A CAMPUS-WIDE HEALTH COMMUNICATIONS CAMPAIGN FOR COVID-19

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Contents

Chapter 1. Introduction

Overview of Coronavirus and Transmission

Beginning in December 2019, the world was impacted by a deadly disease outbreak, now referred to as COVID-19. COVID-19 is an abbreviated term for coronavirus disease 2019; a disease that is caused by the 2019 novel coronavirus named the SARS-CoV-2 virus (Singhal, 2020). In March of 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization ("Timeline of WHO's," 2020). The coronavirus itself refers to a family of viruses that can cause a wide range of diseases, including both the common cold as well as life-threatening cases (Lim et al., 2016). Likewise, the symptoms of COVID-19 can range in severity from mild to severe respiratory illnesses, oftentimes making them difficult to interpret (Centers for Disease Control and Prevention [CDC], 2020). It has even been discovered that some who are infected are completely asymptomatic and do not show any signs of having contracted the virus at all ("Report of the WHO-," 2020). For those who do experience symptoms, some of the most common include: fever, cough, shortness of breath, headache, unexplained muscle aches, fatigue, gastrointestinal upset, nausea, vomiting, diarrhea, trouble breathing, and persistent pain in the chest (CDC, 2020). Symptoms can appear within a few days of contracting the disease but, may not show for up many days after exposure to the virus, if they do present at all (Wang et al., 2020).

According to the Centers for Disease Control and Prevention (CDC) (2020), the virus that causes COVID-19 is spread from person to person, and is particularly thought to be transmitted through respiratory droplets traveling through the air. The CDC explains that the droplets can travel up to six feet in the air after a person who is infected with the virus coughs or sneezes, and that the droplets are then carried through the air and into the noses, mouths, or lungs of others

within this radius. The CDC also states that transmission can succeed through direct and indirect contact between persons, such as shaking hands or touching surfaces that have also been touched by an infectious person and then touching your own nose, mouth, or eyes. The specific time that the virus can last on surfaces is yet to be determined and, as such, it is recommended to always take proper precautions (Doremalen et al., 2020).

COVID-19 in the State of Michigan

In the state of Michigan, as of June 11, 2020, the COVID-19 case fatality rate has been reported as 9.6%, encompassing a total of 65,449 cases and 5,985 deaths ("Michigan Data," 2020). Of these, the Michigan state datasets show that 5,953 cases and 247 deaths are reported as being probable, while the remainder have been confirmed. It is also stated that confirmed cases include individuals with a positive diagnostic test and probable cases include individuals with COVID-19 symptoms and an epidemiologic link but no diagnostic test. According to the Michigan Department of Health and Human Services data ("Michigan Data," 2020), as of May 31, 2020, counties belonging to the Mid-Michigan area show 4,481 cases and 528 deaths due to COVID-19. These Michigan data reports are subject to change on a constant basis, as more cases emerge and more tests are performed daily but, at this time, it can be observed that the state of Michigan, as well as the health of it's residents in particular, is being impacted by COVID-19.

Current diagnostic testing to confirm these cases of COVID-19 include nucleic acid amplification/real-time polymerase chain reaction tests (NAAT/RT-PCR) and rapid virus antigen detection point of care (POC) tests to look for current infection, while serology (antibody) tests are used to look for the possibility of previous infection ("Tests Used to," 2020). Due to the inability to accurately determine whether a person has COVID-19 based off of symptoms alone, testing has been prioritized (Wang et al., 2020). Though some of the population may be

considered to be at an elevated risk for exposure to COVID-19, the disease can be contracted by all humans ("People Who Are," 2020). The CDC clarifies that the virus has crossed all sexes, races, ethnicities, and ages; and, thus, it is strongly advised that everyone in the world be understanding of the transmission abilities of this disease in order to take precautions and, ultimately, decrease the spread of COVID-19. COVID-19 has afforded a worldwide pandemic that will seemingly be a normalized part of life for the foreseeable future. For this reason, it is important that the public, including the University of Michigan campus community, be provided with information regarding COVID-19 disease prevention and safe practices, as well as attributing health education resources. COVID-19 is rapidly changing the world and people need to be prepared for and knowledgeable about what to expect as lockdown restrictions are slowly lifted and schools and businesses become fully operational to the public once again. There is not currently a vaccine to prevent infection of COVID-19 and, therefore, it is recommended that the best way to prevent infection is to avoid being exposed to the virus (Cascella et al., 2020).

Public Health Rationale

Thousands of people have already fallen victim to COVID-19 in an infinite number of ways, as it's effects have wreaked havoc on communities all over the world. This has been proven true by the substantial number of positive cases and significant number of deaths throughout the world due to COVID-19. It has been made very clear that this virus has devastated many, leaving communities to withstand numerous long-term changes and a multitude of impacts ranging from the loss of loved ones, to the loss of jobs, closing of local businesses, and faltering economic downturn. In addition, health disparities such as access and availability of necessary means can make this disease even more detrimental to disadvantaged populations. COVID-19 has been classified as a global pandemic, as this disease has become a

worldwide health threat affecting countries across the earth. For these reasons, it is clear that extensive and inclusive measures are needed to be put into place with the purpose to educate the population on the seriousness of the disease and the behaviors that can be implemented in an attempt to prevent it from spreading even further. In doing so, the intention is to begin to actualize a decline in the number of positive COVID-19 cases and corresponding deaths, eventually leading to improvements in worldwide health and economy, as well as an overall improved quality of life in Michigan and across the globe.

Many people in Michigan face health disparities as systematic and economic barriers that can prevent them from taking the steps necessary to keep themselves and their families safe from COVID-19. Being able to stay at home in order to stay safe requires circumstances that are not attainable for everyone. Resources are needed to accomplish this, such as a job that allows remote working, money to stock up in advance for groceries, and access to educational information for how to go about protecting themselves from the virus. Such health disparities emphasize the importance of creating a campaign that is culturally relevant for everyone, from students and staff to campus visitors, both young and old alike. Therefore, an important purpose of this campaign is to spread messages concerning COVID-19 related safety measures and precautions that will reach and educate all individuals on campus, as well as to provide informational resources for all who need them.

Chapter 2. Literature Review

COVID-19 and Health Communication

The first cases of COVID-19 in the United States occurred in January and February 2020 and presented in travelers from China's Hubei Province, where the virus was first recognized, along with their household contacts (Jernigan, 2020). The CDC reported that, in late February of 2020, cases were discovered wherein it was found that no international travel was involved, as well as no contact with others who were infected. By mid-March, transmission had become widespread, and by April 21, 2020, a total of 793,669 confirmed COVID-19 cases had been reported in the United States, the majority from widespread community transmission. According to Schuchat (2020), factors that contributed to the acceleration of dissemination in March included 1) continued importation of the virus by travelers infected elsewhere (e.g., on cruise ships or in countries experiencing outbreaks); 2) attendance at professional and social events, resulting in amplification in the host locations and multistate spread; 3) introduction of the virus into facilities or settings prone to amplification (e.g., long-term care facilities and high density urban areas) with the potential for seeding the broader community; and 4) challenges in virus detection, including limited testing, emergence during the peak months of influenza circulation and influenza and pneumonia hospitalizations, and other cryptic transmission including from persons who were asymptomatic or pre-symptomatic. In March 2020, responses were put into action at national, state, and local levels, including public health measures such as detecting and tracing cases and quarantining (Schuchat, 2020). However, the population at large still remains very susceptible to COVID-19 and the threat of a rapid outbreak remains. For these reasons, it is imperative that literature is reviewed and comprehensive health communication plans are developed.

According to the CDC (2020), developing and testing communication concepts, messages, and materials is a key part of the health communication planning process. This can be done through the implementation of the necessary tools and the development of a communication plan (CDC, 2020). The goal of a communication plan is to create change by influencing the attitude of others and/or changing or modifying specific behaviors. There are important concepts to consider when developing a health communication campaign, such as the health problem, the targeted audience, and the effectiveness of the messaging ("Institute of Medicine," 2002). The Institute of Medicine (US) Committee on Communication for Behavior Change in the 21st Century: Improving the Health of Diverse Populations (2002) also states that this can include the most efficient way to get the message out to the intended audience. Then, the message is socially marketed and communicated through the use of products to promote health changes within the population. Through written, verbal, and visual tools, it has been proven possible to effectively inform and influence the health decisions of others (Frieden, 2014).

Health campaigns have been shown to have a substantial impact on health behaviors (Wakefield et al., 2010). Examples of mass media campaigns being proven effective were exhibited in helping to increase immunization rates (Porter et al., 2000), as well as vaccination knowledge (Mcdivitt et al., 1997), and people's ability to cope with disease (Fox, 2020). Media can influence health beliefs and behaviors in both positive and negative ways ("Institute of Medicine," 2002) but, when referring to the notion of health, the purpose is to create a powerful campaign to promote healthy behaviors and decisions in an understandable and relatable manner. Health communication campaign interventions are defined as having two parts that reflect social marketing principles: (1) promoting behavior change through the use of multiple communication channels, one being mass media, and (2) distribution of a free or reduced-price product that

facilitates adoption and maintenance of a change in healthy behavior, sustains cessation of harmful behavior, or provides protection against behavior-related disease or injury (Robinson et al., 2014). Schiavo (2014) states that the basic function of mass communication is to inform, educate, entertain, motivate action, and build community on issues of public interest. When considering health development, purposeful mass communication is instrumental to creating a favorable environment on new or recurring health issues (Schiavo, 2014). Schiavo (2014) further explains that the objective is to motivate people to participate in the health movement and to adopt new health and social behaviors, as it relates to the overall health issue.

Health Communication media is significant to this project, as it's purpose emphasizes the need for implementation tools within a health communications campaign. Media outlets, in the forms of flyers and posters, comprise this COVID-19 health campaign and are being used as educational instruments in portraying the health messages to the audience. Within the campaign, these media channels are used to focus on educational messages surrounding preventative measures for the disease with the intention to influence behavioral modifications and changes. The aim of using media within the campaign is to highlight the importance of these health behaviors and their significance to COVID-19 and the health of the population. This will be accomplished through the use of both written and verbal tools, both noteworthy outlets within media campaigns, as stated within previously mentioned research. The creation of a noteworthy campaign with comprehensible and relevant material will form this health intervention by utilizing media to benefit health in a positive way.

Behavioral and Communication Theories

In creating a health communication campaign, it's important to understand the theory behind the development and evaluation of the campaign. In the case of this particular campaign,

the theories that will be referenced are both behavioral theories and communication theories. Behavioral theories are focused on inducing behavioral change and stress the importance of understanding what drives behavior and how behaviors can change (Zhao, 2020). Zhao (2020) states that in order to change the targeted health behavior, beliefs must be changed first. Equally as important to campaign development are communication theories. Communication theories can be used to illuminate the different ways in which the audience might engage with the campaign messages, to clarify the use of fear as motivation for behavior change, and to utilize strategies in campaign efforts for media advocacy (Zhao, 2020). These theories have been used in informing this health communication campaign through the acknowledgment of targeted messaging in the development of campaign effectiveness.

Rogers (1995) developed a Diffusion of Innovations model that is relevant to public health in that it explains the process of a new idea spreading through communication channels within a population network over a period of time. The messaging involved in this process is thought to influence social change through the resulting consequences of adopting or rejecting these new ideas. In public health, these consequences have the ability to considerably impact the health and overall wellness of communities. According to Haider and Kreps (2004), "understanding the innovation-decision process is critical to maximizing the scope of diffusion and the rate of adoption of an innovation." They state that the greatest way for a public health campaign to be designed is to follow Rogers' five phases of this process: 1) knowledge, 2) persuasion, 3) decision, 4) implementation, and 5) confirmation. The Diffusion of Innovations theory emphasizes that, when facilitating the spread of the health messaging within the population, there are three types of behavior change that can occur: 1) commencement, 2) cessation, and 3) adoption (prevention and/or sustained behavior change) (Haider & Kreps,

2004). Consequences can vary and may be classified as desirable or undesirable, direct or indirect, and anticipated or unanticipated, furthering the impact that the development of this diffusion model can have on public health (Haider & Kreps, 2004).

Communication campaigns are commonly defined as "purposive attempts to inform or influence behaviors in large audiences within a specified time period using an organized set of communication activities and featuring an array of mediated messages in multiple channels generally to produce noncommercial benefits to individuals and society" (Atkin & Rice, 2013). More specifically, health communication campaigns have been shown to have made substantial contributions to the progression of public health, and are considered critical to intervention efforts ("Institute of Medicine," 2002). More often than not, communication campaigns involve the broad principles of health education and social marketing (Zhao, 2020). Atkin & Rice (2013) state that the general consensus on the major tasks that a campaign should undertake are: 1) identifying campaign objectives; 2) developing message strategies; 3) disseminating campaign messages through appropriate channels; and 4) conducting systematic research to inform and evaluate campaign activities.

CDC Resources and Population Targeting

The CDC has already developed current communication resources for COVID-19 ("Communication Resources," 2020) that have been used as a generalized reference for the development of this project. Therefore, a summary of these resources is deemed imperative to this literature review and will be accomplished in the following summarization. The CDC communication resources for COVID-19 can be found on the CDC website and include COVID-19 one-stop toolkits, guidance documents, an image library, print resources, public service announcements, resources for travelers, resources for limited-English-proficient-populations, and

CDC responder stories. In addition, the CDC has developed communication tools that include a social media toolkit to help localize efforts in responding to the virus that causes COVID-19, a COVID-19 microsite to add real-time COVID-19 information to a website, and a digital press kit that is described as a collection of media resources on COVID-19 response ("Communication Resources," 2020). Within the toolkit category, the kits are broken into subgroups and are designed with consideration of the corresponding population. For the purpose of this campaign and it's intended audience, the young adult (ages 15-21) and general public categories will be reviewed as strategies that are available in addition to the materials that I have developed.

Within the young adult classification, the resources and tools include FAQs about basic information, the spread of the virus, and prevention tips ("COVID-19 Toolkit for Young Adults:15 to 21," 2020). The young adult web resources include topics on testing, daily life and going out, symptoms of coronavirus, how to prevent getting sick, tips for personal and social activities, dealing with pets and other animals, social distancing, how to wear cloth face coverings, and advice for transportation. The CDC created fact sheets for young adults that highlight the importance of wearing a cloth face covering, protecting yourself and others, what test results mean, how to slow the spread of COVID-19, what to do if you think you have COVID-19, and how to stay safe at the pool/beach. In addition, the CDC created social media posts that are ready for sharing with visual graphics. These posts include the topics of staying safe by preventing getting sick, protecting yourself while buying gas, traveling by car, bus, or train, considering pets, stress, and takeout food, stopping the spread, using cloth face coverings, and keeping social distance. The CDC resources also include videos for how to wear a cloth face covering, how to make your own cloth face covering, how to stop the spread of germs, symptoms of coronavirus disease, when you can be with others after having COVID-19, social

distancing, viral testing for COVID-19, and visiting friends and family with higher risk for severe illness. The resources conclude with two public service announcements for everyday preventative actions and stopping the spread of COVID-19.

Like the young adult category, within the general public classification, the resources and tools include FAQs about basic information, the spread of the virus, and prevention tips ("Toolkit for General Public," 2020). The general public web resources include topics on testing, daily life and going out, symptoms of coronavirus, how to prevent getting sick, tips for personal and social activities, dealing with pets and other animals, social distancing, how to wear cloth face coverings, and advice for alcohol and substance use. The fact sheets for the general public include symptoms of coronavirus disease, 5 safety steps, what your test results mean, how to stop the spread of germs, how to protect yourself and others, how to safely wear and take off a cloth face covering, quarantine vs. isolation, 10 things you can do to manage your COVID-19 symptoms at home, and what you need to know about COVID-19 and pets. The CDC created posters for the general public that explain the topics of germs, slowing the spread of COVID-19, stopping the spread of germs that an make yourself and others sick, how to protect yourself and others, wearing a cloth face covering, symptoms of COVID-19, and hand washing. There is also a household checklist, created by the CDC to inform the public on how to create a safe space for protecting yourself and your family within your household. The social media posts created by the CDC for the general public showcase topics such as what to do if you're sick, testing information, takeout food, social distancing, and guidance for pets and COVID-19. As in the young adult category, the CDC resources include videos for how to wear a cloth face covering, how to make your own cloth face covering, how to stop the spread of germs, symptoms of coronavirus disease, when you can be with others after having COVID-19, social distancing,

viral testing for COVID-19, and visiting friends and family with higher risk for severe illness. Similarly, the general public resources conclude with two public service announcements for everyday preventative actions and stopping the spread of COVID-19.

Interventions are expected to be applicable across demographic groups within the United States, with appropriate population targeting (Robinson et al., 2014). Schiavo (2014) noted that some individuals can be considered more vulnerable to unhealthy behaviors due to factors such as age, knowledge, experience, socioeconomic conditions, and health literacy. In 1998, an example of population vulnerability was illuminated when the United States government limited forms of positive smoking advertisement that directly targeting young adults and adolescents after recognizing that this population was particularly vulnerable ("Children and Tobacco," n.d.). Likewise, the ways in which a public health matter is communicated are imperative in the influence of the directed population. The success of media-based campaigns depends on the story's newsworthiness, ability to listen to and engage relevant groups, as well as the effectiveness of media relations and media-specific tools (Schiavo, 2014). Media tools, such as these CDC resources, have the power to play an important contributing role in raising awareness of health issues within a community by emphasizing the fact that selecting the appropriate tools is an important step of the campaign process.

These coronavirus disease 2019 CDC resources are important because they were developed to be specific to different population groups and are relatable to the messaging developed for this campus-wide COVID-19 health campaign. The populations found on campus contain students, staff, and guests, and all are included within the intended audience for this campaign. However, while all of these subgroups are comprised of vulnerable persons, young adults can be identified as being less likely to engage in public health measures, and therefore,

these messages may be considered to be more impactful and necessary within this group. According to the CDC (2020), many states are experiencing a larger number of COVID-19 infections in people aged in their 20s and 30s. The CDC (2020) explains that there is a lower chance of someone under the age of 40 years old ending up in the hospital due to COVID-19 than others who are older. The CDC (2020) also states that the rate of hospitalization for those who receive a positive test for COVID-19 in their 20s is under 4%, with the rate for those over 60 being more than 20%. Furthermore, it has been found that the fatality rate for young adults in their 20s and 30s without underlying health conditions is about 0.1% (CDC, 2020). This data is suggestive of the idea that, while young adults may not be as impacted by COVID-19 from an individual health perspective, they are still just as probable, if not more likely, to contract the disease. This indication makes it even more imperative for young adults to fully understand and take part in COVID-19 prevention strategies.

Mask Wearing, Hand Hygiene, Social Distancing, and Testing

These aforementioned resources and data were used as reference points for the composition of the materials within this campaign. More specifically, the areas of literature that were reviewed for content purposes were focused upon mask wearing, social distancing, handwashing, and testing, as they relate to COVID-19. Due to the fact that both pre-symptomatic and asymptomatic transmission of COVID-19 is possible, along with the likelihood that the primary route of transmission of SARS-COV-2 is through small droplets dispersed while coughing, sneezing, or speaking, one of the greatest measures in preventing the spread of COVID-19 is source control through the use of mask wearing (Howard et al., 2020). The three other notable measures include keeping a social distance between persons, effective handwashing hygiene, and testing. Anfinrud et al. (2020) stated that "wearing any kind of cloth

mouth cover in public by every person, as well as strict adherence to distancing and handwashing, could significantly decrease the transmission rate and thereby contain the pandemic until a vaccine becomes available". Additionally, testing has shown to be an integral part of surveilling for epidemiological networks to monitor the spread and impact of SARS-CoV-2 within the United States ("Overview of Testing," 2020).

Masks can block respiratory droplets from entering the air and can be worn as a form of protection for others in the surrounding area, as well as a form of personal protective equipment (PPE). For this reason, the use of masks by everyone can critically reduce the amount of particles, and virus, that is spread. According to Howard et al. (2020), "if everyone is wearing masks to decrease the chance that they themselves are unknowingly infecting someone, everyone ends up being more protected". Anfinrud et al. (2020) analyzed droplet emission while speaking and discovered that virtually no droplets were expelled with a homemade mask consisting of a washcloth attached to rubber bands on the head, in contrast to significant droplets being expelled without a mask. They also found that while many cloth mask designs contain a filter or a place to put a removable and replaceable filter such as a piece of paper towel or a coffee filter, this type of design does not seem to be necessary for droplet emission but may increase mask effectiveness for PPE. Laboratory evidence suggests that handmade masks do create a form of filtration necessary for blocking droplets from escaping and could be proactive in blocking particles from the mask wearer (Papineni & Rosenthal, 1997). Howard et al. (2020) stated that, when comparing policy differences in relation to disease spread between countries, it is suggested that mask wearing is a low-risk measure with a potentially large positive impact, with many countries with widespread public use of masks keeping deaths below one in a million (Leffler et al., 2020). Abaluck et al. (2020) went on to complete an analysis from a cost

perspective, estimating that the benefit per cloth mask worn ranges from $3,000-$6,000, and determined further that "the average daily growth rate of confirmed positives is 18% in countries with no preexisting mask norms and 10% in countries with such norms" as well as "the growth rate of deaths is 21% in countries with no mask norms and 11% in countries with such norms". Furthermore, Howard et al. (2020) reviewed literature to find evidence that non-medical masks use materials successful in obstructing droplets of essential size, suggesting that widespread mask use is beneficial for reducing transmission throughout communities.

More recently, Fischer et al. (2020) completed research on the effectiveness of different types of masks. The study examined respiratory droplet emission with 14 commonly used types of masks (including a fleece neck gaiter, a bandana used as a mask, a cotton mask, and a fitted N95 mask, amongst others) while using a control trial of no mask for data comparison. These researchers used a method involving a laser beam, a cell phone camera, and a computer algorithm to investigate the amount of droplets that were emitted through the mask during regular speech. This research showed that all masks are not equally efficient when it comes to preventing respiratory droplets from entering into the air, as it was discovered that droplet transmission fractions varied greatly when compared with control trials, from below 0.1% with fitted N95 masks to 110% with neck gaiters. These statistics showed that neck gaiter masks were actually less efficient at preventing respiratory droplet transmission than wearing no mask at all because the gaiter material breaks down larger droplets into smaller particles that are more easily transmitted. Smaller particles have been found to stay in the air for a longer period of time while the larger droplets sink faster, making them less of a threat (Fischer et al., 2020). While the performance of mask alternatives like neck gaiters and bandanas was found to be poor, simple

masks, such as homemade cotton masks, were discovered to offer a good amount of protection and stopped a majority of respiratory droplets emitted.

Cowling et al. (2009) completed an investigation on hand washing and face mask wearing in a randomized control trial to find that household transmission of the influenza virus was prevented within 36 hours of patient symptom onset when both of these factors were in place. This information is suggestive of the idea that these interventions are important and significant to viral pandemics. Furthermore, Aiello et al. (2012) completed a randomized intervention trial to find that "face masks and hand hygiene combined may reduce the rate of ILI [influenza-like illness] and confirmed influenza in community settings. These non-pharmaceutical measures should be recommended in crowded settings at the start of an influenza pandemic". The study discovered that there was a significant association between using a face mask and hand washing with a substantially reduced risk of ILI recorded during a seasonal influenza outbreak. They concluded that "if masks and hand hygiene have similar impacts on primary incidence of infection with other seasonal and pandemic strains, particularly in crowded, community settings, the transmission of viruses between persons may be significantly decreased by these interventions" (Aiello et al., 2012).

As virus infections are typically believed to be spread by people coming in close contact with one another within the community, social distancing can play an important role in reducing transmission of COVID-19. Currently, it is believed that the safe social distance between persons is 6 feet (CDC, 2020). In a policy review completed by Fong et al. (2020), separate systematic reviews were piloted in order to collect evidence on the effectiveness of six measures in reducing community influenza transmission. These six measures were as follows: isolating ill people, tracing contacts, quarantining exposed people, school adaptations and closures, workplace

adaptations and closures, and avoiding crowds with restricting movement. The report used observational and simulation studies to gather evidence to support the effectiveness of these measures (Fong et al., 2020). It is thought that SARS-CoV-2 can present and travel in a variety of droplet sizes and across a range of distances (Qureshi et al., 2020). Qureshi et al. (2020) reviewed evidence regarding droplet size and route of transmission, as it relates to social distancing. They found that "evidence from community studies suggest prolonged exposure in an enclosed space, with unknown information about distancing, may be linked to clusters of cases, particularly in the context of activities such as choirs, sports events, or fitness gyms" and that "increasing physical distance is associated with decreasing risk, so easing restrictions from 2 to 1 metre may result in a significant increase in risk if other measures are not taken". It was concluded that, due to the multiple factors that influence the spread of the virus, social distancing is most effective when used in combination with other strategies like hand hygiene, regular cleaning of surfaces, using face coverings and PPE, consideration of environment and air circulation, and isolating when identifying as infected.

According to the CDC ("Overview of Testing," 2020), "tests are used in community, outpatient, and hospital-based surveillance systems to identify cases of SARS-CoV-2 infection". This data is used to assist in spotting the areas that are continuous in transmission, to recognize disease developments by location, to help visualize impact trends as time progresses, and to provide information for predicting future disease patterns. In addition, evidence reports that recovery for adults who receive a positive test for COVID-19 may take weeks, even for those who may be young and present with a healthy past (Tenforde et al., 2020). Tenforde et al. (2020) completed a multistate telephone survey of symptomatic adults who had a positive outpatient test result for SARS-CoV-2 infection and concluded that "COVID-19 can result in prolonged illness,

even among young adults without underlying chronic medical conditions". The report states that "public health messaging should target populations that might not perceive COVID-19 illness as being severe or prolonged, including young adults and those without chronic underlying medical conditions," and strongly encourages the preventative measures of frequent handwashing, social distancing, and consistent and correct face coverings (Tenforde et al., 2020; Joan Stephenson, 2020).

It has been made clear that COVID-19 will continue to be a major public health issue for the foreseeable future. The magnitude of the pandemic is still unknown, as case numbers continue to vary daily. The development of a health communication campaign would maximize efforts to educate the public and, more specifically, those populating campus about COVID-19. This would be completed with the spreading of messages tailored to the captivation of individuals visiting the university's campus. The intention would be to gain the attention of students, staff, and campus visitors and would display educational messages that highlight risks, as well as prevention strategies. While COVID-19 is a national problem, the messages for this campaign are addressing more specific populations, making it necessary to explore a variety of health communication techniques.

Chapter 3. Methodology

Purpose

The purpose of this project is to develop a plan for implementing a health communication campaign for the campus community, in order to showcase preventative actions for helping to prevent the spread of COVID-19. The intention of this campaign is to provide the campus community with information, in a relatable manner, that will provide advice and education on COVID-19. This campaign will cover important topics relating to COVID-19 such as mask wearing, hand washing, social distancing, and testing. These important messages will be portrayed through the use of various outlets and include flyers and posters in both a digital and hard copy format. The principles upon which the information within the campaign was created include campaign objectives, message strategies, and complete campaign messages that are clear, simple, memorable, and understandable by the targeted populations.

Audience Selection and Segmentation

Audience selection and segmentation are two factors that enhance both campaign efficiency and effectiveness (Atkin & Rice, 2013). The communication campaign objectives were first determined by identifying the target audiences of the students, staff, and the community of the University of Michigan, with a more precise age range of those over the age of 18 years old. These population groups include individuals at risk (all who visit campus in person and virtually), many of whom are likely to be in contact with a campus informational poster and/or digital flyer, thus making them the suitable choice for this project. Flyers and posters were created as the visual materials for this campaign because they are a great way to efficiently display a message and can be modified for different formatting in both hard copy and digital configurations. These materials are also fairly simple to reproduce and can be disseminated in

multiple ways to reach the targeted audience. Flyers and posters can be dispersed in digital formats as email blasts, screensavers, and social media posts, as well as hard copy forms of appealing communication such as being posted on bulletin boards or interpreted into floor markings and window decals. Digital forms of materials should be distributed through main forms of digital communication on campus such as university websites and emails. Hard copy formats should be placed at areas of high traffic locations such as main entries and exits of buildings and in campus restrooms, in order to accomplish the highest probability for interaction. The purpose will be to distribute the flyers and posters in a manner that will ensure campaign messages reach the audience with optimum exposure and frequency of exposure.

Illness trends have varied since the spread of COVID-19 first began, but the CDC (2020) has found some saturation forming within the young adult population. The reasoning for this could be due to the fact that some young adults might perceive themselves as being at less of a risk for contracting the disease. This misperception has the potential to lead them back into society and the lifestyles that they led before the COVID-19 outbreak, such as engaging in happenings like frequenting restaurants and bars, attending parties and large social gatherings, as well as returning to work too soon and doing so without participating in preventative strategies. While identifying themselves as not being at risk, this population may also be less likely to take partake in proper precautions for disease spreading prevention, such as mask wearing, hand hygiene, social distancing, and testing. It is conceivable that this line of thought within this young adult population could contribute to a quick and vast spread of COVID-19, especially within more vulnerable adults. This population is also likely more active than most, allowing for the potential to be more liable to have continuous contact with the public, exhibiting more opportunities for the spread of this disease.

Campaign Goal and Objectives

The goal of this health communication campaign is that of behavior change and the objectives demonstrate this, as they explain how messages are effective in changing behavior, as well as how they are diffused within the targeted population group. The sources for this goal stem from the analyses of COVID-19, those affected by it, it's magnitude, causes, and determinants, with the most significant source being built upon current research compiled on measures for preventing COVID-19, as outlined in the literature review of this paper. The campaign objectives of this project are as follows: 1) to raise awareness of strategies and methods for preventing the spread of COVID-19 among the students, staff, and community of the University of Michigan, 2) to increase the understanding of the threat of COVID-19 and the importance of taking preventative measures, 3) to increase the number of people who report to having the intention of completing the preventative measure in an effective manner, as described by the communication materials. Coincidingly, the behavioral objectives can be described as: 1) wearing a mask, 2) executing good hand hygiene, 3) practicing social distancing and 4) seeking help in the form of testing and practicing isolation when they feel that they may have been exposed to COVID-19 or are experiencing symptoms of COVID-19. These behavioral objectives can be applicable in isolation of one another but, in the most ideal situation, all would be recognized and considered.

Strategies

Therefore, the message strategies within this campaign are focused on the subjects of mask wearing, handwashing hygiene, social distancing, and testing. These topics would be considered the content strategies for this campaign, as they are the core principles that this COVID-19 communication campaign is focused upon. These subjects are the targeted behavior

changes and as such, are the areas that will be promoted. Informational content is included in the messaging and covers these topic areas. In order to make these messages well received by the targeted population, they include visual representations along with simple, memorable text. The intention of these messages is to influence behavioral decision making within the targeted population of students, staff, and community at the University of Michigan. The vehicle for the messages is the creation of flyers and posters to be dispersed in both hard copy and digital formats. The content of the flyers and posters are strategized to feature the messages in a way that catches the eye and draws attention to the messaging.

Diffusion of Innovation

In designing the health messages within this campaign, Everett Rogers' Diffusion of Innovations model was referenced as a guide. This theory involves a process of five steps that individuals move through when implementing a new behavior: 1) knowledge of the behavior's existence and gaining some knowledge of how it functions, 2) persuasion of forming an attitude about the behavior, either positive or negative, 3) the decision of engaging in activities to adopt or reject the behavior, 4) implementation of the new behavior, and 5) confirmation of the decision, during which the individual chooses to adopt or reject the new behavior (Rogers, 1995). Based off of this theory, the first focus of the knowledge phase within this COVID-19 campaign is to gain the attention of the targeted audience and, consequently, provide them with information about mask wearing, hand washing, social distancing, and testing to increase their knowledge about the benefits involved with engaging in the associated behaviors. This is completed through introducing the topics to the population through the means of the mass-media channels of flyers and posters in both digital and hard copy formats. Another applicable concentration that is relevant in this campaign is the persuasion step that is focused on diffusion

through interpersonal channels of communication. In achieving this, there could be the possibility of a collaboration on campus involving an additional change agent, or someone who would influence decisions of others on campus in a positive way. Some possibilities for this role might include members of the campus COVID-19 response team, if one is to be in place. This alliance might include a staff member with health and leadership skills, a health promotion professional with skills in population health services and prevention campaigns, an infection prevention and control coordinator, a marketing and communications representative, a local state health department official, a clinical or medical director, or an active student member of a health committee, or a team might include an alliance of multiple roles mentioned (See Recommendations). For the purposes of this project, this campaign is being used to establish an information-exchange relationship, to create an intent to change, and to guide intent into action within the targeted population. This is being done with the relating materials in the format of flyers and posters in both digital and hard copy formats. Regardless of route, it should be noted that the change agent be proficient with the preventative procedures outlined in this campaign, in order to adequately guide the most successful behavioral changes.

When considering messaging, it's important to consider the probability that the targeted population will pick up on it. The Diffusion of Innovation model describes that people can fall into one of five categories that is descriptive of the manner in which they adopt a new behavior (Rogers, 1995). These five categories are Innovators, Early Adopters, Early Majority, Late Majority, and Laggards. According to Rogers (1995), innovators are the first within a group to adopt the behavior change while early adopters are slightly behind. Those within the early majority classification typically make up one third of the members within a population group and include those who are likely to adapt the behavior change just before the average person (Haider

& Kreps, 2010). Haider and Kreps (2010) states that the late majority also comprises one third of the population and is more skeptical, typically requiring peer pressure to adapt to a behavior change while laggards are most suspicious and take a great amount of time to adopt to a behavior change. In dispersing the COVID-19 messages within this campaign, it is ideal to aspire for the acceleration of behavior change from the innovators to the laggards. Therefore, the campaign messages aim to heighten awareness of mask wearing, hand washing, social distancing, and testing to create situations and enhance conversations regarding these issues amongst the campus community, in an effort to diffuse the message as quickly and as accurately as possible. This is accomplished with COVID-19 prevention messages that are tailored to the campus community in a way that utilizes direct messaging that is memorable along with attention-grabbing images and brief, easily perceived statements.

Campaign Messages

Mask Wearing

A critical component of the campaign is to disseminate effective messages regarding COVID-19 health education, with the overall goal to influence health behavior. The messaging involving masks focuses on how wearing a mask helps to protect yourself and others from the contagious spread of infectious droplets. This message is displayed in three aspects, with the first one showcasing the steps that can be taken to help protect yourself and others, the second explaining how to properly wear a mask, and the third stating that homemade masks work as great protection. These messages were chosen based on literature by Anfinrud et al. (2020) and Fischer et al. (2020), as noted in the literature review of this paper. Anfinrud et al. (2020) discovered that, when used properly, virtually no droplets were expelled through the face covering of a homemade mask in opposition of significant droplets being expelled without the

use of a mask. This literature further emphasized the importance of homemade masks by explaining that filters weren't necessary in blocking the emission of droplets and that a simple mask made with a washcloth and two rubber bands more than suffices as an effective prevention technique. Correspondingly, Fischer et al. (2020) researched the effectiveness of different types of masks and concluded that homemade masks offered efficient protection in regards to respiratory droplets in the air.

Hand Hygiene

The messaging involving hand hygiene focuses on the significance of washing your hands often as one measure that will help to prevent the spread of COVID-19. This message implies that hands are an easy form of infection spreading through common contact, such as hand shaking. This message was chosen based on literature by Aiello et al. (2012) that states that the transmission of viruses between persons may be significantly decreased by the intervention of frequent hand washing during a pandemic. This literature relates hand washing as a preventative measure with a reduction in rate of incidence of infection. Furthermore, literature by Cowling et al. (2009) says that the use of hand washing and mask wearing can prevent the transmission of viruses, suggesting that this can be accomplished when both of these measures are in place.

Social Distancing

Messages surrounding social distancing are concentrated on the importance of keeping six feet of distance between oneself and others, while implying that an increase in distance equates to a decrease in the possible risk of spreading COVID-19. This messaging also focuses on the significance of avoiding crowded areas to reduce the possibility of infection and/or the threat of transmitting the virus to others. Messaging was chosen based on literature by the CDC

(2020) that states that during the COVID-19 pandemic, the current safe distance to keep between persons is 6 feet. Additional evidence from Qureshi et al. (2020) found that prolonged exposure to the virus may be linked to clusters of cases and that increasing physical distance is associated with decreasing risk.

Testing

Lastly, the messages involving testing focus on emphasizing the importance of self-isolation if you think that you may have come in contact with COVID-19. The messages will showcase the fact that you may have the virus but could be asymptomatic or pre-symptomatic. Furthermore, the messaging will explain that if you have a positive COVID-19 test, you need to self-isolate and separate yourself from others in order to prevent transmission. However, even if you have a negative test, it is still important to practice preventative techniques such as wearing a mask, washing your hands, and practicing social distancing. These symptomatic messages were determined based on literature by Wang et al. (2020) who stated that symptoms can appear within a few days of contracting COVID-19 but, may not show for up many days after exposure to the virus, if they even present at all. Testing is very important to public health, as it allows for the measuring of the health of a population at large. The messaging in this campaign is hoped to eliminate some fears or hesitation towards testing by portraying the simple steps to take in the case that an individual receives either a positive or a negative test. Testing is very relevant to determining population health, as it would be near impossible to track the number of COVID-19 cases, deaths, and overall impact without it.

The hope is that these messages will help to influence the campus community to adopt the behavior changes, impacting the overall health of the population. Howard et al. (2020) noted in their review on the efficiency of non-medical masks that findings were discovered to "strongly

suggest that, instead of withholding a preventative tool, accompanying it with accurate messaging that combines different preventative measures would display trust in the general public's ability to act responsibly and empower citizens, and risk compensation is unlikely to undo the positive benefits at the population level". This campaign will be seeking to reinforce messages of mask wearing, hand washing, social distancing, and testing to increase COVID-19 prevention practices amongst the University of Michigan campus. In turn, it is anticipated that an increase in these practices will help to reduce the transmission of COVID-19, as well as the overall number of COVID-19 cases.

Chapter 4. Evaluation and Images

Evaluation

In order to measure the impact of the materials previously mentioned, this project includes an evaluation plan. This plan will evaluate whether or not the campaign is efficient, as well as how well the population pays attention to the campaign materials. The most applicable tool for doing this has been determined and compiled into the evaluation plan, complete with instruments to be utilized in determining effectiveness. The expectation of this media campaign is that, once provided with the educational materials, the campus community will gain a greater understanding of COVID-19, along with simple steps to take to promote a healthy surrounding. The goal is that the community will apply this knowledge and take the necessary precautions to help prevent and decrease the spread of COVID-19.

Assessment of Behavior, Knowledge, and Attitude

The effectiveness of the messages within this campaign can be reflected through a random collection of surveys to be completed by members of the campus community at variable times throughout the campaign, with collection at least at the beginning, middle, and end of a semester or school year, but with the prospect to collect them more often than this. These surveys asses improved knowledge as well as whether individuals encountered the campaign message(s) and, if so, which message(s) it was that they came in contact with and where it was that they saw the message(s). In addition, the surveys question the overall perceptions of the campaign and it's messages. The surveys examine the community's knowledge, attitudes, and perceptions of the behaviors of mask wearing, hand washing, social distancing, and testing. They cover questions regarding where the message was interpreted as well as basic demographic information.

Procedure

Surveys allow for the opportunity to gather behavioral data related to the preventative measures mentioned in this paper by collecting information about the perceived behaviors of the campus community. Community members can be asked how often they engage in the behaviors, relying on their personal recall of their behaviors and what they believe they do/did. Behavioral questions include:

For mask wearing:

1. How often do you wear a mask?

    a. All of the time

    b. Most of the time

    c. Some of the time

    d. Rarely

    e. Never

2. Do you cover both your nose and your mouth with your mask?

    a. Yes

    b. No

    c. I do not wear a mask

For hand hygiene:

1. How often do you wash your hands during one day?

    a. 1-2 times

    b. 3-4 times

    c. 5-6 times

    d. 6+ times

     e. I do not wash my hands

2. Do you avoid physical contact with others, such as hand shaking?

     a. Yes

     b. No

For social distancing:

1. How often do you stay at least 6 feet away from others?

     a. All of the time

     b. Most of the time

     c. Some of the time

     d. Rarely

     e. Never

2. Do you avoid crowded areas?

     a. Yes

     b. No

For testing:

1. How often do you interact with others throughout the day?

     a. All of the time

     b. Most of the time

     c. Some of the time

     d. Rarely

     e. Never

2. Do you think you are at risk for COVID-19?

     a. Yes

b. No

c. I do not know

When assessing knowledge about these behaviors, survey questions will assess understanding of COVID-19 transmission and preventative measures and include the following objective items:

1. Wearing a mask is an effective measure in preventing the spread of COVID-19.

    a. True

    b. False

    c. Don't know

2. Wearing a homemade mask can help to protect yourself and others from COVID-19.

    a. True

    b. False

    c. Don't know

3. Your mask doesn't need to cover both your nose and your mouth to be effective in preventing the spread of COVID-19.

    a. True

    b. False

    c. Don't know

4. Washing your hands often can help to prevent the transmission of COVID-19.

    a. True

    b. False

    c. Don't know

5. Avoiding physical contact, such as shaking hands, can help to protect yourself and others from COVID-19.

a. True

b. False

c. Don't know

6. COVID-19 can't spread easily through droplets in the air.

a. True

b. False

c. Don't know

7. Staying 6 feet or more apart from others can help to prevent the transmission of COVID-19.

a. True

b. False

c. Don't know

8. COVID-19 can not be spread by people who are not showing symptoms.

a. True

b. False

c. Don't know

9. If I receive a positive COVID-19 test, I should isolate at home.

a. True

b. False

c. Don't know

10. If I receive a negative COVID-19 test, I don't need to wear a mask anymore to stay safe.

a. True

    b. False

    c. Don't know

When evaluating attitudes here, a scale is used to assess the level at which the individuals agree with the behaviors with the response options of strongly agree, agree, neutral, disagree, and strongly disagree. These statements are included:

1. It is easy to wear a mask regularly.

2. Wearing a mask regularly helps to protect myself and others from COVID-19.

3. Wearing a mask regularly is currently an important health behavior.

4. It is easy to wash my hands regularly.

5. Washing my hands often helps to prevent the spread of COVID-19.

6. Washing my hands is an important health behavior.

7. It is easy to social distance and stay 6 feet away from other people.

8. Staying 6 feet away from other people helps to protect myself and others from COVID-19.

9. Social distancing is an important health behavior.

The format of delivery for these surveys is most beneficial as an email delivery, as face-to-face contact is discouraged in the current pandemic. An additional consideration would be to include optional enrollment along with weekly surveys. The weekly surveys could add an additional factor of tracking for presence of COVID-19 symptoms among participants, along with more specific tracking of mask wearing, hand washing, and social distancing. This could be completed by asking participants to recall the frequency of engaging in these behaviors and would allow for a more structured assessment. This would also allow for recording of participants missing class, work, or other activities due to COVID-19 symptoms. According to

the CDC (2020), these symptoms would include: fever, cough, shortness of breath, headache, unexplained muscle aches, fatigue, gastrointestinal upset, nausea, vomiting, diarrhea, trouble breathing, and persistent pain in the chest.

In addition to this behavioral data, it is beneficial to the campaign to distribute message recall questionnaires to record procedural data pertinent to understanding where individuals are obtaining COVID-19 data. These questionnaires would assess whether or not the members of the campus community saw the campaign message(s) and, if so, where they saw it/them and, correspondingly, what format they saw it/them in. The surveys would ask what they remember about the message being displayed and what the message(s) made them consider, if anything. In addition, it could be asked whether or not the message(s), if seen, created any piece of conversation amongst their peers or within their personal life, and what the overall reaction was to the message(s). All surveys included would need to be organized and designed by the campaign manager and submitted to be reviewed and approved before distribution. Additionally, it is intended that recruitment be completed through email distribution, with a full explanation, and for participation to be voluntary. By assessing the campus community's COVID-19 related health behaviors, knowledge, and attitudes, likelihood of encountering campaign message(s), recall of which message(s) were discovered, and perceptions, it would be possible to evaluate the effectiveness of this COVID-19 health campaign.

Images

Image 1. Wear a Mask

Image 2. Avoid Physical Content

Image 3. Protect Yourself and Others
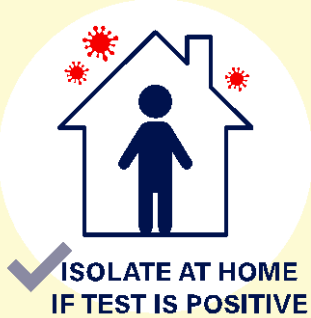
Image 4. Coronavirus Prevention

Image 5. Mask Wearing Tips

COVID-19 Mask Wearing

COVID-19 CAN SPREAD EASILY THROUGH DROPLETS IN THE AIR

CORONA ViRUS
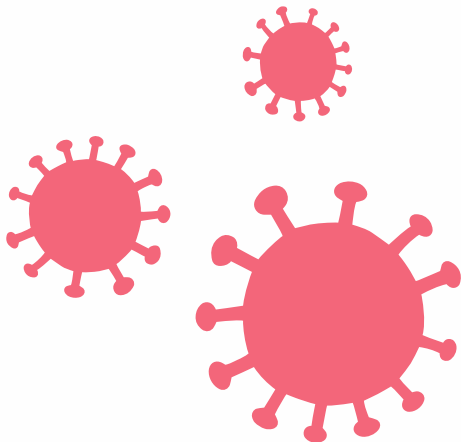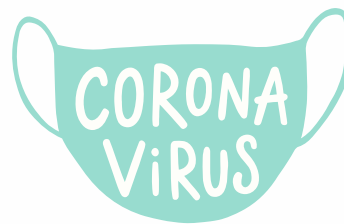
Useful Tips For Mask Wearing

- HOMEMADE MASKS WORK GREAT
- BE SURE THAT YOUR MASK COVERS YOUR NOSE AND YOUR MOUTH

Image 6. Hand Hygiene Tips

COVID-19 Hand Hygiene

COVID-19 CAN SPREAD EASILY THROUGH HAND CONTACT

WASH your HANDS

HANDSHAKES ✕ CANCELLED ✕

Useful Tips For Hand Hygiene

- AVOID SHAKING HANDS
- AVOID UNCLEAN COMMON SURFACES
- AVOID TOUCHING YOUR FACE

Image 7. Social Distancing Tips

COVID-19 Social Distancing

COVID-19 CAN SPREAD EASILY IN CROWDED AREAS

Be iNFORMED
Be PrEPaReD
Be SaFe

S·O·C·I·A·L
DiSTANCING

Useful Tips For Social Distancing

- **STAY 6 FT APART FROM OTHERS**
- **AVOID CROWDED AREAS**
- **DO NOT COME IN CLOSE CONTACT WITH OTHERS**

Image 8. Testing Tips

COVID-19 Testing

UNIVERSITY OF MICHIGAN

COVID-19 CAN BE SPREAD BY PEOPLE WHO ARE NOT SHOWING SYMPTOMS

keep healthy

Stay calm

Stay Home

Useful Tips For Testing

- IF YOU HAVE A POSITIVE TEST, STAY HOME
- IF YOU HAVE A NEGATIVE TEST, CONTINUE TO WEAR YOUR MASK, WASH YOUR HANDS OFTEN, AND SOCIAL DISTANCE

Chapter 5. Discussion

Considerations

Limitations

There are some limitations to be noted regarding this campaign. First, this campaign

focuses on multiple forms of COVID-19 preventative measures, making it impossible to

determine whether focusing specifically on one measure alone would have a differing impact. I

decided to focus on the multiple elements of mask wearing, hand hygiene, social distancing, and

testing because they are each considered to be equally important in helping to prevent the

transmission of COVID-19. In addition, the CDC (2020) states that the fight against the spread

of infection is significantly stronger when all of these components are used in combination with

one another. A second limitation would be found in comparing data involving encounters. This

limitation would be due to the fact that there may not be as many people on campus as the

pandemic continues so the likelihood of those seeing flyers in person might be skewed compared

to what would be found during a regular semester on campus, and not during this COVID-19

outbreak. Another limitation would be that contracting COVID-19 could be a result of many

different health factors, as well as pre-existing conditions. Although it will definitely be

beneficial for all of those who visit campus to understand and engage in these important

preventative health behaviors, there are other health behaviors and conditions that are likely to

play a role. Therefore, this would be a limitation in determining exactly whether or not a change

in these behaviors alone would have a direct impact on the likeliness for individuals to contract

COVID-19. Lastly, limitations could be found in the fact that this is a new and seemingly

everchanging virus and is, therefore, still being extensively studied. The changing research has

the potential to vary CDC guidelines and, consequently, the behaviors and corresponding messages within this campaign.

Recommendations

Due to the fact that information involving COVID-19 and it's means of transmission is currently in a constant state of evolution, it is recommended to be proactive in addressing these changes throughout this health campaign and to make the updates to the messages as deemed necessary. With regards to current research and the importance of mask wearing and hand hygiene, it could be beneficial for the university to partake in giving out free materials to assist the individuals on campus in taking part in these preventative strategies. These materials might consist of masks and hand sanitizers, and would be free of charge to the campus community. If this were to happen, new survey questions could be created around mask and hand sanitizer usage rates and corresponding changes would need to be made. One last recommendation would be to include influential figure(s) within this COVID-19 health communication campaign. This could have the potential to alter the ways in which the campus community perceives the importance of this messaging. By enlisting trusted spokespeople, the younger population may be more eager and enthusiastic about mobilizing behavioral change.

Health Disparities

As is apparent in most all issues involving health, there are many health disparities that should be taken into consideration when compiling a public health communication campaign. It is vital that social determinants of health be addressed, as the conditions in which people are born, grow, live, work, and age can have a major impact on their health. In the case of this COVID-19 health campaign, health disparities can be found amongst the topics of masks, hand hygiene, social distancing, and testing. When regarding the topic of masks, it could easily be

argued that masks typically cost money and are not always easy to come by. This becomes an issue in that not everyone can afford to purchase a mask and furthers the point made within this campaign that homemade masks can be very effective, even if created from supplies such as washcloths and rubber bands (Anfinrud et al., 2020). When contemplating the importance of hand hygiene, it is important to understand that not everyone has access to safe and plentiful water in which to wash their hands often and regularly. Nor does everyone have the means to purchase and carry around hand sanitizer with them in the situation that soap and water is not available. It must also be considered that social distancing is not always an option for those who may not have much choice in the exposure that is present within their direct surroundings. For example, this may be the case for someone who is responsible for taking care of others, such as family or friends who become ill with COVID-19. In this case, this person may not have the means to outsource care or help and, without being able to distance themselves, they could be left in a vulnerable situation for infection. This case could also be found with individuals who live in very close proximity to one another and are left without the opportunity for social distancing. Lastly, when testing is reflected upon, it is essential to think about the community's access to testing locations, as many individuals do not have the means to travel to sites that are outside of their general area. There are many necessary public health measures that need to be tailored to the needs of many different populations, as preventative participation is crucial to positive health outcomes, even more so throughout a pandemic such as COVID-19. Furthermore, it is imperative to consider health disparities, as there are always going to be contributing factors that will influence the transmission of a disease, even when implementing an extensive and efficient health communications campaign.

Competencies

o Foundational:

  ▪ Communication-

  1. Select communication strategies for different audiences and sectors

       a. Best approaches were determined.

       b. Exhibited selection of the right tools.

       c. See images 1-8, as images have been created to appeal to different

          audiences on campus.

  2. Communicate audience-appropriate public health content, both in writing and

     through oral presentation

       a. Described posting of the messages.

       b. Explained dissemination of the messages around campus and through

          digital means.

       c. See images 1-8, as images have been created with audience appropriate

          content for the campus community.

  3. Describe the importance of cultural competence in communicating public health

     content

       a. When designing messages, cultural competencies were considered.

       b. The communication strategies cover all audiences and the content is

          appropriate and culturally competent.

       c. This campaign is culturally competent, not just by racial/ethnic means, but

          also for aging populations.

       d.   See images 5-8, as audiences are represented and messages are appropriate. Specifically, image 8 exhibits further what it means to be asymptomatic.

o   Health education concentration:

     1.   An evaluation plan for health education and promotion was developed.

     2.   Selected, adapted and created instruments to collect data and collect and manage data.

     3.   See Chapter 4. Evaluation.

Conclusion

The ambition of this campaign and overall goal is to increase the knowledge surrounding COVID-19 amongst the campus community, with the intention to decrease the number of infections and keep students, staff, and visitors healthy and safe. This is significant because a healthy campus community will allow for students and staff to continue to attend class, study, work, and be an active campus participant, furthering the University's educational mission. An increase in COVID-19 cases amongst the campus community will have the potential to impact academics and retention, as well as the capability for school to effectively continue. The purpose of this health communication campaign is to promote mask wearing, hand hygiene, social distancing, and testing to contribute to the health of the campus community, in an effort to reduce COVID-19 cases while increasing the general knowledge surrounding the virus and it's means of spreading. It is also prospective for this campaign to further evaluate attitudes surrounding COVID-19 amongst the campus community. Through informing the University of Michigan campus community about the benefits of mask wearing, hand hygiene, social distancing, and testing during the COVID-19 pandemic, as well as encouraging the behaviors

involved, it is believed that the results of this campaign will suggest that implementation will

foster a healthier and more informed campus.

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