Leadership and Strategy Plan for Maternal and Infant Health in Lake Trouble Shallows, MN

Amanda Tatum

Walden University

Leadership and Strategy Plan for Maternal and Infant Health in Lake Trouble Shallows, MN

**Introduction**

The vision of Lake Troubled Shallows Health Department in Minnesota is a simple one. They envision 'Healthy People Living in Healthy Communities.' This notion is indeed noble, and the mission and guiding principles are designed to fulfill the vision by making the best use of time and resources available. The mission is 'To promote and protect health while preventing disease.' The guiding principles include evidence-based practices, collaboration, and communication with community members and partners, education and outreach, and empowering people to make healthy choices.

**The Problem**

In a recent needs assessment, the Lake Troubled Shallows Health Department identified 'maternal, infant, and child health monitoring and screening' among the top five significant needs facing the community. The Healthy People 2020 goals address this need. The goal applied is "Improve the health and well-being of women, infants, children, and families." (Healthy People 2020, n.d.). Specific objective to focus on will be 'Pregnancy Health Behaviors,' which include increasing the number of pregnant women receiving early and adequate prenatal care as well as increasing the number of pregnant women who stay away from drinking alcohol, smoking cigarettes or taking illicit drugs (Healthy People 2020, n.d.). The challenge lies in creating a program that can use the guiding principles to address the Lake Trouble Shallows community's current need for improved maternal and child health.

**The Need**

The current infant mortality rate in the state of Minnesota is five infant deaths per 1000 live births (MDH, 2015). This rate is currently below the national rate of 6.4 infant deaths per 1000 live births and exceeds the Healthy People 2020 goal of six infant deaths per 1000 live births (MDH, 2015). With this being stated, there are still improvements to be made in the realm of maternal and infant health, especially in the areas of promoting healthy behaviors before and during pregnancy and discouraging risky behaviors before and during pregnancy and health equity. In a 2011 survey, 8.1% of women surveyed in Minnesota stated they had consumed alcohol within the last three months of pregnancy (CDC, 2011a). In the same survey, 8.9% reported they had smoked during the final three months of their pregnancy (CDC, 2011b). These current rates are much higher than the Healthy People 2020 targets.

**Strategic Plan**

An analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) can be a good starting point for a strategic plan. The information obtained in a SWOT analysis provides a guide to help steer our actions.

**Strengths – What does your Community of Practice (CoP) do well?**

Currently, infant mortality rates are below the national average. There is an Infant Mortality Reduction Initiative effective in Minnesota. There is also an Infant Mortality Reduction Plan, which addresses negative pregnancy health behaviors and promotes positive pregnancy health behaviors. It also encourages mother and child health after birth.

**Weaknesses – In what ways is your CoP lacking?**

Currently, racial and ethnic disparities are a weakness and need to be addressed. There are inconsistencies within infant mortality rates among minority races and ethnic groups, which need to be discussed further and taken into consideration when planning.

**Opportunities – What external factors help facilitate your CoP's activities?**

Community partnerships and constituencies can help facilitate the activities needed for this program to make a positive impact. Also, evidence-based practices and approaches seen in other maternal and child health programs are an opportunity to provide proven services to the Lake Troubled Shallows community. Opportunities also include community-based participatory research. There is also the opportunity for increased culturally appropriate and relevant education approaches.

**Threats – What external factors hinder your CoP's activities?**

Hindering factors include the current state of negative pregnancy behaviors and its effects on child and maternal health, creating a negative reinforcing loop. The challenges faced by those who are addicted to substances may also be a threat, as these individuals may require additional services that this program does not have the capacity to provide.

**Leveraging Strengths**

The strengths provide a positive perspective on the issue of maternal and infant health, especially considering the infant mortality rate is at five infant deaths out of 1000 live births, below the national average of 6.4 infant deaths per 1000 live births (MDH, 2015).

**Acknowledging Weaknesses**

The stated weaknesses will give the project a greater focus on what to prioritize. The current weakness of not properly addressing disparities that are prevalent in maternal and child health can be addressed through the maximization of the stated opportunities. As stated in the Minnesota Infant Mortality Plan (2015), the low infant mortality rates often cause "the significant and persistent racial and ethnic disparities" (p. 7) to be overlooked. With this being said, we must consider the significant differences between infant mortality rates among African Americans, American Indians, and Whites. Between 2006-2010 African Americans experienced an infant mortality rate of 9.8 infant deaths per 1000 live births and 9.1 infant deaths per 1000 live births among American Indians (MDH, 2015). This rate is more than double the infant mortality rate of Whites, which was at 4.4 infant death per 1000 live births (MDH, 2015).

**Taking Advantage Opportunities**

The opportunities to connect with community partners and the increased involvement of stakeholders will provide avenues to reach a greater number of mothers, ensuring that racial and ethnic disparities are addressed. Also, community-based participatory research has been seen as a viable strategy to address disparities. Per Ahari, Habinzadeh, Yousefi, Amani, and Abdi (2012), "Community-based participatory research (CBPR) has been identified as a key strategy for effectively reducing health disparities in underserved communities." (p. 1). Using CBPR can add validity and sustainability to approaches and programs as it adds a unique perspective of the community being affected by the issue of maternal and child (Allen, Culhane-Pera, Pergament, & Call, n.d.).

**Minimizing Threats**

The threat of negative pregnancy behaviors that seem to be ever-increasing is the main reason why pregnancy health behaviors have been chosen as the area of focus. Currently, there is a negative reinforcing loop that reinforces high infant mortality rates through the increase in the negative pregnancy health behaviors of smoking and consuming alcohol during their pregnancies. Mothers who smoke and drink alcohol during pregnancy are at risk for higher infant mortality rates (MDH, 2025). Second-hand smoke exposure can also increase the chance of 'sudden infant deaths syndrome' (SIDS) (MDH, 2015). Alcohol consumption also increases negative birth outcomes, such as pre-term births, low birth weight, miscarriages, and fetal alcohol spectrum disorders (MDH, 2015). Each of these disproportionately affects minorities, increasing their infant mortality rates.

The SWOT will be used as a situational assessment that guides the creation of vision, mission, strategies, goals, objectives, and action steps (Shi & Johnson, 2014). The vision, mission, strategies, goals, objectives, and action steps must all align with the Lake Troubled Shallows Department of Health's current mission, vision, and guiding principles, as well as the mission, vision, and goals stated in the Infant Mortality Reduction Plan. Understanding where there are weak areas and where there are external threats will guide our action steps. These action steps will directly address racial and ethnic disparities as well as negative pregnancy health behaviors as these are the most prevalent weaknesses within the current approach and represent the greatest threat to maternal and child health. With this in mind, resources will be allocated to areas of improving the cultural appropriateness and relevance of maternal health resources and programs available to all mothers.

**Program Description**

The program will be for expectant mothers, as well as postpartum mothers, engaging them in a support group environment and providing them with relevant and easy to use materials that support positive pregnancy health behaviors, empowering them to practice these behaviors and continue them after childbirth as well. In Ohio, a maternal and child health program called Moms2B used weekly two hour meetings to discuss topics of nutrition, pregnancy and parenting tips, mental health, pregnancy health, reproductive health, infant safety, connecting women to needed services, and provided the women with a healthy meal (Gabbe, Reno, Clutter, Schotte, Price, Calhoun, Sager, & Lynch, 2017). Weekly follow-ups were conducted via phone calls, and text messages can help to build positive relationships among participants and program staff (Gabbe et al., 2017). The program consisted of small, interactive messages, which included a 10-15 minute discussion with individual learning aids, easy to read and eye-catching handouts, and the use of motivational interviewing (Gabbe et al., 2017). Motivational Interviewing is described as a type of therapy that allows participants to overcome any uncertainty, they have about change, and if they want to commit to changing (Froiland, 2018). Motivational Interviewing was a technique originally used to address drug and alcohol addictions; however, it has expanded to other areas such as the promotion of healthy eating and exercise habits, anxiety-related disorders, and other areas (Froiland, 2018). Training those who are helping with program facilitation would need to be trained in motivational interviewing so that it could be used as a tool within support group sessions. Motivational Interviewing would help with the promotion of healthy pregnancy behaviors as well as increase the program's capacity to be able to address mothers who have addictions.

Based on the SWOT analysis above, objectives can be created that expand on strengths and opportunities, while addressing prevalent threats and weaknesses. The first objective will be to decrease negative health behaviors. This objective can be measured with the use of pre-test and a post-test to capture levels of negative behaviors used before the program and after the program. It can also be used to determine what positive behaviors have been adopted after the program. The second objective will be to decrease racial disparities by ensuring all women are being provided with culturally relevant and meaningful resources and services, keeping in mind individual health literacy levels. The third objective will be to increase community partnerships. The fourth objective will be to increase community awareness, knowledge, and program participation. Awareness can be measured by using community surveys to determine before, during, and after the program launch. The final objective will be to increase capacity within the program and services provided to mothers expecting a child and postpartum women that are dealing with addictions.

**Leadership and Systems Thinking**

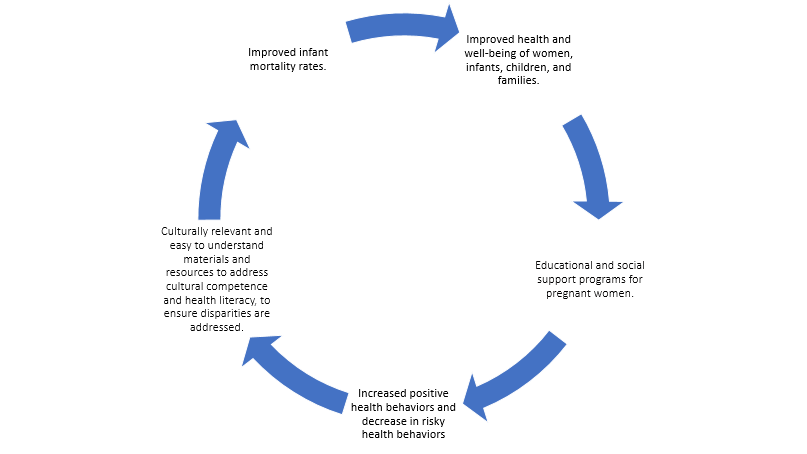
Leadership is future-oriented, setting a vision by pushing boundaries, and taking risks to test the vision (Shi & Johnson, 2014). Management focuses on the present, making sure that the current operations are supporting the vision and mission efficiently and effectively, with the function of continuous quality improvement. Per Ronna Gotthainer, it is necessary for public health leaders to have both leadership and management skills, as both types of skills are needed in their everyday roles (Laureate, 2014). Per Gotthainer, leadership skills needed will be to provide vision, direction, and an example to those working underneath you, while management skills will be implementing policies and procedures to ensure tasks are done efficiently and effectively (Laureate, 2014). Per Yukl and Lepsinger (2005), the roles of leading and managing can be done by the same person. However, since these roles are different, as an organization grows, it may be more effective to have separate individuals within leader and management roles. Separating these roles can help get the most out of the specific functions that each role should play. There must be a balance struck between the interrelated parts within the organization. Both perspectives can help understand the effects of a decision on the organization as a whole, rather than just looking at one part.

**Systems Thinking**

Per Peters (2014), "systems thinking is an enterprise aimed at seeing how things are connected within some notion of a whole entity.:" (p. 1). Williams and Hummelbrunner (2010) put it this way, "thinking systemically is about making sense of the world, rather than describing it." (p. 18). One does so by taking into account the concepts of interrelationships, perspectives, and boundaries (Williams & Hummelbrunner, 2010). Understanding how things are connected, acknowledging how we interpret those relationships, and identifying the relevant and irrelevant pieces will determine how to approach a specific situation or system (Williams & Hummelbrunner, 2010). It will be useful to use systems thinking to understand further how maternal, infant and child health monitoring and treatment are connected to pregnancy health behaviors. These behaviors are also related to infant mortality rates, which is connected to the Healthy People 2020 goal of improving the health and well-being of women, infant, children, and families (Healthy People 2020, n.d.). Many tools can aid in the process of systems thinking, including innovation history. Innovation history applied to this situation would include knowledge about maternal and infant health by highlighting key events, such as advancements made in medicine, and how these advancements have positively or negatively enhanced the health of mothers and their children, including their effect on infant mortality rates (Peters, 2014).

**The Causal Loop**

The causal loop diagram is one of the many tools used to help visualize systems thinking. Per Williams and Hummelbrunner (2010), the causal loop diagram provides a visual representation of key variables and their causal relationship, taking into account dynamic behavior. The causal loop diagram is based on the concept of feedback, which is the return of information, typically within a loop sequence, illustrating the causes and effects of variables (Williams& Hummelbrunner, 2010).

 The above represents a reinforcing causal loop, as the feedback of each action increases the impact of change (WHO, 2015). In this loop, the Healthy People 2020 goal of improved health and well-being of women, infants, children, and families, can be reinforced through education and support of pregnant women, leading to improved pregnancy health behaviors, which will in return improve infant mortality rates.

**Ethical Implications**

There are always ethical concerns that need to be considered when working with communities and vulnerable populations. Transparency is still a good practice. Ensuring that all aspects of the program are explained to participants will be necessary. Per the principles of ethical practice of public health, "public health should achieve community health in a way that respects the rights of individuals in the community." (Public Health Leadership Society, 2002). When considering public health ethics, the community members' input should be kept in mind when developing and evaluating the program (Public Health Leadership Society, 2002). The principle that best encompasses the issue of maternal and child health is "Public health should advocate and work for the empowerment of disenfranchised community members, aiming to ensure that the basic resources and conditions necessary for health are accessible to all." (Public Health Leadership Society, 2002). When working with communities and researching their needs and providing services based on needs, it is important to consider the three major principles found in the Belmont Report are being upheld. The three principles are respect for persons, beneficence, and justice. Respect for persons means that all individuals have the right to make informed decisions, and those who have low autonomy or are considered to be a part of a vulnerable population are entitled to protection (Salazar et al., 2015). Beneficence means an individual's decisions should be respected, and individuals are to be protected from harm and have their well-being ensured (Salazar et al., 2015). Justice refers to not exploiting and treating participants fairly and equally (Salazar et al., 2015).

**Engaging Communities and Building Constituencies**

These mothers may be first-time mothers or in anticipation of another child. Either way, these women are the key stakeholders. The specific objective I chose to focus on was 'Pregnancy Health Behaviors,' which deals with pregnant women receiving early and adequate prenatal and ensuring pregnant women stay away from drinking alcohol, smoking cigarettes, or taking illicit drugs (Healthy People 2020, n.d.). Therefore, there will need to be a focus on including mothers who may struggle with these types of substance abuse or do not have access to adequate prenatal care and services. Another stakeholder will be the medical professionals who aid these women through their pregnancy journey, those who specialize in women's health, whether it be an OB/GYN, a midwife, or women's health nurses.

**Strategies for Identifying Stakeholders and Building Partnerships**

One strategy to identify additional stakeholders and build partnerships will be to engaging the current identified community. This strategy will also build a relationship with the community of expectant mothers or those trying to become pregnant. Per Shi and Johnson (2014), the goal of engagement is to "achieve dialogue, develop shared leadership, and gain shared ownership, which will help determine action and improve objectives based on what the community identifies as important to them. Taking time to learn and know the community and its constituents will prove useful in the long run.

Another strategy will be to build and sustain the network of mothers and healthcare providers, taking advantage of connections these individuals may have that would be relevant in the realm of improving pregnancy health behaviors. For example, an OB/GYN may have a connection to someone in the mental health field that is an expert in addictions and provide insight into how to help pregnant women quit smoking. This creates new relationships that can aid in the sharing of ideas and resources (Shi & Johnson, 2014; Laureate, 2014).

**Challenges**

Per Varda, Shouo, and Miller (2012), collaboration is not a guarantee for success as when working with groups, uncertainty and lack of trust can affect if outcomes and goals are met. One challenge that may arise is a conflict among groups, especially when dealing with resource allocation. Another challenge may be a lack of skills needed among constituents. When there is a skill that is lacking, the best way to combat this is through training (Shi & Johnson, 2014). Another challenge may be that the community is not ready to respond to the need for maternal, infant, and child health monitoring, which relates to the issue of improving maternal, infant, children, and family health. Being able to determine if a community is ready to respond will affect the approach a leader takes. If a community is not ready to respond, one approach may be to continue to relay that the conditions of the issue are not acceptable to motivate people to move (Shi & Johnson, 2014).

**Budgeting, Financing, and Human Resources**

Lake Troubled Shallows Health Department has allotted $250,000 for a start-up budget to address the planning and implementation of the proposed program, including salaries and benefits for human resources. It is essential to understand the different principles and competencies related to public health finance to make effective use of the resources. Public Health Finance is the study of the different aspects of financing public health functions, such as the acquisition, utilization of resources, and the impact the resources have on population health (Shi & Johnson, 2014). It works using the basic principles of fiscal federalism. Fiscal federalism is the framework of how resources are allocated for specific functions on a national, state, and local level, each affecting the type of services able to be carried out at the local level, thus affecting local health departments (Shi & Johnson, 2014). As Lake Troubled Shallows Health Department is a local entity, it important to determine where and how funding is made available for the current project to address the issue of maternal and infant health.

**Funding Issues**

In public health, there tends to be a lack of funding to complete all the projects that are needed. Therefore, resources are limited, and priorities must be put in place to determine what projects are to be completed. Resource limits often affect stakeholders, as this often limits individualized services. However, it does provide the opportunity to take advantage of community-based approaches and population health solutions.

Another funding issue results from having categorical funds that must be used for a specific need, issue, or program (Laureate, 2014). This can be a long-term or short-term issue, depending on the situation. As different programs receive different amounts, it may be frustrating if one does not use the full amount and is unable to share its surplus resource with other programs. One solution is to ensure the resources allocated to a program is reasonable to its related costs. The next budget should then take into account how programs are using the resource allocated and determine what programs require more or less funding.

There are also issues related to the initial start-up costs related to the launch of a new program. This is only a short-term issue. As the program progresses, there will be costs involved, but not as high as the initial launch.

**Funding Sources**

There are many sources of funding to pursue. The challenge is choosing which opportunities are worth the time and effort. One source of funding is federal categorical grants. These grants are the main source of federal aid for local public health services (Shi & Johnson, 2014). These grants are given on either a project or a formula basis. Project-based grants are the most common and are awarded competitively for research, education, social services, etc. (Shi & Johnson, 2014). Formula based grants are awarded based on a formulas, typically set by legislation (Shi & Johnson, 2014). There are also earmark grants that are not awarded on a competitive basis but awarded in amounts set by Congress (Shi & Johnson, 2014). There are also federal pass-through grants. These are grants provided to one entity but allows that entity to provide those funds to another entity, such as state health departments passing along funds to local health departments to be able to perform certain projects (Shi & Johnson, 2014). Many federal grants are specifically for maternal and infant health programs. The U.S. Department of Health and Human Services has many different funding options for specific purposes. For example, one administration is the Health Resources and Service Administration, which has an area of focus in maternal and child health. The Supporting Maternal Health Innovation Program grant would be ideal for funding a program dedicated to aiding women in adopting healthy pregnancy behaviors. The grant must be used per the specifications, which are mainly to "focus on improving maternal health, states, and key stakeholders in their efforts to reduce and prevent maternal mortality and severe maternal morbidity." (HRSA, n.d., para. 1).

Another source of funding is paying for service. Per Veronica Worth, chargeable services often allow participants to invest in their health, thus valuing it at a higher level (Laureate, 2014). Due to financial cutbacks, Worth believes that certain services will be forced to charge a fee to keep the local health departments afloat (Laureate,2014). A combination of these approaches may be necessary to sustain a long term program that addresses positive pregnancy health behaviors.

 In all, the concepts, principles, and tools associated with public health finance can give a leader a greater understanding of how to better use resources. The careful management of resources and finances is essential, as when funding amounts are limited, we must determine how to offer quality services on a lower budget. The competencies above are necessary to guide a leader into making educated decisions on the direction of a project and if the resources will be able to reach the program goals. It also gives insight into the issues related to funding and the future direction that public health facilities may need to go as funds are decreased.

**Performance Management & Health Informatics**

Integrating goals can help determine what areas need to be further measured for performance to ensure internal quality and improvement goals are being met (Shi & Johnson, 2014). It also is a way to demonstrate accountability to the public and external stakeholders (Shi & Johnson, 2014). To ensure public accountability, the Troubled Lake Shallows Health Department needs to ensure there are performance measures set in place for employees, programs, and services to encourage continuous improvement. Performance measures and performance indicators can help indicate whether or to what extent a performance standard is achieved, thus showing where improvements need to be made (Shi & Johnson, 2014).

Goals help us to be intentional in considering continuous quality improvement. Continuous quality improvement (CQI) has become a necessity and central part of healthcare and public health (Shi & Johnson, 2014). CQI involves planning and implementing a continuous flow of improvement that meets or exceeds expectations (Shi & Johnson, 2014). The levels of CQI are macro, meso, and micro, each flowing into one another to create a picture of an infinity loop to illustrate the constant nature of improvement that should be necessary (Duffy, McCoy, Moran, & Riley, 2010). Macro represents the long-term approaches used to meet priority Public Health outcomes (Duffy et al., 2010). Meso represents the planning and implementation of programs at the local level (state, county, city), which translate the strategic vision (Duffy et al., 2010). Micro is the individual health department projects and programs implemented at the unit level (Duffy et al., 2010). Therefore, Lake Troubled Shallows must first look to improve the micro-level activities, in this case how to improve maternal and infant health programs to reach a diverse group of women, ensuring that all women have access to services that provide them with knowledge and resources on caring for them and their child, thus ensuring health at each stage of life.

Public Health informatics are also a useful tool in determining where health issues are and how to best address them. As stated by Shi and Johnson (2014), GIS data can bring health data to the community level, making it more meaningful to those who live and work within the community. GIS also helps public health practitioners to identify factors, strengths, and weaknesses related to the well-being of the community, thus aiding in the strategic planning process by understanding what issues are most prevalent and need immediate attention (Shi & Johnson, 2014). From a leadership perspective, the use of GIS can inform what areas require immediate attention by plotting where maternal and child health issues are within a certain area (county, state, etc.) (Laureate, 2014).

**Conclusion**

In conclusion, the issue of maternal and child health can be addressed by implementing a program that offers an environment of educational and social support for new mothers and expectant mothers, using practices evidence-based approaches such as motivational interviewing. Leadership strategies of visioning will be important to clearly communicate the purpose and future state of the program at hand. The use of a SWOT analysis helps guide action for a strategic plan, which specifically addresses how to handle weaknesses, threats, while maximizing opportunities, each leading to a successful program implementation. Along with a strategic plan, there needs to be a plan to engage community partners and stakeholders, which each essential in the success of the program. An overview of potential funding sources gives a picture on the resources we have available for the program, allowing us to plan how to sustain the program in the future as evaluations prove its impact. Overall, there are many challenges present when planning and implementing a program to address a specific need. Having the proper plan in place and strong leadership can help guide the program and each individual involved to success.

**References**

Ahari, S. S., Habibzadeh, S., Yousefi, M., Amani, F., & Abdi, R. (2012). Community based needs assessment in an urban area: A participatory action research project. *BMC Public Health*, *12*(1),161–168.

Allen, M., Culhane-Pera, K., Pergament, S., & Call, K. (n.d.). A Capacity Building Program to Promote CBPR Partnerships between Academic Researchers and Community Members. *CTS Journal*, 4(6), 428-433.

Center for Disease Control and Prevention. (2011a).Graph of Alcohol Use 3 Months Before and Last 3 Months of Pregnancy. Retrieved from https://chronicdata.cdc.gov/Maternal-Child- Health/Graph-of-Alcohol-Use-3-Months-Before-and-Last-3-Mo/grbx-2j68

Centers for Disease Control and Prevention. (2011b). Graph of Tobacco Use 3 Months Before and Last 3 Months of Pregnancy. Retrieved from https://chronicdata.cdc.gov/Maternal- Child- Health/Graph-of-Tobacco-Use-3-Months-Before-and-Last-3-Mo/mbvg-apdj

Duffy, G. L., McCoy, K., Moran, J. W., & Riley, W. (2010). The continuum of quality improvement in public health. The Quality Management Forum, 35(4), 1, 3–9. Retrieved from the Public Health Foundation website: http://www.phf.org/resourcestools/Documents/The\_Continuum\_of\_Quality\_Improvement.pdf

Edmonds, T., Tsay, B., & Olds, P. (2011). *Fundamental Managerial Accounting Concepts* (6th ed.). New York, NY: McGraw-Hill/Irwin

HRSA Maternal and Child Health (n.d.). Supporting Maternal Health Innovation Program. Retrieved from https://mchb.hrsa.gov/fundingopportunities/?id=c05fb91e-8b4b-4441- 89eb- dec1a81ddef0

Froiland, J. M., PhD. (2018). Motivational interviewing (MI). *Salem Press Encyclopedia*. Retrieved from https://search-ebscohost-com.ezp.waldenulibrary.org/login.aspx? direct=true&db=ers&AN=94895782&site=eds-live&scope=site

Healthy People 2020. (n.d.). Maternal, Infant and Child Health. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child- health

Laureate Education (Producer). (2014c). *Public health finance* [Video file]. Baltimore, MD: Author.

Laureate Education (Producer). (2014d). *Public health informatics* [Video file]*.* Baltimore, MD: Author.

Laureate Education (Producer). (2014f). *The role of the public health leader* [Video file]. Baltimore, MD: Author.

Minnesota Deparment of Health. (n.d.). Infant Mortality Reduction Initiative. Retrieved from https://www.health.state.mn.us/people/womeninfants/infantmort/index.html

Minnesota Health Department. (2015). Infant Mortality Reduction Plan for Minnesota. Retrieved from https://www.health.state.mn.us/docs/people/womeninfants/infantmort/ infantmortality.pdf

Peters, D. H. (2014). The application of systems thinking in health: Why use systems thinking? *Health Research Policy and Systems*, 12, 51. doi:10.1186/1478-4505-12-51

Public Health Leadership Society. (2002). Principles of the ethical practice of public health. Retrieved from https://nnphi.org/wp-content/uploads/2015/08/PHLSposter-95321.pdf

Salazar, L., Crosby, R. A., & DiClemente, R. J. (2015). Research methods in health promotion (2nd ed.). San Francisco, CA: Jossey-Bass.

Shi, L., & Johnson, J. A. (2014). *Novick and Morrow’s public health administration: Principles for population-based management*(3rd ed.). Sudbury, MA: Jones & Bartlett Learning.

University of Kansas. (n.d.b). Chapter 43-Section 1: Planning and Writing an Annual Budget. Retrieved from https://ctb.ku.edu/en/table-of-contents/finances/managing- finances/annual-budget/main

Varda, D., Shoup, J. A., & Miller, S. (2012). A systematic review of collaboration and network research in the public affairs literature: Implications for public health practice and research. *American Journal of Public Health, 102*(3), 564–571.

Williams, B., & Hummelbrunner, R. (2010). *Systems Concepts in Action: A Practitioner's Toolkit*, Stanford University Press. ProQuest Ebook Central, http://ebookcentral.proquest.com/lib/waldenu/detail.action?docID=683245.

World Health Organization (2015). Systems Tools for Complex Health Systems: A Guide to Creating Causal Loop Diagrams. Retrieved from http://www.who.int/alliance- hpsr/resources/publications/CLD\_Course\_Participant\_Manual.pdf

Yukl, G., & Lepsinger, R. (2005). Why integrating the leading and managing roles is essential for organizational effectiveness. *Organizational Dynamics*, 34(4), 361–375

Appendices

SWOT Analysis Table and Budget Table

