) are observed, and to ensure that relevant laws and regulations of any jurisdiction where the study takes place are observed in its conduct.

Any unanticipated problems resulting from this study must be reported immediately to the University Institutional Review Board. For more information, please visit our website at www.gsu.edu/irb.

Sincerely,



Alison Alesi, IRB Member

INFORMED CONSENT

Title: Examination of practices that are associated with COVID-19 preventions in Atlanta metro areas

Principal Investigator: Ike Okosun, PhD

Co-Investigator: Collins Airhihenbuwa, PhD, Chinedu Egbuonu, MD, MPH

Student Principal Investigator: Yomi Bello

Procedures

We are conducting a thesis study to better understand practices such as the use of face mask and social distancing in the prevention of COVID-19 infections in residents of Atlanta and nearby environs. We are hereby asking for your participation in this research study because you are a resident of Atlanta and nearby environs. A total number of 84 residents, like yourself, are being invited to take part in this study. The survey questionnaire you are receiving will be sent to you via online format, clicking proceed at the bottom of consent page will be consenting to participate in survey. Your role in completing the questionnaire is to answer some sets of questions, which would take approximately 5 minutes. Your participation in this study will not expose you to any more risk than encountered in daily life. Overall, we hope to gain information about infectious disease preventions, practices, face mask use pattern and social distancing in the prevention of COVID-19 among residents of Atlanta metro communities.

For purposes of this thesis study, only the following individuals and entities will have access to the information you provide:

- Ike Okosun, PhD., Collins Airhihenbuwa, PhD., Chinedu Egbuonu, MD, MPH and Yomi Bello
- GSU Institutional Review Board
- Office for Human Research Protection (OHRP)

Voluntary Participation and Withdrawal

You may refuse to participate in this research without penalty. If you choose to participate, you may skip questions or stop participating at any time without prejudice or penalty.

To withdraw, simply indicate your desire to do so and I will use the assigned identification number to collect and exclude the measures completed by you and destroy them.

Contact Information

If you have any questions about your participation and about the study, please feel free to contact Ike Okosun, Ph.D. (iokosun@gsu.edu, 404-413-1138), Collins Airhihenbuwa, Ph.D. (cairhihenbuwa@gsu.edu 404-413-9326), Chinedu Egbuonu, MD., MPH (cegbuonu1@student.gsu.edu 281-673-5721), Yomi Bello (ybello2@student.gsu.edu, 919-6729897), IRB GSU 404-413-3500 or irb@gsu.edu.

Consent

When we present or publish the results of this study, we will not collect any identifiable information. We will assign a code to your completed survey to keep for our study records and may use this record in future research. If we do use this information in future research, we will not ask for any additional consent from you. We will keep your records anonymous and private to the extent allowed by law. If you are willing to volunteer to participate in this research, please start the survey.

Participant Agreement

I have read the information provided above. My signature below indicates my voluntary consent to participate in this research. (Please return one copy of the consent form and keep one copy for your records).

Clicking to proceed is Consenting to partake in survey

Thank You!

UNDERSTANDING THE DEMOGRAPHICS, BEHAVIORS, ATTITUDES, AND THE PERCEIVED BARRIERS THAT IMPEDE COVID-19 PUBLIC HEALTH MITIGATION MEASURES AMONG RESIDENTS OF METRO ATLANTA.

SURVEY INSTRUMENT

The Purpose of This Survey Instrument, Which Is A Part Of The Research Study Titled "Understanding The Demographics, Behaviors, Attitudes And The Perceived Barriers That Impede Covid-19 Public Health Mitigation Measures Among Residents Of Metro Atlanta".

This survey is to gain information and understanding about the COVID-19 infection and prevention practices in Atlanta and metro area towns and cities. This survey instrument contains a set of questions that takes about 5 minutes to complete. Please kindly answer these questions to the best of your knowledge as there is no right or wrong answer(s).

1. What is your gender?

- Male
- Female
- Intersex
- Other

2. What is your age in years?

3. Are you a health professional?

- Yes
- No

4. What is your occupation?

5. What is your highest level of education?

- Less than a high school diploma
- High school diploma
- Some College
- Associate
- Bachelors
- Graduate
- Others

6. What is your race?

- American Indian/ Alaskan Native
- Asian
- Black/African American
- Pacific Islander /Native Hawaiian
- White
- Other

7. Household Income

- \$0 - \$24,999
- \$25,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 or more

8. What Georgia region do you reside in?

- North Atlanta
- East Atlanta
- West Atlanta
- South Atlanta

9. Where do you classify your residence area as?

- Rural
- Urban
- Sub-urban

10. Do you practice social distancing?

- Yes
- No

11. Do you practice consistent hand washing?

- Yes
- No

12. How often do you wash your hands per day?

13. Do you wear a face mask?

- Yes
- No

14. Have you been diagnosed with COVID-19?

- Yes
- No

15. Do you have a relative/friend who has been diagnosed with COVID-19?

- Yes
- No

16. Did you/relative/friend wear face masks before getting diagnosed with COVID-19?

- Yes
- No
- N/A

The Following are Strongly Agree, Agree, Disagree, Strongly Disagree Questions

17. I know when to wear a face mask.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

18. Wearing a face mask reduces my risk of getting COVID-19.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

19. I am at risk of getting COVID-19 if I do not follow public health recommendations.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

20. I do not have to worry about getting COVID-19.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

21. Wearing a mask makes me uncomfortable.
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
22. Wearing a face mask makes it difficult for me to speak properly
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
23. Wearing a face mask makes it difficult for people to hear me properly
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
24. Wearing a face mask makes me feel self-conscious.
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
25. Wearing a face mask might cause people to criticize me
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
26. Wearing a face mask might make me unappealing.
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree
27. I wear a face mask because health experts say so
- Strongly Agree
 - Agree
 - Disagree
 - Strongly Disagree

28. Wearing a face mask protects me

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

29. Wearing a face mask protects others around me

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

30. Everybody is responsible for their safety, so I do not need a face mask.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

31. Other reasons you would rather not wear a face mask.

32. What political party are you likely to affiliate with?

- Conservative
- Liberal
- Independent
- Others
- None

REFERENCES

- Aiello, A. E., Perez, V., Coulborn, R. M., Davis, B. M., Uddin, M., & Monto, A. S. (2012). Face masks, hand hygiene, and influenza among young adults: a randomized intervention trial. *PloS one*, 7(1), e29744. doi: 10.1371/journal.pone.0029744.
- Chen, N., Zhou, M., Dong, X., Qu, J., Gong, F., Han, Y., Qiu, Y., Wang, J., Liu, Y., Wei, Y., Xia, J., Yu, T., Zhang, X. & Zhang, L. (2020). Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *The Lancet*, 395(10223), 507-513. doi: 10.1016/S0140-6736(20)30211-7
- Howard MC. Gender, face mask perceptions, and face mask-wearing: Are men being dangerous during the COVID-19 pandemic? *Pers Individ Dif*. 2021 Feb 15;170:110417. doi: 10.1016/j.paid.2020.110417. Epub 2020 October 08. PMID: 33052155; PMCID: PMC7543707.
- Melissa L. Finucane, Paul Slovic, C.K. Mertz, James Flynn & Theresa A. Satterfield (2000) Gender, race, and perceived risk: The 'white male' effect, *Health, Risk & Society*, 2:2, 159-172, DOI: 10.1080/713670162
- <https://news.gallup.com/poll/315590/americans-face-mask-usage-varies-greatly-demographics.aspx>
- <https://coronavirus.jhu.edu/us-map>
- Larson, E. L., Ferng, Y. H., Wong-McLoughlin, J., Wang, S., Haber, M., & Morse, S. S. (2010). Impact of non-pharmaceutical interventions on URIs and influenza in crowded, urban households. *Public Health Reports*, 125(2), 178-191. doi: 10.1177/003335491012500206

<https://www.cdc.gov/mmwr/volumes/69/wr/mm6943e4.htm>, 2020

Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., Ren, R., Leung K. S. M., Lau, E. H. Y.,

Wong, J. Y., Xing, X. & Xiang, N. (2020). Early transmission dynamics in Wuhan, China, of novel coronavirus–infected pneumonia. *New England Journal of Medicine*, 382:1199-1207. doi: 10.1056/NEJMoa2001316

Liang, M., Gao, L., Cheng, C., Zhou, Q., Uy, J. P., Heiner, K., & Sun, C. (2020). Efficacy of face mask in preventing respiratory virus transmission: a systematic review and meta-analysis. *Travel Medicine and Infectious Disease*, p101751.

doi: 10.1016/j.tmaid.2020.101751

Ma, Q. X., Shan, H., Zhang, H. L., Li, G. M., Yang, R. M., & Chen, J. M. (2020). Potential utilities of mask-wearing and instant hand hygiene for fighting SARS-CoV-2. *Journal of medical virology*, 1, 1-5. doi.org/10.1002/jmv.25805

MacIntyre, C. R., Cauchemez, S., Dwyer, D. E., Seale, H., Cheung, P., Browne, G., Fasher, M., Wood, J., Gao, Z., Booy, R. & Ferguson, N. (2009). Face mask use and control of respiratory virus transmission in households. *Emerging infectious diseases*, 15(2), 233-241. doi: 10.3201/eid1502.081167

Ontario. Ministry of Health. Face coverings and face masks [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [updated 2020 May 20; cited 2020 June 14]. Available from: <https://www.ontario.ca/page/face-coverings-and-face-masks>

Uchida, M., Kaneko, M., Hidaka, Y., Yamamoto, H., Honda, T., Takeuchi, S., Saito, M. & Kawa, S. (2017). Effectiveness of vaccination and wearing masks on seasonal influenza in Matsumoto City, Japan, in the 2014/2015 season: An observational study among all elementary schoolchildren. *Preventive medicine reports*, 5, 86-91. doi: 10.1016/j.pmedr.2016.12.002

van der Sande, M., Teunis, P., & Sabel, R. (2008). Professional and homemade face masks reduce exposure to respiratory infections among the general population. *PloS one*, 3(7), e2618. doi: 10.1371/journal.pone.0002618

World Health Organization. (2020). Coronavirus disease 2019 (COVID-19): situation report, 88. <https://cts-sct.ca/covid-19/use-of-face-masks-by-the-public/>

<https://www.webmd.com/lung/news/20201022/mask-use-by-americans-now-tops-90-poll-finds#1>

<https://covidtracking.com/race> (Covid Tracking 2021)

<https://www.cdc.gov/mmwr/volumes/70/wr/mm7007e1.html>

<https://www.who.int/news/item/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide>

<https://www.worldometers.info/coronavirus/>, 2021

<https://www.webmd.com/lung/news/20200710/face-masks-reduce-covid-risk-by-65-percent>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7228401/>