Master of Public Health

Integrative Learning Experience Report

Vaccination Communication Efforts with Research and Extension in Kansas

by

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MPH Candidate

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MASTER OF PUBLIC HEALTH

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Summary/Abstract

Early in the COVID-19 pandemic, public health officials learned that people were hesitant of the COVID-19 vaccination because of misinformation, distrust in the medical and scientific community, and the politicization of vaccinations. Vaccination acceptance was a concern that prompted the Centers for Disease Control and Prevention (CDC) to fund 82 Extension systems to receive grant funding for vaccination education for COVID-19 and Influenza. This project aimed to increase vaccination uptake in Kansas by creating targeted relevant messaging for vaccination uptake by engaging in community events in Kansas. This was done by conducting vaccination communication activities at community events, producing informative written materials, and evaluating providers' and supporters' experiences and perspectives of COVID-19 vaccine clinics. Our goal was to increase vaccination acceptance through our efforts. As the pandemic continued to unfold, our efforts had to evolve to ensure the messaging was relevant and met the need. The results of the campaign can be applied to future vaccination communication efforts.

Subject Keywords: Vaccination, Uptake, COVID-19, Hesitancy, Acceptance

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Operational Definitions

The following definitions are used throughout the paper and are provided for the reader.

1. **Vaccine**: A suspension of live (usually attenuated) or inactivated microorganisms (e.g., bacteria or viruses) or fractions thereof, administered to induce immunity and prevent infectious diseases and their sequelae.[1]

2. **Vaccination**: The physical act of administering any vaccine or toxoid.[1]

3. **Vaccine hesitancy**: Refers to delay in acceptance or refusal of vaccines despite the availability of vaccination services.[2]

4. **Vaccine Acceptance**: is defined as the individual or group's decision to accept or refuse when presented with an opportunity to vaccinate.[3]

5. **Vaccine Uptake**: refers to the proportion of a population that has received a specific vaccine. Vaccine uptake does not equal vaccine acceptance because it does not consider the opportunity to accept or refuse.[3]

Chapter 1 - Literature Review

History of Vaccinations

Vaccines are one of the most effective public health tools for preventing morbidity and mortality by providing a person with immunity from a specific disease.[4] At the start of the twentieth century, infectious diseases were the leading cause of death in the United States.[5] In the 1900s, the top three leading causes of death were Pneumonia, Tuberculosis, Diarrhea and Enteritis. Major public health advances in sanitation, hygiene, antibiotics, technology, and vaccinations resulted in lower infectious disease mortality. By 1997, the top three leading causes of death were heart disease, cancer, and stroke. Since that time, due to COVID-19, infectious diseases have once again become a leading cause of death. As of April 2022, the top three leading causes of death are heart disease, cancer, and COVID-19.[5,6]

Through the acceptance of vaccinations, deaths from infectious diseases have dramatically declined and improved the average life expectancy (Figure 1.1). In the 1900s, the average global life expectancy was 32 years old, and for the United States was 49.3 years old. In 2019, the average global life expectancy was 72.6 and 78.9 years in the US.[7]

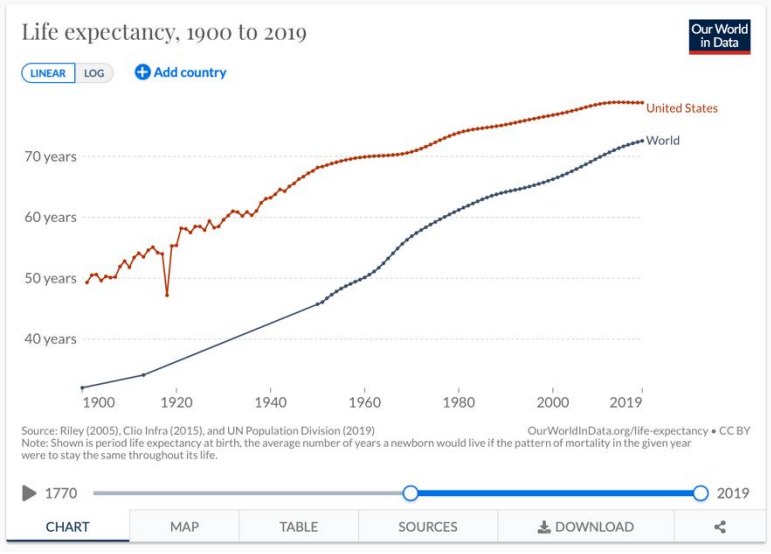


Figure 1.1 Life expectancy[7]

Vaccines typically contain weakened or inactive pathogens. A vaccination introduces pathogenic antigens to the body resulting in the production of antibodies that can provide protection if the individual is exposed to the pathogen in the future. The immune system creates antibodies vital for fighting off disease.[8] Antibodies are proteins in the blood produced in response to foreign substances (e.g., bacteria or viruses) invading the body. Antibodies protect the body from disease through multiple mechanisms, one of which is binding to the pathogen and inhibiting the pathogen's ability to bind to the host cell receptors.[9]

Individual immunity is important, but herd immunity is also necessary for protection from continuous transmission of disease within a population. Herd immunity occurs when a sufficient portion of the population is immune to a specific disease.[10]

Lower vaccination rates leave communities more vulnerable to illness. Herd immunity is not achieved if a large portion of the population is hesitant to vaccinations, and the percentage required varies from disease to disease. For example, Dr. Fauci, Chief Medical Advisor to the President of the United States, estimated that for COVID-19 herd immunity to be reached, between 70-80 percent of the population be vaccinated against COVID-19.[11] Vaccination acceptance is vital to the safety and health of our communities.

Introduction to COVID-19 Pandemic

In January 2020, the United States reported its first laboratory case of Coronavirus disease or COVID-19.[12] COVID-19 is an infectious disease caused by the SARS-CoV-2 virus, first discovered in December of 2019 in Wuhan, China.[13] This highly contagious virus spread rapidly worldwide and was officially declared a pandemic by the World Health Organization (WHO) on March 11, 2020.[12] As of April 2022, there have been 472 million cases and 6.09 million deaths worldwide and 79 million cases and 974 thousand deaths in the US.[14]

Researchers began developing a vaccine to protect against the incidence and mortality of COVID-19. Three companies brought a vaccine for COVID-19 to market: Pfizer-

BioNTech (Pfizer), Moderna, and Janssen Pharmaceutical Companies of Johnson & Johnson (Johnson & Johnson). The COVID-19 vaccine is different from other vaccines because it uses messenger RNA (mRNA) to trigger an immune response, unlike other vaccines that use inactive pathogens. Messenger RNA is directly translated within the body into protein. Once the mRNA enters the body, it creates a viral spike protein that starts the process of producing antibodies.[15] The utilization of exogenous mRNA dates back to 1989, which allowed for rapid vaccine development.[16]

The Federal and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for the Pfizer COVID-19 vaccine for people 16 years and over on December 11, 2020. An EUA approves the use of medical countermeasures, like a vaccine, during public health emergencies. EUAs provide more timely access to drugs, diagnostic tests, and other critical medical products during an emergency when no alternatives exist.[17] Though the process is condensed in time, the FDA's job is to uphold its strict safety and efficacy standards. Soon after the Pfizer vaccine received an EUA, so did Moderna on December 19, 2020, and Johnson and Johnson on February 27, 2020.[12]

The response to the vaccination was divided into three groups of people. Those who were accepting, hesitant, and in opposition to the vaccine. In May of 2020, 46 percent of U.S adults surveyed were indefinite that they would or would not receive the vaccine once it was available (Figure 1.2). Over the next four months, this population grew. By September of 2020, 55 percent of U.S adults were indefinite about if they would or would not receive the vaccine. After vaccines were available for COVID-19, the number of indefinite adults reduced. In February of 2021, among those who had yet to be vaccinated, roughly 41 percent were still indefinite of their vaccination plans.[18–20]

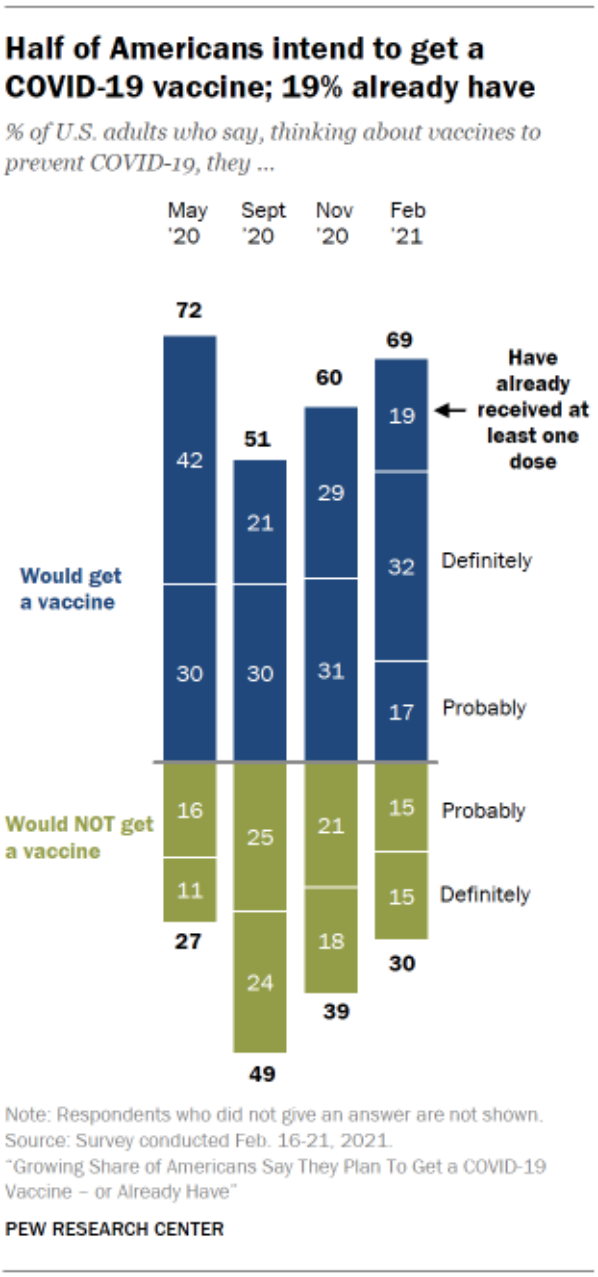


Figure 1.2 Intent to receive COVID-19 vaccine in the year 2020[18–20]

Approaches to Health Communication

The project described in this report was based on various health communication approaches described in this section. The previous section highlights two time points early in the pandemic and compares vaccination intent among US adults. The Diffusion of Innovation Theory may explain this change. The Diffusion of Innovation Theory is a

research model that describes how a new idea, product, or positive health behavior spreads through a community or social structure.[21] Our project used this theory to outline an individual's transition from hesitancy to vaccination acceptance. A bell curve is used to show where each group is on the continuum (Figure 1.3). Diffusion theory categorizes people into five groups: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%), and laggards (16%).[22] For the purpose of my project, those that were indefinite on their decision to receive the COVID-19 vaccination would be categorized as early or late majority. We collapsed those two categories under "movable middle" (68%). The creation of these groups helps one know how to target their intervention efforts to move people toward vaccine acceptance.

Figure 1.3 Diffusion of Innovation Theory[22]

Vaccine Hesitancy

In 2019, the World Health Organization (WHO) declared vaccine hesitancy as one of ten main threats to global health.[23] Vaccine hesitancy is not a new concept, but there has been greater awareness of this issue during the COVID-19 pandemic.[24] Kaiser Family Foundation (KFF) has done extensive research on the public's attitude and experience of the COVID-19 vaccination. In May of 2021, 62 percent of adults in the US had at least one dose of the COVID-19 vaccine. The remaining 38 percent of those

unvaccinated were found to be younger adults, have less education, are more likely to be republicans, people of color, and uninsured.[25]

Vaccine hesitancy is a complex issue. Understanding why a person is hesitant is essential for addressing hesitancy and increasing the vaccination acceptance rates. Many factors contribute to this phenomenon: the spread of misinformation, distrust in the medical/scientific community, and the politicization of vaccinations.

Misinformation

Misinformation is the spread of false information by people who do not intend to mislead.[26] Misinformation is damaging to vaccination acceptance rates because it may lead to a poor perception of the safety and efficacy of vaccines. Persons most susceptible to misinformation may not speak English, have increased barriers to accessing accurate health information, or have low health literacy.[27]

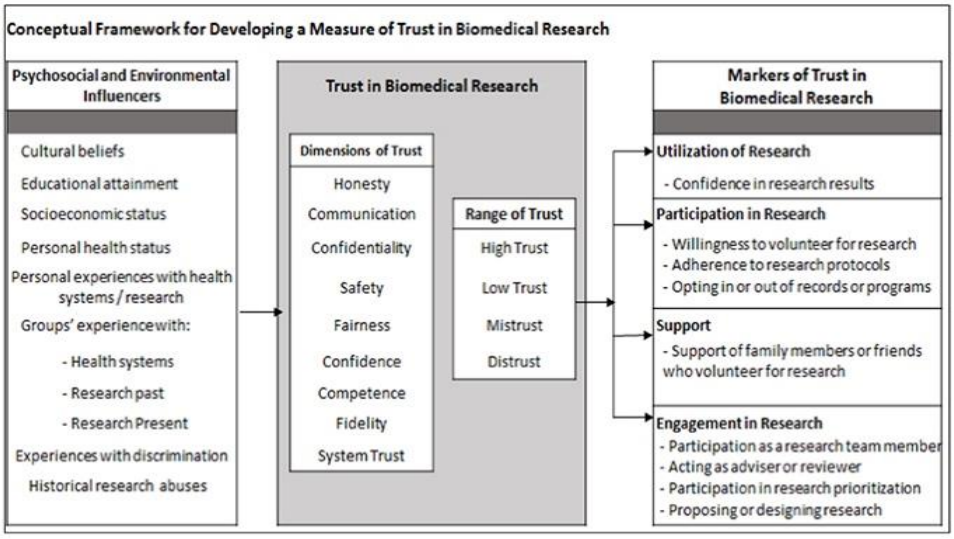
Distrust of Medical/ Scientific Community

There is long-standing distrust of the medical and scientific community because of unethical experimentation. The horrific Tuskegee syphilis monitored hundreds of Black men to examine the effects of untreated syphilis. The study began in 1932; there was no treatment present. In 1940 penicillin became the recommended treatment for syphilis but was withheld from the participants.[28] The Tuskegee syphilis study is one example of historical medical traumas imparted on marginalized communities that contributes to many Black and Brown individuals being hesitant of the vaccinations.

As a result of these historical traumas, the Belmont report was created. The Belmont Report identified basic ethical principles and guidelines to address ethical issues arising from poor conduct of research with human subjects.[29] Prior to the Belmont Report, the implementation of research was not well regulated, and inhumane practices occurred within marginalized populations. Although the Belmont report resulted in systemic changes like Institutional Review Board, overall distrust still persists.

The trust framework depicts the relationship between:

historical research abuses → distrust → utilization of research[30]



Wilkins CH, Adams S, Boyer AP, Joosten YA, Hull P, and Wallston KA; 2015
Developing a measure of trust that includes dimensions more common among racial and ethnic minorities.

Figure 1.4The Trust Framework[30]

Politicization of vaccines

Scientific research is often used to inform policy and ultimately fuels political agendas. The politicization of vaccination and vaccine hesitancy is no new issue; it dates to the smallpox vaccine requirement in Massachusetts. In 1902, when smallpox surged throughout Massachusetts, the local government created a vaccine mandate for adults. If anyone refused, they were subject to a five-dollar fine. Pastor Henning Jacobson took this issue to the Supreme Court because he and his sons refused to get vaccinated or pay this fine. In Jacobson v. Massachusetts, Mr. Jacobson argued that this requirement violated the 14th Amendment, prohibiting states from denying citizens their rights.[31] The court determined that the law was a legitimate exercise of the state's police power to protect the public health and safety of its citizens.[32]

During the COVID-19 pandemic, we witnessed politicians invoke fear and confusion into the minds of American citizens by saying their will and liberty were being taken because of government recommendations and mandates. In December 2020, a Senator described that "In a free country you would think people would honor the idea that each

individual would get to make the medical decision, [and] that it wouldn't be a big brother coming to tell me what I have to do."[33] Statements like these were made by other politicians about the vaccine and masking requirements. This may have led people to go against the advice of public health officials.

Vaccination hesitancy for other vaccines

Vaccination hesitancy impacts a wide range of vaccinations, not only COVID-19. Though the primary focus of my project was on COVID-19 and Influenza vaccinations for adults, we also shared information on other adult lifespan vaccinations, including Influenza vaccine (flu), Tetanus, Diphtheria, and Pertussis vaccine (Tdap), and Human Papillomavirus vaccine (HPV).

Influenza

Influenza is an annual vaccination recommended between October and March of each year. This vaccination protects people from contracting the influenza virus. The CDC estimates that from 2010 to 2020, between 9 and 41 million cases occurred, and of those, between 12,000 - 52,000 deaths occurred.[34]

Tdap

Tdap is a combination vaccine containing protection against pertussis, diphtheria, and tetanus. Pertussis, diphtheria, and tetanus antigens are recommended throughout the entire lifespan, starting in infancy. In adulthood, Td (tetanus and diphtheria) or Tdap are recommended every ten years.[35]

HPV

While HPV is recommended during adolescent years, it's important for maintaining health throughout adulthood. In 2018, the HPV vaccine was expanded by the FDA for supplemental use for women and men up to the age of 45.[36] The HPV vaccine provides protection from vulva, vagina, penis, anus, oropharynx, and cervical cancer [37]. Each year, it is estimated that 14 million Americans become infected with the virus; approximately 12,000 women are diagnosed with HPV, and it's estimated that 4,000 women die from cervical cancer caused by HPV.[36]

The 2018 Morbidity and Mortality Weekly Report (MMWR) produced by the CDC surveyed vaccination coverage among adults 19 and older.[38] The report found that vaccination rates for adult vaccinations were low. Below are vaccination rates for influenza, Tdap, and HPV from the MMWR report.

- Influenza had an overall rate of 46.1%
- Tdap overall was 62.9%
- HPV for females was 47.2% and for males 73.7%

Combating Hesitancy through Health Communication

Health communication is an essential tool used in public health to prevent disease and promote health. Health communication aims to reduce vaccination hesitancy and increase vaccination uptake. Our health communication campaign utilized components of the Health Belief Model for behavior change to accomplish uptake. The Health Belief Model focuses on increasing risk awareness, decreasing barriers, enhancing perceived benefits, and self-efficacy to prompt vaccination acceptance.[39] Self-efficacy refers to a person's confidence in their ability to complete the behavior of interest successfully.[40] The campaign structure was created to reduce barriers to getting vaccinated and disseminating vaccine information. For example, we mobilized to distribute information to communities and decentralized vaccine availability. Educational materials were thoughtfully included in the campaign to enhance self-efficacy and increase awareness of the risk and benefits of vaccinations.

While engaged in health communication, it is crucial to understand the context in which individuals make decisions. This context includes where people live, work, play, and worship drive health outcomes.[41] Understanding and adapting interventions based on these factors is an essential public health function.

Social Determinants of Health

Social determinants of health are a group of factors that impact the health and well-being of an individual. These factors include socioeconomic status, education,

neighborhood/ physical environment, employment, social support networks, and access to health care.[42] These social factors account for around 50-70 percent of what drives health outcomes.[43] For example, COVID-19 vaccination acceptance is correlated with educational attainment. Unvaccinated adults have lower educational attainment compared to vaccinated adults. A greater percentage of vaccinated adults have a college degree or more, while unvaccinated adults have a greater percentage of having a high school diploma/equivalent or less.[25]

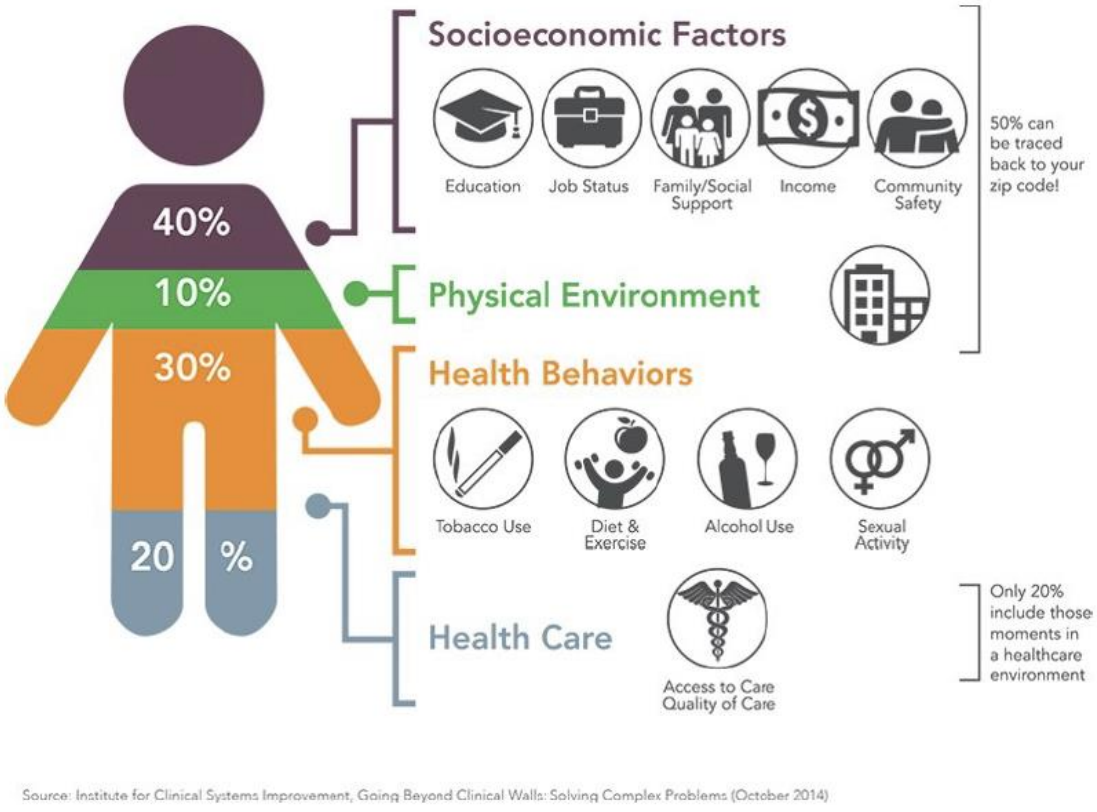


Figure 1.5 Social Determinants of Health[44]

Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)
Adapted from The Bridgespan Group
Link: https://www.bridgespan.org/insights/library/public-health/the-community-cure-for-health-care-(1)

The information people use to make decisions often comes from within their social circles. Social support is important to consider when you want to prompt behavior changes. Acknowledging the expertise and social capital within a community is needed for successful community-based vaccination interventions to counteract and build resilience against factors that contribute to hesitancy.

Agency Information

I completed my Applied Practice Experience with K-State Research and Extension in Manhattan, KS. K-State Research and Extension is a statewide network committed to addressing the state's challenges: global food systems, water, health, developing tomorrow's leaders, and community vitality.[45] COVID-19 highlighted the need to address vaccination hesitancy and find ways to improve vaccination uptake, thus creating the EXCITE project, funded by the Centers for Disease Control and Prevention (CDC). This project aimed to improve vaccination uptake by creating targeted relevant messaging, community engagement, and staff training in Kansas.

Preceptor Information

Dr. Elaine Johannes was the preceptor for this project. Dr. Johannes is an associate professor and Extension specialist in youth development in the School of Family Studies and Human Services at Kansas State University. Dr. Johannes has a bachelor's degree in psychology, a master's degree in adult and community counseling, and a doctorate in life span human development from Kansas State University.

Her focus is on working with networks, systems, and teams to address community health issues related to health disparities, unequal access to health care, and the social determinants and conditions impacting health. As an extension specialist, Dr. Johannes' applied research and practice focus on resilience and well-being among families in poverty, adolescent health, and community engagement.

Dr. Johannes is a member of the executive committee for the Kansas Maternal and Child Health Council for the Bureau of Family Health, Kansas Department of Health and Environment, serves on the state's Public Health System Group, and is a Governor's

appointee to the Kansas Dept. of Corrections Kansas Advisory Group for Juvenile Justice and the Governor's Vaccine Equity Task Force in response to the global pandemic.

In summary, my project focused on increasing vaccination uptake for COVID-19 and flu for adults. The EXCITE campaign brought together factors of the Diffusion of Innovation Theory, the Health Belief Model, and Social Determinants of Health.

Chapter 2 - Learning Objectives and Project Description

Project Description

This field experience was completed with K-State Research and Extension in Manhattan, Kansas, under the supervision of Dr. Elaine Johannes. The CDC-funded vaccination efforts; 82 extension systems in the United States received grant funding, including K-State Extension. My field experience focused on providing vaccination communication for COVID-19 and Influenza to increase vaccination uptake. The initiative is called the Extension Collaborative on Immunization Teaching & Engagement (EXCITE). KSRE EXCITE comprised Research and Extension agents, State specialists, and representatives from the Immunize Kansas Coalition (IKC).

The campaign serviced the entire state of Kansas by providing information to extension agents who incorporated our efforts in their respective communities. There was a focus on vulnerable populations in Southwest Kansas and women between 18 and 44. Later, IKC was awarded a CDC grant focused on vaccinations throughout the lifespan, in which members of EXCITE participated.

Through this campaign, we carefully thought about how messages were disseminated, who they were targeting, how the targeted audience would respond, and what messages have the greatest impact. In addition to the EXCITE campaign, I conducted a pilot research study supervised by Dr. Elaine Johannes. The pilot was entitled "Providers' and Supporters' Roles in COVID-19 Vaccine Uptake in Kansas". This pilot aimed to better understand the relationship between providers' and supporters' experiences and vaccination acceptance. An IRB (#10966) was submitted and approved for this pilot project.

Learning Objectives

1. Gain knowledge of the Diffusion of Innovation Theory
2. Write and develop health communication outreach
3. Facilitate one-on-one vaccination communication
4. Engage and collaborate with local and state health agencies

5. Conduct a pilot of an applied research project that contributes to the field of public health

Project Activities

As a student consultant for the EXCITE campaign, I participated in various activities that allowed me to apply my academic knowledge to a public health project. Below are the activities I participated in that helped me meet the learning objectives.

Team meetings

Purpose: define project objectives, reflect on progress, and share new ideas that would improve the campaign.

Learning objectives met by participation in this activity:

- 1 - Gain knowledge of the Diffusion of Innovation
- 4 - Engage and collaborate with local and state health agencies

We routinely met as a team to discuss the campaign's progress and new legislation that could impact the work. We discussed and selected graphics to use in the communication outreach. Team meetings also emphasized the importance of an interdisciplinary team required for improving and saving lives through vaccination. These meetings typically included all of the collaborators from the EXCITE Taskforce: Research and Extension agents, State specialists, and representatives from IKC.

Support Local Community Activities

Purpose: Share vaccination communication and increase access to COVID-19 and Influenza vaccines.

Learning objectives met by participation in this activity:

- 3 - Facilitate one-on-one vaccination communication.

Pumpkin Patch Arts and Crafts Fair

The first event I participated in was the Pumpkin Patch Arts and Crafts Fair. The art fair was held on October 8th and 9th of 2021, in Manhattan, KS, at Cico Park. Prior to the

event, the collaborators met through zoom to discuss vaccination trends, hesitancy, and social media trends. This meeting also allowed us to discuss how to properly handle difficult conversations if any arose while working at the table. We collaborated with IKC and Timothy Shaffer, a Kansas State professor in the department of communication studies, to run the vaccination clinic at the event. IKC provided a tool kit called "A Fair Shot," that included handouts and vaccination communication material.

Figure 2.1 Pumpkin Patch Arts and Crafts Fair

Safe Sleep Community Baby Shower

The second event was the inaugural Riley County safe sleep community baby shower. The community baby shower was held at the Riley County health department on March 12, 2022. This collaboration was between the Riley County Health Department, the College of Health and Human Sciences, K-State Research and Extension, and the Immunize Kansas Coalition.

This event served as a pilot for a larger baby shower event in June 2022. The purpose of this event was to provide a small group of expecting mothers with resources to promote safe sleep and the overall wellness of mother and baby, including vaccination. I participated in this event as a community vendor and provided one-on-one vaccination information. I provided a brief explanation of recommended schedules and answered questions as they came up.

Figure 2.2 Safe Sleep Community Baby Shower

Pilot Research Study

Purpose: To better understand the perception of increasing vaccination uptake and experience during COVID-19 clinics.

Participation in this activity met objective 5-Conduct a pilot of an applied research project that contributes to the field of public health.

Under the supervision of Dr. Johannes, I performed an independent pilot study. I conduct interviews with Providers and Supporters of COVID-19 vaccine clinics. To prepare for this research, I completed four Citi trainings and applied to the Institutional Review Board (IRB) for the approval of this project. Four providers were interviewed: a physician, public health official, research and extension agent, and pharmacist. Following the interviews, a content analysis was conducted to compare and find overlapping themes from each interview.

Written Health Education

Purpose: Highlight a women's health issue, provide vaccination education, and discuss the impacts of a social determinant of health. This published information was made available to the Latina population in Southwest Kansas.

Participation in this activity met objective 4- Engage and collaborate with local and state health agencies.

I authored the April edition of the Community Health Corners Newsletter. This newsletter will be distributed at the end of April. The Community Health Corner Newsletter is a part of a vaccination campaign being conducted in seven counties in Southwest Kansas. Extension agents will use this newsletter as an educational tool for their respective communities. Community Health Corner leaders are collaborating with EXCITE to highlight vaccination education.

Chapter 3 - Results

Team Meetings

Team meetings were crucial to discuss campaign progress, upcoming changes, share community news and prevalent vaccine myths. The meetings consisted of an interdisciplinary team that provided student consultants with the opportunity to learn from local and state public health officials. I attended approximately 15 team meetings throughout my applied practice experience.

As a result of these meetings, I learned how social determinants of health like age, race, gender, and occupation are utilized when selecting graphics. The campaign was ever-evolving due to attitudes, misinformation, and vaccination policies. To do this work, the team needed to be well informed and consist of compassionate, eager, innovative, trusted, patient, and adaptable individuals.

Additionally, I attended one two-hour preceptor-moderated training about the Diffusion of Innovation Theory. Over a two-week period, I reviewed detailed reading material and case studies about the theory. The Diffusion of Innovation theory allows Research and Extension to inform communities on practical, research-based education. It emphasizes the importance of utilizing trusted community members as liaisons to encourage the adoption of new innovations and behaviors. Agents attended meetings where we discussed vaccination issues and solutions that could improve vaccination rates. As a student consultant, I was able to identify how information is transferred from a source to the extension agents and then to the community.

Support Local Community Events

Through the project, I participated in supporting community events, the Pumpkin Patch Arts and Crafts Fair and the Safe Sleep Community Baby Shower.

The Pumpkin Patch Arts and Crafts Fair was my first experience facilitating one-on-one vaccination communication during the campaign. We did not collect data on those who stopped by, but through visual observation, there was a very diverse population of

individuals at the art fair. Various racial and ethnic groups, ages, and gender were represented. At the table, we offered two vaccine education games and used prizes to engage our audience. We used a large spin the wheel and played vaccine trivia as an entry point to start the conversation. This wheel was a fun and non-threatening way to get people to talk about vaccinations. Once we got talking about vaccinations, we would give out handouts and a giveaway. There were eight handouts for families to take that discussed vaccine safety, myths/facts, recommended schedules, and additional resources.

At the fair, a pharmacist was present who offered influenza and COVID-19 vaccinations. During our time at the fair, one person received the COVID-19 vaccination.

The following community event that I participated in was the Safe Sleep Community Baby Shower. The audience included nine mothers and their families. Eight of these families were Spanish speaking, and one was English speaking. There was one Spanish interpreter present to help us communicate with the audience. Once participants made it to my vaccination table, I provided them with information about vaccination for both mother and baby. These handouts were in both English and Spanish. There were five handouts at the table; two were translated into Spanish.

Pilot Research Study

The pilot research study allowed me to gain an understanding of healthcare providers'' and supporters' perceived responsibility of increasing vaccination uptake and understand their current methodologies around addressing vaccine hesitancy. After institutional review board approval and written informed consent were obtained, four subjects were recruited for the study. The participants were recruited using purposeful sampling; they were chosen based on their occupation and involvement in COVID-19 vaccine clinics.

When the study was initially designed, the plan was to interview one physician, two public health officials, one Research and Extension agent, one pharmacist, and one community supporter. Based on availability, four people were interviewed, one

physician, one public health official, one research and extension agent, and one pharmacist. The interviews were conducted through zoom at a convenient time for the interviewee. During the interview, the interviewees were asked questions related to their perspective and experience of working COVID-19 vaccine clinics.

Results from Content Analysis

Following the interviews, a content analysis was conducted by myself and Dr. Johannes. The results are detailed below.

Code: Roles

Our first independent variable was the roles of health care providers (i.e., role at the clinic). We coded and read the interviews for roles. When the study was designed, we thought the roles would provide insight into vaccination acceptance rates, but the results were inconclusive. When conducting the analysis, we found that the role of the provider was not a statistically significant measure of vaccination uptake. We saw individual differences in occupation and the interviewees described their roles too vaguely for it to be a valid measure.

Code: Experience

We also evaluated experience and found that interviewees' responses focused a lot on the logistics it took to pull off the vaccination clinics. For example, some interviewees worked in both mass clinics and scheduled clinics.

Code: Acceptance

When we evaluated acceptance of vaccinations, three major themes emerged: reasons for refusal, education, and what facilitated acceptance. These factors commonly appeared in the interviewees' responses. Examples are provided below:

1. Reasons for refusal

Each interviewee talked about reasons for refusal, and there was overlap between the interviewees' responses. Reasons for refusal were the following:

Political agenda	Fear
Vaccine development	Confusion
Religion	Ethical issues related to unethical history
Fertility	Side effects (known and unknown)
Too much information	

"…media's not telling you the truth, politically motivated…"

- Interviewee 1

"*There is legitimate fear of the healthcare system based on true travesties that we have imparted on African-American individuals in the past."*

– Interviewee 2

2. Education

Each interviewee talked about education efforts. Their efforts focused on dismantling myths and affirming vaccine truths related to the science behind it and its development. They also discussed their methodologies when educating community members.

Examples given below:

"I think you have to recognize the fear and acknowledge that."

- Interviewee 2

"First trying to listen and to understand the situation, to be kind and respectful."

- Interviewee 3

"I'm probably not the best, I try to listen to them."

- Interviewee 4

3. What facilitated acceptance

Each interviewee talked about reasons a person would get vaccinated, and there was overlap between the interviewee responses outlined below:

- Family
- Citizenship
- Personal health
- Personal experience

"…a couple have said their doctor recommended it… I saw a family member get really sick and I don't want to end up like that."

- Interviewee 1

"…for protection of those who are vulnerable…"

- Interviewee 3

"…people that are doing it just to stay employed…"

- Interviewee 4

Written Health Communication

The next activity I participated in was writing the April edition of the Community Health Corners Newsletter, the fourth edition of five. This newsletter is disseminated to Agents in seven counties in Southwest Kansas: Seward, Meade, Haskell, Stevens, Ford, Finney, and Scott. The newsletter was printed and sent electronically, emailed to agents, posted on social media, and campaigned through constant contact emails to stakeholders in the counties. It is written for the Latina population and covers a women's health topic, vaccination education, and a social determinant of health. The Latina population was chosen for this newsletter because there is a considerable Latin population in the seven counties selected [46]. We utilized the Diffusion of Innovation Theory to select women as the target audience because they are generally the trusted health communicators in their households [21]. This written communication allowed me to think about the impact social determinants of health like age, gender, and ethnicity have on health outcomes.

Chapter 4 - Discussion

The purpose of the EXCITE campaign was to provide vaccination communication to increase vaccination uptake in Kansas, specifically for COVID-19 and Influenza. EXCITE consisted of multiple activities that aimed to provide accurate information on the background, science, and benefits of vaccinations to combat factors that contribute to vaccination hesitancy.

First, the campaign brought together multiple agencies and stakeholders to achieve this goal, the EXCITE task force. This team of people proved necessary because it allowed individual experiences of those working in communities across Kansas to compile barriers to vaccination. The ongoing pandemic made dispersing important information challenging because there were always new updates regarding vaccinations that oversaturated our team with information. On top of COVID-19 issues, collaborators needed to maintain their baseline services.

Next was the engagement of community through one-on-one vaccination communication. The two experiences I participated in emphasized the importance of considering social determinants of health like gender, age, and race. These experiences differed in population demographics and specific vaccination issues. There is no one-size-fits-all method for addressing vaccination hesitancy, and efforts should be specific to the concerns and needs of the audience. In both experiences, there was also too much information provided, potentially creating an issue for community members.

At the Safe Sleep Community Baby Shower, we provided vaccination information. We had five vaccination resources available, but only two were translated to Spanish. There needed to be an equal amount of information provided in Spanish as it was in English. Our audience was majority Spanish speaking, and there should have been more consideration to this.

Next was the written communication for the Community Health Corners Newsletter. As mentioned earlier, the pandemic lowered the capacity of everyone working in community. EXCITE helped with capacity building by providing resources for agents

and stakeholders to share with a vulnerable population. The April edition will be the fourth of five editions. The newsletter has received positive feedback and traction as it has been disseminated through multiple outlets.

Lastly, the immersive pilot research study revealed providers' perceived responsibility for increasing vaccination uptake and to understand their current methodologies for addressing vaccination hesitancy. This was my first experience conducting qualitative research and provided the opportunity to gain skills needed for my future public health career.

The research revealed that training should be offered for providers who participate in mass vaccination clinics. The training should focus on how to provide vaccination communication and the importance of incorporating empathy. There should also be a plan on the logistics for implementing mass vaccination clinics. As the population continues to expand and interface with different environments and animals, we must be prepared for the emergence and re-emergence of infectious diseases. We must take what we have learned from the COVID-19 pandemic to create structures and implement best practices for mitigating incidence and mortality of infectious diseases.

In future research, I would want to have a larger sample size of at least 30 participants. A larger sample size will allow for data saturation, provide more accurate themes, and potentially help identify outliers. Future studies should also have a more diverse demographic of participants. This pilot highlighted the need for a larger team to assist with conducting the interviews, transcribing, and performing the content analysis. This team would also help control for interviewer’s and observer’s bias. I would also like to have more quantitative data to support the claims made by interviewees.

Completing my field experience with Research Extension gave me a greater understanding of the field of public health and how a successful vaccination campaign should be implemented. This experience also exposed me to how navigating public health is a team effort and requires continuous learning and innovation. The project objectives were successfully met through the participation of activities and the final products produced.

Implications

The EXCITE campaign served to engage communities and provide vaccination communication. Impact data was not collected, but in the future, we should have a formal process to monitor and evaluate how our messaging was disseminated and taken up by communities. This data can be collected in various ways; we could conduct short interviews or surveys with stakeholders and community members.

This evaluation should capture the following information.

- Demographics (age, race, education level, socioeconomic status)
- If the said person had seen or heard about the campaign?
- Did the material provide new information?
- Was the material easy to understand?

Chapter 5 - Competencies

Table 5.1 Summary of MPH Foundational Competencies

Number and Competency		**Description**
2	Select quantitative and qualitative data collection methods appropriate for a given public health context	Investigate perspectives and experiences of Providers for COVID-19 vaccine clinics by performing interviews.
4	Interpret results of data analysis for public health research, policy or practice	A content analysis was performed following interviews to gather themes and synthesis results.
8	Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	The community health corners newsletter was written and given to 7 counties in Southwest Kansas to provide health education for Latina women.

19	Communicate audience-appropriate public health content, both in writing and through oral presentation	The community health corners newsletter was written and given to 7 counties in southwest Kansas to provide health education for Latina women.
21	Perform effectively on interprofessional teams	The EXCITE task force was composed of Research and Extension Agents, State Specialists, and representatives from the Immunize Kansas coalition.

Through my applied practice experience, I utilized many of the foundational MPH competencies. The competencies that applied to my project were Competencies 2, 4, 8, 19, and 21, detailed above in table 5.1.

Competency 2: Select quantitative and qualitative data collection methods appropriate for a given public health context.

Competency two was achieved through my pilot research study. This project consisted of interviewing providers and supporters on their perspectives and experience working COVID-19 vaccine clinics. The interview questions pertained to their perspectives and experiences with COVID-19 vaccination acceptance.

Four interviews were conducted in 30–45-minute sessions via zoom. Following the interviews, a content analysis of the data collected was conducted. Meeting this competency helped me understand research practices such as data collection methods, analysis of results, and ideas for future research.

Competency 4: Interpret results of data analysis for public health research, policy or practice.

I met competency four using the analysis of the interviews. This process taught me not only how content analysis is conducted but also the team required to conduct it. I learned it requires a much larger team to control for interviewers and observer bias. Interviewer bias occurs when the interviewer asks leading questions that may systematically influence the responses given by interviewees [47]. Observer bias occurs when a researcher's expectations, opinions, or prejudices influence what they perceive

or record in a study [47]. While we performed the analysis, my preceptor provided instructions on how content analysis should be done under normal circumstances. The timeline for completing this research was condensed due to my limited capacity and impacted our ability to gather a full team to help complete this pilot.

Competency 8: Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.

This competency was met through various activities implemented under the campaign. Our campaign had an emphasis on the Latino/a community, with a special focus on women. The Community Health Corners Newsletter was created as part of the campaign to focus on building awareness and was composed of three sections: women's health issues, nested vaccination education, and a social determinant of health. The newsletter was distributed to the Latina population in seven counties in southwest Kansas: Seward, Meade, Haskell, Stevens, Ford, Finney, and Scott. It was translated into Spanish to consider individuals with Spanish as their primary language. When choosing the newsletter topics, we gathered data to guide us in identifying what issues were prominent in the Latino community. The April edition of the newsletter discussed and highlighted cancer screening, identifying reliable vaccination information sources, and access to transportation.

Competency 19: Communicate audience-appropriate public health content, both in writing and through oral presentation.

The success of this campaign could not have been without the use of communication between the research team and interviewees. This project heavily focused on creating targeted messaging about vaccinations to encourage vaccine uptake for COVID-19 and flu and included other vaccinations throughout the adult lifespan.

I attended community events and facilitated one-on-one communication using handouts and vaccination games. I also created written communications for the Community Health Corners Newsletter. These activities emphasized the importance of target-

specific messaging because each audience we interacted with required a different approach method.

Competency 21: Perform effectively on interprofessional teams.

The EXCITE campaign was a collaboration between the K-State Research and Extension, State specialist, representatives from the Immunize Kansas Coalition, and three student consultants. Due to the pandemic, our communication occurred via zoom and email. Meeting agendas were created by Dr. Johannes and sent out prior to the meeting to allow time for the review of materials. One of my responsibilities was participating in meetings and sharing my knowledge on theories related to the campaign. Throughout my time on the campaign, I attended approximately fifteen team meetings. I also participated in a Research and Extensions statewide meeting where I witnessed how agents interact and transfer information about their respective communities.

Table 5.2 MPH Foundational Competencies and Course Taught In

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
Evidence-based Approaches to Public Health					
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	x		x		
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	x	x	x		
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	x	x	x		
4. Interpret results of data analysis for public health research, policy or practice	x		x		
Public Health and Health Care Systems					
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings		x			
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels					x
Planning and Management to Promote Health					
7. Assess population needs, assets and capacities that affect communities' health		x		x	

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs					x
9. Design a population-based policy, program, project or intervention			x		
10. Explain basic principles and tools of budget and resource management		x	x		
11. Select methods to evaluate public health programs	x	x	x		
Policy in Public Health					
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence		x	x	x	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes		x		x	
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations		x			x
15. Evaluate policies for their impact on public health and health equity		x		x	
Leadership					
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making		x			x
17. Apply negotiation and mediation skills to address organizational or community challenges		x			
Communication					
18. Select communication strategies for different audiences and sectors	DMP 815, FNDH 880 or KIN 796				
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	DMP 815, FNDH 880 or KIN 796				
20. Describe the importance of cultural competence in communicating public health content		x			x
Interprofessional Practice					
21. Perform effectively on interprofessional teams		x			x
Systems Thinking					
22. Apply systems thinking tools to a public health issue			x	x	

Table 5.3 Summary of MPH Emphasis Area Competencies

MPH Emphasis Area:		
Number and Competency		**Description**
1	Pathogens/ pathogenic mechanisms	Evaluate modes of disease causation of infectious agents.

2	Host response to pathogens/immunology	Investigate the host immune response to infection.
3	Environmental/ ecological influences	Examine the influence of environmental and ecological forces on infectious diseases.
4	Disease surveillance	Analyze disease risk factors and select appropriate surveillance.
5	Disease vectors	Investigate the role of vectors, toxic plants and other toxins in infectious diseases.

Competency 1: Evaluate modes of disease causation of infectious agents.

Competency one was achieved through the completion of Pathogenic Microbiology, BIOL 530. This course provided in-depth knowledge of pathogens and their causation, diagnosis, virulence factors, and treatment options. There was also a laboratory component where we identified pathogens using microscopy and biochemical test. For example, *Pseudomonas aeruginosa* is a gram-negative, bacillus (rod) found in singles or pairs. This opportunistic pathogen is commonly associated with cystic fibrosis patients and is known for its grape-like odor [48]. *P. aeruginosa* is treated with antibiotics like ciprofloxacin but has become difficult to treat because of growing antibiotic resistance [49].

Competency 2: Investigate the host immune response to infection.

Competency two was achieved through the completion of Immunology, BIOL 670. This course discussed the immune system and how immune cells function in the presence of a pathogen. For example, the adaptive immune system is a highly specialized system composed of T cells, B cells, and antibodies. The adaptative immune system

recognizes and remembers specific pathogens to build immunity and mount stronger attacks each time the pathogen is encountered [50].

Competency 3: Examine the influence of environmental and ecological forces on infectious diseases.

Competency three was achieved through the completion of Environmental Health, MPH 802. This course focused on describing environmental issues and their impact on health. Contaminated water is a source of many infectious diseases. For example, Shigella is a bacterium transmitted through the spread of fecal matter. This spread can occur through direct contact or the consumption of contaminated food or water. Improper sewage systems are often a result of Shigella bacteria entering water.

Competency 4: Analyze disease risk factors and select appropriate surveillance.

Competency four was obtained by completing Introduction to Epidemiology, MPH 754 and Intermediate Epidemiology, DMP 854. Both courses taught the importance of good disease surveillance and provided knowledge on study designs and bias. For example, cohort studies are observational epidemiological studies in which people with similar characteristics and exposure statuses are followed over a period of time to see if they develop the disease of interest. Cohort studies are useful in identifying multiple outcomes for a single exposure. These studies tend to be lengthy and very expensive.

Competency 5: Investigate the role of vectors, toxic plants, and other toxins in infectious diseases.

Competency five was met through the completion of Emerging Diseases, DMP 770. Through this course, we examined vector-borne diseases like malaria. Malaria is transmitted via the bite of an infected female Anopheles mosquito. Malaria occurs worldwide, but it is rare in the United States. About 2,000 cases of malaria are diagnosed in the United States annually, mostly in returning travelers [51].

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Appendix

Appendix 1: IRB Approval and Consent form

KANSAS STATE UNIVERSITY | University Research Compliance Office

TO: Elaine Johannes
Applied Human Sciences
Manhattan, KS 66506

Proposal Number: IRB-10966

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

SUBJECT: Clearance for Non-Research Class Project

DATE: 12/17/2021

RE: "Providers' and Supporters' Roles in COVID-19 Vaccine Uptake in Kansas."

The University Research Compliance Office (URCO) has reviewed the proposal identified above and has determined that it is **Non-Research.** As described, the project does not meet the criteria in 45 CFR 46 for the definition of "research" involving human subjects, and therefore does not require review by the Committee for Research Involving Human Subjects (IRB). This letter constitutes clearance for your Oral History Project to proceed.

This clearance applies only to the project identified above. Be advised, any changes or modifications made to the activity that would change the project's Non-Research status must be approved by the URCO prior to implementation and may disqualify the proposal from its Non-Research status.

The URCO/IRB strongly suggests that all persons involved in the Oral History project complete the IRB training at http://k-state.edu/research/comply/irb/training. After evaluating the individual projects, it is ultimately your responsibility to determine which students should complete the suggested training modules.

Adverse events involving participants should be reported immediately to the University Research Compliance Office. Feel free to contact our office if you have any questions.

Electronically signed by Rick Scheidt on 12/19/2021 11:07 AM ET

203 Fairchild Hall, Manhattan, KS 66502 | (785) 532-3224 | fax: (785) 532-3278

PROJECT TITLE:

Providers' and Supporters' Roles in COVID-19 Vaccine Uptake in Kansas

PROJECT APPROVAL DATE:		**PROJECT EXPIRATION DATE:**		**LENGTH OF STUDY:**	30-45 Minutes

PRINCIPAL INVESTIGATOR: Del'Sha Roberts

CO-INVESTIGATOR(S): Dr. Elaine Johannes

CONTACT DETAILS FOR PROBLEMS/QUESTIONS:
Del'Sha Roberts delrob15@ksu.edu or 913-526-2087
Elaine Johannes ejohanne@ksu.edu or 785-410-2249

IRB CHAIR CONTACT INFORMATION:
Rick Scheidt
785-532-3224
rscheidt@ksu.edu

PROJECT SPONSOR: K-State Research and Extension

PURPOSE OF THE RESEARCH:

There is increasing research on why some U.S. residents are hesitant to receive COVID-19 vaccinations (https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid19-vaccine-hesitancy-12-things-you-need-to-know), there is a need to understand better the roles that vaccination providers have in vaccination awareness and education.

As a project intern with K-State Research and Extension's vaccine education efforts, I am researching COVID-19 vaccination providers' and supporters' experiences and perspectives to understand the relationship between their experiences and vaccination acceptance.

PROCEDURES OR METHODS TO BE USED:

Between 4 to 6 semi-structured interviews of individuals identified as providers or supporters of COVID-19 vaccinations will be conducted via zoom. During the individual interviews, which are expected to be 30-45 minutes each, participants will respond to open-ended questions about their roles, experiences, and perspectives. To ensure the interview quality, the researcher will seek to have the interview in a quiet, private room, free from interruptions with a stable internet connection. If necessary, the researcher may make a second contact with a participant if technological difficulties happen during the interview. Each interview will be recorded via Zoom, with each recording being stored in a secure K-State OneDrive location. A content analysis of each interview recording will be completed by the researcher and those results will be compiled into one summary with no identification of who the participants were other than their stated role, profession, and geographic location. Recordings will be destroyed following analysis.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT:

If for some reason a participant is scheduled for a zoom interview but is unable to complete the zoom interview remaining interview questions will be emailed to the participant for them to complete and return. If the participant chooses not to continue the interview once it's underway, the researcher will thank the participant and destroy the interview's partial recording.

RISKS OR DISCOMFORTS ANTICIPATED:

The potential risk to the participant is possible time conflicts, lack of stable zoom access, or loss of interest to continue the interview. Other harm or discomfort is unlikely associated with this research. Participants are not required to answer any questions that they are uncomfortable with. Participants may withdraw from the interview at any time.

BENEFITS ANTICPATED:

The benefits of exploring the roles, experiences and perspectives of providers and supporters of COVID-19 vaccinations have the potential to inform Extension and public service efforts to improve vaccination access and acceptance.

EXTENT OF CONFIDENTIALITY:

Other than participant demographic information, participant identity will not be linked to information collected during the interview. The data collected will be kept on a secure K-State University One Drive. Data collected analyzed, compiled and then destroyed. Only aggregated/compiled results will be reported to K-State Extension collaborators and course leaders (e.g., Dr. Ellyn Mulcahy) and masters committee members.
.

Terms of participation: I understand this project is research, and that my participation is voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

(Remember that it is a requirement for the P.I. to maintain a signed and dated copy of the same consent form signed and kept by the participant).

PARTICIPANT NAME:			
PARTICIPANT SIGNATURE:		DATE:	
WITNESS TO SIGNATURE: (PROJECT STAFF)		DATE:	

Appendix 2: Community Health Corners Newsletter

ISSUE 4

SW REGION COMMUNITY HEALTH CORNER

A Monthly Newsletter by K-State Research and Extension, the Immunize Kansas Coalition and local partners supporting women's wellness

A Well-Woman's Pelvic Exam Should Not be Avoided

Regular health screenings are important to a woman's health. Screenings and well-women health check-ups catch diseases and conditions early so they can be treated. For example, a woman's pelvic exam that includes a cervical cancer screening is an important yet missed check-up that women may be hesitant to discuss. However, the pelvic exam and pap smear for cancer are recommended every three years for women ages 21-29 and every five years for women ages 30-65. The nation's Healthy People 2030 goal is to have 84.3% of women screened on time for cervical cancer, and Kansas is close to that goal at 83%. However, a well-women's pelvic exam is more than collecting a pap smear to test for cervical cancer or infections. A pelvic exam is part of a thorough gynecological exam that includes the internal collection of cells from the cervix, external exams of the genitals, and the use of a speculum to check for unusual growths and conditions. The Mayo Clinic has a clear and helpful description of the pelvic exam on their website: https://www.mayoclinic.org/tests-procedures/pelvic-exam/about/pac-20385135.

Doctors and licensed health care providers who perform the exam recommend that women relax, breathe deeply and rest during the exam. Be assured that if a woman requests to be accompanied by a friend, parent, family member, or an ally during the exam, they will be asked to stand at a location in the exam room that preserves personal privacy. Schedule an annual pelvic exam and ask your doctor whether you are due for a Pap smear. If you do not have a physician, you can reach out to your local health department or community health worker to determine where a pap smear can be scheduled.

Vaccination.

Credible Information About Vaccination: We Can Do This!

Vaccinations are one of the most effective measures against infectious diseases that families, neighbors, and communities have. However, the pandemic has revealed that people seek and share information from many sources, some of which aren't reputable or accurate. Intentional misinformation about vaccinations and vaccines (the serums used in injections) can lead to confusion and conflict. The US Surgeon General, who is a chief health strategist for the nation, has recommendations to avoid being swayed by misinformation and to reduce conflict with others who might be invested in questionable information:

- Health websites sponsored by the governmental or educational (.gov or .edu) are good sources of information.
- Don't make decisions based on out-of-date information—check-out questionable information with your health care provider.
- When you know someone is sharing misinformation and you care about them, take these steps: listen to their fears and why they believe what they do; ask open questions to understand where they are coming from; suggest credible sources and agree that finding accurate information can be hard when discoveries result in new information and don't shame – we can all learn more about how health information can influence thinking.

For more information visit Surgeon General Murthy's Community Toolkit for Addressing Health Misinformation at: **https://wecandothis.hhs.gov/sites/default/files/documents/health-misinformation-toolkit-english.pdf.**

Find a vaccine near you:
Search **vaccines.gov**
Text your ZIP code at **438829**
Call **1-800-232-0233**

Where Does Health Come From?

Transportation!

Not having transportation can affect overall health and well-being. Not having a vehicle, relying on family/friends for rides, or using public transportation can limit getting essential services, food, employment, and education. Additionally, not having transportation to visit family and friends or participate in community events can leave people feeling alone.

Many living in rural areas confront transportation barriers every day. Though public transportation like buses is available in many communities or across states, most rural residents rely on personally owned, single-driver cars. However, personal vehicles are expensive to operate and maintain. For example, the price of used cars has increased 40.5% from January 2021 to January 2022, while new cars have increased by over 12%, and gasoline has gone up by 40% since the same time last year. Furthermore, some residents may not have driver's licenses or may be experiencing physical or mobility limitations and may not be able to drive.

To find information about public transportation in a nearby community, visit the city's website. For example, Garden City has Finney County Transit; Dodge City has D-Transit and R-Transit. Check out the operating hours, traveler policies, and reduced children or monthly pass rates. If the nearest town doesn't have public transportation, a car-sharing program might be something to request from community leaders. Rural areas in Montana are trying out car-sharing programs which could work in Kansas.

Additionally, neighbors and communities can become active in addressing transportation barriers by visiting The Rural Health Information Hub. The site offers step-by-step actions to improve transportation for all: **https://www.ruralhealthinfo.org/toolkits/transportation/2/models-to-improve-access.**

K-STATE Research and Extension

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EDICIÓN #4

ESQUINA DE SALUD COMUNITARIA DE LA REGIÓN SW

Un boletín mensual de K-State Research and Extension, Immunize Kansas Coalition y socios locales que apoyan el bienestar de la mujer.

No debe evitar hacerse el examen pélvico de salud de la mujer

Los exámenes de salud regulares son importantes para la salud de la mujer. Los exámenes de detección y los chequeos de salud de la mujer detectan enfermedades y afecciones a tiempo para que puedan tratarse. Por ejemplo, el examen pélvico de la mujer que incluye una prueba de detección de cáncer de cuello uterino es un chequeo importante, pero que a menudo se evita, y las mujeres quizás duden en conversar sobre el mismo. Sin embargo, el examen pélvico y la prueba de Papanicolaou para el cáncer se recomiendan cada tres años para mujeres de 21 a 29 años y cada cinco años para mujeres de 30 a 65 años. El objetivo de Personas Sanas 2030 de la nación es que el 84.3% de las mujeres se sometan a exámenes de detección de cáncer de cuello uterino a tiempo, y Kansas está cerca de alcanzar ese objetivo con un 83%. Sin embargo, el examen pélvico de salud de la mujer es más que una prueba de Papanicolaou para detectar cáncer de cuello uterino o infecciones. Un examen pélvico es parte de un examen ginecológico completo que incluye la recolección interna de células del cuello uterino, exámenes externos de los genitales y el uso de un espéculo para detectar crecimientos y condiciones inusuales. La Clínica Mayo tiene una descripción clara y útil del examen pélvico en su sitio web: **https://www.mayoclinic.org/tests-procedures/pelvic-exam/about/pac-20385135.**

Los médicos y proveedores de atención médica autorizados que realizan el examen recomiendan que las mujeres se relajen, respiren profundamente y descansen durante el examen. Tenga la seguridad de que, si una mujer solicita estar acompañada por un amigo, padre, familiar o aliado durante el examen, se les pedirá que se paren en un lugar de la sala de examen que preserve la privacidad personal.

Programe un examen pélvico anual y pregúntele a su médico si debe hacerse una prueba de Papanicolaou. Si no tiene un médico, puede comunicarse con su departamento de salud local o trabajador de salud comunitario para determinar dónde se puede programar una prueba de Papanicolaou.

Vacunación.

AInformación confiable sobre la vacunación: ¡Podemos lograrlo!

Las vacunas son una de las medidas más efectivas contra las enfermedades infecciosas que tienen las familias, vecinos y comunidades. Sin embargo, la pandemia ha revelado que las personas buscan y comparten información de muchas fuentes, algunas de las cuales no son confiables ni precisas. La información errónea intencional sobre la vacunación y las vacunas (los sueros que se usan en las inyecciones) puede generar confusión y conflicto. El Cirujano General de EE. UU., quien es el estratega principal de salud de la nación, tiene recomendaciones para evitar dejarse influir por la información errónea y reducir los conflictos con otros que podrían estar involucrados en información cuestionable:

- Los sitios web de salud patrocinados por el gobierno o la educación (.gov o .edu) son buenas fuentes de información.
- No tome decisiones basadas en información desactualizada: verifique la información cuestionable con su proveedor de atención médica.
- Cuando sepa que alguien está compartiendo información errónea y se preocupa por él, siga estos pasos: escuche sobre sus miedos y por qué cree lo que cree; haga preguntas abiertas para entender de dónde sacaron la información; sugiera fuentes confiables y esté de acuerdo en que encontrar información precisa puede ser difícil cuando los descubrimientos dan como resultado nueva información, y no se avergüence: todos podemos aprender más sobre cómo la información de salud puede influir en el pensamiento.

El kit de herramientas comunitario del Cirujano General Murthy para abordar la información errónea sobre la salud se encuentra en: **https://wecandothis.hhs.gov/sites/default/files/documents/health-misinformation-toolkit-english.pdf**.

Encuentre una vacuna cerca de usted:
Buscar **vacunaes.gov**
Envía un mensaje de texto con tu código postal al **438829**
Llame al **1-800-232-0233**

¿De dónde viene la salud?

Transporte

No tener transporte puede afectar la salud y el bienestar general. No tener un vehículo, depender de familiares/amigos para que lo lleven, o usar el transporte público puede limitar la obtención de servicios esenciales, alimentos, empleo y educación. Además, no tener transporte para visitar a familiares y amigos o participar en eventos comunitarios puede hacer que las personas se sientan solas.

Muchos de los que viven en áreas rurales enfrentan barreras de transporte todos los días. Aunque el transporte público, como los autobuses, está disponible en muchas comunidades o en todos los estados, la mayoría de los residentes rurales dependen de automóviles personales de un solo conductor. Sin embargo, los vehículos personales son costosos de operar y mantener. Por ejemplo, el precio de los autos usados aumentó un 40.5 % desde enero de 2021 hasta enero de 2022, mientras que los autos nuevos aumentaron más del 12 % y la gasolina aumentó un 40 % desde el mismo período del año pasado. Además, es posible que algunos residentes no tengan licencias de conducir o experimenten limitaciones físicas o de movilidad y es posible que no puedan conducir.

Para encontrar información sobre el transporte público en una comunidad cercana, visite el sitio web de la ciudad o municipalidad. Por ejemplo, Garden City tiene "Finney County Transit"; Dodge City tiene "D-Transit y R-Transit". Consulte los horarios de atención, las políticas del viajero y las tarifas reducidas para niños o los pases mensuales. Si la ciudad más cercana no tiene transporte público, un programa de autos compartidos podría ser algo que se les puede solicitar a los líderes de la comunidad. Las áreas rurales de Montana están probando programas de vehículos compartidos que podrían funcionar en Kansas.

Además, los vecinos y las comunidades pueden participar activamente para abordar las barreras de transporte visitando el Centro de Información de Salud Rural. El sitio ofrece acciones paso a paso para mejorar el transporte para todos: **https://www.ruralhealthinfo.org/toolkits/transportation/2/models-to-improve-access.**

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