Master of Public Health

Integrative Learning Experience Report

STRENGTHENING COMMUNICATION AND COLLABORATION STRATEGIES AMONG PATIENTS, PROGRAMS, LOCAL AND STATE AGENCIES

by

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Abstract

This integrated learning experience (ILE) report describes my applied practical experience (APE), which was completed across two public health agencies: the Johnson County Department of Health and Environment (JCDHE), a local public health department in Kansas, and the Kansas Department of Health and Environment (KDHE), the state agency that oversees local health departments. My APE was originally planned to be completed within the Maternal Child Health (MCH) Outreach Program within JCDHE; however, the program was defunded during my experience, requiring that I quickly adapt activities, projects, and learning objectives. This experience reflects the evolving public health landscape, where program priorities, funding, and agency needs are constantly changing to better serve communities. This requires that public health professionals remain flexible and responsive to these changes.

To meet program requirements, I developed professional relationships through networking, communication, and collaboration across multiple public health programs. One of the projects I developed was a PowerPoint presentation for the Child Care Licensing Division, a division of the Johnson County Department of Health and Environment, to educate about the potential community impacts of the 2026 FIFA World Cup. This presentation was designed to inform local childcare providers about this large-scale international event, including infectious disease risks, disease prevention strategies, and preparedness efforts. This project promoted information sharing, strengthened interdepartmental communication, and increased public health awareness among childcare providers. Through this partnership, there will be ongoing collaboration between the Disease Containment Division, a program within Health Services at JCDHE, and the Child Care Licensing Division to ensure that childcare providers receive timely public health information and guidance to protect the health of providers, staff, and children in their care.

The second part of my APE was completed within the KDHE's Tuberculosis (TB) Program. The primary goal of this project was to develop a standard operating procedure (SOP), for enhancing statewide efforts in TB prevention and control. Completing this project required extensive communication and collaboration with program staff and state public health stakeholders to ensure the SOP aligned with existing program activities, reflected best practices, and was practical for implementation at the local level. This experience enhanced my understanding of local- and state-level coordination, interactions, and activities, and this SOP will serve as a useful communication strategy to align with the global goal to end TB.

Subject Keywords: Maternal child health, childcare licensing, preparedness, tuberculosis, standard operating procedure

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Chapter 1- Literature Review

1.1 Introduction

Communication skills are essential across all disciplines of public health practice. Effective communication influences how we share information, learn from each other, build relationships, promote collaboration, and advocate for necessary policies, resources, and funding to improve population health. This integrated learning experience (ILE) challenged me to work within a variety of interdisciplinary teams across local and state public health systems while adapting to the unique needs of patients, programs, and organizations I served. My experiences within the Maternal Child Health (MCH) Outreach Program, Child Care Licensing Division, and Kansas Department of Health and Environment's (KDHE) Tuberculosis (TB) Program, strengthened my ability to effectively communicate while contributing to broader public health initiatives of these programs.

Most of my applied practical experience (APE) contact hours were completed through the Johnson County Department of Health and Environment's (JCDHE) MCH Outreach Program and the KDHE's TB Program. Following the recent defunding of the MCH Outreach Program, I collaborated with JCDHE's Child Care Licensing Division to develop and deliver a presentation on the potential community impacts of the FIFA World Cup 2026. The following literature review will focus on where I completed most of my practice hours, within the MCH Outreach Program and KDHE's TB Program.

1.2 MCH Outreach Program

Despite significant advances in medical technology and healthcare delivery, the United States continues to have one of the highest maternal mortality rates among developed nations.

Maternal health disparities persist among racial, ethnic, and other underserved populations, contributing to preventable maternal deaths and adverse health outcomes (Agency for Healthcare Research and Quality, 2022). These inequities make maternal and infant health a significant public health concern.

Each year, more than 60,000 women in the United States experience severe maternal morbidity (Howell, 2018). In 2024, the maternal mortality rates were 13.7 deaths per 100,000 live births, with rates among non-Hispanic Black women nearly three to four times higher than those of non-Hispanic White women (Hoyert, 2026). In Kansas, Black women experience infant mortality rates that are nearly double the statewide average of 5.2 deaths per 1,000 live births (KFF, n.d.). Similar disparities are apparent at the local level and extend beyond maternal mortality and into adverse infant health outcomes. In Johnson County, Kansas, Black and Hispanic women experience higher rates of infant mortality, preterm birth, and low birth weights. Minority populations are also less likely to initiate prenatal care within the first trimester (Johnson County Department of Health and Environment, n.d.). According to Howell (2018), nearly half of these maternal health outcomes can be prevented through targeted interventions and improved access to high-quality healthcare (Howell, 2018).

The understanding of these health disparities among diverse racial and ethnic populations as they relate to maternal health outcomes is multifactorial and complex. The conceptual model provides a framework for analyzing the various patient, community, provider, and systemic factors that influence severe maternal morbidity and mortality as shown in *figure 1* (Howell, 2018).

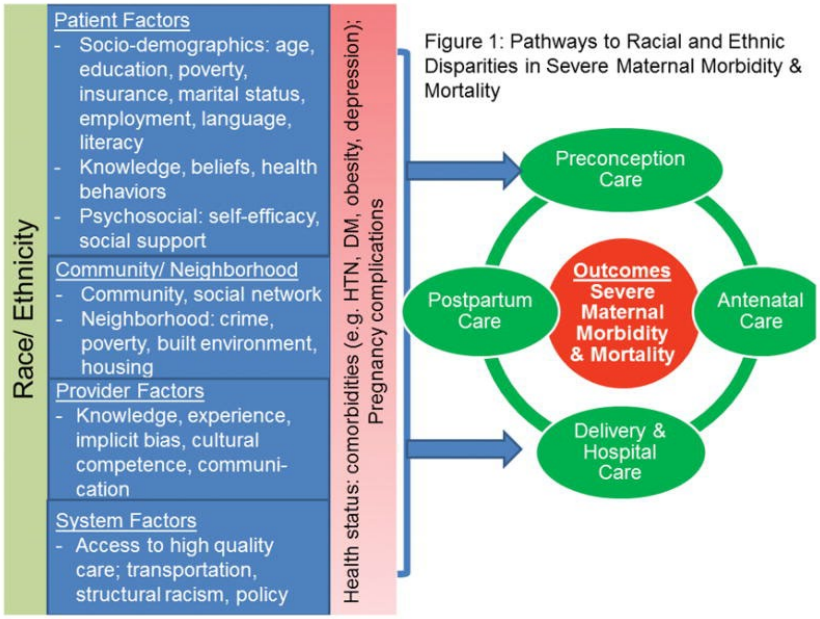


Figure 1: Pathways to Racial and Ethnic Disparities in Severe Maternal and Mortality (Howell, 2018).

Applying this framework to the MCH Outreach Program contributes to an understanding of how multiple interacting factors influence maternal and child health outcomes. When these various factors are compounded, they increase the likelihood that patients will experience barriers to care, resulting in poor health outcomes, and persistent health disparities (Howell, 2018; Filippi et al., 2018). Understanding and applying this framework allows the program to develop targeted strategies that recognize and address the unique needs and inequities experienced by underserved populations.

Patient factors such as age, education, income, comorbid conditions, culture, and beliefs all influence maternal health seeking behaviors (Howell, 2018; Filippi et al., 2018). These factors shape how patients perceive health risks, utilize healthcare services, and adhere to treatment recommendations. Addressing these challenges requires that the MCH nurse develops individualized care plans and communication strategies that are tailored to the patient's language,

cultural values, and health literacy needs, which will increase understanding, enhance engagement, and improve overall health outcomes.

Figure 2 illustrates the primary reasons for outside referrals to the MCH Outreach Program. Most referrals relate to prenatal and postpartum education, followed by linkage to other community resources. These referrals reveal the unique needs of Johnson County MCH Outreach patients and identify gaps in maternal health education and challenges to accessing other community resources and support services (MCH Outreach Program, personal communication, March 2026).

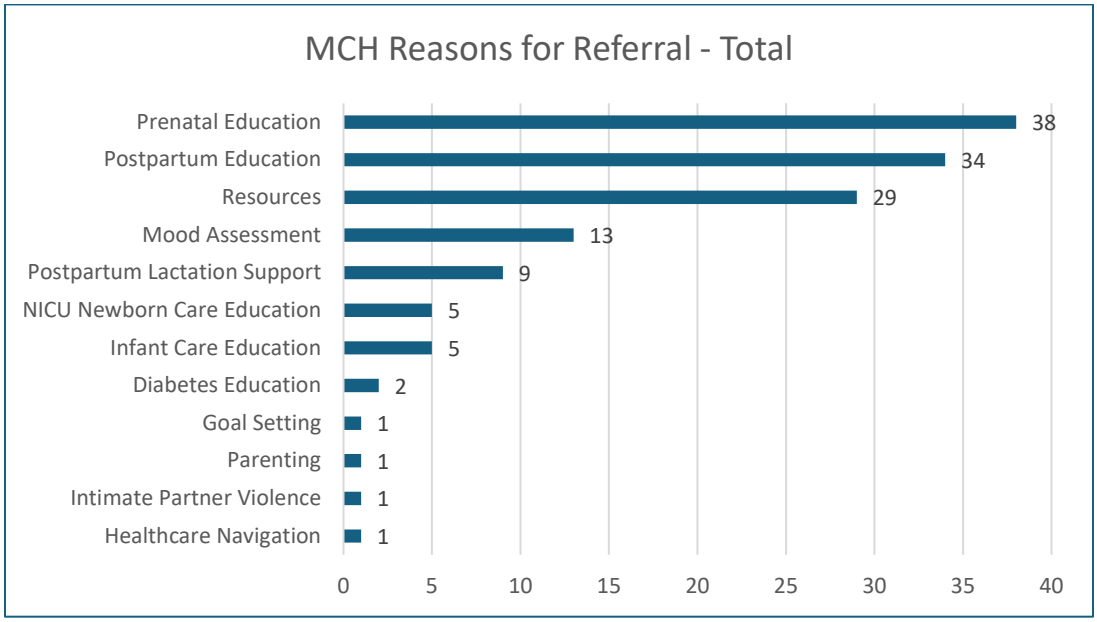


Figure 2: MCH Reasons for Referral-Total (MCH Outreach Program, personal communication, March 2026)

Provider factors including communication failures and delays in diagnosis and treatment contribute to preventable maternal morbidity and mortality (Filippi et al., 2018). The MCH nurse played an important role in facilitating open communication between patients and their healthcare providers. The MCH nurse provided regular updates to those involved in care. Through thorough assessments, the nurse was able to identify, communicate, and ensure

appropriate follow-up for any concerning findings in a timely and efficient manner. These efforts improved coordination of care, reduced gaps in communication, and promoted timely access to care.

The MCH Outreach program exists to improve maternal and child health outcomes. Access to this program is heavily dependent on provider, patient, and community awareness. *Figure 3* illustrates the number of referrals received from other healthcare systems, community partners, and patients. Only two of Johnson County's large healthcare systems made referrals to the MCH program, revealing gaps in provider awareness about the program. In contrast, self-referrals were ranked among the top three referral sources, suggesting patients are self-motivated to seek out other social support programs and care (MCH Outreach Program, personal communication, March 2026).

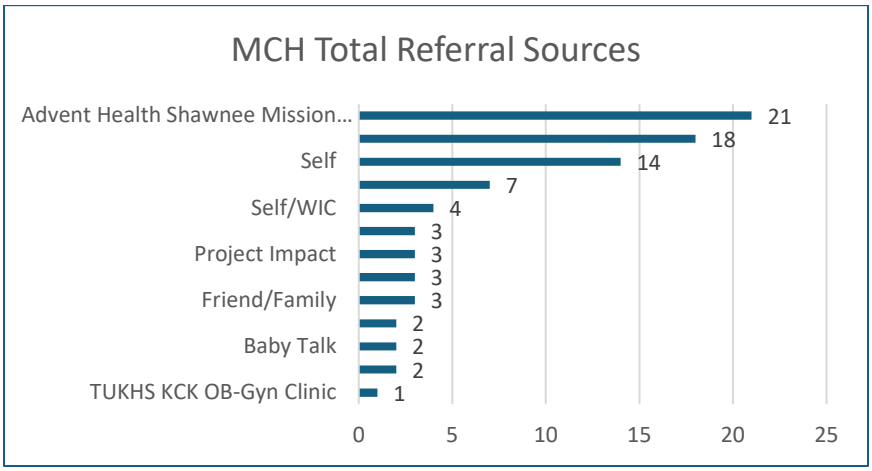


Figure 3: MCH Total Referral Sources (MCH Outreach Program, personal communication, March 2026).

System factors are complex and often difficult to navigate, especially as they relate to healthcare delivery. High out-of-pocket costs, limited insurance coverage, and gaps in healthcare access are among some of the barriers pregnant and postpartum women face when seeking maternal healthcare (Filippi et al., 2018). The MCH nurse helps navigate these complex systems.

The nurse provided education regarding the availability, eligibility requirements, and limitations of various healthcare and other community-based programs. The MCH nurse was also certified to assist with Medicaid enrollment and has well established connections with other community-based partners. Through the coordination of care, the nurse helped reduce system level barriers that prevent patients from effectively navigating complex health systems.

1.3 Tuberculosis

Globally, Tuberculosis (TB) is the leading cause of mortality among all infectious diseases contributing to 1.23 million deaths in 2024. Tuberculosis is an infectious disease that is spread through the air when someone with active TB affecting their lungs, larynx, or pleura coughs, talks, laughs, sneezes, or spits which releases infectious droplets of bacteria into the air which then can be inhaled by others. It is estimated that one in seven people are infected with TB (World Health Organization [WHO], n.d.). When TB is not properly treated, the bacteria can continue to spread to others, increase the risk of developing drug-resistant strains, and ultimately lead to severe disease or even death. TB also disproportionately affects vulnerable populations, including individuals living with HIV, migrants, and others that are impacted by socioeconomic determinants of health (WHO, n.d.). These factors make TB an ongoing public health concern.

Provisional TB data from the CDC for 2025 as illustrated in *figure 4*, shows how TB disproportionately affects non-U.S. born populations. In 2025, the TB case rate for non-U.S. born was 15.4 cases per 100,000 population in comparison to U.S-born 0.8 per 100,000 population (Centers for Disease Control and Prevention [CDC], 2026). Targeted screening and testing efforts need to continue to focus on the most vulnerable populations that already experience barriers to care.

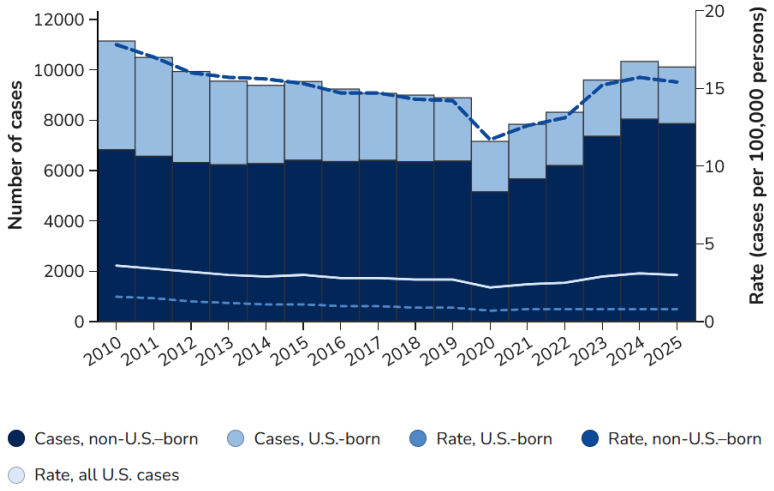


Figure 4: TB cases and rates, by birth origin-United States, 2010-2025 (CDC, 2026).*

In 2024, the state of Kansas experienced one of the largest tuberculosis outbreaks ever recorded in United States history. The state reported a total of 116 cases of active TB, with a case rate of 3.9 cases per 100,000 population, exceeding the national average of 3.1 cases per 100,000 population (CDC, 2026). *Figure 5* illustrates a sharp increase in reported active TB cases in 2024, followed by a significant decline in 2025; however, case counts continued to remain higher than previously reported years since 2020 (Kansas Department of Health and Environment [KDHE], 2026). These findings indicate the need for enhanced public health measures, including ongoing surveillance, timely reporting, targeted screening, proper treatment for active TB disease, and preventive treatment for latent TB infection (KDHE, 2026).

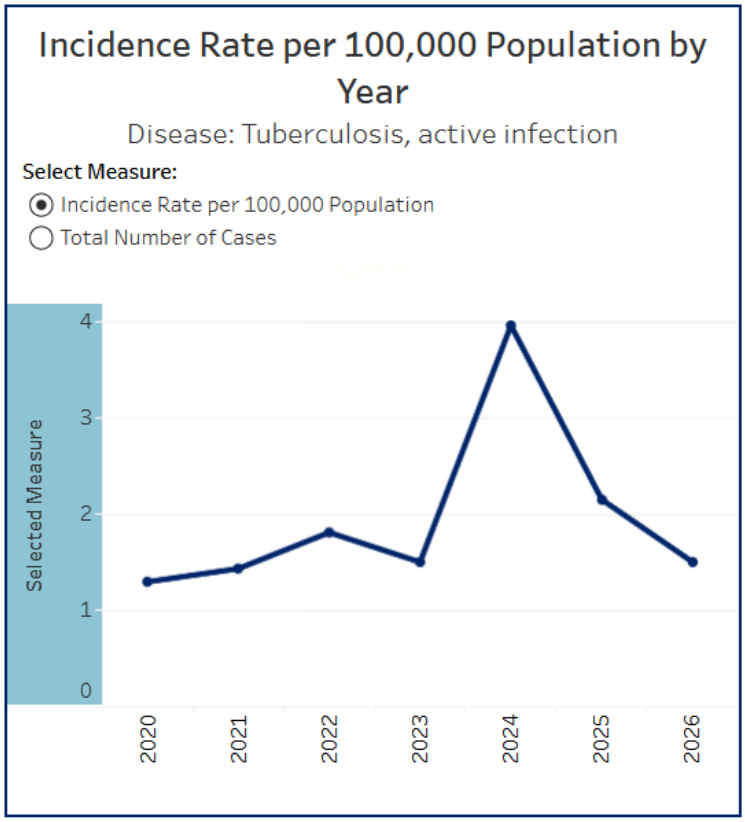


Figure 5: Incidence Rate per 100,000 population by Year Source (KDHE, 2026)

Public health in Kansas is a decentralized public health system, which delegates a significant amount of authority and responsibility to local health departments for the prevention, management, control, and treatment of reportable disease conditions such as TB. The Kansas Department of Health and Environment serves as the state's overseeing agency, and supports local health departments by providing funding, technical support, laboratory services, medications, and expert consultation in TB prevention and control activities (KDHE, n.d.).

Many rural health departments across Kansas may infrequently encounter cases of active TB, while more urban areas experience a higher frequency of cases. Regardless of geographic location, it is important that both local and state health organizations are properly trained and

equipped with the necessary information, tools, and resources to prevent, diagnose, treat, manage, and control TB effectively (WHO, 2025).

The KDHE's TB Program is developing a standard operating procedure (SOP) as a communication strategy to enhance TB prevention and control efforts across the state. According to Amare (2018), SOPs provide uniformity in the performance of activities, enhance knowledge and communication, clarify roles and responsibilities, and help ensure the consistent delivery of high-quality services. A typical SOP defines the overall purpose and scope of an operation, identifies the resources needed, and outlines the detailed steps required to complete the process. The development of the SOP will include all program staff to encourage collaboration, generate ideas, and promote ownership and implementation (Amare, 2018).

The framework for developing the KDHE's TB Program SOP was based on guidance and best practices from nationally recognized organizations with extensive experience in TB prevention and control and are supported by the CDC. States like Kansas adopt CDC recommendations to meet the specific needs of their populations while maintaining consistency with national standards (Cole et al., 2020). According to the CDC, TB programs, interventions, and policies should be implemented in a scalable, cost-effective manner to ensure equitable access to care. The CDC identifies three primary goals for TB prevention and control activities: reducing the incidence of TB infection, reducing TB related morbidity and mortality, and reducing health disparities through improved access to prevention, diagnostic, and treatment services (CDC, 2024).

The essential components of a TB program will be defined in the SOP. The SOP delegates authority to the local health department to adapt these procedures to meet the needs of their communities. Statewide efforts will focus on supporting local TB programs through training

and education, medical consultation, and access to laboratory services and TB medications. In collaboration with KDHE, each local health department will be responsible for the timely reporting of TB cases, which will be maintained in the state's surveillance system. Additional program components will include the early identification and treatment of active TB disease, contact investigation and management, and prioritizing populations at increased risk for TB through screening, testing, and treatment (CDC, 2024).

The final and perhaps most important component of this SOP will include guidance for program evaluation and quality improvement. Program evaluation will provide insights into how well a local program is performing and its progress toward TB elimination. These evaluation activities will help identify areas for improvement, guide changes to program activities, and determine what additional resources or inputs are needed to meet established program standards (CDC,2024).

1.4 Motivation for APE Project

Although I have extensive experience as a public health nurse, I wanted to challenge myself to build upon my professional experience through networking, teamwork, and strengthening my communication and collaboration skills. I wanted to apply the knowledge and skills I gained throughout the Master of Public Health program in an impactful and meaningful way to better serve the needs of my patients, their families, and communities. This experience reflects my personal dedication to the public health profession by creating products that promote the safety, health, and well-being of the communities I serve. The relationships that were developed during this experience will serve as a foundation for future collaboration and professional growth.

1.4.1 MCH Outreach Program

Vaccine hesitancy among postpartum mothers was identified as a recurrent theme during recent home visits. Misinformation and increasing politicization regarding vaccines contributes to increased confusion among both parents and healthcare providers. Data from the Centers for Disease Control and Prevention further indicate a decline in vaccine rates and increasing exemptions, leading to concerns about the potential spread of vaccine-preventable diseases (CDC, 2025). As a result, educational materials were needed that reflect current vaccine recommendations supported by the Kansas Department of Health and Environment. Informational materials are designed to be culturally relevant, linguistically appropriate, and accessible to MCH patients through simplified language and messaging. Unfortunately, prior to project completion, the MCH program was defunded.

1.4.2 Child Care Licensing Division

After the discontinuation of the MCH project, I was given the opportunity to develop and deliver a presentation for childcare providers regarding the potential community impacts of the 2026 FIFA World Cup. Significant planning, coordination, and resources were invested in preparing this large-scale international event, which was expected to bring more than 650,000 visitors to the Kansas City metropolitan area. Mass gatherings are known to be associated with an increased risk of respiratory and gastrointestinal diseases, many of which are vaccine preventable. Social distancing, inadequate sanitation, and the arrival of visitors from all around the world highlights the importance of preparing childcare providers for the potential impacts on transportation, public safety, and the possible threat of infectious diseases (Hoang & Gautret, 2018). The presentation was developed to raise awareness of potential challenges, provide

education on infectious diseases and prevention strategies, and strengthen preparedness efforts within childcare settings.

1.4.3 KDHE TB Program

A standing operating procedure (SOP) is essential for guiding local health departments in tuberculosis prevention and control activities. At the time of this project, the Kansas Department of Health and Environment was creating a TB SOP to provide clear and consistent evidence-based guidance for local public health agencies. This standardized framework serves to outline reporting requirements, procurement of TB medications through the federal 340B Drug Pricing Program, case management activities, contact investigation procedures, while emphasizing the importance of collaboration between local and state agencies. As part of this project, I collaborated with other TB Program staff to develop, revise, and draft the contact investigation section of the SOP to ensure it aligns with current evidence-based practice and national TB prevention and control recommendations.

1.4.4 Purpose

The purpose of this applied practical experience was to gain a comprehensive understanding of local and state public health programs and their impact on population health. This experience enhanced my knowledge of public and private system level interactions, support, limitations, and organizational structures that influence public health programs. Throughout this experience I was challenged to adapt to changing environments, communicate effectively, and collaborate across many diverse public health programs. The products I created contributed to increased public awareness about potential public health threats during large scale events and

supported local and state TB disease prevention and control efforts through the development of standardized guidelines.

1.5 Agency

1.5.1 MCH Outreach Program

The first part of my applied practical experience took place at the Johnson County Department of Health and Environment (JCDHE). JCDHE is in the northeastern part of Kansas and serves over 600,000 residents. The department consists of nine divisions, about 180 staff across six locations, and is dedicated to its mission of promoting and protecting the health and environment of all individuals who live, work, and play in the community. JCDHE works in collaboration with other community partners to advance health equity and strengthen health throughout every stage of life. Through programs such as Women, Infants, and Children (WIC), Immunizations, Health Education, Family Planning, Emergency Planning, and Disease Containment, JCDHE improves access to various health services, prevents disease, and supports a healthier community.

The MCH Outreach program is a subprogram of the Community Outreach Program, which is part of the larger Health Services Division. The MCH Outreach Program was a pilot project to provide targeted case management services to high-risk pregnant and postpartum women. The program focuses on improving the health outcomes for both mother and infant through support, health screenings, education, and connection to other community resources.

Norma Gatica served as my preceptor and holds a Bachelor of Science in Nursing. She has more than seven years of experience in public health, including three years spent in MCH

outreach. Following the discontinuation of the Community Outreach Program, Norma joined my team within the Disease Containment Program, where she now serves in a role like mine as a Disease Investigator Registered Nurse.

When this experience came to an end, I learned the importance of advocating for public health services through surveillance and program evaluation. Community level data is necessary to identify needs and demonstrate program impact to support sustainability and investments. Unfortunately, six months is not enough time for a pilot program such as MCH to demonstrate measurable outcomes. The repercussions of closing this program may not be evident right now but future outcomes may be reflected in poorer health outcomes for mother and infant.

1.5.2 KDHE TB Program

The second part of my applied practical experience took place at the Kansas Department of Health and Environment (KDHE) in Topeka, Kansas which serves a population of 2.98 million residents across the state. KDHE's mission is to promote and improve the health of all Kansans, through its four primary divisions: Environment, Public Health, Laboratories, and Medicaid/Health Care Finance. The Tuberculosis Program is a subprogram of the Division of Public Health under the Bureau of Disease Control and Prevention. The TB Program provides support and guidance to both public and private healthcare agencies regarding the recommended screening, diagnosis, treatment, and management of tuberculosis. The TB Program also conducts statewide surveillance to monitor TB trends and identify populations at increased risk for TB disease.

Lisa Edgerton-Johnston TB Controller and 340B Program Manager served as my preceptor throughout this experience. She has over 13 years of experience in the TB Program and

has served in various roles within the TB Program, including TB Education Consultant, and TB Contact Investigator Coordinator. I also collaborated closely with Baylee Stroup, TB Outbreak and Contact Investigation Coordinator, Traci Dreiling, TB &STI Nurse Consultant, and Adriana Wei, TB Epidemiologist.

Chapter 2- Learning objectives, project description, methods

My applied practical experience was initially planned to be completed at the Johnson County Department of Health and Environment within the Maternal Child Health Outreach Program. However, due to program closure, learning objectives and project activities were modified throughout the experience. To adapt to this change, I sought out opportunities to collaborate with other public health leaders and stakeholders, utilizing established professional relationships to continue a meaningful leaning experience. I demonstrated this adaptability by engaging in cross-divisional collaboration with the Child Care Licensing division, and the Kansas Department of Health and Environment's Tuberculosis Program, which allowed me to meet my learning objectives while contributing to public health initiatives in different programs. This broadened my understanding of diverse public health programs and strengthened my communication and collaboration skills.

Objective 1: *Integrate preventative health education into maternal and infant home visits*

To achieve this objective, I spent a considerable amount of time shadowing Norma during home visits observing how she conducted health screenings, performed physical assessments, and delivered health education tailored to each patient's level of health literacy. I also familiarized myself with program materials, screening tools, and core curriculum developed by INJOY Health Education, which focuses on prenatal, labor and delivery, postpartum and infant care. This enhanced my understanding of maternal and child health and my ability to teach on these topics during home visits.

Preparation for each home visit included a thorough review of the patient's chart to identify any existing physical, mental, or social concerns. Based on this assessment, I planned

educational topics according to the developmental stage and needs of the mother or infant. Additional factors including language, culture, and literacy level were also considered to ensure effective communication and individualized care.

During home visits I utilized interpreter services when needed, simplified complex medical language, incorporated visual aids, and explained each procedure in a manner that was clear and easily understood for the patient. To promote engagement and comprehension, I regularly assessed understanding through discussion, encouraged asking questions, and sharing any additional concerns. These strategies help foster trust in the nurse-patient relationship, identify knowledge gaps, and is an opportunity to further educate and connect to other community resources. Nursing home visits overall improve access to information, encourage patient engagement in care, and enhance the patient's ability to make well informed health decisions. They also provide the opportunity to identify and address any immediate physical, mental, or social needs, ensuring appropriate follow-up action is taken in a more efficient and timely manner.

Objective 2: *Increase childcare provider awareness about the potential community impacts of the upcoming 2026 FIFA World cup, with a focus on safety, infectious diseases, and preparedness efforts.*

To achieve this objective, I developed and delivered a PowerPoint presentation at a quarterly provider meeting. A literature search was conducted utilizing keywords such as; *2026 FIFA World Cup Kansas City, Johnson County World Cup planning, international disease threats, CDC disease prevention strategies, and Kansas child care guidelines.* Local public agencies, such as the Johnson County Parks and Recreation District, along with city websites, provided valuable information related to public safety planning, event preparation, and

opportunities for the community to engage in and celebrate this international event. This information was incorporated into the presentation to demonstrate how the event could affect day-to-day childcare operations.

I applied my knowledge of communicable disease transmission patterns associated with summer months and large mass gatherings, as well as best practices for disease prevention and control. I reviewed guidance from the CDC, including travel health notices and public health recommendations. I also researched each participating team's most common infectious disease threats. The presentation was developed to reinforce recommended immunizations, educate about the spread of communicable diseases, disease prevention strategies, and exclusion guidelines outlined in KDHE's *Guidelines for Exclusion of Children (or Staff Working With Children) Who Are Ill As Recommended in Caring for Our Children: National Health and Safety Standards: Guidelines for Out-of-Home Child Care Programs (Third Edition).* These efforts enhanced provider preparedness, reinforced health education and disease prevention practices, and supported the health and safety of both childcare providers and the children they care for.

To ensure the presentation reflected local preparedness efforts, I arranged a meeting with the Disease Containment Program Manager to discuss planning activities related to the 2026 FIFA World Cup. During our meeting, she shared valuable insights into the planning activities with other Johnson County leaders and division directors from Health Services, Emergency Planning, and Environmental Health. She also described her participation in external partnerships, including the Mid-American Regional Council Homeland Security Coordinating Committee's Public Health Subcommittee. Local and regional planning activities were incorporated into the presentation. She also reviewed the material I created on infectious disease

prevention strategies to ensure the information was accurate and aligned with JCDHE's public health recommendations.

Prior to the presentation, I met with the Child Care Licensing Division Director. Together, we reviewed the PowerPoint presentation to ensure the information was clear, accurate, and relevant for the target audience. She recommended emphasizing additional resources and contact numbers for whenever providers have a disease-related question or concern. She also wanted to reinforce the exclusion criteria for communicable diseases.

Objective 3: *Apply knowledge, skills, and experiences in local public health TB control and prevention to support statewide TB control efforts.*

To achieve this objective, I participated in the review and revision of KDHE's SOP for TB prevention and control. I was specifically tasked with writing the section on TB Contact Investigations, an essential component of a comprehensive TB program. The development and revision of this document required extensive collaboration among all members of KDHE's TB Program and other key stakeholders. My preceptor and I held regular meetings to review and revise this document, ensuring that statewide recommendations aligned with best practices and CDC TB guidelines. I also reviewed SOPs from other well-established state health department TB programs, including Texas Health and Human Services and the Minnesota TB Prevention and Control Program, adapting relevant educational materials and best practices to meet the needs of Kansas.

In drafting the contact investigation portion of the SOP, I focused on creating clear, step-by-step guidance that could be easily followed by other public health professionals regardless of their experience working in TB prevention and control. I applied my knowledge of TB disease

transmission patterns, contact prioritization, screening and treatment recommendations, and investigator responsibilities from start to finish. I ensured that all recommendations aligned with *CDC's Guidelines for the Investigation of Contact of Persons with Infectious Tuberculosis*. I incorporated relevant TB resources available on KDHE's TB Program website, including direct links for access. I also emphasized additional training materials by providing direct access links to support ongoing education and professional contact investigation and skills development.

I regularly submitted my drafted versions for review and edits by the TB Contact Investigator Coordinator and Epidemiologist. I incorporated their feedback and perspectives to strengthen content and ensure guidance was accurate, practical, and aligned with program needs. The final draft was reviewed and approved by multiple stakeholders within the Bureau of Infectious Disease Control and Prevention.

This process overall strengthened my skills in interdisciplinary collaboration and communication, technical writing, and policy development. My work contributes to the standardization of TB prevention and control activities across the state and strengthened my understanding of statewide operations and policy implementation.

Chapter 3- Products and Results

The first outcome of this APE was the development and delivery of a PowerPoint presentation for Johnson County childcare providers. The PowerPoint presentation incorporated approved Johnson County branding and templates, and color schemes inspired by the 2026 FIFA World Cup. The content included a description of 2026 FIFA World Cup, potential community impacts, infectious disease threats due to international travel and mass gatherings, disease prevention strategies, and a review of Johnson County planning and preparedness efforts.

Information was adapted to be clear, concise, and align with state childcare guidelines regarding vaccine recommendations and exclusion policies. Images were incorporated throughout the presentation to enhance visual appeal and support audience understanding of the material. The presentation was delivered via Zoom and attended by more than 20 childcare providers.

At the end of the presentation childcare providers were given the opportunity to ask questions and discuss any concerns. The discussion provided an opportunity to reinforce public health messages relevant to various childcare settings. One provider inquired about vaccine access, and I was able to connect them to JCDHE's Immunization Program for additional information and resources. After conclusion of the meeting, I received feedback from the Child Care Licensing Division Director that was positive, and plans were made to give regular updates at quarterly meetings on communicable diseases and prevention strategies.

This project strengthened collaboration between the Disease Containment Division and the Child Care Licensing Division and established a platform for ongoing communication between the two divisions. Quarterly provider meetings will serve as an ongoing educational

opportunity to discuss communicable diseases, early identification, prevention strategies, and exclusion criteria. These regular updates ensure that providers remain well informed about public health information and receive guidance on new and reemerging diseases. Strengthening this partnership will promote timely reporting of disease and improve collaboration during disease outbreaks, which supports a healthier and safer childcare environment and community.

The second outcome of this APE was a written section on TB contact investigations for inclusion in KDHE's TB Program SOP. This section is an essential component of a TB program that stops the transmission of TB by early identification of other cases of active TB, and prevents future cases of active TB by contact screening and treatment of latent tuberculosis infection. I also created a contact investigation screening tool adapted from Heartland National TB Center resources (Texas Department of State Health Services, 2008).

The written portion of the contact investigation SOP provided clear explanations of the importance of contact investigations in TB disease prevention and control and outlined key considerations for determining when a contact investigation should be initiated. It also identified high-risk populations that should be prioritized for screening, testing, and treatment. This section also included a detailed step-by-step approach to conducting the initial interview and follow-up contact investigation activities. Flowcharts, tables, and figures were developed and incorporated for practical application and to simplify the contact investigation process.

Tuberculosis requires a significant amount of resources to identify, evaluate, and treat individuals with TB disease, and every case of infectious TB requires a contact investigation. Standardized guidance for the contact investigation process ensures that investigations are conducted consistently, high-risk contacts are prioritized, and individuals receive appropriate screening and treatment for TB infection, which will ultimately reduce TB related morbidity and

mortality. A comprehensive approach also helps prevent missed contacts and supports appropriate allocation of public health resources. This SOP serves as a communication strategy to strengthen efforts across the state in TB prevention and control.

Chapter 4-Discussion

My APE expanded across three different programs and two public health agencies, at both the local and state level, providing a comprehensive view and understanding of public health practices. This experience allowed me to observe programs at different stages of development and implementation while identifying opportunities for continuous quality improvement.

I witnessed the closure of the Maternal Child Health Outreach Program, which was developed to expand outreach efforts and increase the number of maternal and child home visits. The program was able to meet and exceed performance expectations but was ultimately defunded. Through participation in mother and baby home visits, I observed how Howell's Conceptual Model influences maternal outcomes. This experience demonstrated the critical role of in-home nurse care in addressing barriers at the patient, provider, community and system levels.

The in-home nurse adapts health information to meet each patient's health literacy needs, which improves understanding, and enhances patient engagement. Through health assessments and social screening tools the nurse serves as a vital link to providers and other community-based programs and resources. This connection helps reduce systemic barriers and improve access to comprehensive, high-quality healthcare. Despite these benefits, the six-month funding period is an insufficient amount of time to measure long-term community impacts on maternal and child health outcomes.

A major limitation of this program was that activities could be tracked, but patient outcomes could not be measured. Future programs will benefit from a comprehensive approach

to program evaluation which includes patient satisfaction surveys, individualized outcome measures, and ongoing analysis of Johnson County surveillance data related to maternal and infant morbidity and mortality. This data will be used to advocate for future funding.

The project that I completed for the Child Care Licensing Division enhanced communication, strengthened cross-divisional collaboration, and contributed to community preparedness efforts for the upcoming 2026 FIFA World Cup. This well-established program within JCDHE, continues to be successful because of its strong communication strategies. Quarterly provider meetings are an optimal time to deliver education, update on program and policy changes, and discuss the practical application of public health recommendations.

Continued collaboration between the Disease Containment Division and Child Care Licensing is essential to providing timely updates on new or emerging infectious disease threats while reinforcing prevention strategies. Maintaining this partnership ensures that childcare providers are equipped with public health information to protect the health and safety of both staff and the children in their care. This professional partnership also strengthens efforts to recognize disease, report it, and work together to prevent further transmission. One opportunity for improvement that I identified is to implement a post-meeting survey to assess whether the information presented was effective, relevant, and applicable to provider's needs. Survey results identify knowledge gaps, determine future educational topics, and support continuous improvement of quarterly meetings.

My final project with KDHE's TB Program contributed to local and statewide efforts in TB prevention and control. The development of a SOP provides a framework that builds upon existing program activities, updates recommendations to reflect national standards and evidence-based practice, and clarifies the roles and responsibilities of the state and local health

departments. The SOP allows local health departments to adopt and adapt recommendations to meet the needs of their community. My contribution to this document focused on the contact investigation section, an essential component of TB programs. Through the timely identification, evaluation, and treatment of individuals exposed to tuberculosis we can prevent future cases of active TB. Strengthening communication and collaboration through a comprehensive SOP will advance our progress toward global TB elimination.

A major limitation of this project development was the availability of KDHE's TB Program staff and my schedule. The majority of KDHE's TB team works remotely or is dedicated to TB response in another county. This significantly impacted our ability to communicate directly and in a time-efficient manner. Microsoft Teams and email were valuable tools for maintaining regular communication with KDHE's team.

Review and feedback from the section I wrote on contact investigations was limited; however, I incorporated any suggestions that were provided. The larger SOP document was more challenging to develop due to numerous comments and perspectives from diverse stakeholders across KDHE. While suggestions were incorporated as much as possible, this undermines the complexity of developing an SOP, that will meet the needs of the state and local public health systems.

The next step in the publication process will be the reviewing and editing by KDHE's communication team to ensure the document aligns with agency messaging, formatting, and branding standards. After the publication, KDHE's TB Program should collaborate with the communications team to increase local health department awareness of the SOP and provide guidance on its practical implementation. Continuous quality improvement should include annual review of the SOP and the incorporation of feedback from local health departments across

the state. The regular review and revision of this document ensures that it is relevant, practical, and continues to align with national standards and evidenced-based practices.

References

Agency for Healthcare Research and Quality. (2022, October). *2022 National Healthcare Quality and Disparities Report* (Report No. 22(23)-0030). U.S. Department of Health and Human Services. https://www.ncbi.nlm.nih.gov/books/NBK587182/

Amare, G. (2012, November). *Reviewing the Values of a Standard Operating Procedure*. Ethiop J Health Sci. 22(3):205-8. PMID: 23209355; PMCID: PMC3511899.

Centers for Disease Control and Prevention. (2024, November). *National TB Program Objectives and Performance Targets 2030*. https://www.cdc.gov/tb-programs/php/ntip/objectives-and-performance-targets.html

Centers for Disease Control and Prevention. (2026, March). *Provisional 2025 Tuberculosis Data.* https://www.cdc.gov/tb-data/aboutprovisionaldata/2025-provisional-data.html

Centers for Disease Control and Prevention. (2025, July). *Vaccination Coverage and Exemptions Among Kindergartners*. SchoolVaxView. https://www.cdc.gov/schoolvaxview/data/index.html

Centers for Disease Control and Prevention. (2024, November). *Tuberculosis Elimination Priorities*. https://www.cdc.gov/nchhstp/priorities/tuberculosis-elimination.html

Cole, B., Nilsen, D. M., Will, L., Etkind, S. C., Burgos, M., Chorba, T., & Advisory Council for the Elimination of Tuberculosis and National Tuberculosis Controllers Association. (2020). *Essential Components of a Public Health Tuberculosis Prevention, Control, and Elimination Program: Recommendations of the Advisory Council for the Elimination of Tuberculosis and the National Tuberculosis Controllers Association*. *Morbidity and Mortality Weekly Report: Recommendations and Reports, 69*(7), 1–27. https://doi.org/10.15585/mmwr.rr6907a1

Filippi, V., Chou, D., Barreix, M., Say, L. (2018). *A New Conceptual Framework for Maternal Morbidity.* International Journal of Gynecology Obstetrics. 141(S1):4–9. doi: 10.1002/ijgo.12463.

Hoang, V.T., Gautret, P. (2018). *Infectious Diseases and Mass Gatherings*. Curr Infect Dis Rep. 20(11):44. doi: 10.1007/s11908-018-0650-9. PMID: 30155747; PMCID: PMC7088693.

Howell, E.A. (2018, June). *Reducing Disparities in Severe Maternal Morbidity and Mortality*. Clin Obstet Gynecol. 61(2):387-399. doi: 10.1097/GRF.0000000000000349. PMID: 29346121; PMCID: PMC5915910.

Hoyert, D.L. (2026, March). *Maternal mortality rates in the United States, 2024.* NCHS Health E-Stats. (113):1–7. DOI: https://dx.doi.org/10.15620/cdc/174651.

Johnson County Department of Health and Environment. (n.d.) *MySidewalk. Health Happens Here*. https://dashboards.mysidewalk.com/healthhappenshere

Kansas Department of Health and Environment. (2026, June). *Kansas Reportable Infectious Disease Dashboard*.Tuberculosis*, Active Infection.* https://www.kdhe.ks.gov/2388/Kansas-Reportable-Infectious-Disease-Das

Kansas Department of Health and Environment. (n.d.). *Tuberculosis (TB) Program*. Division of Public Health. https://www.kdhe.ks.gov/530/Tuberculosis-TB-Program

KFF. *Kansas Maternal & Infant Health Data*. (n.d.). https://www.kff.org/interactive/womens-health-profiles/kansas/maternal-infant-health/

Lin, P. L., & Flynn, J. L. (2018). *The End of The Binary Era: Revisiting the Spectrum of Tuberculosis*. Journal of Immunology, *201*(9), 2541–2548. https://doi.org/10.4049/jimmunol.1800993 https://pmc.ncbi.nlm.nih.gov/articles/PMC6217958/

Texas Department of State Health Services. (2008, January). *TB Public Health Follow-Up Worksheet* (Document No. 12-12062). https://www.dshs.texas.gov/sites/default/files/IDCU/disease/tb/forms/DOCS/12-12062.doc

World Health Organization. (n.d.). *Tuberculosis (TB).* https://www.who.int/news-room/fact-sheets/detail/tuberculosis

World Health Organization. (n.d.). *Tuberculosis and Vulnerable Populations.* https://www.who.int/europe/news-room/fact-sheets/item/tuberculosis-and-vulnerable-populations

World Health Organization. (2025). *WHO Operational Handbook on Tuberculosis: Module 4: Treatment and Care*. World Health Organization. https://iris.who.int/server/api/core/bitstreams/3556af0b-860f-432d-a50d-8349ef636309/content

Appendix 1- Synthesis and/or Integration of Competencies

2: Host response to pathogens/immunology: Investigate the host immune response to infection.

Tuberculosis exists on a spectrum of asymptomatic infection to severe and potentially fatal active TB disease (Lin & Flynn, 2018). After exposure to TB an individual's immune system determines whether the infection is contained, latent TB infection, or if they progress into active TB disease. Some individuals may also have early or subclinical TB, in which the disease is developing but can't always be confirmed with culture, radiology, or minimal symptoms. Host factors such as immunocompromising conditions, which impact our ability to fight off disease, greatly increase the risk of progression of developing active TB disease.

I integrated my knowledge and understanding of host immune responses and risks into the contact investigation section of the SOP. Coursework in Immunology and Vaccinology strengthened my understanding of how the immune system responds to pathogens, influences disease progression, and builds effective immunity. The SOP prioritizes contacts based on their risks of disease progression, including children under the age of five, who have underdeveloped immune systems, and individuals with immuno-compromising medical conditions. A weakened or altered immune system can reduce an individual's ability to fight off disease, increase the likelihood of disease development, and can lead to more serious disease complications. I also proposed best practices for the rescreening of individuals with an initial negative TB test 8 to 10 weeks postexposure. This repeat screening is necessary to ensure that the host has enough time to build an adaptive immune response to the TB bacteria and can be detected on a TB test.

3: Environmental/ecological influences: Examine the influence of environmental and ecological forces on infectious diseases.

Tuberculosis is an infectious disease that is spread through the air, when someone with active pulmonary, laryngeal, or pleural TB is coughing, laughing, singing, or talking. Prior to initiating a contact investigation, it is important to consider the infectiousness of the TB case, the environment in which the exposure occurred, and the proximity and duration of exposure. Environmental factors, such as room size, ventilation, and air filtration, all influence the likelihood of TB transmission. Large, well-ventilated spaces, with air cleaning systems reduce the concentration of airborne TB bacteria, compared to small, enclosed spaces with poor ventilation that increase the risk of transmission.

I created the contact investigation screening tool and the contact investigation section based on my understanding of the epidemiological triangle and how interactions between the host, agent, and environment transmit and cause disease. With a particular focus on environmental factors, the screening tool prompts the investigator to assess all potential exposure settings, including homes, schools, workplaces, healthcare facilities, and other congregate environments. Utilizing this screening tool leads to more accurate identification of contacts, prioritization of contacts based on high-risk exposure environments, and avoids any unnecessary use of resources related to screening, testing, and treatment of contacts. Environmental influences, along with agent, and host factors were also incorporated throughout the SOP to ensure a comprehensive approach to contact investigations.

The direct correlation between 2026 FIFA World Cup and childcare providers may not be immediately apparent, however when large international events take place they can increase the transmission of communicable disease. Large events such as the world cup bring together many

people from diverse geographic locations. Increased international travel, crowded venues, improper food handling, and close contact, create environments that facilitate the spread of infectious diseases. I explained how environmental factors associated with mass gatherings can contribute to the spread of infectious diseases, including TB, measles, hepatitis A and waterborne diseases. Providing this information helped prepare childcare providers of potential public health risks, and reinforced prevention strategies, to keep their staff, children, and families safe.

18: Select communication strategies for different audiences and sectors

I demonstrated this competency throughout my APE by planning and adapting communication strategies to promote health equity and meet the needs of diverse audiences. During my experience with the MCH Outreach program I adapted teaching topics to be relevant to the patient's needs, I simplified medical terminology, explained health assessments and procedures in plain language, and adjusted my teaching strategies to the patient's level of health literacy. I also incorporated visual aids to explain maternal and child anatomy, physiology, growth and development which improved understanding and comprehension.

When developing and delivering the Child Care Licensing presentation, I adapted content to the needs and responsibilities of childcare providers. I used plain language, avoided complex medical terminology, and reinforced important public health recommendations and disease prevention strategies. I incorporated visuals to reinforce public health messaging and to serve as a resource that providers could adapt and implement within their childcare setting.

While developing the SOP for the KDHE's TB Program, I adapted communication strategies for a public health professional. The SOP was written in clear and concise language so that a public professional regardless of their experience working in TB, could easily follow

guidelines and recommendations. I incorporated flowcharts and tables, to simplify procedures and aid in the decision-making process.

Table A. 1 Synthesis and Integration of Competencies

Competency	Description of Synthesis and Integration
Host response to pathogens/immunology: Investigate the host immune response to infection.	Ensured that the contact investigation section of KDHE's TB Program SOP aligns with best practices from nationally recognized and credible medical and public health organizations. This guidance will enhance local and statewide public health efforts in the early identification, prioritization, testing, and treatment of TB contacts that are at increased risk of developing TB disease due to immunocompromising conditions. The contact investigation guidelines help prevent future cases of active TB and conserve scare public health resources.
Environmental/ecological influences: Examine the influence of environmental and ecological forces on infectious diseases.	Incorporated environmental/ecologic considerations into the contact investigation section of KDHE's TB Program SOP. The guidelines were developed to reflect best practices from nationally recognized and credible public health organizations. A comprehensive assessment of exposure settings will reduce unnecessary contact TB testing. The childcare provider presentation was adapted to provide education on infectious diseases while ensuring content was relevant and applicable to the childcare environment. The presentation enhanced provider awareness about various infectious diseases and prevention strategies.
Select communication strategies for different audiences and sectors	Adapted educational materials and communication strategies to enhance understanding and strengthen collaboration across diverse patient populations, healthcare programs, and local and state public health agencies.

Appendix 2-Demonstration of Competency Attainment

Competency 9: Design a population-based policy, program, project or intervention.

Tuberculosis contact investigations are an essential activity of local health departments to prevent further transmission of TB. The section I drafted for KDHE TB Program's SOP provides a comprehensive, standardized approach to initiating and closing a contact investigation. The SOP establishes clear guidelines for when a contact investigation should be initiated, outlines methods for prioritizing high-risk contacts for timely screening and treatment, and provides guidance for documenting and closing the contact investigation. This process helps to ensure that contacts are not missed, they are evaluated in a consistent manner, and resources are allocated more efficiently. When TB contact investigations are effective, we stop further transmission, reduce future cases of TB, and protect the overall health of our communities.

Competency 21: Integrate perspectives from other sectors and/or professions to promote and advance population health

I demonstrated this competency while preparing a presentation for childcare providers about the upcoming 2026 FIFA World Cup. Prior to this event extensive collaboration took place among public health, emergency preparedness, public safety, city planning, hospital systems and other community organizations. Each organization contributes a unique perspective to protecting the health and safety of the community while preparing for this large-scale international event. This interdisciplinary collaboration was translated into practical preparedness and public health guidance for childcare providers.

Competency 22: Apply Systems Thinking Tools to a Public Health Issue

The figure below is a flow chart that I created and incorporated into the KDHE's TB Program SOP. This flowchart simplifies the actions that are taken after a TB contact has been identified. This tool standardizes the clinical decision-making process to ensure a comprehensive approach to contact screening, testing, and treatment.

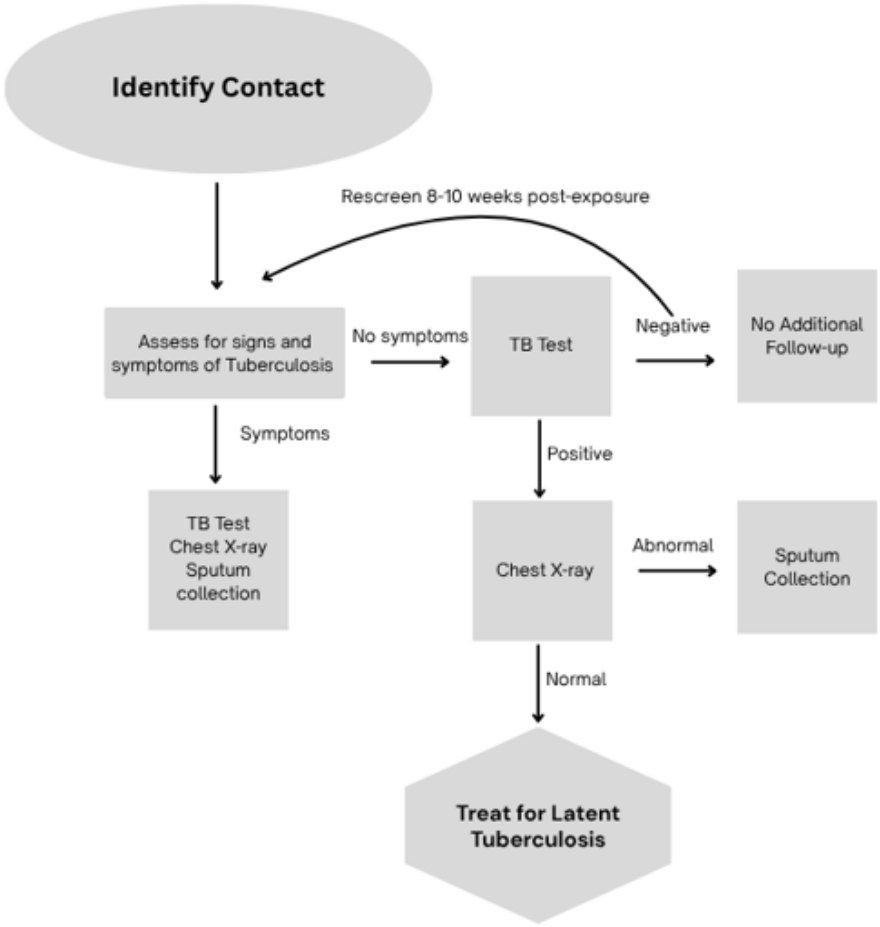


Figure A. 1 Contact Screening Process

Competency 1: Pathogens/pathogenic mechanisms: evaluate modes of disease causation of infectious agents.

I described the pathogenic mechanisms in the first section of the SOP because this foundational understanding guides all contact investigation activities. The transmission of TB depends on several interacting factors, including the site of disease in the index case, the virulence or strain of TB, the environment in which the exposure occurred, and host susceptibility. These basic principles guide the identification of contacts, targeted testing, and prioritization of those most likely to develop active TB.

Competency 3: Environmental/ecological influences: Examine the influence of environmental and ecological forces on infectious disease

This competency was demonstrated in both the presentation to childcare providers and in the KDHE TB Program's SOP. I addressed how international travel and large mass gatherings can increase the risk of exposure to infectious diseases due to population mobility and mixing. I presented disease topics that align with seasonal trends and international travel health advisories. Childcare providers can use this knowledge of disease risks and prevention strategies to implement control measures within their environments, which will ultimately protect the health and safety of staff, children, and families.

This competency was also applied in the TB contact investigation SOP. Environmental factors significantly influence the transmission risk of TB. Room size, ventilation, air circulation, and filtration system were all identified as key environmental conditions affecting the airborne spread of TB. Environmental assessments guide the contact investigation process by determining exposure risks and the extent to which a contact investigation should be conducted.

Table A. 2 Attainment of Competencies

Specific products	Competency
KDHE TB Program's SOP: Contact Investigation	1. Competency 9: Design a population-based policy, program, project or intervention.
Child Care Licensing Presentation	2. Competency 21: Integrate perspectives from other sectors and/or professions to promote and advance population health
KDHE TB Program's SOP: Contact Investigation	3. Competency 22: Apply Systems Thinking Tools to a Public Health Issue
KDHE TB Program's SOP: Contact Investigation	4. Competency 1: Pathogens/pathogenic mechanisms: evaluate modes of disease causation of infectious agents.
Child Care Licensing Presentation & KDHE TB Program's SOP: Contact Investigation	5. Competency 3: Environmental/ecological influences: Examine the influence of environmental and ecological forces on infectious disease


WE ARE
26
FIFA
KANSAS CITY
World Cup 2026
JOHNSON COUNTY
KANSAS

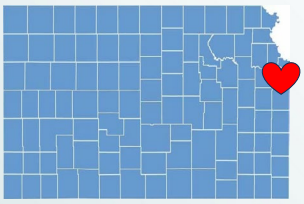

Soccer! Football! Fútbol!
• FIFA World Cup 2026
• Impact on our community
• Potential Infectious Disease Threats
• Disease Prevention
• Johnson County Preparedness
Gabrielle May, RN, BSN
JOHNSON COUNTY
KANSAS

Celebrate Together



650,000+ visitors

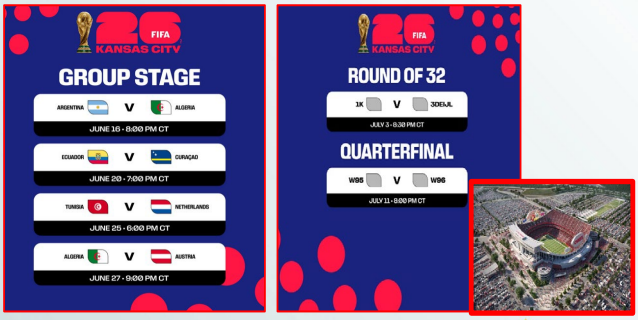
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~636,906 Johnson County Residents

JOHNSON COUNTY KANSAS

Kansas City Match Schedule



JOHNSON COUNTY KANSAS

Impact on our community

- Economic growth: hotels, restaurants, retail, and entertainment
- Diversity
- Crowded public spaces: libraries, parks, pools, streets, sidewalks, public transport, air travel
- Traffic
- Spread of disease and unseasonal diseases
- Safety and security



JOHNSON COUNTY KANSAS



Measles

- A GLOBAL threat!
- **1,738** confirmed cases in the US for 2026
- Highly contagious respiratory virus
- Symptoms: fever, cough, red eyes, and rash
- No treatment, serious complications can occur especially in young children
- Prevention: Two doses of MMR vaccine
- All susceptible contacts are excluded for 21 days from date of last exposure. A person diagnosed with measles will be excluded until 4 days after onset of rash



JOHNSON COUNTY KANSAS

Match 1

ARGENTINA

- Tuberculosis
- Hepatitis A
- Typhoid
- Chikungunya
- Dengue
- Chagas Disease

VS

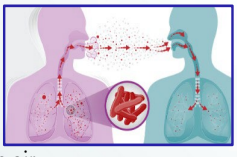
ALGERIA

- Polio
- Tuberculosis
- Rabies
- Cholera
- Typhoid
- Leishmaniasis

June 16th @6pm

JOHNSON COUNTY KANSAS

Tuberculosis



- A bacteria that is spread person to person through the air
- Symptoms: Fever, cough >3 weeks, night sweats, fatigue, weight loss
- Treatment: Multiple antibiotics for 6 to 9 months
- Prevention: Latent tuberculosis treatment, BCG vaccine, PAPR or N95 mask
- Latent tuberculosis: The bacteria is present but is not currently causing disease, in this stage TB **can not** be spread person to person
- A patient with active pulmonary or laryngeal tuberculosis will be cleared by JCDHE Medical Director/Public Health Officer

JOHNSON COUNTY KANSAS

Match 2

ECUADOR

- Tuberculosis
- Hepatitis A
- Leptospirosis
- Melioidosis
- Malaria
- Yellow Fever
- Zika

VS

CURACOA

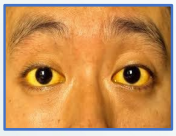
- HIV
- Hepatitis A
- Typhoid
- Leptospirosis
- Dengue
- Zika

June 20th @7pm

JOHNSON COUNTY KANSAS

Hepatitis A

- 1,648 cases of Hepatitis A reported in 2023
- Spread through person to person contact or through eating contaminated food or drink
- Symptoms: yellowing of the skin or eyes, loss of appetite, upset stomach, stomach pain, dark urine or light stools, diarrhea, fatigue
- Prevention: Good hand hygiene, Get vaccinated!
- All susceptible contacts will be excluded for 28 days from date of last exposure. A person diagnosed with Hepatitis A person diagnosed with Hepatitis A will not be able to attend or work for 14 days following the onset of illness or 7 days following the onset of jaundice



JOHNSON COUNTY KANSAS

Match 3

TUNISIA

- Tuberculosis
- Rabies
- Typhoid
- Leptospirosis
- Schistosomiasis
- Leishmaniasis

VS

NETHERLANDS

- Vaccine Preventable Disease
- Tick-borne Encephalitis
- Leptospirosis

June 25th @7pm

JOHNSON COUNTY KANSAS

Waterborne Diseases



- Giardiasis and Cryptosporidiosis peak in the summer due to lakes, pools, and water parks
- Fecal-oral transmission, poor hand hygiene
- Symptoms: stomach cramps, watery diarrhea, nausea, vomiting, loss of appetite, low-grade fever
- Prevention-Don't swallow water, wash your hands, do not swim if you have diarrhea, hyperchlorination of pools
- Children and Employees can return to daycare 24 hours after symptoms have resolved, however should avoid swimming for 2 weeks

JOHNSON COUNTY KANSAS

Match 4



ALGERIA

- Polio
- Tuberculosis
- Rabies
- Cholera
- Typhoid
- Leishmaniasis

VS



AUSTRIA

- Vaccine Preventable Diseases
- Tick-borne encephalitis
- Leptospirosis

June 27th @9pm

JOHNSON COUNTY KANSAS

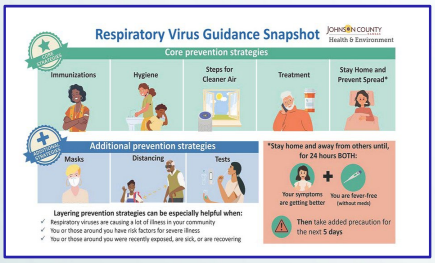
Unseasonal Spread of Flu, COVID, RSV

- Mass gatherings accelerate transmission of infectious diseases and mix various strains
- Typical respiratory virus symptoms: fever, fatigue, cough
- Flu: high fever, body aches, chills
- COVID: Loss of smell/taste, shortness of breath
- RSV: wheezing, difficulty breathing *more severe in older adults and young children
- Prevention: Get vaccinated!
- Exclusion: 24 hours fever free without the use of fever-reducing medications and symptom improvement

JOHNSON COUNTY KANSAS

Disease Prevention

- Get vaccinated
- Good hand hygiene
- Avoid others that are sick
- Stay at home if you are sick
- Safe food handling
- Prevent bug bites
- Healthy lifestyle



JOHNSON COUNTY KANSAS

Johnson County World Cup Planning

- Airport shuttle pilot program
- Kansas City Unity Cup
- Watch Parties: Theatre in the Park and Pitch Lenexa
- Community Art and Cultural Expression/Celebrations
- Goals: budget & fiscal stewardship, workforce preparedness, and continuity of service



JOHNSON COUNTY KANSAS

JCDHE Planning

- Collaboration with External Partners
  - Disease Containment Program and Public Health Emergency Planning Program (PHEP) is participating in MARC Regional Homeland Security Coordinating Committee- Public Health Subcommittee
- JCDHE-Internal-World Cup Planning
  - Health Services, Disease Containment, PHEP, Environmental, Leadership, et al.Goal: Maintain services, ensure adequate staffing, staff preparedness: just in time training
- KDHE Syndromic Surveillance



JOHNSON COUNTY KANSAS

Safety and Security is Top Priority

- Coordinated effort among Johnson County Emergency Operations Center and regional law enforcement partners
  - Traffic control
  - Crowd management
  - Emergency response coordination
  - Monitoring weather conditions
  - Health and Safety
  - Prevention: STAY INFORMED
    - Notify JoCo
    - Follow Johnson County on Social Media
    - Kansas Department of Health and Environment



JOHNSON COUNTY KANSAS

All Things World Cup

- https://www.johnsoncountyunited.com/
- https://kansascityfwc26.com/kc-game-plan/
- https://www.fifa.com/en/tournaments/mens/worldcup/canadamexicousa2026

JOHNSON COUNTY KANSAS

References

- Centers for Disease Control and Prevention. (2024, May 15). *About Tuberculosis.* Tuberculosis (TB). https://www.cdc.gov/tb/about/index.html
- Centers for Disease Control and Prevention. (2024, May 9). *Hepatitis A Basics.* https://www.cdc.gov/hepatitis -a/about/index.html
- Centers for Disease Control and Prevention. (2025, April 25). *Measles Cases and Outbreaks*.Measles (Rubeola); CDC. https://www.cdc.gov/measles/data -research/index.html.
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health: Algeria.* https://wwwnc.cdc.gov/travel/destinations/traveler/none/algeria?s_cid=tncezid -dgmq-travel-single -001
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health: Argentina.* *https://wwwnc.cdc.gov/travel/destinations/traveler/none/argentina?s_cid=tncezid-dgmq-travel-single-001*
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health*: Curaçao. https://wwwnc.cdc.gov/travel/destinations/traveler/none/curacao?s_cid=tncezid -dgmq-travel-single -001
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health: Ecuador.* https://wwwnc.cdc.gov/travel/destinations/traveler/none/ecuador?s_cid=tncezid -dgmq-travel-single -001
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health: Tunisia.* https://wwwnc.cdc.gov/travel/destinations/traveler/none/tunisia?s_cid=tncezid -dgmq-travel-single -001
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health: Netherlands.* https://wwwnc.cdc.gov/travel/destinations/traveler/none/netherlands
- Centers for Disease Control and Prevention. (2024, February 19). *Travelers' Health: Austria.* https://wwwnc.cdc.gov/travel/destinations/traveler/none/austria?s_cid=tncezid -dgmq-travel-single -001
- *FIFA World Cup 2026 Kansas City.* (n.d.). *Fifa Fan Festival.* **https://kansascityfwc26.com/**
- Johnson County Park and Recreation District. (n.d.). *World Cup playbook: Celebrating the world's game. Creating a lasting community legacy.*https://d2hcc93c -5644- 4e63- a4f4- da350b1b6303.filesusr.com/ugd/f95ec3_a6ad38083774e4074bc5542d59a369d01.pdf
- Kansas Department of Health and Environment. (2020). *Guidelines for Exclusion of Children (or Staff Working With Children) Who Are Ill As Recommended in Caring for Our Children:National Health and Safety Standards: Guidelines for Out-of-Home Childcare Programs (third edition).*https://www.kdhe.ks.gov/DocumentCenter/View/2287/CCLHT -Guidelines -for-Exclusion -of-children -who-are-ill -PDF
- Pan American Health Organization. (2024, October 15). *Argentina - country profile* Health in the Americas. https://hia.paho.org/en/country -profiles/argentina
- Pan American Health Organization. (2024, October 2026). *Curaçao- Profile.* Health in the Americas. https://hia.paho.org/en/country -profiles/curacao
- Pan American Health Organization. (2024, October 25). *Ecuador- Country Profile.* Health in the Americas. https://hia.paho.org/en/country -profiles/ecuador
- World Health Organization . *(n.d.) Algeria data* https://data.who.int/countries/012

JOHNSON COUNTY KANSAS

Contact Investigation Worksheet

Always consult with the State Tuberculosis Program and Local Public Health Officer to determine the extent to which a contact investigation should be conducted. The initial interview should be conducted as soon as possible after an infectious case is reported to the health department. The second interview would preferably take place in the patient's home.

Patient's Name: _____ DOB: _____

Interviewer: _____ Date: _____

Physical Address: _____

Length at current address:_____

Previous Address if applicable: _____

Circle all symptoms that apply: FEVER CHILLS NIGHT SWEATS WEIGHT LOSS COUGH CHEST PAIN HEMOPTYSIS

OTHER:_____

Date of Symptom Onset: _____ Estimated start date of infectious period: _____
(*3 months prior to start of 1st symptom)

When did you first seek out care related to your medical illness? Date:_____ Location:_____

Name of provider: _____Contact Number:_____

How many times have you seen a provider related to your illness? _____

Date:_____ Location:_____ Date:_____ Location:_____

Within the last 6 months have you seen any other medical/nonmedical professionals? (dentist, optometrist, counselor, etc.)

Date:_____ Location:_____ Date:_____ Location:_____

With whom do you live? Alone With Others	**How many people live at this address (not including patient)? _____** **Is anyone else in the home diagnosed with TB? Yes No** **Does anyone else in the home have signs or symptoms of TB? Yes No**
How many children live in the home? _____	*****Ages 0-5:_____Ages 6-14_____** *****Name of Pediatrician:_____** **Contact Number:_____**

HOUSEHOLD CONTACTS: **Name**	**DOB or Approximate Age**	**Relationship**	**Phone**

Are you married? Yes or No

Do you have any other boyfriend/girlfriend/ partner (s)? Yes or No Frequent Contact? Yes or No			
Name	**DOB or Approximate Age**	**Address**	**Phone**
Do you have any children that don't live in the home? Yes or No Frequent Contact? Yes or No			
Name	**DOB or Approximate Age**	**Address**	**Phone**
How many people lived or stayed in the home during the past six months who do not live with you now?_____			
Name	**DOB or Approximate Age**	**Address**	**Phone**
Does anyone visit you or another member of your household more than 2-3 times per week? Yes or No (stays part of day, but not overnight?)			
Name	**DOB or Approximate Age**	**Address**	**Phone**
How many relatives do you see on a regular basis?			
Name	**DOB or Approximate Age**	**Address**	**Phone**
How many friends do you see on a regular basis?			
Name	**DOB or Approximate Age**	**Address**	**Phone**

Who else spends at least 6-8 hours per week with you? No one Other people			
Name	**DOB or Approximate Age**	**Address**	**Phone**
With whom do you eat meals? Alone With others			
With whom do you eat meals?			
Name	**DOB or Approximate Age**	**Address**	**Phone**

Have you attended any friends or family gatherings? (Reunions, Weddings, Birthday Celebrations, Graduations, Holidays, etc.)		
Date	**Location**	**How many people in attendance?**

When was the last time you went on vacation or out of town? This includes travel for leisure and work	
Leave Date:	**Return Date:**
Where did you go?	
What type of transportation used?	
Estimated travel time?	
Where did you stay?	
Whom did you visit?	
When was the last time you went on vacation or out of town?	
Leave Date:	**Return Date:**
Where did you go?	
What type of transportation used?	
Estimated travel time?	
Where did you stay?	
Whom did you visit?	
How do you spend time when you are not working?	
Notes:	
In what activities do you participate in?	
Choir Band Church Group Cards Bingo Exercise Volunteer Coach Sports Gym Membership Religious Gatherings Student Peer Study Group School Club	
Notes:	
Other Risk Factors	

Have you ever been a resident of a correction facility? **If so when?_____ how long?_____ where?_____**
Have you ever worked as one of the following categories? Healthcare Corrections Shelters Migrant/seasonal **If so when?_____ how long?_____ where?_____**
Have you ever been homeless? **If so when?_____ how long?_____ where?_____**
Do you know anyone that has been diagnosed with TB? What regimen were they on (Drug-susceptible vs drug resistant) **Who?_____When?_____** **Comments:_____** **_____** **_____**

<u>Employment</u>

Include all places of employment for 6 months prior to starting TB medications. Begin with most current and work backwards.

Are you currently employed? _____Yes_____No **When was your last day of work? _____**
Place(s) of Employment: Dates of Employment: From / / to / /
Address(s):

Describe work performed:

Describe work area: (office, garage, cubicle, warehouse)

Do you work primarily Indoors? Outdoors? Or Remote?

How many hours a week do you spend working indoors?_____

If you work indoors, how many people do you work with? (6-8 hours/week)? _____

Name	Area of Work	Address	Phone

How do you travel to work? Alone With Others? Yes or No (list names above) How long is the commute?

Method of travel? Car Truck Bus Other Public Transportation? _____

Who do you eat with when at work? Alone With Others?

Do you have any contact with children when you are at work? Yes or No

Name	DOB or Approximate Age	Address	Phone

School

Include each school client has attended during the 6 months prior to starting TB medications. Begin with the most current and work backwards.

Name of School: _____

Location/Address: _____

Grade:_____ Teacher/Homeroom Teacher:_____

Length of time at school: From: _____/_____/_____ To: _____/_____/_____

Last Date of attendance: _____/_____/_____

What type of transportation do you use to get to and from school? _____
How long is the ride? _____ How many other riders? _____
Do you ever carpool? Yes or No With whom? _____
Do you ever use the school bus? Yes or No

Do you move from class to class during the day or remain in one classroom? YES or NO
***If YES obtain a copy of patient's schedule**

Whom do you spend time with at school?
Whom do you eat lunch with at school? Enter names below:

Name	DOB or Approximate Age	Address	Phone

Do you participate in any school groups/ activities? YES NO What? _____
How often?_____ With Whom? _____

How do you spend you time after school? _____
_____
_____

When the contact investigation is completed scan and attach documentation to patient's medical record. A re-interview should be scheduled for 1–2 weeks after the initial interview so that the case will have had time to adjust to their TB diagnosis and treatment. Additional interviews should be scheduled as needed. Re-interviews do not need to be formal. Adapted from the Texas Department of State Health Services Contact Investigation Worksheets: Revised 6/26

Kansas TB Program Standard Operating Procedure

Contact Investigation General Requirements

Local tuberculosis (TB) programs will conduct a contact investigation (CI) for all individuals diagnosed with suspected or confirmed pulmonary, laryngeal, and pleural TB in collaboration with Kansas Department of Health and Environment (KDHE). The goal of CIs is to stop the transmission of TB by early identification of other cases of active TB, and to prevent future cases of active TB by contact screening and treatment of latent tuberculosis infection.

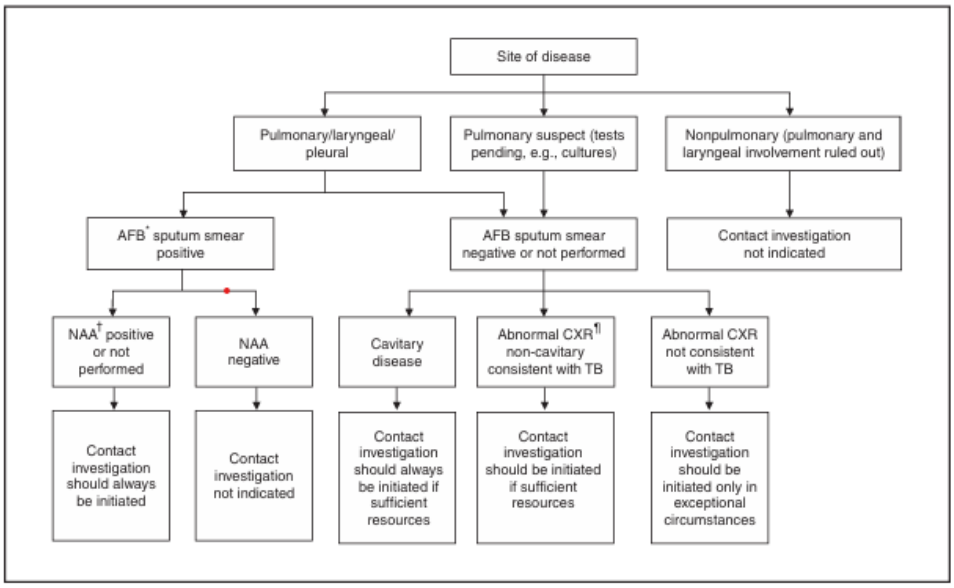
Key Considerations when implementing a CI:

1) Infectiousness of the source TB case
    a. Site of disease (pulmonary, laryngeal, pleural)
        i. Extrapulmonary sites of TB are not considered to be infectious

b. Bacteriology
    i. AFB sputum smears
        1. 4+: Strongly positive, probably very infectious
        2. 3+: Strongly positive, probably very infectious
        3. 2+: Moderately positive, probably infectious
        4. 1+: Moderately positive, probably infectious
        5. No acid-fast bacilli seen, Negative, *probably not infectious*
    ii. Nucleic Acid Amplification Test (NAAT) or **Mycobacterium tuberculosis Polymerase Chain Reaction** (MTB PCR) positive
    iii. Culture MTB positive
c. Radiology/Imaging
    i. Cavitary disease (which is indicative of a high bacterial load)
    ii. Upper lobe infiltrates
d. Symptoms of TB disease
    i. Cough greater than 2 weeks
    ii. Chest pain
    iii. Shortness of breath
    iv. Hemoptysis
    v. Fever
    vi. Night sweats
    vii. Unintentional weight loss
    viii. Fatigue
e. Age
    i. Children under the age of 10 are usually not contagious, due to not being able to create enough force when coughing to expel large amounts of TB into the air for transmission.
    ii. If a case is less than 5 years old, or if a groups of persons have recently become infected with TB, a source case investigation should be initiated
f. Social or behavioral risk factors
    i. Poor cough etiquette, e.g. not covering their cough
    ii. History of substance use
    iii. History of incarceration

2) Environment in which the exposure occurred
    a. Size/space
    b. Ventilation
    c. Air-cleaning system
3) Frequency and duration of exposure
4) Refer to the flowchart below to determine if a contact investigation should be initiated.

FIGURE 1. Decision to initiate a tuberculosis (TB) contact investigation



* Acid-fast bacilli.
† Nucleic acid assay.
§ According to CDC guidelines.
¶ Chest radiograph.

Source:CDC MMWR Guidlelines for The Investigation of Contacts of Persons with Infectious Tuberculosis (2005), p.5, Figure 1.

Initiating a CI

1) The initial interview should be conducted within three business days of a suspect or confirmed case of active TB being reported to the local health department. If for any reason the initial interview cannot be completed the State Contact Investigator Coordinator should be notified and the reason for not doing so should be clearly documented. The local health department will continue to make regular attempts to complete this as soon as possible.
2) The interview will need to be conducted with the preferred spoken language of the patient or their legal representative (parent or guardian, medical proxy) with a certified medical interpreter.
3) Upon first meeting the patient, verify their full name and date of birth.
4) Introduce yourself and explain the purpose of the interview.
5) Reassure the patient of confidentiality practices and limitations.
    a. Limitations occur when there is need to notify other individuals, facilities, or organizations of potential TB exposure. Reassure the patient that disclosures occur on a strict need-to-know basis only.
6) Assess the patient for signs and symptoms of Tuberculosis and determine the infectious period based on symptoms, radiology/imaging, and sputum bacteriology.

a. The infectious period is an estimate of the length of time the active TB case can spread TB to others.
b. This typically begins three months before the onset of symptoms. Refer to table below titled "Estimating the Infectious Period" to help determine infectious period.

Estimating the Infectious Period

Index Case Characteristics						**Infectious Period**
TB Symptoms		**AFB Sputum Smear (+) Result**		**Cavitary CXR**		
Yes	**No**	**Yes**	**No**	**Yes**	**No**	
x			x		x	Three months before symptom onset or first positive finding* consistent with TB disease (whichever is longer)
x		x		x		Three months before symptom onset or first positive finding* consistent with TB disease (whichever is longer)
	x		x		x	Four weeks before the date of suspected TB diagnosis
	x	x		x		Three months before first positive finding* consistent with TB disease
* *Abnormal CXR consistent with TB or bacteriology*						

Source: Adapted from CDC MMWR Guidlelines for The Investigation of Contacts of Persons with Infectious Tuberculosis (2005)

7) Collect and verify the following information: refer to appendix: Contact Investigation Screening Tool
   a. Patient full name and aliases
   b. Address and phone number
      i. If patient does not have a phone or is homeless, ask about alternative ways to communicate (email, family member, friend, shelter contact, or emergency contact)
   c. Household members
      i. Name
      ii. Date of birth
      iii. Phone Number
      iv. Assess for any symptomatic household contacts

8) Identify transmission settings outside of the home (work, school, social gatherings, religious activities, travel, transportation, fitness groups, extracurricular activities, etc.)
    a. Name of facility
    b. Address
    c. Appropriate person for contact and phone number, in the event a site visit is necessary (supervisor, human resource manager)
    d. Frequency and duration of source patients time there
    e. Identify the most recent date the patient was at the specific location
    f. Obtain as much information as possible about each potential contact the patient identifies
        i. Name
        ii. Phone
        iii. Address
        iv. General health (potential TB symptoms, immunocompromising conditions)
9) After the interview is complete, thank the patient for their time and cooperation.
10) A repeat interview is recommended in one week to identify any missed contacts or exposure settings. Inquire again about initial start of symptoms and update infectious period if needed. This interview would preferably take place in the patient's home.
11) The following should be clearly documented in the source patient's EpiTrax record as it relates to the CI:
    a. Clinical Tab
        i. First symptom onset date
        ii. Date diagnosed
        iii. Other symptoms of TB and onset dates
    b. Encounter tab: Create an encounter note
        i. Date initial interview was conducted
        ii. Details regarding CI
        iii. Follow-up actions for CI
    c. Investigation tab
        i. Risk factors
        ii. Confirmed or Suspect Active TB, if a contact investigation was initiated
        iii. Isolation
    d. Notes tab
        i. Upload any attachments, such as demographic and screening forms
12) All contacts will be recorded under the Contact Investigation tab in the source patient's Epitrax record, document the following:
    a. Contact type: Refer to Contact Type Definitions
    b. Exposure date (Date of last exposure)
    c. Contact disposition: Refer to Contact Disposition Definitions

d. Disposition date (date outcome concluded)
e. Date of birth
f. Age
g. Phone

13) Any contacts that are out of jurisdiction but within the state will be routed through EpiTrax and access to the contact record should be granted to both the investigating jurisdiction and the local health department where the contact resides.
    a. Notify the local health department by phone where the contact resides to ensure that they have received all the necessary information to complete contact screening.
    b. Complete the Interjurisdictional Notification Form on all out of state contacts and fax to the State TB program at 785-559-4224 or securely email to kdhe.idmanagement@ks.gov
        i. When cases are transferred out of jurisdiction, it is still the local health department's responsibility to follow up for documentation of the screening, testing, and completion of treatment on all identified contacts.
14) Notify TB Contact Investigation Coordinator of any potential large-scale CIs or high risk settings.
    a. >50 people
    b. Congregate setting
    c. Daycare or childcare setting

Prioritizing contacts

1) Prioritize all contacts to high, medium, or low categories based on: (refer to table below "Guidelines for Prioritizing Contacts")
    a. Likelihood of transmission from the case
    b. Contact's risk for the development of TB
    c. Avoid unnecessary testing of low-risk contacts

Guidelines for Prioritizing Contacts

Index Case Characteristic	**Contact Prioritization**
Pulmonary, laryngeal, or pleural TB • Cavitary Lesion on Chest X-ray; or • AFB sputum smear positive	**High Priority** • All household contacts; or • Contact in a congregate setting (schools, detention, facilities, etc.) and with significant frequency and duration of exposure • **Any hours of exposure for:**

	○ Children under the age of 5 ○ Contact with medical risk factors (HIV, individuals with weakened immune systems) ○ Contact during specific medical procedures (bronchoscopy, sputum induction, or autopsy) **Medium Priority** • Anyone age 5 to 15 years who does not meet one of the high priority criteria; or • Contacts with significant frequency and duration of exposure **Low Priority** • Only consider if expansion is warranted.
Suspected or confirmed pulmonary laryngeal or pleural TB • Chest X-ray consistent with TB disease; *and* • AFB sputum smear negative; *and* NAAT positive and/or culture positive	**High Priority** • All household contacts; and • Contacts with significant frequency and duration of exposure • **Any hours of exposure for:** ○ Children under the age of 5 ○ Contact with medical risk factors (HIV, individuals with weakened immune systems) ○ Contact during specific medical procedures (bronchoscopy, sputum induction, or autopsy) **Medium Priority** • Contact in a congregate setting (schools, detention facilities, etc.); *and* • Contacts with significant frequency and duration of exposure **Low Priority** • Only consider if expansion is warranted.
Adapted from Guidelines for the Investigation of Contacts of Persons with Infectious TB: Recommendation from the National TB Controllers Association and CDC and Guidelines for Using QuantiFERON®-TB Gold Test for Detecting Mycobacterium tuberculosis Infection, United States, *Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, 54 (RR-15), 2005.*	

Timeline for contact follow-up

1) High Priority
    a. 3-5 business days from initial encounter with index case
2) Medium Priority
    a. 14 business days
3) Low Priority
    a. Determine if follow up is necessary

High priority contact evaluation, screening, and treatment recommendations

1) Contacts at high risk for rapid development of TB disease if infected with tuberculosis (children under the age of 5 or anyone that is immunocompromised) should be referred to a physician for further evaluation and treatment as soon as possible.
    a. At minimum this evaluation should include the following:
        i. Comprehensive medical exam
        ii. TB test
        iii. Chest x-ray
        iv. Consideration for treatment of active tuberculosis, window prophylaxis, or latent TB based upon screening and diagnostic results.
            1. Window treatment is recommended for children under the age of 5, individuals with HIV or anyone with that is immunocompromised. Window prophylaxis prevents TB disease when infection may be present but not yet detectable. This occurs when:
                a. Initial TB test negative, normal chest x-ray, and no concerns for active tuberculosis
                b. Appropriate treatment prescribed by licensed medical professional. Consider source case drug sensitivities or risks for drug resistant TB
                c. Retest high risk contacts 8-10 weeks from date of last exposure
                    i. If the contact remains asymptomatic, chest x-ray remains normal, and repeat TB test is negative window treatment can be stopped
                    ii. If TB test is positive and work-up is negative for active TB, continue treatment for the entire treatment length of tuberculosis infection
                d. Window treatment should begin as soon as possible, and should be provided by the local health department staff by directly observed therapy. Refer to DOT Monitoring Form
                e. Window treatment consent: Acknowledgment of Window Treatment for TB Infection

Initial TB Screening and Testing of Contacts

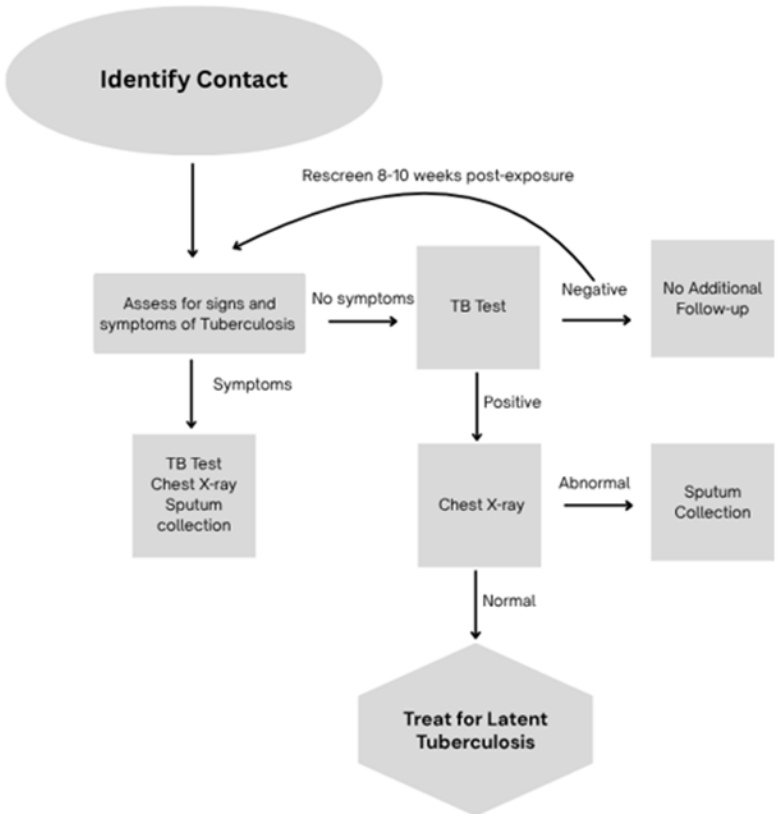
1) Consult with State TB Contact Investigation Coordinator for the appropriate testing method for tuberculosis. In contacts that have a history of receiving the BCG vaccine or who indicate a history of a positive TST, IGRA is the preferred testing method. The decision to utilize a TST or IGRA is heavily dependent upon trained staff, laboratory capabilities, and TB program resources.
    a. PPD ordering: PPD Order Form

b. QFT testing

2) Once the type of TB testing method has been determined, the initial evaluation of a contact consists of the following:
    a. Signs and symptoms of tuberculosis disease
        i. Additional testing for symptomatic contacts may include referral for chest x-ray and sputum collection. Refer to Patient Instructions for Sputum Collection
    b. Risks factors for tuberculosis
        i. Previous contact with someone diagnosed with tuberculosis
        ii. Foreign born or extensive travel outside of the United States to high burden countries
        iii. Any immunocompromising medical conditions
        iv. Previous TB test
            1. If an individual has documentation of a previous positive IGRA or has a history of active or latent TB, a chest x-ray should be done instead
            2. If an individual has documentation of a previous positive TST, an IGRA would be the preferred testing method
    c. TB test
        i. TST
        ii. QFT
            1. Ensure the Kansas Department of Health of Environment Universal Form is completed with all appropriate information.
                a. Name
                b. Date of Birth
                c. Address
                d. Authorizing Medical Provider
                e. Source (blood)
                f. QFT (time in and out)
                g. Reason for testing: Contact Investigation
                h. Index Case Number clearly listed on the KDHE Universal Lab form
                i. Fax form to TB program at 785-559-4224 or securely email to kdhe.idmanagement@ks.gov
    d. If an individual test positive for TB either by TST or QFT, refer patient for chest x-ray and consider treatment for latent tuberculosis. Refer to CDC Guidelines for the treatment of latent tuberculosis.
    e. Document the following for each contact in the contact record:
        i. Clinical tab
            1. Treatment recommendations

ii. Lab tab
    1. TB test results
iii. Encounters tab
    1. Attempts to contact and response
iv. Investigation tab
    1. Radiograph/Imaging studies
v. Notes tab
    1. Demographic and screening forms, TB and chest x-ray results

f. Refer to the flow chart below for a step-by-step contact screening process.



Contact Screening Process

Screening and retesting of contacts

1) Only recommended for individuals with negative TB test at initial screening
2) Re-screen 8-10 from last date of exposure to the infectious source case or after the end of the source cases infectious period. It is preferred to utilize the same TB testing method as the initial TB screening
3) Complete evaluation of rescreening contacts consists of all steps listed under "Initial Screening and Contact Evaluation, Step 2, a-d"

Contacts Lost to Follow Up

1) There should be a minimum of at least three attempts to contact a TB contact before considering them as lost to follow up:
    a. Call the contact
    b. Mail the contact a letter requesting follow up with the local health department
        i. Consider sending a certified letter to the contact as resources allow
2) Document all attempts to contact and response under the contact record in the Encounters tab in EpiTrax

Site Visits

1) A site visit may be necessary to further evaluate potential transmission settings where the case spent time while infectious
2) This is a prearranged visit with the site and is an opportunity to provide education about the importance of contact investigation, basics of TB, recommended screening, testing, and treatment of contacts.
    a. It is important to maintain confidentiality of case and contacts
    b. Observe environmental characteristics of site
        i. Size, crowding, ventilation, airflow
    c. Ask detailed information about potential contacts, refer to section "Initiating a Contact Investigation, Step 8, d-f"

Expanding a Contact Investigation

1) Consider expanding a contact investigation when TB infection occurs among high-risk contacts
2) When there is a change in TST or IGRA status: Initial screen TB testing was negative and 8-10 week repeat TB screen is positive
3) Any contacts diagnosed with TB disease

Additional Resources

CDC Guidelines for the Investigation of Contact of Persons with Infectious Tuberculosis

CDC Self-Study Modules on Tuberculosis, Module 8: Contact Investigations for Tuberculosis