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Pandemics in Hawaii

A Thesis
Submitted to the Faculty
in partial fulfillment of the requirements for the
degree of

Master of Arts in Liberal Studies

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Abstract

Pandemics are a phenomenon that have existed throughout humanity. The associated diseases they have brought have affected societies' economies, cultures, and demographics. The biomedical sciences and the field of public health have done tremendous work combating pandemics by researching disease etiology as well as developing effective therapeutics and preventive vaccines. However, with the recent rise of COVID-19 and the accompanying politicization of the pandemic, critique of public health professionals, and the ascendance of anti-vaxxers, we see that science alone is insufficient to persuade disbelievers to follow public safety protocols. The numbers alone are not enough, and a new persuasive lens is needed. That new lens is the medical humanities.

In this thesis, I have applied humanistic methods by reviewing historical newspapers and thematically analyzing contemporary oral history interviews to provide insight into the experiences of the Spanish Influenza and COVID-19 pandemics in Hawaii, respectively. I then identified similarities, differences, and key lessons through humanistic interpretation to expand on future public health initiatives for the next pandemic. Lastly, I conclude that by reading and reflecting on past lived experiences through the medical humanities lens, society can rebuild trust in science and public health.

Preface

This thesis is a cumulation of a great many people throughout the years. Firstly, I would like to express sincere gratitude to my family and friends who have been cheerleaders throughout my time in pursuance of my Master of Arts in Liberal Studies (MALS) degree.

Secondly, I would like to express my deepest gratitude to my first reader and advisor, Professor Elizabeth Carpenter-Song. Elizabeth has been a pillar of knowledge and support throughout the past year. Elizabeth is a prime example of a North Star, realigning and guiding me when I was sometimes stuck, lost, and downtrodden. I cannot think of a professor who has been so kind, patient, generous, and supportive throughout my academic studies (both undergraduate and graduate). I am grateful for our conversations, and I will cherish the nuggets of wisdom she has imparted as I proceed forward in future endeavors.

Thirdly, I would like to express gratitude to my second reader, Professor Manish Mishra, for providing in-depth feedback and for who I had the great pleasure of taking his and Elizabeth's course, Humanistic Medicine: Cultivating Compassion in Healers, Patients, and Cultures of Care, which ultimately inspired me to write my thesis regarding the medical humanities. Further, I would like to thank my third reader, Professor Joseph O'Donnell, for providing me with prompt feedback and resources to polish this thesis further.

Fourthly, I would like to thank Wole Ojurongbe and Professor Donald Pease for guiding me throughout the entire MALS program, as well as Colleen Andrasko and the rest of the MALS administrative staff.

Fifthly, a special thanks to the staff at Dartmouth College Library, the University of Hawaii at Manoa Library, and the Hawaii State Library for their kindness and support. They have been extremely helpful and accommodating to my excessive number of requests for resources that ultimately helped me build the foundation for this thesis.

Lastly, I thank all my Dartmouth professors and colleagues who have been with me throughout this process. Our interactions and discussions have profoundly contributed to my intellectual development to make this thesis possible.

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Chapter 1: Introduction

COVID-19 (referred to as Covid) has been a catastrophic event that plunged the world into lockdowns, disrupted economies, millions of lives lost, and political strife. Populations, economies, and social interactions, among many daily life aspects, have drastically changed because of Covid. As a result, media outlets and politicians have championed the notion that Covid is an unprecedented event that put the world on its heels. Yet this is not the first time a disease has profoundly impacted the global population. Covid is one of many complex relationships between contagions and their effects on humans. Scientific advancement of the biological sciences has tipped the scale and helped increase understanding of the causes of diseases and opened new possibilities to mitigate the threat of diseases through therapeutics and vaccinations. Likewise, the meteoric rise and application of technology have hastened the ability to share thoughts and ideas to understand such detrimental diseases better.

Yet, despite ongoing, innovative scientific advancements, some dismiss the science altogether. Some critique the opinions of experts who have spent years studying the effect of disease on humanity. Some people are not convinced by science, even by statistics. For instance, people gather in large crowds despite public health recommendations to social distance and the rise of anti-vaxxers, individuals who refuse to get vaccinated.¹

¹ Crow D. and Stacey K. (2020, Aug. 20).

Covid has highlighted that public health officials did not appeal to our common humanity. Line graphs and demands to “flatten the curve” missed opportunities to identify common motivations for people to follow public health guidance grounded in our common humanity and our linkages to others. The language of science was not up to the task. Therefore, we need a different approach. In this thesis, I argue that a humanistic approach may help bridge divides and offer a pathway to more effectively address the realities of pandemics. Thus, from a humanistic and social sciences point of view, this thesis will examine two pandemics separated by a century in Hawaii: the 1918 Spanish Influenza and the Covid-19 pandemic.

History plays an integral part in disease and public health. Looking at the past can provide insights into contextual factors that drive the potential impact of health interventions. History is not a distant past but all around us; public health professionals have a myriad of historical material that needs proper archival attention.² Critical analysis of historical materials can drive complex discussions and implementation of future effective policies that apply key lessons from the past. Critical analysis can help us contextualize and understand the disease from a holistic point of view. Thus, history can help us understand the complex dynamics of social, political, and economic circumstances of each situation.³ Therefore, the work of history plays a crucial role in public health.

² Berridge, Virginia. (2001). p. 1

³ Perdiguer E. et al. (2001). p. 668

Using a case study approach, this thesis will allow us to understand how two infectious diseases affected a population. In particular, this thesis will take a case-study approach to illuminate the effects of the 1918 Spanish Influenza and 2020 Covid pandemics on the islands of Hawaii. (See Appendix Table 1 for a comparison of both pandemics in the Hawaiian Islands to the US and the World.) Separated by miles and miles of deep blue sea with no contact with the outside world for centuries, the Hawaiian context is an example of when a new disease meets a new population, resulting in fatal consequences. For example, Tuberculosis (TB), a respiratory disease that predominantly resides within the lungs and spreads via air, had higher mortality in Hawaii than in the mainland US from 1911 to 1945.⁴ Fortunately, rates of active TB significantly declined by roughly 99% between 1935 and 2014 because of public health measures and more effective treatments.⁵

Goals of the Thesis

By examining social and public health responses to the Spanish Influenza and Covid, I aim to uncover similarities and differences between these two pandemics. In doing so, I hope to inform the work of researchers, policymakers, educators, and the Hawaiian State to build policies to predict and protect the future health of the Hawaiian society. This thesis will be organized into chapters as follows: 1) pertinent historical background on the Hawaiian Islands, 2) 1918 Spanish Influenza, 3) Covid-19, and 4) conclusions and implications for public health.

⁴ Public Health Committee, Chamber of Commerce. (1947). p. 75

⁵ Brostrom et al. (2016). p. 117

Chapter 1 lays the groundwork for us to further understand the context of the Hawaiian culture. For instance, how the Hawaiian society progressed from a small-scale agricultural society to an advanced trading society and how such processes led to urbanization and the development of key public health institutions. Chapter 2 will focus on the 1918 Spanish Influenza using a historical analysis of Hawaiian newspapers. Newspapers are an important piece of qualitative evidence that provide real-time events in history. Chapter 3 will focus on the ongoing Covid-19 pandemic using a thematic analysis of oral history narratives. Oral history is another important piece of qualitative evidence that focuses on the interviewee's experience. With oral history, we can visibly see raw emotions and the effect disease has on individuals and communities. Finally, Chapter 4 will focus on the previous chapters' similarities, differences, and lessons. Here, we will discuss key takeaways and critically examine what we have discovered through this thesis.

To understand the impact of pandemics in the Hawaiian context, examining pre-colonial history will provide insight into how the indigenous Hawaiian population understood disease and highlight both traditional medicine and key public health institutions that were present in combating diseases. In this chapter, I will consider: 1) Hawaiian History pre-colonization, 2) Colonization, 3) Trade Globalization, 4) Disease and 5) Public Health Institutions, the Board of Health and Queen's Hospital.

History of Hawaii

About thirty million years ago, the islands of Hawaii were formed in the middle of the Pacific Ocean as hot molten rock surfaced in the deep blue pristine waters forming the Hawaiian archipelago. Out of the many islands, there are six major islands: Kauai, Oahu, Molokai, Lanai, Maui, and the island of Hawaii (Big Island). Then around 400 C.E., the Polynesians from the Marquesas Islands traveled 2000 miles away from Oceania and became the first settlers on the Hawaiian Islands, bringing their plants, seeds, and customs to start a new life on the islands.⁶

The Polynesian settlers lived uninterrupted from the outside world and were accustomed to the diseases they brought with them as they emigrated from Polynesia.⁷ Like many civilizations worldwide, each culture had its systems of government, customs, and norms. In terms of traditional medical healing, Hawaii was no different. Only in Hawaii did *heiau ho'ōla* (temple for healing purposes) exist. *Heiau ho'ōla* served three purposes, 1) training *haumana* (students), 2) medical practices, like bone setting and clyster enema, and 3) special practices like preparation of *la'au* (medicines).⁸ The healers (overseers) were called *kahunas* and were summoned by chiefs and the Hawaiian people to cure sicknesses.⁹ *Heiau ho'ōla*, and the *kahunas* were subservient to one of the four greatest gods, Kāne, Kū, Lono, or Kanaloa, and through them, they were able to heal the afflicted.¹⁰

⁶ Smithsonian Magazine. (2007).

⁷ Lee, Richard K.C. (1954). p. 403

⁸ Norton, Scott A. (1998). p. 8

⁹ Kahuna, B. L. et al. (2006). p. 44-46

¹⁰ Bushnell, Oswald Andrew. (1993). p. 61

According to traditional Hawaiian medicine, sicknesses were thought to be an imbalance of one's energy or *mana* which was manifested through physical discomfort and illnesses. Thus, ailments could be corrected through prayer, which became the foundation of all Hawaiian medicine.¹¹ As with other Polynesian cultures, the Hawaiians believed that health and happiness were rewards from the gods who did not break from *kapus* (rules and prohibitions) and illnesses and sadness were punishments for having broken them.¹² This rich traditional medicine was how Hawaiian's countered diseases until the first colonizers.

Colonization

In January 1778, Captain James Cook, on his voyage of world exploration, docked on the island of Kauai.¹³ In November of that same year (1778), Cook docked his ships in Kealahou Bay on the island of Hawaii, where he was treated with deference among the locals.¹⁴ The Hawaiians were intrigued by their strange clothing, foreign language, and their light skin complexion, and consequently coined them *haole* (a Hawaiian word meaning "foreigner"). Among the interactions, a trade relationship was established in which the British exchanged iron materials (i.e., nails) for food (i.e., pigs, yams, taro, sweet potatoes) from the Hawaiians.¹⁵

¹¹ Kahuna, B. L. et al. (2006). p. 44-46

¹² Bushnell, Oswald Andrew. (1993). p. 65

¹³ Bradley, Harold Whitman. (1942). p. 8

¹⁴ Bradley, Harold Whitman. (1942). p. 9

¹⁵ Potter, Norris et al. History of the Hawaiian Kingdom. (2003). p. 3

Cook initially left the Hawaiian islands only to return after a storm damaged his ship *Discovery* and he docked into Kealahou Bay for repairs.¹⁶ Cook's request for supplies put a strain on the Hawaiian's resources, which led to strained relationships.¹⁷ An eventful dilemma occurred where one of Cook's cutters (small boat) from *Discovery* was stolen which led Cook to devise a plan to take King Kalaniopuu of Big Island Hawaii hostage for his stolen cutter.¹⁸ As Cook persuaded Kalaniopuu to board his ship under false pretenses, there were suspicions from Kalaniopuu's wife and fellow villagers. As a result, a skirmish occurred between the villagers and Cook's men that resulted in Cook being struck down by a local with a club and stabbed in the back.¹⁹ Cook later died from his wounds.

As more European ships entered the islands, this contact was the first of many. Some men even stayed behind and emigrated to become the first foreigners to take residence.²⁰ For example, in 1818, visitors increased from 100 people to more than 200 who eventually lived on the islands because of its natural charm. Many of them became trusted advisors of King Kamehameha^{21,22} The relationship with the *haoles* was a mutualistic one, where all sides benefited. Due to the trading interests of the *haole* Americans and British, combinations of colors from both countries were incorporated into the Hawaiian flag.²³

¹⁶ Potter, Norris et al. Hawaii our Island. (1964). p. 60

¹⁷ Potter et al. (1964). p. 60

¹⁸ Kuykendall, Ralph. (1961). p.18

¹⁹ Kuykendall, Ralph. (1961). p. 18

²⁰ Kuykendall, Ralph. (1961). p. 30

²¹ King Kamehameha was the first king within the whole spectrum of the Hawaiian history to unite all the tribes on the Hawaiian Islands.

²² Kuykendall, Ralph. (1961). p. 37

²³ Kuykendall, Ralph. (1961). p. 37

Trade Globalization

The city of Honolulu, Oahu, became an important trading center after 1795 and was of even greater importance when King Kamehameha took residence in 1804.²⁴ Years after Cook's death, ships from various nations came to the islands with the intent to trade and for exploration. Traders appealed to the Hawaiian chiefs by selling them pins, kitchen utensils, and sailing ships.²⁵ By the 1820s, instead of simple metals and scraps, they traded for blankets cotton, muskets and powder, alcohol etc.²⁶

The most noted tangible trade commodity was Hawaiian sandalwood. Hawaiian sandalwood became a sought-after commodity, and the peak of the trade was in 1818 with the Americans, where China was sandalwood's main market.²⁷ Sandalwood is a scented wood that was prized by the Chinese, which they used to make incense sticks to worship their gods as well as carved wooden images.²⁸

In the pursuit to secure sandalwood, American captains gave gifts to chiefs in exchange for promissory notes for cutting sandalwood in the mountains.²⁹ The demand was high as chiefs ordered their men into the forest to cut down the trees while they neglected their work from the fields which resulted in famine.³⁰ The sandalwood trade

²⁴ Kuykendall, Ralph. (1961). p. 37

²⁵ Kuykendall, Ralph. (1961). p. 39

²⁶ Potter et al. (2003). p. 28

²⁷ Potter et al. (2003). p. 28

²⁸ Wong, Helen. (1987). p. 63

²⁹ Tabrah M. Ruth. (1984). p. 27

³⁰ Wong, Helen. (1987). p. 63

was exploitation of natural resources and represented a separation of Hawaiian culture because cutting down a tree was performed by traditional rituals to respect the *mana*.³¹

Nevertheless, one hundred years after Captain Cook's encounter, the Hawaiian Islands became the port of trade. As the islands became modernized and more European and Western settlers came to the island, there grew a silent but germinating threat of diseases over the years with each new foreign encounter.

Disease

Without going into great detail about the pathology of diseases, when a disease was brought into the Hawaiian population, the results were often deadly. A glimpse of the devastating effects of diseases was in 1804 when about 15,000 lives out of a population of 800,000 were lost due to an epidemic of cholera or typhoid.³² In 1848 and 1849, about 10,000 lives were lost due to a combination of measles, dysentery, influenza, and whooping cough.³³

Because of colonization, Hawaiians were prohibited from practicing their traditional way of life. As a result, there came conditions that favored the spread of disease. In a few examples, 1) as Hawaiians moved from their sheltered low-density households and into port cities, they were susceptible to overcrowding and had difficulty

³¹ Tabrah M. Ruth. (1984). p. 27

³² Wong Smith, Helen. (2016). The Daniel K. Inouye College of Pharmacy Scripts: Transition from Traditional to Western Medicine in Hawai'i (Part 1). p. 87

³³ Wong Smith, Helen. (2016). The Daniel K. Inouye College of Pharmacy Scripts: Transition from Traditional to Western Medicine in Hawai'i (Part 1). p. 87

accessing clean water and properly disposing of bodily waste, 2) prostitution and licentiousness resulted in venereal diseases and reproductive health concerns, 3) many Hawaiians did not have a clear understanding of disease prevention and prognosis, and did not avoid contact with those who were sick, and 4) there was a lack of native healers and foreign doctors from whom to seek advice.³⁴ In terms of the lack of native healers, in 1905, years after the illegal overthrow of the Hawaiian Kingdom in 1894, in which the Kingdom became the Territory of Hawaii, Act 48 banned *kahunas* from practicing traditional Hawaiian medicine, which became punishable with fines or imprisonment.³⁵ In terms of a lack of foreign doctors, there were “traveling” government doctors who were employed part-time to care for the indigent within the Territory (although the exact number of such doctors is uncertain, it is surmised that there were not many).³⁶

Hawaii’s Board of Health

With the rapid social change and the introduction of new diseases, there was a dire need to address the health concerns of the Hawaiian people. In 1850 King Kamehameha III and his Privy council created the first Board of Health (BOH) in the Hawaiian Kingdom to “provide for the preservation and cure of contagious, epidemic, or other diseases” along with sanitation measures.³⁷ The BOH was also formed by the concern of private citizens and government officials.³⁸ Within this group of men, Dr. T.C.B. Rooke, a port

³⁴ Bushnell, Oswald Andrew. (1993). p. 289-290

³⁵ Wong Smith, Helen. (2016). Transition from Traditional to Western Medicine in Hawai’i (Part 2) Western Legislative Impacts on Traditional Medical Practices. p. 148

³⁶ Richard K. C. Lee. (1954). p. 405

³⁷ Richard K. C. Lee. (1954). p. 404-405 as cited in Ackland R., A century of public health in Hawaii.

³⁸ Ikeda, James K. (1985). p. 75

physician who also served as the King's physician³⁹, was elected to be the first Board President.⁴⁰

There were a number of initiatives made by the BOH. A primary example of public health initiatives was their response to smallpox. In 1853, a ship from San Francisco hoisted a yellow flag that indicated smallpox aboard.⁴¹ The ship's crew was quarantined, and the infected person was treated in a house separate from everyone else. However, the attempt to prevent smallpox failed. Two women were infected with the disease, likely from laundering the seamen's clothing, and thereafter the disease became rampant in the Honolulu and Ewa regions on Oahu.⁴² After a twelve-day incubation period, patients developed headaches, backaches, fever, chills, followed by rashes, and bacterial infection. Death was due to infection of the lungs, heart, or brain. The process of infection to death was between five to six weeks.⁴³ Samuel Kamakau, a Hawaiian historian, lived through this time and described the atmosphere:

*"From the last week in June [1853] until the first week in September the disease raged in Honolulu. The dead fell like dried kukui twigs tossed down by the wind. Day by day from morning until night horse-drawn carts went about from street to street of the town, and the dead were stacked up like a load of wood, some in coffins, but most of them just piled in, wrapped in cloth with head and legs sticking out...Not a family but bore its loss."*⁴⁴

Soon afterward, the BOH took measures,

"A washerwoman and a young girl living two blocks from the palace were discovered to have smallpox. The two women were taken from their homes and quarantined, their

³⁹ Heggland Lewis, Frances R. (1969). p. 52

⁴⁰ Moorhead, George V. State of Hawaii Department of Health. Public Health in Hawaii A Historical Perspective. (1960). p. 3

⁴¹ Potter et al. (2003). p. 102

⁴² Potter et al. (2003). p. 102

⁴³ Kenney, Scott G. (1997). p. 8

⁴⁴ Whitman, Katie. (2013). p.55

clothing and grass houses burned. Their street was roped off and guards placed around the perimeter.”⁴⁵

From the time of the first month of incidence, May, the BOH built temporary hospitals, limited travel between islands, and by August, the incidence quelled.⁴⁶ However, people died in large amounts and there was not enough time to make graves more than three feet deep.⁴⁷ The deceased were placed on their sides on top of one another for burial and was estimated that 1,000 people are buried in the smallpox cemetery.⁴⁸ In sum, there were 9,082 cases and 5,748 deaths for a population of 19,126 on Oahu.⁴⁹

The following year in 1854, a compulsory vaccination law was passed by the Legislature and each of the islands had appointed vaccinating officers. The law was designed to control smallpox by vaccination and quarantine, however, there was still a second outbreak in 1861 due to the influx of Chinese immigrants to Hawaii. The immediate result was that more than 5,000 people were held in quarantine and over 1000 guards were employed to provide care and monitor their isolation. In this outbreak, which was mitigated by vaccination, there were 782 cases and 282 deaths. As Hawaii’s growing population became stabilized, the vaccination widespread results were realized.⁵⁰ As a result, there has not been a single case of locally contracted smallpox since 1913.⁵¹

⁴⁵ Kenney, Scott G. (1997). p. 8

⁴⁶ Potter et al. (2003). p. 103

⁴⁷ Whitman, Katie. (2013). p. 55

⁴⁸ Whitman, Katie. (2013). p. 55

⁴⁹ Richard K. C. Lee. (1954). p. 403

⁵⁰ Ackland, Ruth. (1949). p. 5

⁵¹ Richard K. C. Lee. (1954). p. 403

Another example of BOH efforts was the employment of the first public health nurse in the Territory in 1906, Mrs. Ulrick Thompson, who initially started as a volunteer in 1897, but later received a salary.⁵² Thompson cared for both the sick and children, who came dirty, hungry, and covered with sores. She also visited the homes and taught parents good hygiene to make her work more effective.⁵³ During this time (and even in present day, 2022) recruitment of qualified personnel was difficult. As such, health workers were hesitant to move to Hawaii and take on the financial burden of moving their families at a salary lower than their mainland salary.⁵⁴ However, it was only the lure of the islands and its weather that helped with the recruitment of able personnel.⁵⁵

Another BOH initiative was sanitation measures in addition to the prevention and containment of infectious diseases.⁵⁶ In 1912, the BOH established the Division of Sanitation staffed by 12 men to ensure quarantine and sanitation regulations were enforced.⁵⁷

Queens Medical Hospital

From 1778 to 1853, the population of Hawaii was reduced from 300,000 to 73,138 due to disease, poverty, and declining birthrate.⁵⁸ The newly crowned King Kamehameha IV, in

⁵² Richard K. C. Lee. (1954). p. 405

⁵³ Heggland Lewis, Frances R. (1969). p. 92

⁵⁴ Richard K. C. Lee. (1954). p. 408

⁵⁵ Richard K. C. Lee. (1954). p. 408

⁵⁶ Richard K. C. Lee. (1954). p. 406

⁵⁷ Moorhead, George V. State of Hawaii Department of Health. Public Health in Hawaii A Historical Perspective. (1960). p. 8

⁵⁸ Schmitt R. and Nordyke E. (1999). p. 10

his first address to his nation in the 1855 legislature, championed the need to construct public hospitals to prevent the spread of foreigner's diseases.⁵⁹

The Legislature approved the collection of public funds, and the royal couple asked the community for donations for the hospital.⁶⁰ Queen Emma asked fellow women while the King asked businesses for donations.⁶¹ Supporters of the project moved with great haste accumulating donations for funding the project.⁶² The Queens Hospital (QH) was then founded by Queen Emma and King Kamehameha IV in 1859 on the island of Oahu. It was not without financial challenges, however. In the beginning, most patients were nonpaying, and the sources of revenue included regular income tax and government funds.⁶³ As more funding became available, QH started its journey of expansion in correlation to the growth of Hawaii's population and increased demand of medical needs accordingly.⁶⁴

QH from the beginning was a two-story building general hospital containing numerous departments such as cardiology, pharmacy, dietetics, physical therapy, social services, and a library.⁶⁵ Initially, many Hawaiians were skeptical of using the new hospital because many of them were accustomed to their *kahuna* and doubted the *haole*'s physicians. But they eventually came to them to treat illnesses beyond their control.⁶⁶ For

⁵⁹ Potter et al. (2003). p. 106

⁶⁰ Potter et al. (2003) p. 106

⁶¹ Richard K. C. Lee. (1954). p. 53

⁶² Schmitt R. and Nordyke E. (1999). p.10

⁶³ Kimura, Jason Y. (2010). p. 34

⁶⁴ Kimura, Jason Y. (2010). p. 45

⁶⁵ Queens Hospital. (1943). p. 6

⁶⁶ Potter et al. (2003). p. 106

example, because some infectious diseases had no cure, QH's focus was to keep patients within the hospital from infection⁶⁷; a special ward was assigned for measles patients during the three-month epidemic.⁶⁸

The average number of patients QH had for the two years after it was initially built was 19 but after 1872 it had risen to 70. By 1910, admissions were in the thousands.⁶⁹ The increased use of QH reflected how Hawaiians began to trust Western medicine when they were initially against it:

*“native prejudices against foreign doctors and foreign medicine were nearly as great two years ago [1859], yet...new applicants throng to be received, and they gladly come from the remotest corners of the Kingdom to partake of the healing influences of this institution.”*⁷⁰

With increasing numbers of patients, there was a need for a nursing program to care for the Hawaiian population. In the Queen's 1916 Annual Report, it stated:

*“The Queen's Hospital, of Honolulu, Hawaii, is prepared to give three years' course training to women desirous of becoming Professional Nurses. [Also,] ...and to meet the demand of the community for competent Nurses.”*⁷¹

In 1916, the QH Training School was established for nurses that included textbook instructions and an array of nurses and medical staff.⁷² Admission requirements required a candidate to be in good health in addition to good eyesight and teeth, and a good attitude.⁷³ Classes were held once a week by the head nurse, and other lectures by

⁶⁷ Kimura, Jason Y. (2010). p. 33

⁶⁸ Kimura, Jason Y. (2010). p. 33 as cited in *The Polynesian*, June 29, 1861

⁶⁹ Schmitt R. and Nordyke E. (1999). p. 11

⁷⁰ Kimura, Jason Y. (2010). p. 36 as cited in *The Polynesian*, July 6, 1861

⁷¹ Kimura, Jason Y. (2010). p. 117-118 as cited in *The Annual Report of the Queen's Hospital, 1916*, p. 21-22

⁷² Kimura, Jason Y. (2010). p. 117-118

⁷³ Heggland Lewis, Frances R. (1969). p. 60

medical staff included topics such as general hygiene medicine, eye, throat, ear, nose, medicine, surgery, contagious and nervous disorders, etc. In a three-year period, the school graduated its first class of 20 nurses in 1919.⁷⁴ This program was initiated because there was a lack of qualified nurses on the islands, with many nurses being brought from abroad with high financial cost.⁷⁵

In 1917 the QH's Board of Trustees President wrote:

*"...the new department (school of nursing) of hospital work had justified itself in that the savings the school made for the hospital without detriment to the services was a marked one and made for greater economy."*⁷⁶

However, in the 1918 fifty-ninth Annual Report of Queen's Hospital reported that the lack of nurses was salient.⁷⁷ The Queen's President addressed the progress and difficulties of the hospital. Most notably:

*"The call for medical men and nurses for war service and the loyal and patriotic response thereto, has made it impossible to secure medical internes and a sufficient number of graduate nurses."*⁷⁸

The following year, in the 1919 sixtieth Annual Report, the President says, "[t]he attendance of students has unfortunately shrunk to the smallest number in the history of the school."⁷⁹

During this QH buildup of the nursing program, the Spanish influenza spread was also occurring concurrently with World War I (WWI). Hawaiian physicians volunteered

⁷⁴ Heggland Lewis, Frances R. (1969). p. 59

⁷⁵ Kimura, Jason Y. (2010). p. 117

⁷⁶ Heggland Lewis, Frances R. (1969). p. 61

⁷⁷ Queens Hospital. Fifty-Ninth Annual Report of Queen's Hospital. (1918). p. 10

⁷⁸ Queens Hospital. Fifty-Ninth Annual Report of the Queen's Hospital. (1918). p. 10-11

⁷⁹ Queens Hospital. Sixtieth Annual Report of Queen's Hospital. (1919). p. 8

for military services, which left Hawaiian districts without physicians.⁸⁰ The virus coincided with the months of WWI at its apex, and war efforts were seen as a national priority.⁸¹ Authorities stated, “U.S. forces worldwide lost 50,301 persons to disease during the war, 80 percent of them to the flu.”⁸² Lastly, there were also severe shortages not only in physicians but also in hospital beds, nurses, and other medical personnel and facilities.⁸³

In the upcoming chapter, we will see that by the end of January 1919, the hospital was filled with influenza patients⁸⁴ and there was indeed a shortage of physicians, nurses, and supplies present.⁸⁵ The Spanish influenza was so dire that QH often asked the U.S. Army Medical Department (on the same island, Oahu) for help, even though the Army already had full capacity with its own cases.⁸⁶ The local newspapers reported that QH had been turned into a general hospital for influenza cases.⁸⁷

Conclusion

The goal of Chapter 1 was to provide a broad history of the Hawaiian Islands. The key takeaways from this chapter were that the Hawaiian population was completely autonomous with their custom, values, and traditions. They were attuned to supernatural

⁸⁰ Schmitt R. and Nordyke E. (1999). p 104 as cited in *Report of the President of the Board of Health of the Territory of Hawaii for the Twelve Months Ended June 30, 1919*.

⁸¹ Schmitt R. and Nordyke E. (1999). p. 104

⁸² Schmitt R. and Nordyke E. (1999). p. 115 as cited in Crosby *America's Forgotten Pandemic*. 1989.

⁸³ Schmitt R. and Nordyke E. (1999). p. 104

⁸⁴ Kimura, Jason Y. (2010). p. 62 as cited in *Honolulu Star-Bulletin*, December 31, 1919, p. 4

⁸⁵ Kimura, Jason Y. (2010).p. 62 as cited in Report to the Board of Trustees of The Queen's Hospital by C.H. Allen, superintendent, November 19, 1919, QHR.

⁸⁶ Schmitt R. and Nordyke E. (1999). p. 104 as cited in *Report of the Present of Board of Health 1919*.

⁸⁷ Schmitt R. and Nordyke E. (1999). p. 104 as cited in *HSB 1919*.

deities who blessed or castrated them dependent if they kept with the *kapu*. Everything changed when the first colonizers came, which led to the rise of trade and abandonment of their Hawaiian cultural values. As a result, diseases were introduced to the Hawaiian population that led to high mortality rates and, consequently, the assemblage of the Board of Health and QH to help mitigate or prevent the spread of disease and care for those who succumb to illness.

The upcoming chapter, Chapter 2, will build upon Chapter 1 and introduce the genesis and effects of Spanish influenza, starting from the U.S. to Hawaii. Then, through locally written newspapers, I will identify key themes to describe the impact of Spanish influenza on the Hawaiian people and society. Lastly, the following chapters thereafter will be about 3) Covid and 4) the Conclusion and Implications for public health.

Chapter 2: A New Threat Emerges in a Global War

During World War I, as Germany invaded neighboring European countries, there was an amassment of European counterforces to combat German hostilities. The United States at the time was also collecting and logistically amassing forces to aid our European allies. Amid global war, another problem was insidiously developing: the accumulation of large masses of human bodies bore an Eden-like environment for germinating a pathogen. Unbeknownst to many at the time, this pathogen—Spanish Influenza—would claim 50 million lives worldwide.⁸⁸

The first case of the Spanish influenza was reported by U.S. military personnel in the spring of 1918.⁸⁹ More specifically, a general consensus claimed that the Spanish influenza started in the Midwest of the U.S. on March 4, 1918, at Camp Fuston in Kansas with Albert Gitchel as one of the first established cases. Gitchel (a cook) received medical attention for his ailment, though his symptoms were typically unworrisome. However, within three weeks, at least 1,100 soldiers within the camp were infected.⁹⁰ In another part of the U.S., another situation was brewing with U.S. troops stationed Camp Devin, Montana, which housed approximately 45,000 men in an overcrowded encampment that was built to house only 35,000 men getting trained for deployment to France.⁹¹ At Camp Devin, the first victim was a Company B infantryman who was initially diagnosed with cerebral meningitis. Then, in a span of two days, on Sept 16,

⁸⁸ Center for Disease Control and Prevention. (n.d.). *Influenza (Flu) History*.

⁸⁹ Center for Disease Control and Prevention. (n.d.). *Influenza (Flu) History*.

⁹⁰ Martini et al. (2019). p. 1 as cited in Wever et al. 2014.

⁹¹ Crosby, Alfred W. (1989). p. 13 as cited in The Office of the Surgeon General 1921-29 and Wooley 1919.

1918, 36 members of the same Company B became infected and in another two days that number rose to 6,674 cases of influenza with Camp Devin.⁹² The news of the epidemic became pervasive throughout national newspapers. Nonetheless, the general public was largely uninterested because war news was more interesting than the emergence of a mysterious new illness.⁹³

Before the military knew it, the epidemic spread across the East Coast and was prevalent in ten of the largest cities and Army camps in the nation.⁹⁴ Because of the spontaneous and meteoric spread of the disease, the U.S. government was still processing a response. Public health practitioners, nevertheless, were quick to find ways to lessen the impact of the disease. With no clear understanding of the invisible virus and no vaccines, the public health community had to rely on moral, legal, and political authority.⁹⁵ Strategies to stop the spread of the disease included shutting down schools, closing theaters, and canceling public gatherings to mitigate the effects.⁹⁶ Encouraging people to stay home appeared to be the most effective measure.⁹⁷

Even with the countermeasures, people still became ill. Influenza is a virus that attacks the respiratory system and is highly contagious. Many physicians recognized varying types of influenza presentations within patients and their associated signs.⁹⁸

Physicians agreed that many patients experienced mild respiratory distress such as sore

⁹² Crosby, A. (1989). p. 14

⁹³ Crosby, A. (1989). p. 32

⁹⁴ Crosby, A. (1989). p. 19 as cited in Office of the Surgeon General

⁹⁵ Rosner, David. (2010). p. 39

⁹⁶ Clay et al. (2018). p. 2 as cited in Bootsma et al 2007 and Markel et al. 2007

⁹⁷ Morse, Stephen S. (2007). p. 1

⁹⁸ Jester Barbara et al. (2019). p. 35

throat, cough, fever, and myalgia (muscle pain)⁹⁹, while other patients suffered a more severe set respiratory distress such as reduced consciousness, intense cyanosis, and air hunger.¹⁰⁰ Morens and Fauci propose that many deaths were a result of severe acute viral infection that perverse through the respiratory tree causing significant lung damage followed by secondary bacterial infections.¹⁰¹ As a result, many died because there was so much fluid within their lungs.¹⁰² Medical professionals still could not identify the disease's origin because it struck so fast, leaving a devastating wake with some victims dying within a few hours of their initial symptoms.¹⁰³

The sudden onset of the disease and death also amplified a public health issue in the U.S.—a shortage of qualified nurses to care for the infected and sick. The shortage was due to their deployment within US military camps and overseas, and the initial failure to utilize trained African American nurses (as the epidemic continued, the Army dropped its policy to enlist black nurses and sent them to domestic military camps such as Camp Sherman in Ohio and Camp Grant in Illinois)¹⁰⁴.¹⁰⁵ Nursing leaders knew that they needed such well-qualified nurses to help deal with the trauma of the war.¹⁰⁶ During WWI there was large recruitment of civilian nurses; from 403 to 21,480¹⁰⁷ with 9,000 deployed overseas (Europe) outside the U.S. Thousands more were stationed within the

⁹⁹ Jester et al. (2019). p. 35

¹⁰⁰ Jester et al. (2019). p. 35 as cited in Friedlander et al, 1918.

¹⁰¹ David M. Morens, Anthony S. Fauci. (2007). p. 1020

¹⁰² National Archives and Records Administration. (n.d.)

¹⁰³ David M. Morens, Anthony S. Fauci. (2007). p. 1020

¹⁰⁴ Keeling, Arlene. (2010). p. 106-106

¹⁰⁵ Center for Disease Control and Prevention. (n.d.). *Influenza (Flu) 1918 Pandemic Timeline*

¹⁰⁶ Keeling, A. (2010). p. 107

¹⁰⁷ Talbot et al. (2021). p. 2, as cited in US War Department: Annual Report. 1920.

U.S. military camps and therefore led to a dangerously low amount of nurses for civilian hospitals.¹⁰⁸

There was indeed a lack of nurses, and hospitals were already working with low nursing staff because of the war.¹⁰⁹ As such, hospitals relied on student nurses for help with the direction of experienced nurses who opted not to go to war.¹¹⁰ (Given the growing number of public health nursing agencies and organized health departments, the nurses available were only within populated areas¹¹¹ with exceptions to a few nurses in the rural countryside.¹¹²) Because there was such a high demand for nurses overseas, to circumvent the U.S. shortage, the city of Chicago, for example, called upon the American Red Cross for volunteers to help the staffed nurses locally.¹¹³ Calls were being made for volunteers to help answer phones and wash dishes, and even retired nurses were called upon to help out.¹¹⁴

If we look back through the history pages, within a year time (1918-19), there were roughly 50 million deaths globally.¹¹⁵ The Spanish influenza came in three waves 1) spring of 1918, 2) fall of 1918, and 3) winter of 1919 as shown peaks in figure 1.¹¹⁶

¹⁰⁸ Keeling, A. (2010.) p. 107

¹⁰⁹ Robinson, Karen. (1990). p. 20

¹¹⁰ Keeling, A. (2010). p. 125

¹¹¹ Robinson, K. (1990). p. 20 as cited in Geister 1957

¹¹² Robinson, K. (1990). p. 20 as cited in Crosby 1976

¹¹³ Center for Disease Control and Prevention. (n.d.). *Influenza (Flu) 1918 Pandemic Timeline*

¹¹⁴ Robinson, K. (1990). p. 22

¹¹⁵ Taubenberger, J. K. and Morens, D. M. (2006). p. 1

¹¹⁶ Taubenberger, J. K. and Morens, D. M. (2006). p. 1

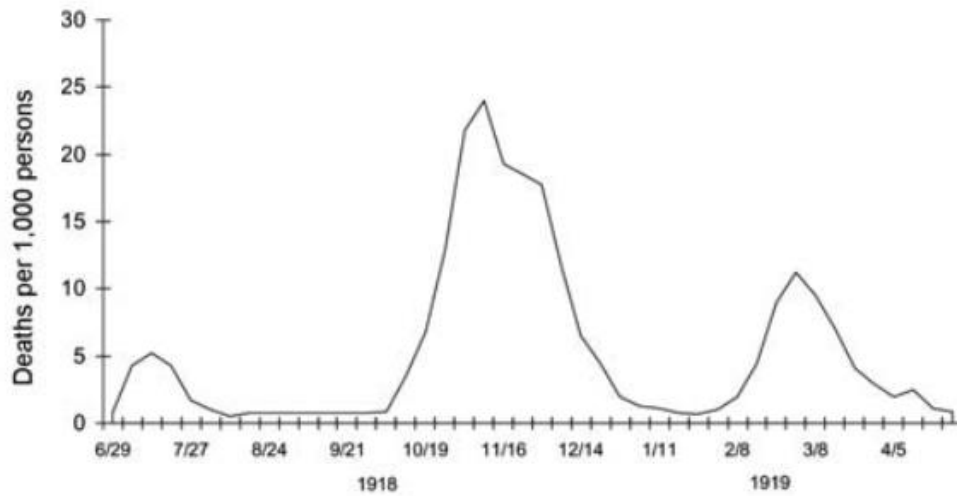


Figure 1. Timeline of the 1918 Spanish Influenza deaths within the U.S.

As seen in figure 1, the first wave was considered the mildest, while the second wave was the worst. The second wave was considered the deadliest wave out of the three and called a “killer” because of its ability to spread around the globe in less than five months, leading to worldwide death.¹¹⁷ The Centers for Disease Control and Prevention claimed that the second wave killed 195,000 Americans in the month of October alone.¹¹⁸ The uniqueness of the 1918 influenza was its quick successive waves within a given year; it was unprecedented.¹¹⁹ (Thus far, throughout the literature, there has not been a source to explain why wave 2 had the highest mortality rate versus waves 1 and 3.)

¹¹⁷ Schmitt R. and Nordyke E. (1999). p. 102, as cited in Crosby and Osborn.

¹¹⁸ Center for Disease Control and Prevention. (n.d.). *Influenza (Flu) 1918 Pandemic Timeline*

¹¹⁹ Taubenberger, J. K. and Morens, D. M. (2006). p. 17

Spanish Influenza Virology

In a study by Watanabe et al.¹²⁰, they proposed that the Spanish influenza's ability to grow in the lungs is associated with its high virulence. The virus was so deadly that, unlike its previous yearly predecessors, whereby the virus slightly mutated and people developed immunity, the 1918 Spanish influenza was entirely new. The 1918 flu exhibited a “W”-shape because of the mortality of young adults from 20-40 years of age which differed from the traditional “U”-shaped curve of diseases disproportionately affecting the very young age group of <5 and elderly age group >65 years of age (figure 2).¹²¹

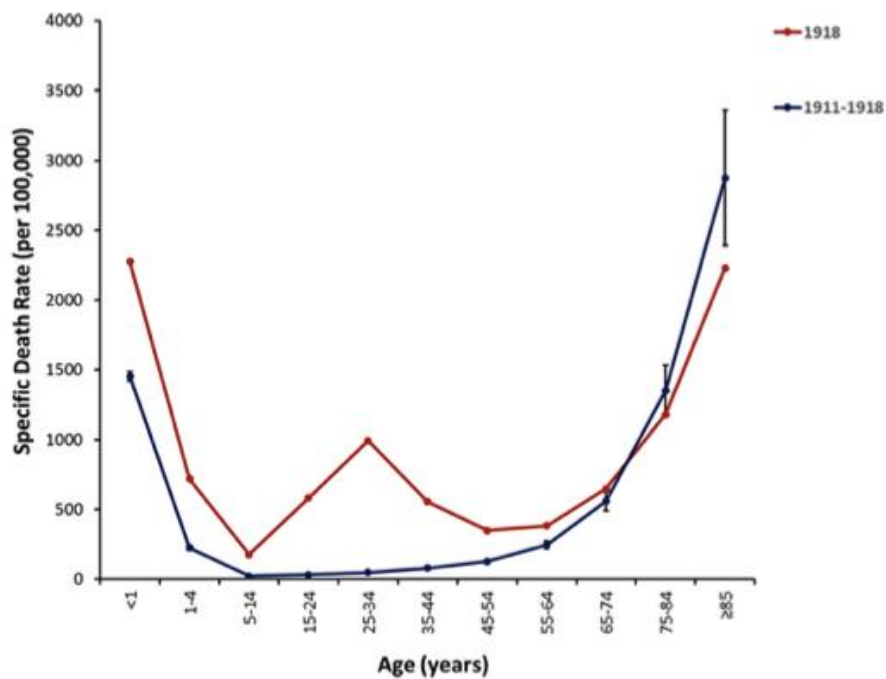


Figure 2. U.S. Death rates segmented by ages.¹²²

¹²⁰ Watanabe T. and Kawaoka Y. (2011). p. 3

¹²¹ Nickol, M. E., and Kindrachuk, J. (2019). p. 5

¹²² Nickol, M. E. and Kindrachuk, J. (2019). p. 5

Since the 1918 pandemic, all influenza A worldwide pandemics were descendants of the 1918 strain, thus making it the “mother” of all pandemics.¹²³ The 1918 strain was the cause of nearly all seasonal influenza A infections within the past century.¹²⁴

Spanish Influenza in Hawaii

The Spanish influenza spread meteorically throughout the U.S., and it was only a matter of time before it reached all the islands of Hawaii. Hawaii’s estimated population was less than 200,000 (from 1918-20)¹²⁵ when the pandemic arrived, and it claimed 2,300 deaths, with influenza type A being the progenitor.¹²⁶ The first case was unsurprisingly within the confines of the island’s military post at the end of June 1918.¹²⁷ The first public report was by the *Honolulu Star-Bulletin* citing Army 600 soldiers were infected at Base Schofield on the island of Oahu.¹²⁸ From there, the first wave occurred on Oahu from July to August 1918 by means of trade with Japanese and Chinese ports.¹²⁹ Similar to the situation on the mainland, there were shortages of physicians, hospital beds, nurses, and medical equipment.¹³⁰ The Hawaiian Islands were underprepared for this new disease threat like the rest of the world.

¹²³ Taubenberger, J. K. and Morens, D. M. (2006). p. 1

¹²⁴ Nickol, M. E. and Kindrachuk, J. (2019). p. 3 as cited in Taubenberger et al 2006.

¹²⁵ Schmitt R. and Nordyke E. (1999). p. 101

¹²⁶ Schmitt R. and Nordyke E. (1999). p 102 as cited in “Dr. Eaton’s Report on the Influenza Epidemic” 1941.

¹²⁷ Schmitt R. and Nordyke E. (1999). p. 103

¹²⁸ Schmitt R. and Nordyke E. (1999). p. 103

¹²⁹ Schmitt R. and Nordyke E. (1999). p. 104

¹³⁰ Schmitt R. and Nordyke E. (1999). p. 104

Why study this particular disease?

What makes studying the Hawaiian Islands a particularly interesting endeavor is that due to the history of colonization and urbanization, the import of new diseases was nothing new. The Territory of Hawaii was unprepared for the extent of the threat caused by the new influenza pathogen. During the period of colonization, the goal was trade and commerce, with little attention to public health. As a result, the Hawaiian people became sick without an adequate number of clinicians to care for them and infrastructures to house them as they recovered from their illnesses. More importantly, there is a question of what was the public health response? Therefore, given the backdrop of Spanish influenza, there is much more still to unearth in the context of public health in the Hawaiian Islands.

Newspapers in Hawaii

Unlike modern times where the globalization of information is through digital streams, in the era of the Spanish Influenza, one of the primary means of communicating information was through newspapers. Newspapers were, in fact, one, if not the main source of dissemination of national, local, and worldwide events. After years of colonization and Christianity teachings, the general Hawaiian population was literate. Thus, newspapers were used to convey information to the public.

The usage of newspapers allows us to not only determine what occurred in 1918 but allows us, the reader, to draw similarities and differences, and draw insights. In addition, the newspapers provide a pivotal window to understand illness, sickness, and

death, which is different from the 1918 flu scientific literature. Lastly, these newspapers can provide the missing gap that journals and dairies offer: a lived experience. We can vicariously experience the 1918 Spanish Influenza by reading the articles and understanding the community impact. Newspapers provide an opportunity for different interpretations that offer a much richer discussion on effects. In this way, we can learn much from illness and mass threat than the quantifiable metrics of the same disease.

Methodology

With the aim of gaining insight into the quotidian daily realities of the 1918 influenza pandemic in Hawaii, I examined periodicals from that time period. The relevant Hawaiian newspapers were digitally archived. The primary sources were from Newspapers.com (a widespread and encompassing newspaper database) that contained articles from major Hawaiian publishers at the time, including the Honolulu Star-Advertiser, Hawaii-Tribune Herald, and Lihue-Island Newspaper.

For clarification, I decided to use local Hawaiian newspapers as our primary source. I did not use worldwide or national newspapers (i.e., New York Times) because 1) I felt that such newspapers would not provide much detail on the Hawaiian Islands and were written for broader national news coverage, and 2) I felt that local newspapers provided detail needed to examine the effects of the Spanish Influenza and were written by local citizens, allowing us to possibly understand the tone.

In the search engine, I used three funneling metrics: Date, Location, and Keyword. Regarding dates, articles were filtered between 1918-1925, when the pandemic first started, and a few additional years to capture the recovery period and long-term pandemic impacts. Regarding location, I used only one word, Hawaii, which is a broad term that described all the Hawaiian Islands. The date and location metrics were kept constant. However, in terms of keywords metric, I inputted one of three key descriptive words: flu, Spanish Influenza, and Spanish flu (because the three aforementioned words were used interchangeably to describe the pandemic.) In sum, 191 articles were reviewed.

An Excel spreadsheet was used to index the content of the articles systematically. Columns included the article's Title, Published Date, Page Number, Tone, and Summary. As I perused through articles, the article's Tone was used to discern patterns and create themes. I categorized three themes: 1) Reporting of Influenza Cases, 2) the Board of Health's response to the Spanish Influenza, and 3) Social Responses to, and Impact of, the Pandemic. These themes illuminated the myriad ways the Spanish influenza was experienced and responded to in the Hawaiian context.

The limitation of the methodology is that newspapers do not fully interpret the real/actual account of a person/community's experience. Newspapers provide a vicarious point of view; in other words, they provide a perspective not directly taken from a source. Sometimes what is printed in black and white is not always accurate but rather adulterated. For example, newspaper articles were often screened by various editors, which allows for misinterpretation of a story. Regardless, newspapers were the best-

determined source to take on a medical humanities perspective because all other sources like journals/dairies could not be located.

Theme 1—Reporting of Cases

The vast majority of articles provided information on the number of cases in specific locations. As the disease progressed throughout the three stages, these numbers greatly increased.

All the newspapers had some form of statistical reporting, either by table format or statistics weaved into articles. One such article, "*Flu*" *Epidemic on Two Plantations Attacks Hundreds*, cited eight hundred cases in the Waipahu and Ewa agriculture plantations under the care of a single plantation physician Dr. R. J. McGetigan.¹³¹ This particular article provided further details about how such plantation hospitals have been crowded since Dec 20, 1918, with many cases being a mild type of Spanish influenza, with the duration of symptoms lasting between three-four days. An article such as this provided the reader in-depth understanding of the situation at hand, giving those who were not from the plantation life (i.e., city areas) a glimpse of how the new disease was impacting life on the plantations. Another article, *Molokai Notes*, cited over 300 flu cases on Molokai and noted that every school except for one was closed due to the sickness.¹³² This type of article was brief and to the point and provided the reader more of a snapshot of basic facts.

¹³¹ "*Flu*" *Epidemic On Two Plantations Attacks Hundreds*. (1919, Jan. 9). Honolulu Star Advertiser, p. 7

¹³² *Molokai Notes*. (1920, Apr. 14) Honolulu Advertiser, p. 3

In another example, *Figures Of Month Tell Flu Ravages*, provided daily statistics as well as some content to the numbers reported in a table format.¹³³ For example, each day in February listed the number of cases within and outside the city of Honolulu, Oahu, and the number of deaths. The total number of cases within and outside of Honolulu was 504 and 175, respectively, with 93 deaths in February. Lastly, the table noted a total of 162 deaths for the year. Within the body of the article, there were also sub-sections, including *28 Deaths Reported in Five Days* which listed names, marital status, and time died of the deceased. These statistics provided a chilling weight of how quickly people succumbed to the disease. The article, *Deaths Due To "Flu" Continue to Show Gains*, cited statistics on the number of death cases. Dr. Li, a Chinese physician in Honolulu, based his personal observation, cited over 300 influenza cases in Honolulu.¹³⁴ Overall, these types of reports gave the Hawaiian society some form of transparency regarding the scale and impact of the pandemic and a high-level overview of the state of affairs.

It is also important to note the reporting of cases on the other islands of Hawaii. The article, *Flu Cases Again Are On Increase*, provided a table of statistics that again followed the aforementioned format.¹³⁵ The table further displayed the total Oahu deaths of 172 compared to Kauai, which had only 20. In another article *"Flu" Worse on Big Island*, it reported 37 new cases on Big Island. In *Maui Is Hit Hard*, George Weight, BOH inspector for Maui, was quoted as saying there are at least 1500 cases:

¹³³ *Figures Of Month Tell Flu Ravages*. (1919, March 1.) Honolulu Advertiser, p. 6

¹³⁴ *Deaths Due To "Flu" Continue To Show Gains*. (1920, Feb. 24). Honolulu Advertiser, p. 6

¹³⁵ *Fewer Flu Cases Outside of City*. (1919, March 7). Honolulu Advertiser, p. 6

"If anybody doubted the genuineness of the present epidemic on Maui they must have been convinced by the reports of the past two weeks." ¹³⁶

At the same time, these newspapers provided a window into the gravity of loss and grief. For example, in the article, *Fewer Flu Cases Outside of City*, it provided a summary of the two deaths, Mrs. Tami Ikeda and Masami Kawakami.¹³⁷ Mrs. Ikeda was 30 years old and the wife of Seitaro Ikeda and a Japanese native. She died at Queen's Hospital on a Friday afternoon. Mrs. Kawakami was 5 years and 9 months old and the daughter of Mr. and Mrs. Asahei Kawakami and a native of Wahiawa (an Oahu county). She was buried in Waipahu (an Oahu county). The salient details of these accounts provided a glimpse of these women from a demographic perspective, but little does it provide *who* they were.

Attention to illness in normal times tends to be overlooked by those who are unaffected. It is quite natural; someone may be unbothered if an illness has nothing to do with them or anyone within their inner circle. But in the context of a pandemic, illness touches us all. Patricia B. Stanley, an author and patient, wrote about her experience in a bone transplant unit.¹³⁸ She explained the importance of illness narratives and mentioned that "[t]hrough storytelling, patients can begin to heal and the listener, through witnessing, can facilitate in that healing." Although the context of Stanley refers to patients suffering severe illness, I think another interpretation can be that through the

¹³⁶ *Maui Hardest Hit of Any of Islands*. (1919, Feb. 9). Honolulu Advertiser, p. 9

¹³⁷ *Fewer Flu Cases Outside of City*. (1919, Jan. 26). Honolulu Advertiser, p. 9

¹³⁸ Stanley, Patricia. (2007). p. 22-29

storytelling of these statistics, readers can understand the gravity of the pandemic and its grip on the deceased and their family members.

The historical newspaper articles offer a glimpse into a profound scale of sickness and death as influenza swept through the Hawaiian Islands. Yet, what remains hidden are the voices and lived experiences of patients and families. Amplifying patient voices through patient narratives can profoundly impact and spark real change. In the realm of the medical humanities, Perri Klass is a primary care doctor and an educator, and teaches first-year medical students.¹³⁹ She teaches “patient narrative” in which students interview patients with questions that have no clinical intentions (which is very different from the traditional interview process where clinicians ask questions to make medical decisions).¹⁴⁰ Real clinical experiences have raw, emotional meaning that can be surfaced through storytelling. In the case of the influenza statistics, every one of these statistics has a particular story. As Klass might say, a story may be a biological story, a family story, an immigration story, a mixed story, and many more. Patient narratives provide a way to glimpse a complicated, layered story. These stories are a missed opportunity to amplify the lived experiences. In the silence, we are left to wonder about the lived realities and impacts of the pandemic.

A clear voice is lost in these numbers. What is further missing from these statistics are clinicians themselves. How did these doctors feel when they sent reports to the BOH? Statistics may provide us the numerical significance, but where are the voices

¹³⁹ Klass, Perri. (2010). p. 40-41

¹⁴⁰ Klass, Perri. (2010). p. 40-41

of those on the front lines? Clinician narratives are just as important as patient narratives to offer insight into the nuanced experiences of illness and efforts to lessen suffering.

Theme 2—Board of Health’s Response to the Influenza Pandemic

The Board of Health (BOH) was a crucial institution in handling the Spanish Influenza in Hawaii. The BOH consisted of prominent men within Hawaii's healthcare system who oversaw the writing and regulation of safety protocols. Articles with content regarding the BOH included information about: 1) preventive measures and 2) criticism of the BOH from both newspaper publishers and Hawaiian citizens.

Preventative Measures

There was high mortality during the second wave, as seen in Figure 1. During the end of the second wave of the pandemic, in the month of January 1919, there was still great confusion between the public and the BOH over the signs and symptoms of the new disease. For example, whether a person was infected with influenza or grippe (a cough-like symptom that mimics the influenza was unclear). The article, *Grippe Must Be reported Now an Influenza*, claimed that on the U.S. mainland, the situation was dire and physicians were unable to determine the difference between flu and grippe.¹⁴¹ So, in light of the confusion, the BOH asked physicians to report all infectious colds in addition to other preventative measures such as mandatory sterilization of glasses in restaurants and boarding houses for 20 minutes for daily operations. Actions such as these continued with

¹⁴¹ *Grippe Must Be Reported Now as Influenza, Order.* (1919, Jan. 30). Honolulu Advertiser, p. 2

quarantine zones for ships and affected crewmembers, as well as limitations on public gatherings.

The BOH championed *primary prevention*, which is aimed at preventing disease before it develops. (In general, this action, i.e., vaccinations, helps to significantly reduce the effect of the disease that can lead to further downstream consequences like overcrowding of hospitals, pandemonium within the general public, and overbuying of medicine and cleaning materials.) BOH's primary prevention was education. In an attempt to educate the public, *Influenza: A Statement From the Territorial Board of Health*, the BOH provided the necessary information regarding the bacteriology of the disease, treatment, and precautions.¹⁴² In a statement from S.S. Paxson, President BOH, the BOH also provided guidance from the U.S. Surgeon General,

"Each individual at the onset of the disease should go home at once and to bed; this is not only for his own benefit but the benefit of others. By doing so he eliminates the menace he is to his business associates and friends and benefits them as well as the community."

"By this voluntary isolation at home and remaining in bed during the febrile state of the disease the patient not only insures [sic] his recovery but he protects others from infection. This one measure would very largely diminish the prevalence of influenza as well as common colds."

"See that your rooms and dwellings are always well ventilated. Let in the pure fresh air. It will not harm you it will do you good. Plenty of fresh air, rest, and exercise will resist the onset of disease."

Even when the third wave passed and the subsequent end game of the pandemic, the BOH was still very cautious toward the disease. In the article, *Board of Health Acts to Prevent Spread of Epidemic of Influenza*, public gatherings were still prohibited but

¹⁴² *Influenza: A Statement From the Territorial Board of Health*. (1919, Jan. 25). Honolulu Advertiser, p. 6

schools continued to remain open under the watchful eye of the nursing board.¹⁴³ The BOH and local physicians agreed that schools should remain open. It was thought that schools provided opportunities for monitoring and inspecting cases among children.

There was disagreement, however,

“There was considerable discussion of the new regulations in many quarters yesterday following their adoption by the board and the opinion was general that if the situation warranted closing churches and theaters and forbidding public gatherings within enclosed buildings it certainly warranted the closing of schools. In fact, the opinion expressed was to the effect that the schools should be closed before anything else.”

In the article "*Children Should Stay in School*", Dr. Trotter does not believe there was a need to close schools. He conveyed:

“As far as the schools are concerned, we want the children to continue on in school, for that is where we can keep track of them. Our inspectors are enabled to detect new cases as they develop among the children. Were they kept away from school, there would be no way to keep track of them, and most of them would be more apt to expose themselves to infection outside than would be the case in class.”

Further, acting-Governor, Curtis P. Iaukea also made a statement and claimed that when the situation is called upon, action will be taken.

“The board of health is handling the flu in good shape. Where a case of the disease occurs in a home, the patient is permitted to remain at home, providing his people have a physician and are in a position to properly care for him. Where it appears that needed care and attention cannot be given, through poverty or because of surroundings, the patient is removed.”¹⁴⁴

Criticism

Despite the best efforts of the BOH to enact preventive public health measures, there was indeed criticism of the BOH. In the article, *Vigorous Action Required*, the author wrote

¹⁴³ *Board of Health Acts to Prevent Spread of Epidemic of Influenza*. (1919, Jan. 24). Honolulu Advertiser, p. 1

¹⁴⁴ There is no clarification what is meant by “removed.” It is speculated this afflicted person was removed from his home to a care facility.

about BOH President Paxson's trip to the mainland regarding his side automobile business.¹⁴⁵ The author criticized the BOH officials and conveyed that his automobile business could wait and that the BOH underestimated the danger of the pandemic.

"Mr. Paxson and his associates have fallen down on the job thus far. Now that he is back, and, it is to be hoped, is on the job once more, the people of the Territory will expect him to take charge of the situation and adopt more rigorous measures to curb the spread of the "flu". The automobile business can wait."

"It does no good to try to minimize the danger. That but serves to increase it. We might as well look the matter squarely in the face and admit that we have a powerful enemy to combat."

In a separate article, *Saving Its Face*, the author noted that cases were popping up around the island, yet not one word of warning came from the BOH.¹⁴⁶ The author claimed that the BOH concealed the fact. If anything was published in newspapers, the BOH sneered and minimized the danger. The author wrote:

"The board of health is apparently a misnomer. It should be called the board of ill health. By its actions, rather, its masterly inaction, it is threatening the health of the community that it should protect."

"What is the board of health afraid of? Is it trying to "play down" the real situation because it foolishly ridiculed the danger a few months ago when the pandemic was first raging on the mainland? Is it willing to endanger the health of the community to save its face?"

In another article, *Health Board Told to Better Prepare To Handle Flu Cases*, Judge F. M. Hatch, chairman of the board of trustees for Queens Hospital, wrote a letter to the BOH and argued that the hospital was almost at its limit.¹⁴⁷ He expressed:

"The Hospital is almost at the limit of its power to assist in handling the situation. If further action is needed it will have to be provided by the board of health or by the public through some other instrument."

¹⁴⁵ *Vigorous Action Required*. (1919, Jan. 23). Honolulu Advertiser, p. 4

¹⁴⁶ *Saving Its Face*. (1919, Jan 15). Honolulu Advertiser, p. 4

¹⁴⁷ *Health Board Told to Better Prepare To Handle Flu Cases*. (1919, Feb. 22). Honolulu Advertiser, p. 7

Because of a lack of hospital space, tents were constructed and filled. In the sub-article, *Limit To Capacity*, Judge Hatch further wrote:

"If more flu patients come and fill the tents completely and then still other cases develop, some other place, or more tents will have to be secured. If more tents are needed the board of health will have to secure and equip them."

However, new cases kept increasing, and there were no more trained nurses available to care for influenza patients.

"The seriousness is accentuated by our inability to furnish nurses. If more are needed the health board will have to secure them and, as I see conditions, they would have to call for volunteer nurses, not trained nurses but those who have some knowledge of first aid and sick room work at Queens."

"Worse still, there are no more nurses available for the case of such patients. Indeed, it is necessary, in some instances, for patients in the hospital to secure their own nurses."

Given the context of the article and that the Queen's Hospital was a property of the Territory of Hawaii, the article criticized BOH for its unpreparedness.

In another article, *Dr. Sexton lecture*, F.J. Benny says,

"[i]t's little short of murder if we do not quarantine the island right away--it should have been done long ago, and take a chance, and then find out if it was right for us to do..."

and W. Scott Wise says,

*"I suggested a strict quarantine from Honolulu before. Although it would cause great inconvenience to our business, as well as to all Hilo Merchants and the steamship company, it is not fair to gauge the loss of business in comparison with the loss of life..."*¹⁴⁸

¹⁴⁸ *Dr. Sexton Lecture*. (1919, Jan 18). Hawaii Tribune-Herald, p. 6

An interpretation of the accumulation of these articles is two-fold. First, there was a lack of consensus, and second, handling the pandemic was highly contentious, both of which lay the groundwork for similarities with Covid.

Theme 3—Social Response to, and Impact of, the Pandemic

The Spanish influenza has affected many within the Hawaiian population, and it is essential to highlight how the community responded to the pandemic.

Responding to the pandemic involved enforcing basic safety measures. Theatres were the social gathering for many in Hawaii during this time period. As such, when the Spanish Influenza started, theatres around the island were shut down. In the article, *No Chances On Spreading “Flu” Are Being taken*, Motion Pictures at Fort Shafter and Fort Kamehameha were closed and soldiers, in particular, were told not to attend meetings, entertainments, and other functions in the city.¹⁴⁹ Hawaii residents were to stay vigilant and remain indoors in hopes to contain the disease.

While the pandemic prompted some controversy and critique (as seen in the earlier section), community members also made great efforts to care for members of their community. For example, in the article, *Kauai Women Do Excellent Work In Fighting Flu*, a Kauai woman helped the afflicted community.¹⁵⁰ Despite the fear of becoming ill, she continued to go into flu camps to serve.

¹⁴⁹ *No Chances On Spreading “Flu” Are Being Taken*. (1918, Nov. 2). Honolulu Advertiser, p. 7

¹⁵⁰ *Kauai Women Do Excellent Work In Fighting the Flu*. (1920, Mar 20). Honolulu Advertiser, p. 7

“She is up before 6 a.m. waiting for the milk to be delivered and then until 8 she is busy preparing egg nogs and making the milk ready to be taken around to ailing ones. Then she starts her rounds, returning home about 11 and at 1 o’clock starts out again this time with rich soup returning to her home about 4 p.m.”

“On top of this daily work the hospital asked for some pneumonia jackets. Therefore, evenings, after dinner, she cuts them out and with other members of the family gets them ready for sewing.”

In another story of community resolve, *Kona Flu Fight Directed By Mr. and Mrs. Weller*, Mr. and Mrs. Weller were recognized for their work on Big Island.¹⁵¹ Mr. Weller took charge when the Kona School principal and one of the teachers became sick. He helped organize teachers to help with nurses within the district and closed the school for a brief time. The teachers rode horses and were sent out to visit every house and report those who were sick.

“...Physicians and professional nurses in the district have declared that hundreds of lives have been saved by this efficient visitation.”

Most people were onboard when it came to preventing the prevalence of the disease. For example, in the article, *They Say*, a Honoluluian, Eugene Horner stated:

*“I think the most stringent measures should be taken to fight the influenza. If it once gets into the schools, it will spread like wildfire.”*¹⁵²

Miss Helene Macfarlane expressed:

*“but there will be no relaxation in vigilance. One day last week many cases were brought in late in the afternoon. You cannot tell just how the epidemic will continue until it is absolutely wiped out”.*¹⁵³

¹⁵¹ *Kona Flu Fight Directed by Mr. and Mrs. Weller*. (1920, Mar. 21). Honolulu Advertiser, p. 2

¹⁵² *They Say*. (1919, Jan. 20). Hawaii-Tribune Herald, p. 2

¹⁵³ *Grippe Must Be Reported Now as Influenza, Order*. (1919, Jan. 30). Honolulu Advertiser, p. 2

There were, however, articles in which there were negative effects on daily life. One effect on life included issues with tax returns. In the article, *Flu Causes Many To More Time On Income Return*, Colonel Howard Hathaway, collector of internal revenue, stayed up till late helping individuals file their tax returns.¹⁵⁴ He conveyed:

"The influenza was really responsible for the tardiness of many. Some 20 or 30 persons, who now have the flu, have been granted an extension, varying from 10-30 days, according to circumstances."

In another article, *Work On Roads Delayed by Flu Windward Oahu*, many of the construction workers have been sicked with the flu which has slowed the progress of construction of a new road, which in turn took more time to be completed.¹⁵⁵

Conclusion

The goal for Chapter 2 was to pick up from Chapter 1 and understand how the Spanish Influenza affected Hawaii, given the establishment of public health establishments. The key takeaways from this chapter were through the themes. In Theme 1, we read that newspapers heavily depended on statistics and numbers to educate the general public. It convinced the public to follow preventive measures (stay-at-home order). We also analyzed there was a lack of the human element in the newspapers—we did not read excerpts or quotes of how the pandemic affected individuals. In Theme 2, we gleaned a bit of the human element through the newspapers. For instance, we read about the positive and negative reactions from the BOH; some articles praised them for keeping the pandemic under control, while articles chastised them for not doing enough before and

¹⁵⁴ *Flu Causes Many to More Time On Income Return*. (1920, Mar. 16). Honolulu Advertiser, p. 6

¹⁵⁵ *Work On Roads Delayed by Flu Windward Oahu*. (1919, Feb. 7). Honolulu Advertiser, p. 6

during the pandemic. In Theme 3, we read even more about the human element during the pandemic. We read a few positive lived experiences where people banded together to help the community and a couple negative lived experiences where daily life was hamstrung.

In the upcoming chapter, Chapter 3, we will fast forward 100 years into the future. Chapter 3 will introduce the nebulous origins of a new pandemic, Covid, and its effect on Hawaii's population. Further, it is essential to keep in mind the humanistic scope as we read more about the personal experiences of thirteen individuals as they recall their experience dealing with Covid. The following chapter thereafter will be 4) Conclusion and Implications for public health.

Chapter 3: The Unexpected Global Rise of COVID-19

The beginning of the new year is often considered a fresh start. Some say that what happens in the first month foreshadows the rest of the year. Armed with optimism and a positive outlook, many set goals and attempt to fill them in 2020. However, as soon as the year started, in January, the World Health Organization (WHO) announced mysterious pneumonia-like cases in Wuhan, China.^{156,157} WHO reported on social media that there was a cluster of these nebulous cases and soon after published a Disease Outbreak article highlighting risk assessment, advice, and the public health response.¹⁵⁸ As foreign news outlets reported the increase of cases within China, it was only a matter of time when such a spread would reach outside Asia.

By the end of January 2020 alone, a total of 9976 cases were reported in at least 21 countries, including the US.¹⁵⁹ On January 21, 2020, the Centers for Disease Control and Prevention (CDC) confirmed the first laboratory case when a U.S. citizen returned from Wuhan.¹⁶⁰ On January 29, 2020, the White House established a Coronavirus Task Force and two days after it declared Covid as a public health emergency.

COVID-19 Virology

The first cluster of forty-one patients in Wuhan, China, described Covid symptoms as having an onset of fevers, coughs, myalgias, and fatigues.¹⁶¹ Further, some patients were

¹⁵⁶ American Journal of Managed Care Staff. (2021).

¹⁵⁷ World Health Organization. (2020).

¹⁵⁸ World Health Organization. (2020).

¹⁵⁹ Holshue ML, et al. (2020). p. 1

¹⁶⁰ American Journal of Managed Care Staff. (2021).

¹⁶¹ Carvalho et al. (2021). p. 247

categorized as being asymptomatic—individuals who tested positive via virologic testing (antigen) but did not experience symptoms—while others had symptoms ranging from mild to critical, with varying degrees of respiratory complications.¹⁶² The CDC categorized the most at-risk individuals as people diagnosed with chronic underlying diseases such as diabetes, obesity, asthma, or cancer. Researchers concluded that the virus spread via respiratory droplets and advised self-isolation as the best containment method.¹⁶³

With data being ever-present in many everyday lives, we see that the most vulnerable populations are elders and those with chronic conditions—hospitalization and death.¹⁶⁴ In the U.S., roughly 81% of Covid deaths have been in people age 65 and older.¹⁶⁵ Elderly risk factors are that with older age, there tends to be associated long-term health problems (i.e., high blood pressure), weakened immune system, and feeble lung tissue.¹⁶⁶

COVID-19 in Hawaii

As the rest of the world was preparing for the oncoming disease, it was only a matter of time when cases would be reported in Hawaii. Vice President Mike Pence confirmed 21 cases of Covid on the cruise ship *Grand Princess* from Mexico, which ported on Kauai and Oahu docks in the month of February, 2020.¹⁶⁷ The first positive-confirmed case was

¹⁶² National Institute of Health. (2021). p. 33

¹⁶³ Siddiqui et al. (2022) p. 1

¹⁶⁴ Center for Disease Control and Prevention. (2021).

¹⁶⁵ Mayo Clinic Staff. (2022).

¹⁶⁶ WebMD. (n.d.).

¹⁶⁷ State of Hawaii, Dept. of Health Office of Public Health Preparedness. (n.d.)

reported on March 6, 2020, when an Oahu native reported he was feeling ill after returning from a Mexican cruise ship and was told by his healthcare provider to isolate.¹⁶⁸

Hawaii Public health officials sounded the alarm and provided guidance on the fluid Covid situation. On March 3, 2020, Hawaii Governor Ige announced an Emergency Proclamation regarding Covid and followed the guidelines from the CDC, such as limiting social gatherings to groups of 10 people or less.¹⁶⁹ Further, Governor Ige stated in a press release:

“Everyone should follow guidance from the Centers for Disease Control and Prevention (CDC), as well as state and local government officials, regarding strategies to limit disease spread.”¹⁷⁰

In a span of 19 days, on March 25, 2020, Governor Ige issued a Stay-at-Home Order allowing only certain workers from essential businesses¹⁷¹ to travel outside their residence and for individuals to go outside for physical recreational purposes.¹⁷² The abrupt order had many businesses scrambling to cope with additional restrictions. For example, restaurant businesses were forced to enforce social distancing and close their dining-in services, which led to a decrease in customers and eventual employee furloughs.¹⁷³ Many businesses had to rework their business model to accommodate the restrictions such as implementing online ordering and curbside pickups. Another

¹⁶⁸ McAvoy, Audrey. (2020).

¹⁶⁹ Governor of the State of Hawai'i David Y. Ige. (2020).

¹⁷⁰ OFFICE OF THE GOVERNOR STATE OF HAWAI'I. (n.d.).

¹⁷¹ Essential businesses include industries such as Media, Transportation, Healthcare, etc.

¹⁷² State of Hawaii, COVID-19. (n.d.).

¹⁷³ Yerton, Stewart. (2020).

consequence was the order to work from home via remote technology. There were mixed reactions to such; some enjoyed it while others did not.^{174,175}

There have been 308,695 cases¹⁷⁶ and 1571 deaths¹⁷⁷ statewide since the start of the pandemic, with the majority on the island of Oahu. Cases and deaths differed by islands, and in a paper by Chyba et al., they claimed differences were due to varying ratios between tourists and residents, age demographics, and different local government controls, and more research is needed to elucidate further. Nevertheless, Hawaii's hospitals were severely understaffed, which also contributed to Governor Ige's decision to evoke the Stay-At-Home order to limit the impact of COVID cases on an already strained healthcare system. Because cases were still rising, the local government used \$14 million from the CARES (Coronavirus Aid, Relief, and Economic Security) Act to bring in 140 travel staff for hospitals, and in 2021, used \$46 million in federal funding (Federal Emergency Management Agency) to bring more than 500 mainland healthcare workers to the islands.¹⁷⁸

A major consequence of the pandemic was the effect on Hawaii's economy: tourism. Hawaii was the first state to mandate out-of-state travelers to quarantine upon arrival.¹⁷⁹ Before the lockdown, 30,000 tourists arrived daily to visit Hawaii and after the restrictions were implemented, that number was below 500.¹⁸⁰ Since Hawaii's economy

¹⁷⁴ Solina, Samie. (2022).

¹⁷⁵ Shinno, Stephanie. (2022).

¹⁷⁶ State of Hawaii, Dept. of Health Disease Outbreak Control Division | COVID-19. (n.d.).

¹⁷⁷ USAFacts. (n.d.)

¹⁷⁸ Governor of the State of Hawai'i David Y. Ige. (2021)

¹⁷⁹ Finnerty, Ryan. (2020).

¹⁸⁰ Finnerty, Ryan. (2020).

is based on tourism, 45% of Hawaii residents saw their household income drop since the beginning of Covid.¹⁸¹

Why study this particular disease?

The world is still reeling from the consequences of the pandemic; issues from mask mandates, government-enforced lockdowns, the politicization of vaccination, and public health efforts amid growing attention to consequences of racism and health equity during the pandemic. The academic literature is filled with data that will be used to create better public health policies using scientific and biological evidence. However, there is an opportunity to look at Covid through a different lens, that of the medical humanities that recognizes that biomedical approaches alone are inadequate for lessening suffering. Over the course of the pandemic, as I followed media reports, I found myself wanting to know more about how Covid affected not just individuals but also about cultural and societal dynamics. How has Covid changed the family culture dynamic? Will cultural traditions be preferred to be celebrated virtually or in person? How has Covid changed the way people socialize with one another? Will people be socially inept because of social distancing? What are the effects of mask mandates? Will people be subconscious of their looks in public? My intention in this thesis is to apply a humanistic perspective to provide insight into the societal impacts and experiences of pandemics in Hawaii.

Living in the time of Covid on the Hawaiian Islands is indeed an interesting time. The majority of residents, young or old, have not experienced something like Covid

¹⁸¹ Bank of Hawaii. (2020).

within their lifetimes. This is an entirely new experience for them. Thus, through the lens of the medical humanities, perhaps new insights and public health policies can be garnered by taking a deeper dive into the lives of everyday people living in Hawaii.

Oral Histories of COVID-19 in Hawaii

I examined lived experiences of Covid in Hawaii using oral histories as a primary source of information. Oral history is the use of sound and video recordings to document a person's perspective of an event in history. Oral history can often enhance, confirm, or contradict historical records. The importance of using the medium of oral history is that it provides a deeper context than media reports and academic literature. In other words, one could understand the tone in a better light and preserve individual memories in a naturalistic fashion.¹⁸² Thus, oral history through the lens of first-person accounts provides a humanistic value often missing in research and scholarship focusing on the pandemic.

Methodology

I obtained a collection of oral histories from the University of Hawaii at Manoa Center for Oral Histories database, specifically, the "Hawai'i Life in the Time of COVID-19" project.¹⁸³ The project provided an opportunity for Hawaii's local community to reflect and share their personal Covid experiences. The participants were volunteers who filled out a Request To be Interviewed, a Google Survey¹⁸⁴ that contained survey questions

¹⁸² Haynes, Kathryn. (2010). p. 221

¹⁸³ Center for Oral History, Dept of Ethnic Studies at University of Hawaii at Manoa. (n.d.).

¹⁸⁴ <https://sites.google.com/hawaii.edu/hawaii-life-in-covid19/request-an-interview?authuser=0>

such as Email, First Name, Last Name, Email Address, Zip code of primary residence, Gender, Age Range, and Ethnicity.¹⁸⁵ Participants were then contacted and interviewed. Questions posed by the Interviewer included introductions and a free-flowing conversation about their background and the impact of Covid in their lives in an approximately one-hour interview.¹⁸⁶ The sample questions were based on the Indiana University Purdue University Indianapolis' COVID-19 Oral History Project¹⁸⁷ along with some addition and edits.

There are fifteen total participants, however, thirteen were used. The thirteen individuals were chosen because they were adults who were aware of the Covid pandemic. I felt they were able to fully express the effects of Covid on their lives and were included in this analysis. The remaining two participants were omitted because one participant's video and transcripts were unavailable, and the other participant was a minor, who I felt did not fully grasp the effect of Covid.

I watched the oral history videos and read transcripts of 13 individuals describing their experiences in the Covid era between 2020-21. This timeframe is critical as it laid the groundwork to understand the initial impact of Covid. The videos displayed real-time emotions in a time when many questions were left answered. The different sets of reactions to the pandemic gave light on each of these individuals' backgrounds and

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<https://docs.google.com/forms/d/e/1FAIpQLSexplanWXnGOyHZGo5CbkpA0ACTxQWXhw7GJcR0AsDrwwz6zg/viewform>

¹⁸⁶ <https://sites.google.com/hawaii.edu/hawaii-life-in-covid19/home?authuser=0>

¹⁸⁷ Covid-19 oral history project. (n.d.).

cultures, age groups, ethnicities, geographic locations, and so many more variables. From their personal stories, I have gathered prominent themes highlighting the issues many people feel worth mentioning in their oral histories. In the sections below, I first focus on the public health and healthcare dimensions of Covid in Hawaii before turning to the impact of the pandemic within Hawaiian communities.

Public Health Theme

Challenges of health care professionals

The healthcare profession has significantly grown to understand and counter the underlying threat of infections to public health. Nevertheless, new challenges arose in the public health sphere when Covid started. Oral histories provided insight into challenges that health care professionals in Hawaii faced when Covid struck.

Health care professionals find that for any disease, it really is hard to predict. Health care professionals, to some extent, were unable to use historical data to predict current and future trends. Thomas Lee, an Assistant Professor of Epidemiology in the Thompson School of Social Work and Public Health at the University of Hawaii at Manoa, when asked if we could use past data to understand and predict the course of the Covid pandemic, reflected:

“Initially, no, because so much has changed historically. I mean, I would say now in the past six months, we try to look for corollaries between the impact of the 1918 pandemic locally in Hawai‘i, and we can glean many trends in terms of education and higher risk populations. But really, in the initial response, even though the data environment was scarce, we couldn't really turn to historical references to inform us.”

Even in the context of scientific advancement and computational approaches to statistical modeling of diseases, unknown variables remain. Leslie Chock, the Director of Regional Infection Control at Kaiser Permanente and a Microbiology professor at Leeward Community College who served on Hawaii’s Disaster Medical Assistance Team during the pandemic, noted:

“So making a prediction about an infectious disease is probably (laughs).... Don't bet on it. You'll lose money. So it's hard to predict. At this point, it looks like COVID may turn into something that is around for a long time, and perhaps every year we'll have a new strain. But it's hard to predict. I can tell you, as part of our pandemic planning, we did base it upon the 1918 flu.”

In their oral history narratives, healthcare professionals described how their efforts to an objective understanding of the disease were sometimes criticized by those who did not want to face the gravity of the situation. In some cases, when working in an extremely time-sensitive situation, the pressure to find the right answers can be overwhelming. Monique Chyba, a University of Hawaii Mathematics professor who specializes in modeling simulation and optimization stated:

“I think the model has helped also for the Delta variant, the model, while it was very, very controversial, and there was a lot of criticism. In early August, we made a prediction that the numbers are going to spike to possibly very high level and that was a warning. And I think it was heard actually, even though we got a lot of heat from it.”

Healthcare professionals lamented that Covid highlighted a lack of hospital resources that has been a persistent problem for years. Physicians’ Hippocratic Oath is to “do no harm,” which entails using their education to care for patients, yet their best efforts are often constrained by workforce shortages and limited resources. In the context of Covid, such limitations were manifested in shortages of the critical need for personal protective equipment (PPE). Scott Hoskinson, an internal medicine doctor working as an

infectious disease consultant at a local hospital when Covid arrived on the islands observed:

“I think this has been a huge lesson, and I'm afraid we won't have learned this lesson because we didn't really the last time either, but it's a lesson about chain of supply. We unfortunately, for very good reasons, have a chain of supply that's very dependent upon a whole bunch of countries, China in particular. And that's where our personal protective gear got all screwed up, is that basically it was cheaper to buy it from China and a few other resources than it was to produce in the United States.”

The pandemic seemed to heighten frustrations within the healthcare system as limited resources and restrictions on elective procedures shifted usual practices of healthcare delivery. Scott Hoskinson commented on his experience of negativity and distrust within the healthcare system:

“So of course, everybody was angry with us. The health care workers were angry with us. The family members were angry with us, administration hated our guts because we tied up a whole bunch of beds and closed floors. They had to cancel all their elective surgeries, they had to cancel colonoscopies, they had to cancel breast mammography. They had to cancel all kinds of stuff because we were utilizing all the resources to take care of these people, which wasn't just the outbreak itself that happens with the COVID itself also, but bad news all the way around.”

Solutions professionals have found to circumvent Covid obstacles

In light of the plethora of troubles Covid has wrought, people have found silver linings. Health care professionals have overcome the obstacles presented to them and found unique ways to still provide their services to the people that need them the most.

Some oral histories detailed how healthcare professionals noticed that information about the virus was missing, so they generated informational documents for the public. However, some people became overwhelmed by the large volumes of information—and sometimes conflicting public health guidance – and needed trusted sources of

information. Pamphlets and brochures can be an invaluable means to disseminate information about what precautions to take and situations to avoid to the general public. It goes back to the adage, “knowledge is power,” and in this case, knowing basic information about a contagion could literally mean the difference between life and death. Kristine Qureshi, who holds a doctorate in Nursing Science at Columbia University and led the Community Care Outreach team for Hawaii’s Emergency Management Agency during the pandemic described efforts to share information with the public:

“So in December, I put together for the School of Nursing an information sheet about COVID-19, what it was, and I spent a day looking up everything I could from a reliable source from the Centers for Disease Control, from WHO, from the NIH because there was a lot of misinformation being circulated. So I put together an information sheet. I made it very simple, but everything was referenced. So everything was factual and backed up with the science and the science behind, sent that out to the Department of Nursing. It was very well received, so we sent it to dental hygiene as well.”

Healthcare professionals used CARES funds to support organizations. However, with a government shutdown, many businesses and non-profits were unable to receive the financial support they would normally receive. In the case of non-profits, these organizations tend to serve a disadvantaged population. Because of Covid, special government funding had to be distributed to help these non-profits still operate to meet the needs of vulnerable populations. Yet some organizations faced barriers to meeting the bureaucratic requirements to receive funds and needed assistance to get funding. Kristine Qureshi explained efforts to support community agencies:

“So that information was put together in a report sent to HiEMA^[188,189], but back to all of the agencies who responded and any other group that we could think of, and we said, “use this report as your statement of need baseline. So when you're requesting CARES funds or other resources, you have backup to document that, yes, this is a true need.”

¹⁸⁸ HiEMA stands for the Hawai'i Emergency Management Agency. It is a Hawaii state agency that plans and responds to natural and human-caused emergencies.

¹⁸⁹ State of Hawaii, Hawaii Emergency Management Agency. (n.d.).

Healthcare professionals advocated for vaccination. Although vaccination became politicized and controversial, healthcare organizations continued to reinforce the importance of vaccination to protect the health and safety of workers and to mitigate the broader spread of Covid. Diane Coleman, a physician who at the time of the interview was the Statewide Director of Vision Program for Project Vision Hawai'i, stated:

“And even now, most especially with the Delta Variant, any of our volunteers, any of our interns, any of our community health worker practicum students that are working with us and will be working with us will have to be vaccinated in order to work in the schools or in the public. It's just too risky not to have that policy in place because we're health care, and we need to be good role models in health care.”

Future Implications

Oral history narratives with public health and healthcare professionals pointed to several lessons to prepare for, and lessen the effects of, a future pandemic.

Professionals' narratives identified the importance of investments in programs. Funding for programs can often be challenging because there needs to be thoughtful justification, careful planning of interventions or policies, and implementation. Covid has underscored the crucial importance of preparation. One aspect of this preparation involves the capacity to model infectious diseases in a population to facilitate public health interventions. Thomas Lee, an Assistant Professor of Epidemiology at the University of Hawaii noted:

“One thing that I will say that is still lacking is long-term funding for improving the modeling capacity and improving surveillance and just understanding how this modeling and surveillance can fit into the overarching strategy for future responses and how that might sit in our Department of Health. Because it's clear that one, covid is not going away anytime soon, two, with global warming, with increases in urbanization and

industrialization and globalization, it's only a matter of time before we are hit with another pandemic, definitely within our lifetime.”

Educating the public is needed in times of public health emergencies. It is important to highlight that quantitative model are used for predictions and the accuracy of the models are based on how accurate and robust the data is.¹⁹⁰ Educating the public with clear, dispassionate materials has always been a challenge. Critical assessment and questioning are central to the scientific process, yet during the Covid pandemic, science itself became subject to criticism by some who were skeptical of the dangers posed by the pandemic and questioned the usefulness of public health restrictions. The emerging nature of knowledge and evidence of the new virus may have contributed to this criticism. Society has been accustomed to quick answers, but those answers take time to build. Thus, when a situation is fluid, getting it right may take multiple passes and people may lose confidence in the process, as Monique Chyba stated:

“With the students it's OK, but with the large public, it's a little harder. So we're trying to educate about what they can do rather than how they really build it. I have to say, it's been a learning curve. It's not obvious. People want a miracle that is going to tell them this is the number two weeks from now. That cannot happen because a pandemic is people driven and government take actions that you cannot speculate on suddenly.”

Building trust between public health officials and the public is an essential step for increasing compliance with public health recommendations and confidence in scientific evidence. Thomas Lee spoke to the role of trust in the context of Hawaii:

“But if I don't have the trust of someone who's vaccine hesitant, that is not going to make a lick of difference. So truly, especially in Hawai‘i, where our island community is so small and trust is such a valuable commodity, that is where we first need to start.”

¹⁹⁰ Charumilind S., et al. (2020).

Finally, trust and confidence may be further bolstered by ensuring that diverse populations are represented in scientific studies. The 80/20 rule (or perspective) is widely used to cover as much ground as possible for those populations that are abundant in numbers. It means that eighty percent of results come from twenty percent of actions, meaning the majority of the work can be accomplished by focusing on the twenty percent.¹⁹¹ Further, to get the most impact, the 80/20 rule is used to identify which task has the most impact.¹⁹² However, this concept leaves out vulnerable populations that are still susceptible to diseases with no policies or considerations in place to protect them. Some populations do not have the voice to speak up, which is disfavor and injustice to them. Thus, data validity may be questioned when studies do not include all affected populations. Sheri-ann Pualani, the Executive Director of Papa Ola Lokahi, a non-profit organization that helps improve Native Hawaiian Health and wellbeing, and who was born and raised on the island of Maui, noted:

“But part of that was to start having the state recognize the value of accurate data collection and to desegregate those data sets especially when we look at the amount of dollars that come into the state from the federal government specifically targeting work for Native Hawaiians. Well, if we're not collecting the data, how would we know that the moneys that come in are actually used in the way it should and what do we get out of that? How does that improve our Native Hawaiians in whatever way those funds come in?”

Community/Society Theme

Mental Health

Mental health was a surprising feature among the oral history participants. When bad news affects our friends and families, there tends to be an empathetic or sorrowful

¹⁹¹ Glen, Stephanie. (n.d.).

¹⁹² Laoyan, Sarah. (2022).

response. This is quite normal, but akin to everyday life. However, the aftereffects are much deeper and more pervasive when faced with a pandemic. One can feel powerless and sorrowful. Josh Lopez, an Oahu native and Filipino American who moved to Chicago to pursue his professional career, shared:

“emotional fatigue because of hearing about all my friends who have lost their jobs or have been furloughed or taking pay cuts because of COVID-19. And it's rough because it's not happening to me.”

There can be, at times, difficult situations when one might want to help but cannot. The feeling of hopelessness can affect all parties. The wanting to help but being unable to can be difficult. Nicole Tam, who lived in Hong Kong, China, for eleven years and emigrated to the US and works now as a news journalist that frequently writes, directs, and edits her news reports on Hawaii’s general population shared:

“And sadly, we can help you, but we just we can't physically help you. We can call and ask your questions, but we don't have power to fix these things for you. So it just feel sad sometimes that we can't help as much as we want. Yeah.”

The feeling of being unable to help coupled with isolation (due to the Stay-at-home order) can lead to a negative effect on one’s mental health. However, there is a positive silver lining. Isolation has led to a common habit—a routine. Most successful people always say that a routine and setting time blocks can increase productivity on one’s mental health as daily tasks are checked off. Covid has undoubtedly forced people to create a healthy routine throughout their day. David Lam stated:

“So having a daily schedule that we try to follow, not in a rigid sense, but in a fairly disciplined way, I think has been helpful. So at the end of the day, we feel like, oh, we've done this, we've done that, and we feel that the day has been reasonably productive. And that's what I've been encouraging my family, my friends, colleagues, clients to do, just to have that daily schedule and keep to it. It could be the same schedule from day to day, or it could be a different schedule from one day to the next.”

Community Exercise

Another silver lining was that people were to go outside for recreational exercise. The stay-at-home order restricted large groups of people thereby eliminating large crowds and giving space for people to exercise. This meant that no large parties at the beaches or parks. Laying on the beach soaking up a tan or having a picnic at the park are examples of prohibition. Without the mess of finding spots and the openness of mother nature, people flocked. Given the public gathering restrictions, the state of Hawaii gave permission for those to exercise outside, which some have gleefully taken. Scott Hoskinson stated:

“But you know, Hawaii, blessed with this weather and stuff. You know, we could do a lot of outdoor activities like jogging and walking and hiking and so forth, swimming, which were very helpful in dealing with stress.”

Maintaining and Cultivating Connections to Family and Community

Family connections have undoubtedly been a centerpiece for many cultures and societies. Maintaining and keeping strong connections are important to building a person’s social and emotional well-being.^{193,194} The Covid pandemic substantially affected family and community relationships in Hawaii.

Covid has highlighted how strong support systems are foundational pillars in times of trouble in Hawaiian culture. The emotional, mental, and physical distraught can be assuaged by having people within one’s inner circle of trust. Being around such people can provide a sense of security in uncertain times. Thus, when Covid hit Hawaii, many

¹⁹³ AdventHealth. (2018).

¹⁹⁴ Weir, Kirsten. (2018).

sought to be surrounded by family and loved ones during the crisis, as Josh Lopez described:

“A lot of people I think the first thing that they think about when this first happened was, “How do I get back home?” Right?. Like, “How do I be with my family?” So a lot of my coworkers ultimately went to their families, whether that was in Seattle or New York or even if it was a high, you know, a high risk place like New York, they just wanted to be with their family. So it's interesting to see like that was our natural response to, you know, this crisis was that I wanted to be with family.”

For many people, the pandemic changed daily routines. Many had time to ruminate on life and family. Family is everything to some and can be a safe haven in capricious times. When Hawaii’s stay-at-home order was enforced, many people now had the time to reflect on the importance of family, as David Lam observed:

“...just remembering the importance of having a loving family, of having a wide circle of friends, including close friends, of the fact that my wife and I are able to spend a lot of time together without getting on each other's nerves too much (laughs). At least most of the time!”

Some oral histories revealed how Covid helped some individuals to build stronger connections with friends. Although the pandemic diminished some relationships, people described how they continued to make efforts to interact with their close circle of friends. Despite limitations on in-person social gatherings, people noted how friendships were maintained in digital spaces. David Lam noted:

“And when I talk with my friends, I, I try to make the time a little bit more intentional and to focus on nurturing the friendship, relationship, with my friends, because, you know, it's, it's not easy to call them anymore because you're just so exhausted and so fatigued from it. So I try to make the most out of it. So I'm trying to be a little bit more intentional with my time that I have with my friends, whether digitally or whatever it is.”

Similarly, Carol Malina stated:

“I have three standing Zoom gathering's. One for my friends from high school. In fact, we just did a Zoom yesterday. One from our friends from California, and one from some

of my colleagues from the School of Social Work. So every month we have Zoom because it's important to stay connected."

In this way, Covid highlighted the human drive to connect to others and technology enabled people to reach out even during lockdowns. Stay-at-home orders allowed people to sit still and reflect on what matters most in their lives. Covid in a sense slowed down the busy schedules of many, giving people time and space to realize the importance of their social relationships. Carol Malina, an Oahu native and social worker who has spent years serving in an administrative capacity in the Department of Health Adult Mental Health Division, reflected:

"We try and reach out to people who might be isolated. So yeah I think the lesson for all of us is staying connected and the value of those connections and how we stand on the shoulders of our ancestors and others in our "successes" or who we are today."

In a similar vein, David Lam shared:

"I've reached out to some long lost friends. Not really lost, but people whom I haven't been in touch with in a while. So I've used this opportunity to do it. And what a wonderful thing, in reaching out to them, to have them respond and say, "How are you doing?", "It's been a long time." And just catch up with each other a little bit. And we can do that, whether with people we are familiar with or people we haven't talked to or seen for a long time. And again, through conversation and interacting, we can bounce ideas off of people, or they may provide ideas to us that we might not think about."

The pandemic strengthened community relationships among those who are not next of kin. Friendships can often be as intimate if not more than traditional family dynamics. Carline Koa, who lives on the other side of Oahu and is a Kaneohe resident, and who has also worked in Hawaii's education system as a substitute teacher for 15 years, described her experience in this way:

"Because of COVID, we kind of gotten to be a little bit closer to them [residential neighbors] where we kind of share goodies back and forth. Like if I have a little bit too much of something, then I share. When he goes to the store, his wife goes to the store,

they often will bring us something like you know, a rotisserie chicken from Costco or you know, something like that. So they've been really, really good to us.”

Sheri-ann Pualani also commented on the strong community connections:

“Well, I think the one thing with neighbor islands is you, I don't know if that's any different than any other challenge that the community faces. So you see that if somebody was killed in a car accident, you know, like the people around the community rallies. I think that's just the nature of those small communities, which maybe are not as visible today in kind of the every day. “

Responding to Community Needs

A community is often considered an extended family that goes beyond the nuclear family of aunts, uncles, and grandparents. During the pandemic, people found ways to help out their community in a time of need.

People and organizations found new ways to support their communities through partnerships. Covid initially created obstacles for many organizations to support their missions. Initially, there were logistical problems continuing to operate while also adhering to public health restrictions; however, strong willed organizations were able to find ways to assist those in need. In pre-covid times, many people within the community lacked basic necessities and individuals/organizations galvanized together and provided that help during the pandemic. As Diane Coleman described:

“So we ended up delivering 100 family-size meals a week for six weeks to the Education for Homeless Children and Youth, Healthy Mothers Healthy Babies, and University Health Partners Hawaii.”

“Then we had some eyeglasses dispensing events in the spring and our dispensing events are with our partner Vision to Learn.”

In 2020, a minority of US households, 10.5%, experienced food insecurity.¹⁹⁵ The cost of food outgrew the wages and salaries for many. Sometimes families must choose between providing food on the table or a roof over their heads. In some cases, there have been programs to provide low-income families with food through the foodbank and school-based nutrition programs. But when Covid hit, schools shut down and remote learning was in effect, which resulted in challenges regarding how students eligible for school-based programs would get their food. In response, individuals and organizations came together to work on a plan to resolve this issue. Diane Coleman described their efforts:

“[The children] get breakfast at school, they get lunch at school. And that might be the only two meals they get in a day. So she's wondering, how are these kids going to get fed? What can we do? And so she is the coordinator across the state for the liaisons that liaise between the Department of Education, Education for Homeless Children and Youth, and these families in unstable housing. So we got together and across the state we put the vision team into action.”

Many locals rallied to help local, small businesses when Covid hit them hard financially. The Stay-at-home order required restaurants to close their dine-in services. This came as a huge blow because the majority of these restaurants relied on local customers in the community as a main source of income. So, throughout Covid, Hawaii news outlets such as KITV-4 news covered stories of coveted, time-tenured restaurants closing down due to the decrease in customers amidst continued expenses (e.g., rent). To circumvent this, locals rallied to support such businesses through curbside pickups and online ordering. Further, a news program called Living808 showcased local food, family,

¹⁹⁵ Coleman-Jensen A, et al. (2021).

and fashion to broaden the exposure of such businesses to the greater community and the world.¹⁹⁶ Josh Lopez stated:

“But the one thing that I think is good to see and to recognize is the resources that we have in small businesses around the island that have been working hard to serve their communities to stay open and how everyone has got together and supported the small businesses. So it might not be a natural resource, but it is—I still do think it's a resource—with our small businesses here in Hawai‘i and now we're doing our best to keep them alive.”

Maintaining Cultural Traditions by Leveraging Technology

Covid shutdown traditional ways to practice Hula.¹⁹⁷ Hula is a Hawaiian cultural dance that reflects the rich history of Hawaiians through dance. It is a dance that often involves solo performances but is also performed within groups in the same physical space. Therefore, the involvement of individuals spending time to practice and perform is crucial. With Hula, the initial problem was to find ways to practice and be in sync with others while not being in the same room. Regardless, Hula practitioners still came together to practice in hopes to improve their routine and keep the traditional alive and hope to carry on after the pandemic. They did so by practicing on the online platform, Zoom, as Carol Malina described:

“Let me get to hula. I shut down in person hula somewhere in the spring of 2020 and then started Zooming. It was less than ideal, but not bad because what everybody wanted was connection, they wanted to connect. I mean, everybody was staying at home every day, but the Zoom hula was an opportunity for the haumana to come together and connect.”

¹⁹⁶ KHON2. (n.d.).

¹⁹⁷ Hula was the only Native Hawaiian cultural practice affected by Covid mentioned in the thirteen oral histories. Given the widespread effect of Covid on Hawaii, more research is needed to understand other cultural practices affected.

Impacts on Children and Education

Early childhood and elementary education play a crucial role in laying foundational social skills and teaching societal norms of interacting with others. In the absence of in-person school, parents and educators struggled to socialize their young children. Some noted that Covid had caused educational regression in children, as Caroline Koa shared:

“Oh, because now I'm not taking [my daughter] to preschool anymore. She has regressed socially. She's, she's timid and she's afraid of staying... you know strangers. I mean, at this age, it is not uncommon for babies to you know, be wary of strangers and to be afraid of new people. But she was just getting to that place where she was kind of like interested in what other kids were doing and wanting to go and look and see what they were doing and play with them. But now she just, you know, leaves her head in our neck and or our chest and doesn't even want to look at strangers.”

Distrusting Government

Distrusting the government is not a new phenomenon. However, it was amplified during the pandemic.^{198,199,200} Despite scientific data and experienced health professionals who spent years studying infectious diseases, some in the general public still had doubts and distrust of the government. Many people commented on the theme of distrust during their oral history interviews.

Carol Malina:

“It was really sad to see communities distrusting the government, if you will, and that distrust goes way back. That's what historical trauma was all about. You know, it was about the result of colonization and occupation on a group of people by a dominant group or culture. We have a long history of measles, mumps, syphilis, bubonic plague, the Spanish flu decimating our population.”

Colonization has had adverse downstream effects on the Hawaiian community and the preceding generations thereafter. Forceful colonization often led to resentment within the

¹⁹⁸ Melore, Chris. (2021).

¹⁹⁹ Karoub, Jeff. (2021).

²⁰⁰ Ingraham, Christopher. (2020).

occupied population throughout history. The distrust is deeply rooted and difficult to amend. Hawaii's cultural distrust of the government is not unique to Hawaii alone.

Caroline Koa noted:

"I don't know if I want to say he's [son-in-law] a conspiracy theorist, but he doesn't really think it's that bad. And so, like, they don't wear masks and stuff and they just really believe it's important to be responsible for boosting your own immune system. So that's pretty much where he's at. Yeah."

Distrust in the government has instigated a sub-group in society to question the government's motives and find an alternative route to combat disease. A good example of an alternative route is the usage of another drug, Ivermectin, a drug used to treat parasitic worms.²⁰¹ This drug is not scientifically justified to be better than current FDA drugs, yet individuals still take them in place of government recommendations.

Scott Hoskinson stated:

"And then all of a sudden, these kind of public health techniques that we've been using for 100 years in public health, you know, all of a sudden became political and wearing a mask or being asked to wash your hands or being asked to do this or asked to do that was all of a sudden a huge infringement on everybody's rights. And a significant number of people felt that they were, you know, that the government was trying to control them by doing certain things."

Years of bent-up emotions erupted. As a result, everything regarding healthcare, public health, and sanitation is questioned. As a healthcare provider, it can be challenging to help people when they are obdurate, further increasing the difficulty of convincing people of the benefits of scientific findings.

²⁰¹ Federal Drug Administration. (2021).

Antonio Maldonado, a Ph.D. student in the Department of Social Work at the University of Hawaii, shared:

“I heard from people that that the governor was not doing a good job. But I don't know. I think that's the minority. There's a minority of people that think that way. I personally believe that good actions have been taken.”

This excerpt is an example of both trust and distrust. We see that the minority are displeased with the government while others feel the government has done an adequate job. Regaining the trust of this minority group can be an uphill battle for the government, but perhaps dialogue and understanding through medical humanities can rebuild that trust.

Conclusion

The goal for Chapter 3 was to understand from a humanistic perspective the effects of Covid on individuals living in Hawaii. Key takeaways from this chapter were themes relating to public health and community/society. In the public health theme, we uncovered public health officials' challenges, solutions, and future implications. We read that public education is vital in combating disease by educating laypeople through informational brochures. We also read about the frustrations of current healthcare systems and the difficulty of working in such a highly stressed environment. In the community/society theme, we uncovered how Covid affected people from an individualistic and community perspective. Covid has highlighted the importance of mental health and ways to combat it as well as maintaining family connections and encouraging relationships with your neighbors.

In the last chapter, Chapter 4, we will discuss this thesis' limitations, similarities and differences between the two pandemics, and conclude with learning outcomes.

Chapter 4: Conclusion

In this thesis, I have applied humanistic methods to provide insight into the experiences of the Spanish Influenza and COVID-19 pandemics in Hawaii. In this process, I have reviewed century-old newspaper articles and contemporary oral history interviews to learn about the key issues faced by Hawaiians in the context of the Spanish Influenza and COVID-19, respectively. Unlike the biomedical sciences, where the scientific method is often considered the blueprint for examining research questions and variables are controlled and quantified to make recommendations, this thesis applies methods and perspectives from the medical humanities. Therefore, my goal was not to provide a quantifiable outcome or test a specific hypothesis, but instead to help elucidate past pandemics through a humanistic interpretation.

As I take the final lap and narrate the odyssey that is this thesis, it is essential to state its limitations, examine similarities and differences between these two pandemics and lastly, discuss lessons for future pandemics and areas for future research.

Limitations

In the literature, Spanish influenza has been studied from a biomedical perspective, however, oral histories of the pandemic specific to Hawaii were, to my knowledge, non-existent. The University of Hawaii at Manoa Hawaiian Collection²⁰² archives had no oral history resources and requests from historical societies (i.e., museums like Iolani Palace²⁰³ and the Bishop Museum²⁰⁴) led to unanswered calls. Further complicating my

²⁰² University of Hawaii at Manoa Library. (n.d)

²⁰³ I'olani Palace. (n.d.)

²⁰⁴ Bishop Museum. (n.d.)

search for original archival material, COVID restrictions on public access to museums and archives as well as staffing shortages limited my ability to find original source material specific to the Spanish Influenza in Hawaii. Therefore, digitally archived newspapers from the period were the best alternative to gain humanistic insight from the Spanish influenza, although this content limited my ability to gain in-depth, rich, and nuanced insight into the everyday realities of life during the Spanish Influenza. An area for future research would be to expand upon the findings discussed in this thesis by augmenting with original archival material such as diaries and correspondence.

Similarities

Spanish influenza left an indelible mark on history 100 years ago. The story of Covid will follow the same path with more robust data to fine-tune public health regulations and policies. The world will undoubtedly survive from Covid, and it is important to consider lessons from history as well as our recent collective experience. Although the two pandemics considered in this thesis were separated by a century, I found many common dimensions in the responses and experiences of the Spanish Influenza and COVID-19. Reflecting on these similarities will allow us to identify and address issues still present today even after the drastic changes Hawaii has made from 1918 to 2022, and to acknowledge the strengths public health has shown in times of infectious uncertainty.

The first commonality was the presence of an authoritative government body (Territory Board of Health for the Spanish Influenza, and the Center of Disease Control and Prevention and Hawaiian state government for Covid) positioned to respond to the threat of infectious disease. For example, during the Spanish influenza, the Territory's

Board of Health (BOH) championed primary prevention such as education. The BOH provided information about the bacteriology of the disease and precautions as well as prohibited public gatherings. During Covid, the Hawaiian state public officials championed vaccination to protect the health and safety of workers and mitigate its spread. Regardless of the period, the government is needed.

The second commonality was the lack of medical supplies and equipment coupled with shortages of healthcare workers. The unearthing of this commonality was genuinely befuddling because, given one hundred years, this problem still exists. One possible suggestion in preparation for the next epidemic is using data on the Covid pandemic to predict adequate medical supplies. Another suggestion is to create national, state, and local policies where there is continuous attention to the public health infrastructure with monitoring and ready response teams. A third is to create a policy to promote the interests of the healthcare workforce, such as college grants, scholarships and hospital work placement for nursing college majors. All three suggestions, of course, need funding. Thus, national governments must set aside monetary aid to promote national healthcare interests.

The third commonality was how the community united and banded during challenging times. The unexplained tendency to love thy neighbor was consistent. We read that in gloomy and unforeseeable times, people lent a helping hand. We have read personal stories where people went out of their way to ensure others had their basic needs met and conceded their individual liberties for the greater good. For example, during the

Spanish Influenza, we read how a Kauai woman went to great lengths and provided meals to the afflicted despite the fear of becoming ill. During Covid, we read how people found ways to assist those in need despite obstacles such as social distancing protocols. For example, Diane Coleman helped deliver family-size meals to organizations like Education for Homeless Children and Youth during lockdowns. These deeds, agnostic of time, magnified elements of the Hawaiian culture, where there is a strong orientation to go above and beyond to help the community and family.

The fourth commonality was how controversial the public health and governmental responses were among some community members—some supported the measures while others did not. A key takeaway is that pandemic criticisms will always present. There is no way around it. But a way to mitigate such is to bring such community members to the discussion table. Deep and honest conversations can be held where government bodies can better understand the concerns of those who critique public health measures and thus create measures for the betterment of the community.

Differences

Looking back at the two chapters, it is important to highlight the differences. The first difference is the time period of 100 years between the Spanish Influenza and Covid. The Hawaiian societies of 1918 and 2020 are vastly different regarding culture, gender equality, civil rights, and ethnicity. This difference is augmented by the implementation of technology over the years. In 1918, people rode on horses and in carriages and read from newspapers, whereas in 2020, people drove gas-fueled vehicles and read from their digital devices. These differences have shaped people's experiences of these two

pandemics. For example, in 1918, technologies such as computers did not exist, and therefore when public gatherings were prohibited, people had no means to maintain relationships with their family and community. Whereas in 2020, with Covid, people maintained their connections through technology while maintaining social distancing. Another example is information. In 1918, information was spread through newspapers in conjunction with the government. In 2020, information was spread through various entities such as the government, bloggers, and podcasts, which have given rise to misinformation and, ultimately, the movement of anti-vaxxers. (In Hawaii, an anti-vaccine group, Aloha Freedom Coalition, organized a 10,000-person march to oppose the government response to the Covid pandemic in 2021).²⁰⁵ Therefore, comparing the effects of pandemics within the Hawaiian context is difficult as both societies significantly differ from one another.

A second difference was how quickly the researchers were able to have a clear understanding of Covid than the Spanish Influenza. We read within Covid's public health theme how researchers worked together and gathered information quickly, created models, and developed therapeutics and vaccines to diminish the effects of Covid. With the significant amount of literature on creating a vaccine, Hawaii created a pre-emptive plan and pushed for widespread vaccination within the Hawaiian population. The results of such teamwork and participation from the public allowed healthcare systems not to be overwhelmed. Whereas with the Spanish influenza, many laboratories on the mainland worked in isolation and did not communicate with each other to trade ideas.²⁰⁶ As a

²⁰⁵ Boylan, Peter. (2021)

²⁰⁶ Barry, John M. (2004). p. 403

result, no vaccine was available and healthcare systems were overrun and death was prevalent on both the US mainland and Hawaii.

A third difference was how the government handled the initial surge of the pandemics. With Covid, widespread news of the disease reached the island before its first case and as such, government officials and healthcare systems were ramping up their capabilities. With Spanish influenza, however, many Hawaiians criticized the government for not taking on a serious tone with the disease (as noted in the articles). This laissez-faire attitude was also noticed on the US mainland. In New York, public health officials had seen this epidemic coming for months, along with notable scientists, did nothing to prepare.²⁰⁷

Lessons for the Future

After reviewing the large bodies of texts from these pandemics, we learned a few common guidelines for preparing and handling the “next pandemic.” The best course of action is a vaccine, but that development would take months to create, manufacture, and distribute at best.²⁰⁸ So, public health policies must be created using non-pharmaceutical interventions (what to do without drugs). First, good hygiene is the best preventative measure against the spread of disease regardless of timelines. Second, washing hands and social distancing are tried and true measures to decrease the spread. Barry claims this is difficult because washing hands every day for weeks on end can be difficult.²⁰⁹ However,

²⁰⁷ Barry, p. 403

²⁰⁸ Barry, p. 451

²⁰⁹ Barry, p. 456

these learnings provide a greater context to *why* health hygiene norms should be upheld and maintained and why this basic public health principle is the first step to combat pandemics.

A second key lesson is that the humanistic perspective is a critical lens for examining pandemics. We learned that an increase in humanities-related projects (i.e., oral history) highlights the need to look at pandemics from lived experiences. The need for the medical humanities is especially emphasized in the Spanish Influenza chapter-- *we still do not know* how people reacted to the pandemic. Those voices, including community members, physicians, and patients, are lost to time, limiting our insight into the everyday realities of the Spanish influenza pandemic in Hawaii. In contrast, the oral histories of Hawaiians during Covid provided nuanced and detailed narratives regarding the impacts of, and responses toward, the pandemic. Therefore, my thesis underscores the importance of documenting individual and collective experiences of illness.

Medical Humanities can persuade people more than statistics and numbers and provide value to individuals, clinicians, public health practitioners, and communities. Sharing personal stories and appealing to people's emotional experiences has the potential to reach audiences who disbelieve the science and facts. Disbelievers may dismiss the opinions of health experts who have spent years studying the effect of disease on humanity. But through common human experiences of grief, illness, and death, we can hope to find common ground and build trust across differences. It can also provide an

opportunity to build compassion and empathy by giving us the ability to express our inner worlds to others more fully.²¹⁰

Concluding Remarks

The world will likely see another pandemic in the future. Yes, we can understand the pandemic from a scientific lens, but as we have read in the wake of the Spanish influenza and the Covid pandemic, science alone is not enough. Like a non-fieri speech in a basketball game, discussing statistics does not inherently motivate a team to win; instead, connecting one another on a humanistic level can build camaraderie and trust. As Barry noted in his final chapter, the final lesson of the Spanish influenzas is the simplest yet most difficult to execute, and that is those in positions of authority must retain the public's trust.²¹¹ A humanistic perspective is, without a doubt, the best way to build and rebuild that trust. By discussing illness, death, and grief, communities can be more empathetic and move forward in planning and reacting to future pandemics.

²¹⁰ Mema et al. (2021). p.1568

²¹¹ Barry, p. 461

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Appendix

Table 1. Spanish Influenza and COVID-19 Death and Case counts across the World, US, and Hawaii

	1918 Spanish Influenza Cases	1918 Spanish Influenza Deaths	COVID-19 Cases	COVID-19 Deaths
Worldwide	500M [*]	50M [*]	603M [€]	6.4M [€]
US	22M [‡]	675K [*]	95M [¥]	1.04M [¥]
Hawaii		2,300 [§]	339K [†]	1,603 [†]

All data was taken on 9/5/22.

There was no reliable source for the 1918 Spanish Influenza cases in Hawaii to confirm the count. Hence, the cell is blank.

† State of Hawaii, Dept. of Health Disease Outbreak Control Division | COVID-19.

‡ Penn Libraries University of Pennsylvania University Archives & Record Center.

€ World Health Organization. *WHO Coronavirus (COVID-19) Dashboard*

* Center for Disease Control and Prevention. *Influenza (Flu) History*.

¥ Center for Disease Control and Prevention. *COVID Data Tracker*.

§ Schmitt R. and Nordyke E. (1999). p. 101