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Introduction

This study aims to look at the background of coronavirus and more specifically Covid-19. It will go further to compare the strategies and approaches similarities and differences between the strategies and modalities applied by the United Kingdom (UK) and New Zealand to measure, monitor and control the incidence of Covid-19 in the two countries.

The name coronavirus is coined from the fact that it got some typical spikes with rounded points that decorate their surface, which virologists thought looked like the sun's crown. The viruses infected many species, but the first human infection was not discovered until the mid-1960s. There was little interest in exploring the two coronaviruses that had been discovered at the time, OC43 and 229E. (Williams, 2020).

The World Health Organization (WHO) got notified on December 31, 2019, about what was thought to be an outbreak of a pneumonia-like disease with an unknown origin in Wuhan, in the Hubei Province of China. By January 9, 2020, the information came out that traces of coronavirus had been found in samples obtained from these sick individuals and that an initial test of the virus genetic sequences manifested that this was the root of the outbreak. SARS-CoV-2 is the name that the virus was branded, while the disease was branded COVID-19 (UK HSA, 2021)

The source of the outbreak has yet to be identified and investigations are still underway to establish if the virus is from animals.

SARS-CoV-2 is disseminated mostly through respiratory droplets, aerosols, and accidentally coming into touch with infected surfaces. When people infected with COVID-19 speak, breathe, cough, or sneeze, they release SARS-CoV-2 droplets or aerosol particles. Aerosol particles may be released during medical procedures or treatment, and if they come in contact with the eyes, mouth, or inhalation, they will make the individual sick.

Staying in a poorly ventilated environment for an extended amount of time or being as close as two metres apart increases the probability of COVID-19 spreading. The disease is growing at an alarming rate all over the world, necessitating a determined effort to stop it (UK HSA, 2021).

Strategies

The UK and New Zealand governments both applied similar strategies in measuring, monitoring and controlling the incidence of coronavirus in their respective countries. They both committed to the mitigation strategy at the initial stages of the pandemic. The major difference between the two countries was that New Zealand applied a universal lockdown while the UK applied a partial lockdown. These steps include the following:

- Public health surveillance: This is defined as the continuous well-ordered gathering, analysis, and clarification of data, as well as the quick dispersal of these data to those in charge of stopping and controlling disease and harm (THACKER and BERKELMAN, 1988). Both countries the United Kingdom and New Zealand used active surveillance) system. Active surveillance is defined as when members of the public notify public health officials on a regular basis to offer information on health-related issues. Active monitoring gives the most precise data, but it is also the most expensive (Nsubuga et al., 2021).
- Screening: Screening is the process of identifying persons in good health who might become ill or develop a problem. The screening provider will next provide additional information, testing, and treatment. The purpose of the screening is to identify and treat any underlying health issues. When doing so, it is always a good idea to keep the preferences of the individuals in mind (NHS, 2021).
- Education: Public health initiatives such as educational programmes and policies are critical. Education and health concepts are developed and linked. Efforts made to educate the public about government policies such as, pushing for change in behaviour that will minimize the risk of infection with diseases, goes a long way in making the population accept such public health policies. (Hahn and Truman, 2015)
- Immunization/vaccination: When COVID-19 vaccinations were discovered during the pandemic, a deliberate and ongoing effort was made to make the vaccines widely available. As a result, a significant percentage of the people, as well as health and social care staff, have embraced the vaccine. The immunisation against COVID-19 and influenza is a brave move toward protecting the public, as well as the healthcare system, from an impending hard winter this year and beyond. (Gov.UK, 2021).
- Environmental controls: Environmental health hazard monitoring and control requires some forms of interventions, each suited to the specific hazard or type of public health issue. Monitoring is the practice of taking regular measures to detect changes in the environment or one's health, and it can be done with data from various

sources. Controlling hazards of the environment requires defining acceptable levels of exposure and, as a result, health risk, as well as calculating the control levels required to keep exposure below established thresholds (Health Knowledge, 2020).

- Legislation: Acts were passed solely to tackle the Covid-19 pandemic in the United Kingdom, the Act made provisions relating to Covid-19 and other connected issues. It is known as Coronavirus Act 2020.

The UK compared poorly with New Zealand and other European countries, From the commencement of the pandemic in March 2020 until April 9, 2021, 137,000 people died because of Covid-19, accounting for one in every five deaths in England and Wales. (Raleigh, 2021). The UK government's policy reaction may be classified as reactive; it was slower to develop than other countries that had dramatically modified their course earlier, and it lacked a clear and consistent communication strategy, notably about exit intentions.

- Level 1: COVID-19 is not known to be present in the country. Contact tracing, education of the citizens for effective hand washing.
- Level 2: COVID-19 is present in the country, but the number of cases and transmissions is low
- Level 3: A COVID-19 epidemic is in general circulation

Compared to New Zealand as of March 2020 that produced a strategy to fight the coronavirus disease 2019 (COVID-19) pandemic. Prime Minister Jacinda Ardern pronounced the commencement of a complete lockdown of the country with a four-level framework. As at the time the country had just a hundred COVID-19 cases (Baker, Kvalsvig and Verrall, 2020). The two countries shared similar public health policies in their drive to eliminate Covid-19. Though it is agreed that the UK was slow at the beginning of the first wave of the pandemic.

Public health policy

- Wearing face masks in most indoor public places and on public transport
- Work from home, if possible
- Get tested and self-isolate if required
- Social Distancing
- Vaccination

Theories of health behaviour change: These theories attempt to explain why people act in certain ways when they are dealing with health difficulties. Attempts to identify variables that influence people's actions and direct how they will probably react because of the total variables is the reason these models are known as continuum theories.

The Health Belief Model (HBM) This model is a method used by scientists to forecast health behaviours. The first time HBM was applied was in the 1950s and updated in the 1980s. The model posits that people are happy to change their behaviours to maintain their good health (Boskey, 2020). The model goes on to say that a person's perceptions of health and health issues play a role in determining his health-related behaviours.

Prime factors that shape a person's approach to health care:

- a. Any obstacle that could impede his way
- b. Getting information that can make him act.
- c. What amount of benefit will he derive from healthy behaviour?
- d. How vulnerable does the person believe he is to the illness.
- e. What will the implication of falling ill be to the person?
- f. The person's belief in his capability to succeed (Boskey, 2020).

Health belief models influence people's actions, and health professionals are continuing to investigate how this occurs, including behaviours that affect both person and public health. They include the following:

1. **Perceived Severity:** How serious a person believes the consequences will determine if he probably changes his health behaviour. For example, a young person in love is unlikely to abstain from kissing his sweetheart on the lips simply because she has a cold, and he might catch a cold from her. On the other hand, if kissing will cause him to develop a more serious ailment, he will probably quit doing it. Similarly, when people believe sexually transmitted infections (STIs) are a minor issue, they will not accept the idea of using condoms. That is the reason, during the AIDS crisis, messages about safe sex were welcomed and paid attention to. The gravity of the situation was greatly exaggerated (Boskey, 2020).

2. Perceived Susceptibility: People will find it difficult to adjust negative health practices until they perceive they are in danger, for example:
 - Most people who do not think they will contract the flu are more likely not to obtain a flu shot each year.
 - People who believe they are unlikely to develop skin cancer are unlikely to accept the use of sunscreen or to prevent exposure to the sun's rays.
 - The use of condoms is always not accepted by those who feel they are not in danger of getting HIV, so they indulge in unprotected sexual activities without condoms.
 - Most young people are more not to accept Smoking cessation because they do not believe they are in danger of lung cancer (Boskey, 2020).
3. Perceived benefit: This generally applies to people who follow a health instruction or take a prescription because they believe it will benefit them. People, on the other hand, will not want to stop doing something they enjoy unless they are rewarded for doing so (NCI, 2020)
 - A person who does not believe that quitting smoking will enhance their life in some manner, will most likely not agree to quit smoking.
 - A couple might not agree to the practice of safe sex because they cannot perceive how safe sex might improve their sex life.
 - People who do not believe in the efficacy of vaccines may refuse to be vaccinated because it will not help them one bit.
4. Perceived barrier: One of the main reasons people do not change their health habits is because they believe it will be difficult. Changing your health habits takes time, money, and effort. Typically held opinion. (Boskey, 2020).

Theory of reasoned action (TRA): According to the Theory of Reasoned Action (TRA), a person's behaviour is determined by their intention to carry out the activity, which is a result of their attitude toward the behaviour and subjective norms. The more positive the attitude and subjective norms, as well as the higher the perceived control, the stronger the person's intention to undertake the behaviour (Silverman et al., 2016).

Impact of legislation and policies

Various public health initiatives have been implemented around the world - including the UK and New Zealand - since the onset of the covid-19 pandemic. All are aimed at mitigating its transmission but not at stopping the spread of the pandemic. When there were no pharmaceuticals or vaccines available to treat or contain the 1918–19 H1N1 influenza pandemic, numerous non-pharmaceutical interventions were successful in reducing case numbers and have been demonstrated to be effective when introduced early in the epidemic. Travel bans and limitations, school and workplace closures, isolation of ill people, quarantine of exposed people, social distancing, and cancellation of major gathering events are all examples of these interventions. The early application of these interventions at the advent of the pandemic has proved its effectiveness in curbing the spread of the virus (Ayouni et al., (12021). Five other ways public health policy can influence health, are:

5. Public policies can aid in establishing, regulating, and preserving public goods that support the control of the pandemic like the closure of public transportation, emergency funding for the procuring of personal protective equipment (PPE) and the health care systems of the two countries (Chung et al., 2021)
6. Natural resources can be regulated by government policy to avoid harm. For example, the department of environment regulates the quality of air and water to make sure they are safe.
7. Public policies that establish norms and mandates can safeguard citizens. Examples of government regulations aimed at protecting residents are laws closing schools and restricting travel.
8. Public policies can provide direct assistance to residents in a variety of ways. For instance, employers could agree to put part or all their employees on temporary leave ('furlough') during the coronavirus (COVID-19) epidemic. This included 'flexible furlough,' in which an employee worked part of their shift but was put on furlough for the rest.
9. Public policies can reduce barriers, create opportunities, or provide incentives that influence the choices that impact health. The work from home policy that was introduced during the pandemic is one good example (Pellegrin, 2017)

Ethical considerations

Public health measures need to consider the following ethical principles:

- People must be considered as moral equals who deserve to be respected. While individuals may be required to make sacrifices for the greater good, the respect that individuals deserve should never be overlooked in the implementation of interventions like quarantine and self-isolation.
- While achieving the desired purpose, coercion and intrusion into people's lives should be limited to a bare minimum.
- Evidence-based and proportional interventions are required. The public should be informed about the goal(s) of the interventions being implemented, as well as the science, beliefs, and judgments that back those actions.
- Solidarity is essential at all levels: at the international level, between governments; in state assistance for people facing the costs of interventions; by corporations in their corporate social responsibility; and at the individual level, in how we all respond to the pandemic in our daily lives.

Recommendations

The advent of the coronavirus and Covid-19 led to a new awakening and a new dawn in public health policy initiatives in the United Kingdom, New Zealand, and the world over. The government of the two countries produced various strategies, several new public policies in tackling the pandemic. All the strategies and policies led the public of the two countries to show reaction with behavioural changes that reflected all aspects of behavioural change that epitomised the health belief model and all the policies applied yielded results with varying amounts of success. The most successful policy in both countries happen to be the rollout of vaccines which helped in stemming the scourge of the pandemic.

From the response of both the United Kingdom and New Zealand, it could be seen that early intervention should be the best way to tackle future pandemics because it worked well for New Zealand in this first episode.

Care homes should be given all the necessary and prompt attention to curb the considerable number of deaths that happened in them during the first outbreak in England. New Zealand did was able to manage their care homes a lot better.

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