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Public Health Leadership in the Philippines: Effective Approaches in Malaria Surveillance

Gethro Nullan
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral dissertation by

Gethro M Nullan

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Review Committee
Dr. Magdeline Aagard, Committee Chairperson, Health Services Faculty
Dr. Kenneth Feldman, Committee Member, Health Services Faculty
Dr. Mountasser Kadrie, University Reviewer, Health Services Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

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2020

Abstract

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Dissertation Submitted in Partial Fulfillment

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Abstract

Leadership traits that affect and shape cost-effective practices ensure the long-term growth and success for any organization. The purpose of this single case study was to explore leadership traits that may contribute to cost-effective approaches in a malaria surveillance program in the Philippines. The National Health Service Leadership Framework provided the conceptual framework for this study. The participants included 12 public health leaders/managers who have worked or been involved in malaria surveillance programs with budgetary oversight. Data were collected through in-depth interviews and document analysis. Values coding was used for data analysis, in which participants' perspectives were coded using the 3 constructs of values, attitudes, and beliefs. The results revealed accountability, commitment, and passion as attitudes, and personal integrity and inclusiveness as values. These attitudes and values directly influenced and contributed to the malaria surveillance program's cost-effective approaches. The influences on cost-effective strategies were evident through increased employees' work efficiency, enhanced relationship between leaders and followers, and improved organizational performances.

The results of this study could benefit public health leaders in managing programs in infectious disease surveillance more cost-effectively and could be used as a learning tool and guide for leadership training and development and to inform policymakers to improve public health funding.

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Dedication

I dedicate this doctoral study to my wife, Yuvy: Throughout this journey, you have been my greatest supporter. To my son, Brennen, you have been the source of my determination. Thank you both for your unconditional love, understanding, and encouragement.

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First of all, I want to thank God for giving me good health, strength, and wisdom to complete this doctoral study. Second, this journey was quite long and challenging on my part. Reaching this accomplishment would not be possible without the unyielding support and expert guidance of my academic support team. To my committee chair, Dr. Magdeline Aagard, thank you for your expertise, unwavering support, and advice. You have been patient in helping and guiding me throughout this entire dissertation process, and I genuinely appreciate that. To Dr. Kenneth Feldman, thank you for your expertise and for serving as my committee member. You have been instrumental in guiding me to improve the quality of my work. To my URR, Dr. Mountasser Kadrie, thank you for the guidance you provided. Finally, thank you to my friend Dr. Michael Le for being such a great mentor.

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Chapter 1: Introduction to the Study

Introduction

Leadership in public health is crucial and plays a critical role in protecting the population, eliminating global threats, and providing long-term solutions to many challenging and complex health issues. Leadership effectiveness is imperative to finding common goals and uniting all stakeholders to support and advance the mission and vision of an organization (Yang, 2016). A leader influences and motivates followers to embrace change and to support organizational vision (Yang, 2016). An understanding of the leadership style that fits the organizational culture and circumstances is vital to ensuring organizational success and improved outcomes (Solà, Badia, Hito, Osaba, & Del Val García, 2016).

In 2015, the World Health Organization (WHO; 2017) launched the Global Technical Strategy for Malaria 2016–2030 (GTS), which provides the framework necessary to achieve global goals for all countries to control and eliminate malaria incidence. According to the 2017 World Malaria Report, there were about five million more malaria cases in 2016 compared to the previous year, and 445,000 people died from the disease (WHO, 2017). The global fight against malaria is not over and should remain a priority for all affected countries and health agencies to better respond to the increasing disease challenge (WHO, 2017). Effective leadership is needed to redesign sustainable prevention programs, implement interventions, and provide solutions to the malaria problem.

In this study, I investigated how public health leadership relates to a cost-effective approach in malaria surveillance in Region V of the Philippines. This study was needed to fully understand leadership attributes and skills that may advance a cost-effective approach to malaria surveillance. This research might effect social change by identifying public health leadership traits that translate to cost-effective strategies, greater program sustainability, and higher success rates in malaria surveillance programs. For example, traits such as visionary leader, team player, and ability to influence stakeholders may lead to successful program implementation and may help to sustain change. Understanding these specific leadership traits might help empower leaders from other communities, provinces, and regions for training and development and to promote fiscal responsibility. The findings from this research may help public health leaders to manage resources, reduce the morbidity and mortality rates from malaria, improve lives, and achieve 2030 WHO goals.

The sections of this chapter include the background for the study, the problem statement, and the purpose of the study. Also included are the research questions, a conceptual framework for the study, nature of the study, definitions, assumptions, scope and delimitations, and limitations. Lastly, I explain the significance of the study and provide a summary of the chapter.

Background of the Study

The success of any program related to disease prevention and control relies heavily on the leaders' ability to motivate and inspire followers, as well as the type of leadership styles they choose to develop and adapt (Yang, 2016). Malaria surveillance

programs remain a critical mission and provide valuable tools to address the re-introduction or spread of the disease globally (Gueye et al., 2016). Timeliness of disease surveillance is essential for effectiveness, and it requires sustained efforts and resources to remain useful in its purpose (WHO, 2017).

Most researchers have agreed that malarial disease remains prevalent in many developing countries. The only way to address the spread of the disease is for public health leaders to heighten their efforts and implement evidence-based interventions (Bruxvoort et al., 2015; Kruk et al., 2014; Rutta et al., 2015; Strachan et al., 2016; Watanabe, 2015). Strachan et al. (2016) and Watanabe (2015) described practical measures, interventions, and challenges in malaria surveillance and prevention efforts. Bruxvoort et al. (2015) identified relevant strategies using advanced chip technology to monitor patient compliance with treatments and monitor its effectiveness.

Leadership in public health shapes the culture of the organization, inspires followers, and predicts program outcomes (Popescu & Predescu, 2016). Programs such as Saving Mothers, Giving Life global initiative and accredited drug dispensing outlet programs are examples of partnerships between public and private entities, demonstrating how leaders can manage programs in spite of financial constraints and limited resources (Kruk et al., 2014; Rutta et al., 2015). Addressing leadership competencies has proven to be essentials for empowering others and for successful program implementation (Du Plessis, Marriott, & Manichith, 2016; Elton, 2016).

Problem Statement

Leadership among provincial and local health departments can play a critical role in the development, implementation, and sustainability of health programs, particularly in most developing countries. In 2014, the WHO identified alarming and distressing health issues in the Philippines. The increasing number of diseases, severe malnutrition, high child mortality rates, and disaster-prone areas were some of the contributing factors burdening the health of the entire country and demanding action (WHO, 2014). The health of the population remains a growing concern in issues such as maternal and neonatal care, malaria treatment programs, dengue fever, and health literacy (Duysburgh et at., 2014; Edillo et al., 2015; Kadomoto, Iwasa, Takahashi, Dulnuan, & Kai, 2011; Liu et al., 2013). Other researchers identified the need for additional research to explore the most cost-effective approaches to malaria surveillance (Cotter et al., 2013; Tatarsky et al., 2011).

Leadership in malaria prevention and disease management has been studied from many perspectives, including a community-based delivery approach using a chemoprevention intervention (Strachan et al., 2016), a participatory learning approach (Maung et al., 2017), application of monitoring devices to assess patient adherence to medication (Bruxvoort et al., 2015), and understanding the roles of the community health workers (Gwynne & Lincoln, 2017; Sunguya, Mlunde, Ayer, & Jimba, 2017). Additionally, leadership style has been explored and studied from more diverse contexts or settings, including leadership that promotes teamwork in the healthcare setting (Ryan, 2017), the leadership role of nurses to improve organizational culture (Layton, 2015), the

relationship between transformational leadership and job satisfaction (Choi, Goh, Adam, & Tan, 2016; Deschamps, Rinfret, Lagacé, & Privé, 2016; Karimi, Mills, Calvert, & Ryckman, 2017), servant leadership in critical care (Fahlberg & Toomey, 2016; Gunnarsdóttir, 2014; Hanse, Harlin, Jarebrant, Ulin, & Winkel, 2016; Savel & Munro, 2017), and the association of leadership styles and empowerment (Asiri, Rohrer, Al-Surimi, Daar, & Anwar, 2016; Choi et al., 2016).

Based on my comprehensive searches, I determined that a gap exists in the literature regarding leadership styles and cost-effectiveness in the implementation of malaria programs. There is a lack of information and understanding of how leadership styles may advance cost-effective strategies, particularly in a malaria surveillance program. Focusing on this area is crucial and highly recommended (Cotter et al., 2013; Tatarsky et al., 2011). A significant contribution to the field in understanding leadership qualities and skills could lead to cost-effective approaches to preventing and mitigating malaria outbreaks.

This study may augment previous research on public health leadership and provide additional knowledge on how disease surveillance programs and effective malarial interventions can be fully achieved and sustained for the long term. The findings from this research could be used in developing appropriate policy change and interventions and could help other countries facing similar circumstances be able to make substantive improvements in public health.

Purpose of the Study

The purpose of this study was to identify and highlight leadership traits that are crucial to the implementation process and the cost-effectiveness approach of a malaria program in Region V of the Philippines. To address this research gap for how public health leadership affects the cost-effectiveness approach, I used a qualitative method using a single case study to explore leaders' perspectives and lived experiences about this phenomenon. In-depth semistructured interviews were conducted on selected participants to investigate and determine common themes associated with leadership characteristics toward the cost-effectiveness approach in malaria surveillance. The target population included leaders and managers of public health centers in Region V of the Philippines. The criteria for the recruitment of participants is discussed thoroughly in Chapter 3.

Research Questions

This study was conducted using a qualitative method, and the research question was as follows: To what extent, if any, do leadership qualities contribute to a cost-effective approach to malaria surveillance?

Subquestions that guided the research were:

What personal leadership qualities, such as building relationships and teamwork, contribute to a cost-effective approach in malaria surveillance?

How does creating a vision and setting direction support efforts of a cost-effective approach in malaria surveillance?

How do delivering strategies, such as case findings, diagnostic testing, and treatments, advance the implementation process of a cost-effective approach to malaria surveillance?

Conceptual Framework

The Department of Health and the National Health Service (NHS) Leadership Academy (2011) in the United Kingdom provided a conceptual framework suitable for this study called the leadership framework (LF). Malaria surveillance programs in the Philippines are the responsibilities of public health organizations, which are led by clinical leaders, including physicians and nurses. LF has been used to transform medical leadership in the Australian health system by redefining the vital role that physicians play to strengthen leadership in both private and public health organizations (Sebastian et al., 2014). Australian medical leadership encourages physicians in leadership roles to become involved in making a difference in areas such as clinical staff retention, career enhancement, organizational culture improvement, quality and safety improvements, and better health outcomes (Sebastian et al., 2014). Also, LF has been applied to improve health services in Scotland through mutual leadership engagement of both the government and public health systems (Howieson & Fenwick, 2014). The health administration in Scotland introduced a robust partnership and collaborative approach to improve care services and change the current organizational culture (Howieson & Fenwick, 2014).

LF has seven domains: (a) demonstrating personal qualities, (b) working with others, (c) managing services, (d) improving services, (e) setting direction, (f) creating

the vision, and (g) delivering strategy (Department of Health and NHS Leadership Academy, 2011). Each domain focuses on four elements that further define leadership effectiveness (Pendleton, 2012). Although LF is used widely for leadership qualities for improvement of public health service, it is also a lens most appropriate for my research to examine leadership characteristics that focus on delivering the best service. This framework provided guidance and a basis for interpreting my research interview data. More importantly, this framework was consistent with my topic that focuses on leadership behaviors and qualities to look for best practices, practical strategies, and favorable outcomes.

Nature of the Study

A single case study method was used for this study. The researcher in the case study seeks to explore and understand single or multiple phenomena within its natural setting through a holistic investigative approach using different types and sources of data (Yin, 2014). Data collection for this study included interviews and document analysis (Yin, 2014). Qualitative research allows participants to share their experiences, actions, and perceptions on the cost-effective approaches to a malaria program (Yin, 2014).

Using a case study method enabled me to collect data from public health leaders in the Philippines and review documents on malaria programs to understand why specific leadership qualities were beneficial to cost-effective malaria programs and participants' perspectives on their actions (Yin, 2014). The data were collected among public health leaders in Region V of the Philippines through face-to-face interviews and document analysis. The participants included administrators and managers of public health clinics.

The participants met the criteria that will be established in Chapter 3. To analyze the data, I employed values coding to examine behaviors according to values, attitudes, and beliefs (Saldana, 2016). NVivo12 software was used for data organization and data storage. Chapter 3 presents a detailed overview of the criteria for selecting participants, data collection processes, coding procedures, and data analysis.

Definitions

The following definitions are necessary because they clarify terms that can have multiple meanings and explain the specific usage in the context of this study. Readers need to know the meaning of the words to avoid any confusion or misconception. These definitions support the goals of the study to inform and enhance the reader's knowledge with specificity and complete detail of the meaning of the terms.

Leadership styles: Behaviors exhibited by a leader to influence others or motivate an individual or group toward achieving collective goals (Asamani, Naab, & Ofei, 2016).

Malaria eradication: The degree to which a complete and permanent interruption of disease transmission is achieved due to timely and deliberate actions (WHO, 2017).

Stakeholders in public health: A person, group, or organization that has pressing concerns or primary interests in the program outcomes (Centers for Disease Control and Prevention [CDC], 2012). Key stakeholders in public health include patients and community members, program management and staff, care providers, funding agencies, and advocacy groups (CDC, 2012).

Surveillance: The process of monitoring and tracking of disease outbreaks and assessment of actions taken in response to the situation (WHO, 2017). Surveillance

systems are used to track disease progression and trends to enable timely intervention and prevent the transmission and resurgence of malaria parasites (WHO, 2017).

Team orientation: A leadership style that focuses on collaboration, deliberation, and group orientation (Mączyński & Sułkowski, 2017).

Transformational leader: A leader who has charisma, the ability to coach and inspire, and can provide intellectual stimulation to followers (Choi et al., 2016).

Assumptions

Assumptions are believed to be valid and true statements (Wargo, 2015). Several assumptions critical to this study include the following:

- I assumed that participants would be honest, thorough, and open in their responses because their participation was strictly voluntary, and their identity would be kept confidential.
- I assumed that public health leaders, such as administrators and managers, could provide valuable insights because of their involvement in overseeing the program and their extensive experience and perspectives about the research topic.
- I assumed that a qualitative single case study was the best method for finding answers to my research questions because this approach is designed to gain a better understanding of participants' behaviors, experiences, and opinions (Merriam & Tisdell, 2015)

Scope and Delimitations

The literature on leadership styles shows a need for further research on leadership concerning cost-effective approaches to malaria surveillance (Cotter et al., 2013; Gueye

et al., 2016; Tatarsky et al., 2011). The research problem in this study highlighted the critical role that local health leadership plays at the onset of planning and implementation down to the evaluation of results and sustainability of health programs. The goal of this research was to identify leadership traits and skills that may help to advance cost-effective measures in malaria surveillance.

The scope of this study was focused on in-depth interviews with local public health leaders/managers who hold an integral role and position in malaria surveillance programs in Region V of the Philippines. The interview questions were open-ended and semistructured to allow participants to express their thoughts freely and wholly. I recruited leaders/managers in rural health clinics responsible for overseeing the surveillance program. For document analysis, I requested permission in advance to review relevant documents, such as malaria surveillance reports (monthly, quarterly, or annually), performance reports, funding and financial statements, and efficacy studies.

The delimitation for this study was on the participant selection. Because the focus of the research was on leadership traits, only leaders or managers of rural health clinics were included in the study. All participants met the inclusion criteria of being a full-time employee, holding a leadership or supervisory role, and have worked or been involved in malaria prevention and surveillance programs with budgetary oversight. Participation was voluntary, and informed consent was signed before data collection.

Limitations

There were several limitations to this study. The first limitation is transferability. Data were collected in the Philippines, and participants were public health leaders from a

rural locale. The interviews took place in offices where participants work, which may limit transferability. The findings from this study may not be transferable to larger populations or other settings (Amankwaa, 2016). This study focused on the malaria program to examine leadership traits that may affect cost-effective practices. Therefore, findings may not be applicable or transferable to other programs because leadership traits or styles may vary from every situation or environment. A thick description of the data was employed to mitigate the issue of transferability.

The second limitation of this study was related to participant selection. The participants for the study included only leaders and managers with a budgetary role in malaria programs, thus, limiting more diverse perspectives from other leaders. To address this limitation, I used purposeful sampling to obtain a close representation of the workforce, such as nurses, physicians, and other public health professionals. Purposeful sampling is a process in which study participants are selected based on their extensive knowledge and experience about the phenomenon and because they can provide answers to the research questions (Patton, 2015).

Finally, the third limitation of this research was data dependability. In qualitative research, dependability refers to the stability and consistency of the data collection process and the study findings (Connelly, 2016). Being a novice researcher, I may not be thorough or attentive enough to detail during the data collection and data analysis. However, I provided accurate and complete documentation of the data collection process by writing a reflexive journal and an audit trail. Additionally, I performed data

triangulation using different data sources; in this case, I used interviews and document analysis to strengthen the dependability of study results.

Significance

Identifying leadership attributes and skills that could advance a disease surveillance program to successful completion and better sustainability is vital to preventing the re-introduction and spread of malarial disease locally and globally. My contributions provided additional knowledge on leadership traits suitable for malaria program implementation, a potential leadership model to use for training and development, and vital information for policymakers and funding agencies regarding cost-effective practices of leaders in a malaria program.

The administrators, managers, and nurses in public health could benefit from the study findings with an increased understanding of the leadership traits that affect the cost-effectiveness of approaches to a malaria program. My goal for this study was to identify new insights in the field of public health leadership on a less-studied area of cost-effective approaches in disease surveillance (Cotter et al., 2013; Tatarsky et al., 2011). The Philippines offers the perfect site to carry out the study for the following reasons:

- Malaria used to be endemic in this country, but a significant decline in malaria cases has been reported in recent years (Liu et al., 2013);
- Malaria vectors continue to exist, and the risk of re-introduction of the disease is still high (Liu et al., 2013);
- The public health system is decentralized; and
- Funding for malaria programs remains inadequate.

This research might bring about social change by identifying public health leadership traits that could translate to cost-effective approaches, greater program sustainability, and higher success rates in malaria control and prevention. The findings from this study may benefit health leaders and people in the community to better manage the program in disease surveillance. Understanding specific leadership traits might empower leaders from other cities, provinces, and regions to use the findings as learning tools and guides for leadership training and development, as well as to promote fiscal responsibility. Moreover, the results from this research may aid public health leaders to manage their resources, advocate policy change, and integrate newer knowledge as an evidence-based approach, particularly in many developing countries.

Summary

Malaria remains a heavy burden and a significant threat to public health, not only in many developing countries but also around the world (WHO, 2015). The increasing trend of migration or increased mobility enables people to travel far distances globally. This trend creates a dilemma in which an accidental transport of mosquito-borne diseases could happen through air and sea travel. The issue of migration poses a risk to others, particularly infectious diseases, which is why prevention, control, and surveillance continue to be essential measures to address and mitigate this pressing problem (WHO, 2015).

The leadership style on cost-effective approaches is a critical knowledge gap in research. Exploring this topic may shed some light on key leadership traits that can make a difference in malaria surveillance programs. Also, this study can promote leadership

styles that can be adopted in the field as an evidence-based approach to manage health programs effectively. A single case study offers the best qualitative method for finding answers to my research questions. Included in this chapter was a background of the study, problem statement, purpose of the study, research questions, conceptual framework, nature of the study, definitions of key terms, discussion of the assumptions, scope, delimitations, limitations, and the significance of the study.

In Chapter 2, I describe the conceptual framework of the study, provide a comprehensive literature review related to essential leadership qualities, the role of public health leaders, and the benefits of malaria disease surveillance. The literature review establishes the basis and background for this study (Creswell, 2018).

Chapter 2: Literature Review

Introduction

The purpose of this qualitative case study was to identify and highlight leadership traits that are valuable and could lead to a cost-effective approach in the implementation process of a malaria surveillance program. A case study is used to gain a better understanding of a phenomenon by examining participants' experiences, perspectives, and worldviews (Merriam & Tisdell, 2015; Yin, 2014). The case study method is highly appropriate in investigating a contemporary phenomenon (Yin, 2014).

Although many studies have been conducted regarding leadership styles, global malaria funding, malaria prevention and testing, and the role and impact of leadership to nurses (Duysburgh et at., 2014; Edillo et al., 2015; Kadomoto et al., 2011; Liu et al., 2013), little to no research exists on whether leadership traits may influence the cost-effectiveness approach to a malaria program. In this chapter, I focus the literature review on healthcare leadership, including servant, visionary, strategic leadership styles, and the role of the public health leader.

Leadership provides the driving force for any organization to continue to thrive, overcoming challenges and meeting organizational goals and missions. As explained by Solà et al. (2016), no singular leadership style that fits everyone. The appropriateness of a leadership style may depend on the situation and direction of the organization. Understanding different leadership styles are crucial to find one that can translate to more cost-effective outcomes.

Literature Search Strategy

The literature search strategy included the use of the following databases: MEDLINE, CINAHL Plus, ProQuest Nursing & Allied Health Database, ProQuest Health & Medical Collection, CINAHL & MEDLINE Simultaneous Search, PsycINFO, and Google Scholar. The publication years examined were from the last 3 years, and the search was modified to include only peer-reviewed scholarly journals with or without full text. Walden University library was the primary source for accessing the databases. The keywords or search terms used were *national health service (NHS) leadership framework, leadership characteristics, supportive leadership, leadership and malaria, leadership styles and public health, servant leadership, visionary leadership, strategic leadership, team cohesion, the role of the public health leader, disease surveillance program history,* and *benefits of a malaria surveillance program.*

Conceptual Framework

The conceptual framework of this study is the NHS LF (Department of Health and NHS Leadership Academy, 2011). LF was built on the concept that leadership is not the sole responsibility of just one leader but is the shared responsibility and commitment of all members of an organization to achieve the organization's goal (Department of Health and NHS Leadership Academy, 2011). To attain robust leadership, all staff must support their leader and take on responsibility delegated to or expected from them (Department of Health and NHS Leadership Academy, 2011). The NHS LF has seven domains: (a) demonstrating personal qualities, (b) working with others, (c) managing services, (d) improving services, (e) setting direction, (f) creating the vision, and (g)

delivering strategy (Department of Health and NHS Leadership Academy, 2011). Each domain focuses on four elements that further define leadership effectiveness (Pendleton, 2012).

Under the first domain, demonstrating personal qualities, there are four elements: (a) developing self-awareness, (b) managing oneself, (c) continuing personal development, and (d) acting with integrity (Department of Health and NHS Leadership Academy, 2011). The second domain, which is working with others, focus on four elements: (a) developing networks, (b) building and maintaining relationships, (c) encouraging contribution, and (d) working within teams. For managing the services domain, the four elements are planning, managing resources, managing people, and managing performance. With the domain on improving services, the elements consist of (a) ensuring patient safety, (b) critically evaluating, (c) encouraging improvement and innovation, and (d) facilitating transformation. Under setting direction domain, the elements include (a) identifying the contexts for change, (b) applying knowledge and evidence, (c) making decisions, and (d) evaluating impact. For creating the vision domain, the elements are (a) developing the vision of the organization, (b) influencing the vision of the wider healthcare system, (c) embodying the vision, and (d) embodying the vision. Finally, the four elements with delivering the strategy domain are (a) framing the strategy, (b) developing the strategy, (c) implementing the strategy, and (d) embedding the strategy (Department of Health and NHS Leadership Academy, 2011).

LF was applied in previous research to improve the Australian health system and health services in Scotland. This framework was used to transform medical leadership in

Australia by clarifying the physicians' role in both the private and government hospitals (Sebastian et al., 2014). Such medical leadership roles include quality and safety improvement, career enhancement, clinical staff retention, organizational culture improvement, and better health outcomes (Sebastian et al., 2014). In Scotland, health services were improved using LF by emphasizing the need for mutual leadership through active partnership and collaborative efforts to change the organizational culture and advance the quality of health services (Howieson & Fenwick, 2014). Although this framework is predominantly used for the training and development of healthcare professionals to promote shared responsibility and learn new skills, it is also the most suitable lens for my research exploring leadership characteristics that value quality health services. Thus, the relationship of LF to my topic is the focus on leadership behaviors and qualities that highlight best practices, practical strategies, and favorable outcomes.

Leadership Characteristics

Leadership characteristics entail the essential skills and attributes that a leader must possess or develop to be efficient in their role and to ensure a positive outcome in most decision-making. According to Solà et al. (2016), finding a suitable leadership style is tricky because no specific model fits all situations. In every crisis, the key is to apply the right leadership style or styles that are more likely to produce more robust results (Asamani et al., 2016). Therefore, it is imperative to examine what these leadership styles are and the characteristics that may predict better organizational outcomes and leadership success. Among the various leadership styles, the two most widely studied and accepted

are supportive leadership and transformational leadership (Asamani et al., 2016; Mączyński & Sułkowski, 2017).

Supportive Leadership

Greater emphasis on effective leadership enables researchers to delve into different leadership paradigms that enhance the relationship between leader and followers. One of these models is *supportive leadership,* which empowers a follower to act and make a decision on their own depending on a situation (Asamani et al., 2016). Asamani et al. (2016) found that nurse managers frequently use a supportive leadership style to improve nursing staff job satisfaction. The participants in Asamani et al.'s study came from five hospitals in Ghana, comprised of 591 nurses and 21 midwives. The participants completed a questionnaire and were asked about their perception of their nurse managers' leadership style, and the results showed high supportive leadership style (Asamani et al., 2016). Similarly, Palm, Ullström, Sandahl, and Bergman (2015) interviewed 27 employees to see if they noticed changes in their managers' leadership styles over time. Palm et al. found that managers' leadership styles do change from time to time, and one of the themes identified as supportive leadership. The interviewees described supportive leadership as having robust and open communication, increased presence or availability, and compassion to employees (Palm et al., 2015).

Transformational Leadership

The role of transformational leadership is pivotal in bringing all players on board to participate and use their talents to help their organization achieve its mission and vision. Transformational leaders possess charismatic characteristics and are driven to

motivate and inspire followers through realistic organizational vision, development of talents, and a culture of trust and inclusion (Choi et al., 2016; Macomber, 2019). Researchers have found that transformational leadership is the preferred choice of healthcare workers because it helps improve relationships, creates trust, and empowers others to be involved in decision making (Choi et al., 2016; Deschamps et al., 2016; Karimi et al., 2017; Yang, 2016). Karimi et al. (2017) highlighted strategies using transformational leadership that were highly effective in ensuring positive patient care outcomes in nursing and long-term care homes. Such strategies included developing relationships and mutual trust, empowering staff, and providing support to manage and sustain change, which enabled leaders to create an employee-centered organizational culture. Yang (2016) found that transformational leadership style produces better outcomes through mutual trust between leader and followers, increased commitment to change, and improved working cohesiveness among members. Yang (2016) demonstrated that positive effects of transformational leadership could lead to higher job satisfaction and better working relationships where the leader understands the needs and abilities of employees.

Leadership can also be explored from a different angle in which employee perceptions play a role in determining how effective their leaders are in motivating and inspiring them. Deschamps et al. (2016) discussed the link between transformational leaders, justice in the organization, and employee motivation during an organizational change. They hypothesized that employee perceptions of organizational justice determine their behaviors and outcomes in a workplace, such as productivity, commitment, and job

satisfaction (Deschamps et al., 2016). A total of 257 participants completed the survey (69 men and 188 women), all employed in Quebec's healthcare institutions, such as the hospital, health centers, and rehabilitation centers (Deschamps et al., 2016). The results revealed that transformational leaders influence how their followers perceive organizational justice, which affects the level of motivation in the workplace (Deschamps et al., 2016). The findings confirmed that organizational justice serves as the mediating factor for motivation between the leader and the employee (Deschamps et al., 2016).

Exploring mediating variables helps explain or uncover the relationship between two or more variables. Choi et al. (2016) examined the effect of empowerment concerning transformational leadership and job satisfaction. About 200 respondents in Malaysia consisting of nurses and medical assistants, completed survey questionnaires using a 5-point Likert scale to measure three constructs (transformational leadership, empowerment, and job satisfaction) (Choi et al., 2016). The study found that empowerment positively mediates the relationship between transformational leadership and job satisfaction (Choi et al., 2016). Choi et al. (2016) warned readers that the study design limitations included the insufficient sample size of male nurses, low response rate, and the use of cross-sectional design. The results suggest that there is a significant effect on employee empowerment that influences the transformational leader and improves overall job satisfaction in the workplace.

Leadership has been characterized as the critical factor and the difference between the success and failure of an organization. Smith (2015) emphasized the needs of healthcare leaders to be proactive in learning and developing behaviors aligned with the

transformational approach. Smith reviewed the transactional approach in Academic Health Centers and found that transactional style alone is not capable of addressing the complexities and challenges of care delivery. Leadership demands behavioral change on the part of a leader to consider and adopt new strategies necessary to advance the vision of the organization (Smith, 2015). Karimi et al. (2017) expressed the same sentiment as a result of their evaluation of leadership in nursing homes. That concern echoed the need to use the best practice guideline, such as the transformational approach, to bring about a culture of change and sustain nursing leadership within the organization's pool of talents (Karimi et al., 2017).

Servant Leadership

Servant leadership offers an approach to leadership, in which the leaders are fully committed and highly invested in bringing out the very best from their followers (Savel & Munro, 2017). Servant leaders work diligently to ensure their followers understand their role and feel appreciated. In 1970, Robert Greenleaf was first to introduce and popularize the servant leadership model in the corporate arena (Gunnarsdóttir, 2014). Fundamental characteristics of servant leadership include listening, empathy, self-awareness, humility, accountability, commitment to team building and partnership, stewardship, and persuasion (Hanse, Harlin, Jarebrant, Ulin, & Winkel, 2016; Liu, Hu, & Cheng, 2015; Trastek, Hamilton, & Niles, 2014; Walsh, Messmer, Hetzler, O'Brien, & Winningham, 2018). Researchers found the benefits and positive impacts of servant leadership on employee personal and professional growth, and job satisfaction (Fahlberg, 2016; Gunnarsdóttir, 2014; Hanse et al., 2016; Liu et al., 2015). Gunnarsdóttir (2014)

interviewed 138 nurses in four large hospitals in Iceland to determine the nursing staff perceptions of servant leadership. Gunnarsdóttir (2014) confirmed that there was a significant relationship between servant leadership and job satisfaction. Humility, accountability, and empowerment were among those qualities identified that improve job satisfaction (Gunnarsdóttir, 2014). Liu et al. (2015) reinforced Gunnarsdóttir's findings hypothesizing that there is a relationship between servant leadership and motivation. Liu et al. (2015) distributed survey questionnaires among public employees in eastern China, and 659 respondents completed the survey. Liu et al. (2015) found that there was a significant correlation between increased employee motivation and servant leadership in the public sector. The results of both studies showed the positive effects of a servant leader to subordinate perceptions, attitudes, and behaviors in the workplace (Gunnarsdóttir, 2014; Liu et al., 2015).

In similar research, Hanse et al. (2016) discussed the relevance of servant leadership to leader-member exchange (LMX) development. LMX is described as the relationship between a leader and a subordinate (Hanse et al., 2016). In this study, 240 hospital employees in Sweden completed the surveys (Hanse et al., 2016). Using regression analysis and Pearson correlation, Hanse et al. determined that a dyadic relationship existed between servant leaders and their followers. Hanse et al. found that servant leadership positively affected LMX development among healthcare workers. Hanse et al. identified humility, empowerment, and stewardship as servant leadership qualities be highly associated with the LMX. These findings indicate that servant leadership is integral to building a robust relationship with the LMX model (Hanse et al.,

2016). Johanson (2017) described a different situation, but similar results on the effects of servant leadership to subordinates. Johanson (2017) discussed the challenges and opportunities of nurses who volunteered for short-term medical missions. Short-term medical missions are usually a team-based organization whose primary purpose is to help people from impoverished communities in developing countries (Johanson, 2017). Challenges noted in short-term medical missions were sustainability and inadequate project funding (Johanson, 2017). These challenges prompted many organizations to seek a leadership style that suited the situation. According to Johanson (2017), the use of servant leadership helps public health leaders and nurses to create a stronger partnership with patients and local officials to achieve long-term success and sustainability of the projects. Evident from short-term medical missions were leadership characteristics of a servant leader, such as listening, empathy, and self-awareness (Johanson, 2017). These qualities were invaluable throughout the mission process and consistent with the findings reported by Hanse and her colleagues.

Understanding the level and extent to which servant leadership impacts subordinates and healthcare organizations makes this leadership style more compelling to learn. Savel and Munro (2017) described the importance of servant leadership in delivering a patient-centered care environment, where the primary goal is to serve and work together as a team. Characteristics such as, putting the interest of others first, ensuring team members have the resources to succeed, and leading by humility are essential factors that exemplify servant leadership towards positive patient care outcomes and employee satisfaction (Savel & Munro, 2017). For nurses, applying servant

leadership style comes as a natural and inherent practice because they provide most of the direct care to patients, and work with team members regularly to improve the quality of care (Savel & Munro, 2017).

Nurses develop this servant leadership approach even at the early stage of their career and are poised to be an ideal servant leader if they choose to take a leadership role in their organization (Savel & Munro, 2017). Study findings of servant leadership are vital to leaders and reinforce the knowledge on how to incorporate this philosophical model with other styles.

Strategic Leadership

The rapidly changing nature of the healthcare industry amid increased competition, healthcare reform, rising costs, mergers and acquisitions, and medical advancements calls for a leader to be a forward thinker to anticipate the change needed to position their organization in the future. Strategic leadership offers the formula for achieving that purpose by continually monitoring and scanning the outside forces that could affect the welfare of the organization (Du Plessis et al., 2016). Strategic leadership is integral to any organization to ensure its long-term sustainability and competitive advantage over the market (Du Plessis et al., 2016; Elton, 2016; Schmidt, Kurtz, & Davidson, 2017). Du Plessis et al. (2016) interviewed 11 strategic leaders in the Laos banking sector to obtain their perspectives and understanding about strategic leadership and the required capabilities for that role. Du Plessis et al. identified at least nine key capabilities:

- Establishing and fully communicating a vision;

- Creating core competencies;
- Providing critical support for the use of human capital;
- Investing in newer technologies:
- Actively working on a strategy;
- Creating productive organizational culture;
- Establishing balanced control;
- Promoting ethical practices; and
- Managing a team and its people

Du Plessis et al. also highlighted the importance of organizational competitive advantage in its role as strategic leaders. These leaders understand that the only way their companies can be sustainable for the long-term is to be proactive in strategy-building to promote and strengthen their competitive advantage (Du Plessis et al., 2016). Although this study was completed with leaders from the banking sector, leadership characteristics and roles expected from a strategic leader are the same as with other organizations that provide services to customers. This study allows diverse perspectives from leaders in the banking business to show the similarities in roles and responsibilities that could be found with their counterpart leaders in healthcare.

Elton (2016) performed an analysis to determine the competencies needed for leadership to overcome contemporary and future healthcare challenges in the United Kingdom. His findings identified the need for improved collaboration and partnership, improved communication within the team, and cultural transformation within the organization (Elton, 2016), consistent with the strategic leadership capabilities described

by Du Plessis and his colleagues. McLean (2015) examined the leadership qualities essential for advancing mental health practice in the United Kingdom. Her findings include the need for collaboration, team approach, empowerment, shared decision making, fair distribution of power, and autonomy (McLean, 2015), coinciding with the key capabilities outlined by Du Plessis and his colleagues.

To provide broader insights into the concept of strategic leadership, Schmidt et al. (2017) conducted a study on four advisors and 134 allied health professionals (providers and managers) in Australian rural health systems to evaluate a leadership model designed for strategic leadership. As a result, Schmidt et al. (2017) identified three outcomes from the leadership model: connection building among providers, improved communication and coordination within the organization, and increased advocacy work through policymaking. These findings were also consistent with the fundamental capabilities identified by Du Plessis and his colleagues (2016) concerning expectations from a strategic leader. There is conformity among these findings no matter where the study was completed, or who the participants were. Strategic leadership provides the framework for ensuring the organization is fully prepared to address both the present and future challenges, as well as understanding the resources required to support managers and staff development (Schmidt et al., 2017).

Team Cohesion

In the healthcare sector, creating a multidisciplinary team is crucial to addressing specific issues, providing specific services and support to the patient, and advancing the organization’s mission and goals (Ryan, 2017). Such process demands effective

leadership to be able to develop and manage cohesiveness within the team; therefore, the identification of the key attributes is not only essential but also fundamental for any group and organization to thrive and function well (Cuadrado & Tabernero, 2015; Gwynne & Lincoln, 2017; Layton, 2015; Ryan, 2017). Ryan pointed out that the effectiveness of a team relies heavily on its leadership style. The leader plays a crucial role in the development and the overall performance of the team (Ryan, 2017). Layton expressed similar beliefs as to how indispensable the team leader is for ensuring its members understand their role and how they can find support and motivate one another. Creating an efficient team to work in unison can be challenging because of the diverse specialties, skills, and training that these healthcare workers possess (Ryan, 2017). However, it is also an opportunity for a leader to identify the team members' strengths and optimize their talents (Ryan, 2017). According to Ryan, leaders who practice a transformational style, shared mental approach, shared commitment, and shared vision are attributes that produce team success. Furthermore, the leader's self-awareness as it relates to differences, respect to team members, and appreciation of the individual contributions can lead to a whole functioning unit and chemistry of the team (Ryan, 2017).

Layton (2015) supported the assessment of Ryan (2017), by stating the advantages of the transformational leadership style over other approaches to developing a more cohesive team. Elements tied to the transformational leadership style, include role-modeling, motivating and inspiring others, promoting shared values, and showing compassionate care and support for the team members (Ryan, 2017). By adopting these

attributes and behaviors, a culture of teamwork and team cohesion can develop; and a sense of ownership and mutual respect can improve effective communication between the leader and the team members (Ryan, 2017).

Karimi et al. (2017) performed a study with 341 survey participants (comprised of postgraduate students with managerial experience in Melbourne, Australia), and they found the value of teamwork and collaboration as the key drivers to improving quality care, organizational effectiveness, and the relationship between staff and patients. For an organization to attain excellence in their services, priorities need to be identified, and staff engagement must be encouraged. This analysis resonates with the study findings of Cuadrado and Tabernero (2015), who revealed that team trust and team-efficacy were essential predictors to the prosocial behavior of the team members. When an individual feels the trust and a sense of team membership, it gives them the positive energy to contribute and fully embrace their role (Cuadrado & Tabernero, 2015).

The workforce's effectiveness provides relevant insights into cultural competence and issues affecting team cohesion and employee retention in Australia (Gwynne & Lincoln, 2017). Key findings from the study highlighted the direct relationship of workers' attitudes and behaviors to the outcome of patient care or service delivery (Gwynne & Lincoln, 2017). Gwynne and Lincoln (2017) found that support, empowerment, recognition, and respect were among the behaviors that health workers perceived as critical to team building and a culture of inclusion.

The significance of determining the type of leadership approach, attributes, and behaviors that translate to team cohesion is vital to team building and cultural change

within an organization. These findings were consistent and validated in previous studies. It also conforms to the evidence-based discoveries and team members' perceptions of service excellence and exceptional clinical outcomes (Karimi et al., 2017).

Role of the Public Health Leader

The role of the public health leader is pivotal to the well-being of local communities, health organizations, and the country (Popescu & Predescu, 2016). Understanding this role requires the examination of the public health leadership functions and governance, the competencies and skills needed, and the challenges to protecting the health of the population (Berghout, Fabbricotti, Buljac-Samardžić, & Carina, 2017; Elton, 2016; Kogan, Barfield, & Kroelinger, 2015; Kovacic & Rus, 2015; Popescu & Predescu, 2016). Although the functions of public health leadership continue to evolve, the primary functions remain on developing a vision, goal settings, and delivering successful care outcomes (Kovacic & Rus, 2015; Popescu & Predescu, 2016). The governance in public health involves policymaking, enacting the rules and regulations, and promoting the health reforms (Elton, 2016; Popescu & Predescu, 2016). The competencies and skills developed by the leaders will help to realize the vision and goals of the organization and will improve the governance of the public health organizations. Elton identified the team building that focuses on empowering and inspiring others, interpersonal skills that aim towards effective communication, and the use of evidence-based approaches for decision making as the critical competencies to changing organizational culture. Popescu and Predescu agreed with the above competencies, and further emphasized the significance of interpersonal skills to improving team

relationships, communication, culture, and the systems thinking approach. Kovacic and Rus (2015) conducted a study with 265 healthcare workers and 267 business managers in Slovenia, the results indicated that leaders recognize the merit of interpersonal skills, informational, and decision-making as fundamental competencies in a healthcare setting. These findings were consistent with the traditional leadership competencies in healthcare that encourage collaboration and nurtures leader-subordinate relationships (Kovacic & Rus, 2015).

The challenges that leaders face to advance the goals of population health are somewhat complicated and vary depending on the economic, political, and health infrastructure of the country (Kovacic & Rus, 2015). Kovacic and Rus noted a critical leadership gap as a challenge in the Slovenian healthcare systems. This leadership gap was due to the practice of leaders being appointed to leadership positions without the necessary leadership skills and competencies (Kovacic & Rus, 2015). Popescu and Predescu (2016) expressed similar views about the leadership skills, competencies, and knowledge that a healthcare leader must learn and develop to be able to manage and position the organization in the right direction. While Kogan, Barfield, and Kroelinger (2015) highlighted different challenges, including funding constraints, health reform, medical technology, and the increased mandate for accountability and transparency in leadership. Public health leaders must recognize these challenges and must find a way to negate problems to ensure proper measures and strategies are in place to protect the organization in the future and avoid any disruption to health services.

To fully appreciate public health leadership, it is fitting to examine the different healthcare professionals who play a critical leadership role in the healthcare system. Among these healthcare professionals are physicians, the nurses, and community health workers (Berghout et al., 2017; Duffy, McCullagh, & Lee, 2015; Rachlis et al., 2016). Medical leadership is usually reserved for and carried out by physicians, who assume leadership and management roles within their organization (Berghout et al., 2017). According to Berghout et al., physicians who hold the medical leadership role are instrumental in enhancing organizational performance and clinical outcomes on patient safety, quality of care, and lowering overall costs. Another discipline is public health nurses, who are increasingly involved in leadership roles (Duffy et al., 2015). These nurses are an influential force in public health leadership because they understand the needs and challenges of serving and protecting the population health (Duffy et al., 2015). Finally, the community health workers are trained volunteers from the community who play an essential role in assessing health needs, disease prevention, health promotion, and health education (Rachlis et al., 2016). Community health workers serve as the channel that connects communities to healthcare programs (Rachlis et al., 2016). All these professionals are key players and contributors to effective public health leadership.

Disease Surveillance Program History and Benefits

The history of disease surveillance can be traced back to the late 19th century, but it was first introduced by U.S. Congress in 1878 and expanded in 1893 throughout 1928, which include the collection and reporting of notifiable diseases that occurred in states and overseas (Centers for Disease Control and Prevention [CDC], 2017; Fairchild,

Dawson, Bayer, & Selgelid, 2017). In 1961, the CDC officially assumed the authority and responsibility to oversee the functions of collecting, reporting, and monitoring of communicable diseases (CDC, 2017). Since the inception of the agency, the disease surveillance program became the driving force and cornerstone of the public health service (Fairchild et al., 2017).

Disease surveillance plays a vital role in protecting the country's overall health from disease outbreaks and pandemics that may harm the population and weaken the economy (Fairchild et al., 2017). The benefits of disease surveillance include the early detection and identification of infectious diseases, timely interventions and development of lifesaving vaccines, increased public awareness and collaboration between health agencies, and promotion of policies designed to eradicate diseases (Fairchild et al., 2017; Newby et al., 2016; Seleka et al., 2017; Wendelboe et al., 2015). Surveillance can also uncover other pressing issues such as health inequities, unfair distribution of health resources, and various environmental risk factors (Cowger et al., 2017; Fairchild et al., 2017). Surveillance allows an accurate determination of the disease origin and the rate of transmission, which is critical to containing and preventing the spread of the virus or bacteria to neighboring communities or countries, thereby reducing morbidity and mortality rates (Fairchild et al., 2017).

Seleka and colleagues (2017) conducted a study with 39,804 patients in South Africa (surveillance data for 2005 until 2014) and found that the influenza B virus was more prevalent than influenza A and transmitted at higher frequencies. This finding justifies mandatory vaccination among high-risk individuals and immunocompromised

groups (Seleka et al., 2017). Cavallaro et al. (2015) had similar findings based on their study results. According to Cavallaro et al., polio-measles surveillance provided the infrastructure and platform for other diseases such as meningitis and encephalitis, which improved laboratory testing and led to the development of newer vaccines. This outcome is an excellent example of using surveillance to improve detection and raise awareness of other related infectious diseases.

Another significant benefit of disease surveillance was evident from the study conducted by Wendelboe and his colleagues (2015) about venous thromboembolism cases in the United States. This surveillance system led to robust communication and collaboration between the Oklahoma state commissioner and the CDC to raise awareness about the growing burden of venous thromboembolism events (Wendelboe et al., 2015). Cowger et al. (2017) made a similar assertion that transpired from their study findings on polioviruses from polluted sewage in Pakistan. They claimed that the use of environmental surveillance enabled local health officials to detect polio cases earlier than usual, thereby resulting in better communication and a higher chance of eradicating the disease (Cowger et al., 2017). Newby et al. (2016) also pointed out the importance of collaboration between regions and affected countries in eradicating the malarial disease effectively. All these valuable efforts on identification, elimination, and eradication of disease can only be achieved using surveillance mechanisms. Without the active surveillance mechanism, it would be impossible to advance the WHO and the CDC's goals and priorities in protecting global population health from communicable and non-communicable diseases.

Summary and Conclusion

Leadership styles in healthcare organizations and public health systems continue to evolve and emerge as critical factors in improving the health of the local communities and the population. Solà et al. (2016) explained that effective leadership styles vary for every situation and the challenges faced by the organization. In other words, no single leadership model or approach guarantees success or improves organizational outcomes. Asamani et al. (2016) suggested a thorough examination of leadership styles is needed to ensure applied models yield the most favorable results.

The major themes related to leadership styles that emerged from the literature review were collaboration, improving a relationship, and empowerment. Collaboration refers to working together as one unit among individuals, groups, or entities to achieve desired goals (Wong et al., 2017). The strengths of collaboration include greater creativity, an opportunity for members' input, and increased individual morale. The weaknesses of collaboration include conflicts that may arise between members or within groups and the potential for delay in getting a consensus and developing outcomes.

The second theme that emerged from the literature review was improving relationships. In the workplace, leaders and employees need to build and strengthen their relationship because it negates conflicts and increases productivity. Some of the benefits of having a good relationship are mutual trust and respect for one another, better communication, and a diversity of ideas. Finally, the last theme was empowerment. Empowerment allows individuals to be responsible and make decisions within their work environment. The strengths of empowerment can be attributed to increased employee

satisfaction, improved work efficiency, and less employee turnover. Conversely, the weaknesses of empowerment lie in the possibility of abuse of power and poor actions or decisions that may occasionally happen, which cost money or reputation for the organization.

Among the leadership styles, transformational leadership is the preferred choice for healthcare leaders in building mutual trust and empowering their followers (Choi et al., 2016; Deschamps et al., 2016; Karimi et al., 2017; Yang, 2016). Servant leadership presents an approach for leaders in bringing out the very best from their followers and developing their full potential (Savel & Munro, 2017). A leader who is a role model exemplifies that approach. Strategic leadership offers a different approach to safeguarding the organization's long-term sustainability and financial success (Du Plessis et al., 2016). Although most of these leadership styles appear to be straightforward, employing them comes with the complexity of finding the right fit for the organization.

In the public health discipline, ample studies have been conducted on leadership functions, leadership skills and competencies, and public health governance (Popescu & Predescu, 2016). However, the lack of studies that deal with or focus on both leadership styles and program cost-effectiveness approaches in public health was quite evident in the literature review. More comprehensive knowledge is needed to find the link between leadership styles and the long-term viability or success of public health programs.

There were many studies on leadership styles and cost-efficiency approaches; however, a study that examines leadership traits related to the cost-effectiveness approach specific to the malaria program is lacking. Related literature was used as a foundation of

knowledge and justification for my study. The discovery of essential leadership traits continues to provide insights to address the literature gap in job satisfaction, employee empowerment, and organizational culture.

As mentioned above, the literature gap in leadership traits that relate to, or effect, cost-effective approaches to public health program sustainability requires the study to be explored qualitatively. In this study, I focused my research on leaders' perspectives and experiences to gain a more in-depth understanding of how they successfully advance the organizational vision and cost-effectiveness for the malaria surveillance program. The results of this research could significantly improve how public health leaders deal with limited program funding and resources.

In Chapter 3, I provide complete details on how I conducted my study. The sections include the following: research design and rationale, my role as a researcher, methodology, instrumentation, pilot study, data collection, data analysis plan, issues on trustworthiness, and ethical procedures.

Chapter 3: Research Method

Introduction

The Philippines is considered a developing country and associated with that designation is the inability of the government to reallocate sufficient funding to fight infectious diseases and adequately address public health issues. The purpose of this study was to identify and highlight leadership traits beneficial to the implementation process and the cost-effectiveness approach of a malaria surveillance program. A qualitative method (single case study) was used to explore participants' perspectives and experiences on leadership styles that advance a cost-effective approach and produce better outcomes. In-depth semistructured interviews were conducted to gain deeper insights on the topic.

In this chapter, I give a detailed description of my research design and rationale and my role as a researcher. I describe the methodology of my study, the process of participant selection, instrumentation, pilot study, recruitment and data collection, and data analysis plan. Additionally, I discuss the issues of trustworthiness and ethical procedures.

Research Design and Rationale

I used a single case study qualitative method to learn from participants' experiences and perspectives about the topic. The overarching research question addressed in this study was: To what extent, if any, do leadership qualities contribute to a cost-effective approach to malaria surveillance? Subquestions that guided the research were: What personal leadership qualities, such as building relationships and teamwork, contribute to a cost-effective approach in malaria surveillance? How does creating a

vision and setting direction support the efforts to a cost-effective approach in malaria surveillance? How do delivering strategies, such as case findings, diagnostic testing, and treatments, advance the implementation process of a cost-effective approach to malaria surveillance?

The study's central concept was to identify and highlight leadership traits that may impact a cost-effective approach to the malaria surveillance program. Leadership styles differ in every situation, and no single leadership style will work for all settings (Asamani et al., 2016; Solà et al., 2016). My goal was to uncover leadership traits that advance the cost-effective approach and sustainability of the malaria program.

A research tradition informs or guides the selection of a suitable design in a qualitative research study (Råheim et al., 2016). The research tradition I selected to use for this study was a single case study. A single case study allowed me to explore participants' insights into how their leadership styles affect the cost-effectiveness approach of the malaria program. In-depth interviews and document analysis were used to collect data from selected participants.

Role of the Researcher

My role as a researcher was observer-participant. I used semistructured face-to-face interviews to gather data and explore the topic in a detailed manner. My responsibility as a researcher was to remain objective, sensitive, and mindful of potential biases that may arise and try to address and eliminate them accordingly. To build rapport and gain trust with the participants, I was honest and respectful at all times (Sorsa, Kiikkala, & Åstedt-Kurki, 2015). As an observer-participant, I interviewed the

participants, but my role was primarily to listen and observe (Sorsa et al., 2015). The sample size is contingent on reaching data saturation, which occurs when the same ideas, perspectives, and experiences are emerging from other interviewees; at that point, the number of participants is sufficient (Booth, 2016; Morowatisharifabad et al., 2018).

As a researcher, I have the responsibility to identify and disclose potential biases and safeguard the integrity of my research findings. Thus, I did not have a personal or professional relationship with any of my participants. Also, the issue of power over the participants was a concern in this study. I addressed this issue by obtaining informed consent from the participants and reminded them that the study is voluntary. I explained the purpose of my research during the recruitment and before the interview. Moreover, I performed member checking with the participants and remained objective during data analysis.

To manage my personal and professional biases, I used bracketing techniques. Bracketing is a method in which the researcher acknowledges their awareness and discloses any assumptions they may have before gathering data (Sorsa et al., 2015). For example, my experience as a manager in a healthcare setting could induce bias with my expectations. Bracketing allowed me to put aside all my preconceived assumptions and focus more on the participants' lived experiences and viewpoints (Sorsa et al., 2015). In bracketing, the participants can talk freely and openly on the subject matter (Sorsa et al., 2015). In addition to bracketing, I used reflexivity or self-reflection to minimize prejudice and influences (Sorsa et al., 2015). According to Baillie (2015), there are four elements of reflexivity to consider: (a) the assumptions, (b) emotional reactions, (c) expectations, and

the (d) unconscious reactions of the researcher. To address these issues, I used a reflective diary or journal to carry out the reflexivity and bracketing approach (Sorsa et al., 2015).

As for the ethical issue of using the incentives, I made an email inquiry to the Institutional Review Board (IRB). I received an explanation from Libby (personal communication, June 1, 2018) that said, "the amount should not be hard to refuse since that would create a coercive dynamic." Moreover, according to Libby, a reasonable ceiling would be the cost of a nice meal. The amount I offered for my participants was $10 cash to compensate for their time and efforts.

Participant Selection Logic

The target population for this study included 12 public health leaders in the Philippines, who were responsible for managing malaria surveillance programs. For sampling strategy, I used purposeful sampling, which enabled me to focus on specific leadership characteristics, such as traits, behaviors, and skills, that provided the best possible answers to my research questions (Palinkas et al., 2015). The type of purposive sampling I employed was criterion sampling. Criterion sampling allows the selection of participants who meet specific or the same criterion, which in this case were public health leaders/managers with a budgetary role in a malaria surveillance program (Palinkas et al., 2015).

All the participants met the following criteria: (a) full-time employee, (b) holds leadership or supervisory role in the department, and (c) has worked or been involved in malaria prevention and surveillance programs with budgetary oversight. Public health

employees in leadership roles were the participants who met those criteria because of their direct involvement in malaria programs within the community.

In qualitative research, saturation means that there is no new information or ideas relevant to the research topic (Tran, Porcher, Falissard & Ravaud, 2016). Saturation is the determining factor in which the researcher can confidently conclude or justify the completion of the data collection (Tran et al., 2016). I recruited and interviewed 12 participants and reached data saturation for the study. Additionally, I interviewed two participants for the pilot study to determine the quality and appropriateness of my interview questions. Participants were identified through the municipal rural health website. These participants were contacted and recruited through email and in person. Details on the recruitment process were provided below.

Instrumentation

In a qualitative method, the researcher acts as the primary instrument (Bellamy, Ostini, Martini, & Kairuz, 2016; Campbell, 2015). In this study, I was the research instrument, who conducted the interviews and document analysis. I developed the interview protocol for the study based on my literature review, conceptual framework, and research questions (Appendix C). Included in the interview protocol were the following: introductory questions, transition questions, key questions, and closing questions (Castillo-Montoya, 2016; Creswell, 2018). Interview questions for the research instrument were validated using a pilot study.

Introductory questions open up the interview with general questions to allow participants to become comfortable talking and sharing their experiences (Patton, 2015).

Transition questions help to move the interview to the key questions (Castillo-Montoya, 2016). Key questions are the central questions that solicit rich and in-depth information relating to the research questions (Castillo-Montoya, 2016). Finally, the closing questions allow the participants to reflect and add more valuable information to the topic or issue (Castillo-Montoya, 2016).

In addition to the semistructured, open-ended, face-to-face interviews, I also conducted document analysis for each of the sites for data triangulation. Documents such as financial or budget reports, program outcomes, and statistical information were evaluated. Although such documents contain records that cover an extended period, it also has a limitation on its completeness and accuracy. However, information obtained from document analysis was not used as a primary source of data but rather as supplemental to interviews and for data triangulation.

Researcher-Developed Instrument

I developed open-ended interview questions drawn from various literature sources such as Dever (2018), Reyes, Bekemeier, and Issel (2014), and Schuller, Kash, and Gamm (2015). Additional sources were used for the development of the pilot study that includes Modig, Lenander, Viberg, and Midlöv (2016), Oseni et al. (2017), and Shanahan and Lewis (2015). These sources enabled me to formulate interview questions and conduct a pilot study to test the quality of my interview questions.

To address the content validity, I used strategies suggested by Creswell and Creswell, (2018), such as the pilot study, triangulation, member-checking, and thick, detailed description of the participants' experience. Because validation approaches are

difficult to establish in a qualitative method, Creswell and Creswell urge researchers to choose and use multiple validation strategies to help assess and verify the accuracy of their study findings. I employed data triangulation using two data sources, data from the interviews, and information from document analysis to enhance the confidence and validity of the study (Adams et al., 2016). I conducted semistructured interviews with public health leaders who met the criteria for participation. I performed the document analysis to make out the meaning and gain a deeper understanding of the phenomenon. Documents evaluated were financial and budgetary reports, and malaria surveillance program outcome reports. Data generated from document analysis were organized and coded into categories and finally into themes. After each interview, I thanked and asked the participant if he or she would review the written interview transcript to ensure that I captured their responses accurately and to check for any errors or omissions. Moreover, I used rich and thick descriptions that detailed each of the interviews and the emerging themes (Creswell & Creswell, 2018).

To establish the sufficiency of the data collected, I employed the data saturation approach, in which I made sure that all relevant information was captured, and no new concepts were observed (Tran et al., 2016). Data saturation is a good measure or an indication that the level of information collected is complete and valid, which is evident when the researcher noticed a repetition of ideas start from occurring (Tran et al., 2016).

Pilot Study

I conducted a pilot study before the data collection for the main study. I followed the specific procedures for recruitment, participation, and data collection. I recruited two participants for the pilot study, and the data were not included in the final study results.

The pilot study is essential in qualitative research because it provides ways to identify issues and challenges relating to participant recruitments, the interview questions, and the interview process (Modig et al., 2016). The pilot study allows the researcher to make proper adjustments or modifications to the questionnaire or to the interview guide to obtain a more detailed account of participants' experiences and views (Modig et al., 2016; Oseni et al., 2017). The pilot study also establishes the content validity of the researcher developed instrument (Modig et al., 2016).

Recruitment, Participation, and Data Collection

Upon approval of my research application from IRB at Walden University (approval number 03-20-19-0296928), I recruited participants for the study through an invitation letter (Appendix A) or an in-person visit. I collected data in a province in the Philippines. This province comprises of two cities and 35 municipalities, with a population of about 1.9 million. (Philippine Statistics Authority, 2017). The interviews took place at the participants' offices, and I was the only one responsible for collecting data for the entire research study.

Before the interview, I reviewed the informed consent form with the participant. I asked the participant if they had questions. Each interview was audio-recorded with the participant's permission. I also conducted a document analysis on each site. The

document analysis served as secondary data and was used for data triangulation (Bahramian, Mohebbi, Khami, & Quinonez, 2018).

After the interview, I debriefed the participant about the purpose and nature of the study. I thanked them for their participation and provided them the $10 incentive. I asked the participant if I can contact them later if I need additional information. I also asked the participant if they could review the interview transcript for member checking to ensure accuracy and completeness (Creswell & Creswell, 2018).

Data Analysis Plan

The data collection methods were face-to-face interviews and document analysis. The overarching research question was to what extent, if any, do leadership qualities contribute to a cost-effective approach to malaria surveillance? The data provided insights as to how leaders perform their budgetary role to ensure successful implementation and sustainability of malaria surveillance program. The document analysis was used to compare and assess the accuracy of the participants' experiences and perspectives, and for data triangulation to check for content validity of the study (Creswell & Creswell, 2018; De Jesus, Taylor, Maine, & Nalls, 2016).

I used NVivo12 software to assist me with the coding procedure and data analysis. Using Computer-Assisted Qualitative Data Analysis allows a researcher to systematically organize collected data (interview transcripts and document review) and provides an opportunity for me to explore other possibilities and ways for data interpretation and data analysis (Saldana, 2016). NVivo software offers the capability for data storing, organization, and reconfiguration (Saldana, 2016). Coding can be quite

challenging, tedious, daunting, and time-consuming task (Saldana, 2016). According to Saldana, all qualitative researchers must develop or possess essential personal attributes for coding, such as organization, perseverance, understanding the ambiguity, flexible, creative, ethical, and extensive vocabulary. Understanding and employing these critical personal attributes ensure data interpretation accuracy and enhances the quality and integrity of the coding and data analysis results (Saldana, 2016).

In this qualitative study, I collected the data through a face-to-face interview and document analysis (Merriam & Tisdell, 2015). To answer my research questions; my goal as a researcher was to find common themes or patterns from the participants' experiences, perspectives, and worldviews (Merriam & Tisdell, 2015).

Upon completion of the interviews, I uploaded the transcripts into the computer using NVivo software to organize the data. I analyzed the data using values coding. As explained by Saldana, values coding is a method that focuses on the three constructs: values, attitudes, and beliefs of the participants. Since my research questions seek to investigate leadership traits and styles, it is more fitting and appropriate to use values coding in my data analysis. Moreover, values coding allows the researcher to see the relationship and influences of social and cultural structures to the participant's experiences and personal views (Saldana, 2016).

The first step of coding is the initial coding. In this phase, I coded the transcribed data using line-by-line or sentence by sentence to provide descriptive details according to values (V), attitudes (A), or beliefs (B) (Saldana, 2016). Then, I categorized the codes using the three constructs of values, attitudes, and beliefs to reflect on the deeper meaning

of the data and to generate themes based on frequencies, meaning, and relationships (Saldana, 2016). In the final coding, I used pattern coding. During this final coding, I reexamined the initial codes to look for trends, patterns, or relationships and continued with descriptive labeling and categorization (Saldana, 2016). For discrepant cases, the researcher has a responsibility to address and add the discrepant cases in the data analysis and data reporting (Creswell & Creswell, 2018). In this study, I did not find any discrepant cases.

Issues of Trustworthiness

A qualitative study researcher must be aware of and responsive to the issues of trustworthiness to deliver robust and reliable data findings. Below are the strategies to increase the level of trustworthiness in this research study.

Credibility. Establishing credibility requires a researcher to demonstrate that the study findings are wholly based on the data collection information and participants' perspectives (Creswell & Creswell, 2018). To ensure and maintain credibility for this study, I employed data triangulation and member checking. Interviews data and document review were used for triangulation, and I asked the participants to review the accuracy of the interview transcripts (Creswell & Creswell, 2018). Additionally, I performed two pilot interviews to test my interview questionnaires before I started the main study, which reinforced the credibility of this study.

Transferability. Transferability refers to the research findings concerning applicability to other populations, contexts, or settings (Amankwaa, 2016). To address transferability, I applied a thick and detailed description of the participant's experiences

and the interview event (Amankwaa, 2016). I provided the readers with the complete descriptions of the evidence, the research setting, and the phenomenon (Amankwaa, 2016). I also took notes and kept journals throughout the data collection process, which helped me construct a more detailed story of the phenomenon.

Dependability. The term dependability in qualitative research refers to the stability and integrity of the data collection process (Connelly, 2016). To address dependability, I used audit trails to record all my activities during the entire data collection process (Connelly, 2016).

Confirmability. The concept of confirmability pertains to the level of confidence by which the study can be repeated, and results can be confirmed by other researchers (Forero et al., 2018). To address confirmability, I used a reflexive journal to keep detailed notes and records of my data collection activities and progress (Connelly, 2016; Forero et al., 2018).

Researcher bias. In qualitative research, researcher biases can be in many forms, such as providing personal opinions or comments, body language, biased questions, and biased analysis and reporting of results (Creswell & Creswell, 2018). Researcher bias directly influences participants' responses and skews the data, thereby affecting the validity and reliability of the study (Creswell & Creswell, 2018). To control researcher bias, I acknowledged my biases during data collection and data analysis by staying objective and keeping the research interview questions neutral (Creswell & Creswell, 2018).

Validity and Reliability. Validity relates to the truthfulness or accuracy of the research data, and reliability refers to the data's stability, consistency, and reproducibility of the results (Creswell & Creswell, 2018). To address validity, I asked the participants to check the interview transcripts for accuracy and completeness (Creswell & Creswell, 2018). For reliability, I used a high-quality voice recorder for accurate transcribing of the interviews, comparison of raw data, and data audit (Creswell & Creswell, 2018).

Ethical Procedures

I completed an application to the IRB at Walden University to address the ethical aspects of my research study. The IRB conducted a comprehensive review of my proposed methodology to ensure the participants' safety and wellbeing. Ethical concerns associated with participants' recruitment may include the use of deception, the use of incentives, and the sharing of information. To address ethical concerns, I obtained IRB approval, along with the use of an informed consent form. In the informed consent form, the real purpose of my research was disclosed to the participants, including the voluntary nature of the study, potential risks, payment for participation, privacy measures, and contact numbers if questions arise (IRB; Walden University, 2018).

The treatment of data in this study commenced at the data collection phase, from the recording of the interviews, data analysis, reporting of the findings, data storing, all the way to data sharing. I employed proper measures to ensure participants' privacy and confidentiality are maintained., such as the use of an identifier for the participants, data storage with the password-protected computer, and data deletion after 5 years following

the completion of the study. Moreover, participants were given access to the data for member checking or verification of the data accuracy.

Other ethical concerns in this study include the risks for the participant and the justification for the use of incentives. This research study did not pose any risks to participant's safety and wellbeing. The use of incentive was noted in the informed consent form, and the participant received $10.00 cash as a gesture of appreciation for volunteering. This amount was verified with the IRB Research Ethics Support Specialist and found to be "reasonable for giving out incentives that would not create a coercive dynamic" (L. Munson, personal communication, June 1, 2018).

Summary

This chapter described the methodology components that I used and how I conducted my entire research study in a more detailed manner. The research design reiterated the research questions and presented the core concept of the study and my goal for undertaking the study. I discussed my role as a researcher and the conduct expected of me. In this chapter, I identified the target population, recruitment strategy, instrumentation, pilot study, data collection, and coding method for data analysis. Finally, I addressed and clarified the issues of trustworthiness and ethical procedures of the study.

In Chapter 4, I present and discuss the data findings. Included in this chapter are the pilot study evaluation, the setting, demographics, data collection process, and data analysis procedures. Moreover, I discuss the evidence of trustworthiness and describe how the study findings answer the research questions for the study.

Chapter 4: Results

Introduction

This chapter presents comprehensive analyses from the interviews of public health leaders and findings that transpired from the document review. The purpose of this study was to examine and accentuate potential leadership traits that are crucial in managing malaria programs for cost-effectiveness in the Philippines. In this study, I sought to answer the following overarching research question: To what extent, if any, do leadership qualities contribute to a cost-effective approach to malaria surveillance? Subquestions that guided the study were: What personal leadership qualities, such as building relationships and teamwork, contribute to a cost-effective approach in malaria surveillance? How does creating a vision and setting direction support the efforts to a cost-effective approach in malaria surveillance? How do delivering strategies, such as case findings, diagnostic testing, and treatments, advance the implementation process of a cost-effective approach to malaria surveillance?

In this chapter, I describe how I completed my pilot study, the setting of the study, and the demographics of the participants. I explain the process of my participant recruitment, data collection, and data analysis. Finally, I discuss my findings, provide evidence of trustworthiness, and summarize the chapter.

Pilot Study

Walden University IRB approved the pilot study (see Appendix B), and I conducted it with two participants in April 2016 before collecting data for the main research study. The data collected from the pilot study provided the test run for my

interview questions (Appendix C). My committee chair offered feedback on the data results of the pilot study. After review, no changes were necessary to the original interview questions; however, more probing questions were added to obtain more detail on the subject matter. The data gathered from the pilot study was not included in the data analyses for the final study. The pilot study was critical to moving forward and a helpful tool for refining my interview questions.

Research Setting

I conducted a research study in a province in the Philippines. The region comprised of 35 municipalities and two cities (Philippine Statistics Authority, 2017). Local elected government officials from their respective towns and cities appoint health officers who are then responsible for the health of the community within the geographic jurisdiction (Liwanag & Wyss, 2018). Public health officers manage the malaria programs in their town or city and work under the guidance of the regional and national Department of Health.

Each participant chose a place convenient for them to hold the interview. All interviews were conducted face-to-face. All the participants chose to have their interviews completed in their office or a conference room at their work for personal comfort and privacy. Participants' recruitment was through an invitation letter (Appendix A) or an in-person visit to their office. The IRB approved interview protocol was followed during each entire interview session (Appendix C). A few days after the interview, participants were asked to conduct member checking by reviewing the interview transcript to ensure accuracy and completeness.

At the time of the study, public health leaders in the Philippines were busy with their ongoing professional conventions, regional meetings, and fieldwork visits. I experienced difficulties securing time for an interview appointment. Although all the participants tried to eliminate distractions and fully engage during the interview, it was difficult to determine how much those factors may have influenced their discussion of their perspectives and experiences.

Demographics

As I stated in my IRB application, I did not plan to collect demographic data. Therefore, no instrument was used, and no demographic was collected in this study. Participants were selected based on the criteria I described in Chapter 3. All the participants met the inclusion criteria and agreed voluntarily to be part of this study. Table 1 shows the study's participant profiles.

Table 1

Participant Profiles

ID	Organizational role
Participant 1	Leader
Participant 2	Leader
Participant 3	Manager
Participant 4	Leader
Participant 5	Manager
Participant 6	Leader
Participant 7	Leader
Participant 8	Leader
Participant 9	Leader
Participant 10	Leader
Participant 11	Leader
Participant 12	Leader

Data Collection

A total of 12 participants took part in the final study. I reached data saturation after my 11th participant. I recruited participants through an invitation letter (Appendix A) and an in-person office visit. I sent invitation letters to prospective public health leaders but did not receive responses. After a week, I followed up with an in-person office visit. The office visit to public health leaders was more successful in finding participants for this study. Through a face-to-face meeting, potential participants were able to understand the significance and benefits of the research and gained the information they needed to make an informed decision. Also, with the office visit strategy, I was able to make connections with my participants and build the trust and rapport necessary before the interviews.

Data collection took place in one province in the Philippines; the region has 35 municipalities and two cities (Philippine Statistics Authority, 2017). I recruited at least one public health leader from each town. I interviewed eight participants in April 2019, and the remaining four participants in June 2019. Before the interviews, I explained the purpose of my study and asked the participants to read and review the informed consent form. I made sure that all participants had adequate time to review, ask questions, and understand the consent form before signing it. Each interview lasted no more than 1 hour. After the interview, I conducted a document review on the financial records of the city or municipal health department on the cost-effectiveness of the malaria program implementation. The time I spent on document review varied from site to site, but each review process was no more than 30 minutes.

The face-to-face semistructured interviews were audio-recorded using my password-protected smartphone. All the participants were fully informed and voluntarily provided their consent to be recorded. For the document review, I took field notes, memos, and kept copies of relevant records. I transcribed each interview myself by relistening to the recording many times. Each participant received the interview transcript and completed a member-checking of the transcript to ensure the accuracy of the data. I did not notice any variations in the data collection process from the plan I described in Chapter 3. I followed my interview protocol carefully and adhered to the Walden University IRB ethical guidelines. There were no unusual circumstances during data collection.

Data Analysis

Data analysis was the most exciting and fulfilling part of my research experience. Raw information transformed through cycles of coding to form a relationship and pattern. Once I completed data collection, I began working on data analysis. I started by uploading interview transcripts, field notes, and document review findings into my computer software. I used NVivo 12 software to help me store, organize, and manually analyze the data.

The coding strategy that I employed in this study was values coding. According to Saldana (2016), values coding is a descriptive analysis of data using the three constructs of values (V), attitudes (A), and beliefs (B). I started the process with the initial coding, where I coded the data for all the three constructs based on my first impression. For the next cycle, I categorized the codes using the three constructs to reflect on the deeper

meaning of the data and generate themes based on frequencies, meaning, and relationships (Saldana, 2016). For the final coding, I went back to previous coding cycles and reexamined my initial codes to look for trends, patterns, or links. Then, I continued with further descriptive labeling and categorization by thoroughly rereading the interview transcripts and reviewing initial codes. During the coding process, I tried to be open minded and unbiased by staying focused on the data and leaving out any of my preexisting assumptions.

The initial data analysis produced 52 codes. Under the construct of attitude (A), these were categorized into the following: analytical, collaboration, focus-oriented, building relationship, staffing resourcefulness, decision-maker, and a good listener. Under the construct of belief (B), the categories were a strong relationship, support from the team, malaria program progress, positive health outcomes, vision for malaria-free zones, combining resources, and cost containment. For the construct of value (V), the categories include the culture of caring, communication, set an example, participatory, work ethic, and innovation.

After I categorized the codes and reexamined their relationships or connections, themes gradually emerged. These themes include the following: committed and passionate, embrace alliances and value relationships, empower others and delegate tasks, open minded and creative, and accountable. Additional themes identified were results driven, take actions to meet goals, take on challenges, inclusiveness, personal integrity, promote creativity and growth, and foster trust.

Discrepant information/cases are defined as outliers or conflicting information that does not conform with other data information (Merriam & Tisdell, 2016). Based on the interviews and data analysis for this study, I did not find any outliers. Document reviews also corroborated with the participants' interview data.

Figure 1. Initial codes using the construct attitude (A).

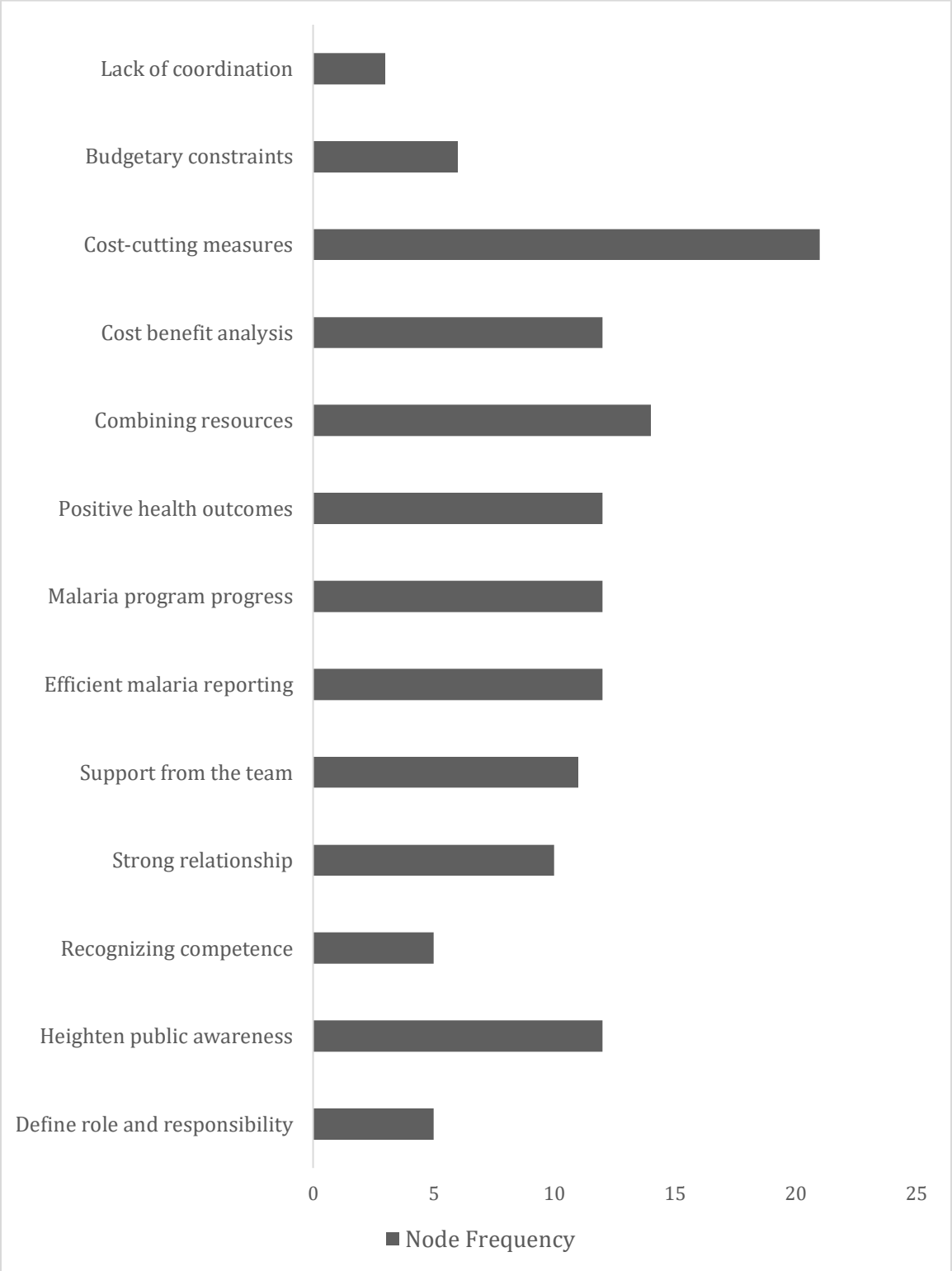

Figure 2. Initial codes using the construct belief (B).

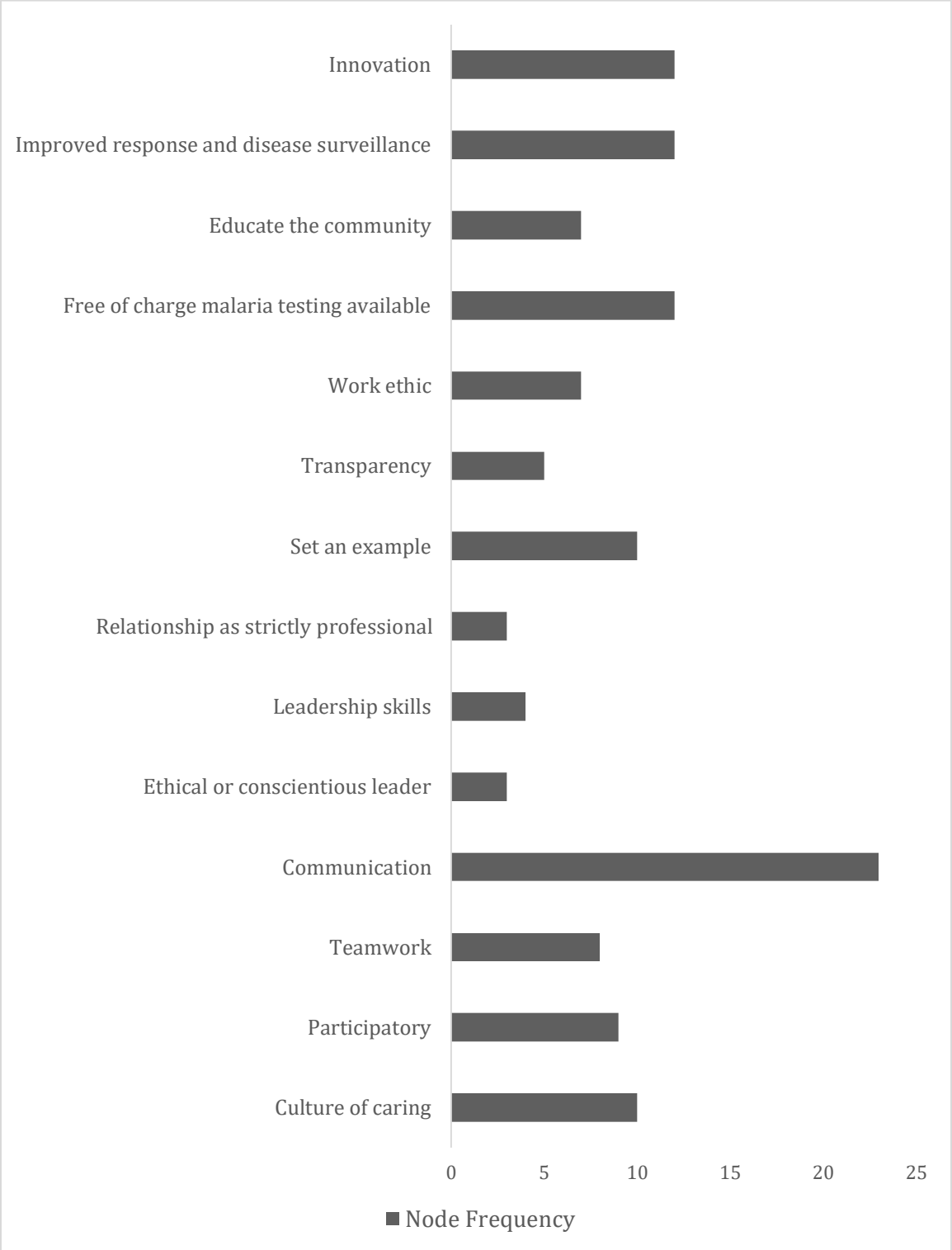

Figure 3. Initial codes using the construct value (V).

Table 2

Data Analysis Transformation Using the Construct Attitude (A)

Categories	Themes
Critical thinker Analytical Collaboration Outcomes evaluation Problem solver	Accountable
Dedicated Focus on the job Hard-working Setting out priorities Focus-oriented meetings	Committed and passionate
Building relationship Decision maker Team building Work together Heighten public awareness Strong relationship	Embrace alliances
Advocator Mentor Motivating subordinates Define role and responsibility Recognizing competence	Delegate tasks and empower others
Good listener Staffing resourcefulness	Open-minded and creative

Table 3

Data Analysis Transformation Using the Construct Belief (B)

Categories	Themes
Efficient malaria reporting	Results driven
Malaria program progress	
Positive health outcomes	
Vision for a malaria-free zone	
Improved response and disease surveillance	
Combining resources	Take actions
Cost benefit analysis	
Cost-cutting measures	
Innovation	
Free of charge malaria testing available	
Educate the community	
Lack of coordination	
Budgetary constraints	

Table 4

Data Analysis Transformation Using the Construct Value (V)

Categories	Themes
Culture of caring	Inclusiveness
Participatory	
Teamwork	
Communication	Personal integrity
Ethical or conscientious leader	
Inspiration	
Leadership skills	
Relationship as strictly professional	
Set an example	
Transparency	
Work ethic	

Evidence of Trustworthiness

In a qualitative study, the evidence of trustworthiness ensures that the data collected were obtained correctly and analyzed systematically. The quality of the data

depends on how I conducted the study. As a researcher, I followed through the strategies that I had stated in Chapter 3 to maintain the validity and reliability of the data results.

Credibility

In this study, I established credibility through a pilot study, member-checking, and the process of data triangulation (Creswell & Creswell, 2018). First, I used two interviews for the pilot study to test the adequacy and identify the flaws of the interview questions. As a result, I incorporated recommendations from my committee chair and added several probing questions to obtain more detailed responses. Second, after each interview, I met back with my participants and provided them with the interview transcripts to perform member checking. All the participants willingly complied and reviewed the transcripts for accuracy, completeness, and a chance to add comments if needed. Finally, I employed data triangulation using two different data sources. In this case, I used the interview data and findings from the document review for triangulation.

Transferability

Amankwaa (2016) describes transferability as the level of the study's findings applicability to other populations, contexts, and settings. To establish transferability, I provided a thick and detailed description of the participant's perspectives, experiences, and interview events (Amankwaa, 2016). I kept journals, took notes, and wrote memos to help me construct a complete and accurate detailed of the data collection events and study results.

Dependability

As Connelly (2016) explained, dependability refers to the data stability and the integrity of the data collection process. To improve dependability, I created an audit trail, such as journals, notes, and memos, to record all activities related to the entire data collection process. I also used an interview protocol to ensure consistency during data collection. Moreover, I uploaded all the data into a data analysis software called NVivo 12 for secured data storing, organizing, and data analysis.

Confirmability

The essence of confirmability points to the degree in which the study results can be confirmed or verified by other researchers (Forero et al., 2018). To enhance the confirmability of this study, I used the reflexivity approach. I reflected on myself being the researcher and acknowledged my thoughts, feelings, and assumptions. I also kept a journal and notes during the data collection and data analysis (Connelly, 2016; Forero et al., 2018).

Study Results

In this study, I collected data by interviewing public health leaders and reviewing documents related to the cost-effectiveness of malaria program implementation. The interview responses and document review findings were thoroughly transcribed, examined, coded, and cross-compared. The themes that emerged were the product of the coding process that involved multiple coding cycles. I started the process by rereading the interview transcripts several times and coded the data line-by-line. After the initial coding, I categorized the data and provided the themes that materialized. The themes

identified in this study aim to answer the research questions on leadership traits and cost-effectiveness of malaria program implementation in the Philippines.

In the following section, I discuss the results of my data analysis and the themes that emerged which support to answer the research questions.

Research Questions

In this study, I strived to address one overarching research question and three subquestions. The interview questions were designed to bring about insights on how leadership traits may directly influence the cost-effectiveness approach and success of malaria programs in the Philippines. The participants, who were public health leaders responsible for malaria programs, all provided information and insights during the interviews, which enabled me to conduct a thorough data analysis leading to the themes that answer the following research questions. The research questions for this study were:

Overarching Research Question

To what extent, if any, do leadership qualities contribute to a cost-effective approach to malaria surveillance?

Subquestions that guided the research were:

- What personal leadership qualities, such as building relationships and teamwork, contribute to a cost-effective approach in malaria surveillance?
- How does creating a vision and setting direction supports the efforts of a cost-effective approach in malaria surveillance?

- How do delivering strategies, such as case findings, diagnostic testing, and treatments, advance the implementation process of a cost-effective approach to malaria surveillance?

Research Subquestion 1

To gain perspectives about leadership qualities that may help to advance a cost-effective approach in malaria surveillance, I asked the participants a series of questions (see Appendix C: IQ1-4). First, I asked questions that relate to personal or professional qualities and how their staff respond to their style. Then, I asked them about their relationship with their subordinates. Finally, I asked them about how they promote and maintain robust teamwork in their workplace.

Accountable

The participants described their behaviors and actions related to accountability to effectively manage the team and meet the expectations for the malaria programs. The leaders' core characteristics were highly specific and dependent on the situations or circumstances they were facing. Among these characteristics related to accountability are collaboration, analytical, critical thinker, and problem solver.

These public health leaders expressed the importance of collaboration within the team, the organization, and with other government and health agencies to be able to function well in unison. For these leaders, accountability requires increased collaboration for others to share, receive, and benefit from the information and knowledge on the malaria control programs and surveillance reports. As participant 11 pointed out,

> As a collaborative leader, I made sure that there was a free flow of ideas and information. I set the tone by being a good communicator with my staff and other sectors in the community and health departments. I realized, managing the malaria program requires the engagement of not only my staff but all the critical sectors that need to work together to advance the organizational goals.

The way the public health system in the Philippines was set up, the local government, and the regional health are directly involved with the funding for the malaria program. Therefore, these agencies need to know about what is going on with the programs. Collaboration allows everyone to be involved and brings out more diverse ideas. Participant 3 supported this notion and said, "My team understood that we all need to work together to get better outcomes and achieve our mission to the community. I assembled a multidisciplinary team, and each member brings diverse ideas to our group meeting discussions."

Commitment to collaboration involves bringing other people or new players into the team to generate creativity and innovation. Participant 1 mentioned that,

> As a leader, I set an example for my team to think creatively on how to improve our process. In the morning, I made rounds to talk to my employees about their work-related problems and concerns. I encouraged my team members to provide me with their inputs about our program on what works and did not work with our strategies. Keeping them in the loop had shown to motivate them to come up with ideas for creativity and innovation. From my experience, the more I empowered

> my employees, the higher they think of a solution, which increases innovation in our workplace.

Collaborative leaders understand the importance of outside perspectives to gain support and leverage their expertise to advance malaria programs and obtain additional funding. Participant 4 expressed the value of this practice and said,

> I viewed outside partners as a crucial component to win support and help improve our resources. When I collaborate with other agencies, usually good things happen. The relationship I formed with other people helps me learn different techniques to improve our programs.

Participant 5 shared a similar approach and said,

> We improved our programs by working together with all the agencies involved, including the municipal councils, my team, and representatives from the regional health office. Collaborating with other agencies helps me find the right people for support. Also, it provided me fresh ideas on how to manage our programs.

Through collaboration, a leader can show accountability. A good relationship with subordinates and increased collaboration with other health agencies can advance accountability in the part of the leader. Effective leaders understand the need to set an example of accountability for their subordinates to emulate and to have them fully engaged in improving the programs.

Accountability starts with its leader and demands action from the top. These leaders described analytical and critical thinking as essential components of accountability. Participant 1 articulated his style and said,

> I am very analytical about the problem. I like to be the first to investigate and identify the causes of the problem. I like to assess the whole issue, which requires me to be a critical thinker. I am the type of person that always wants to know the root cause and ways to solve the problem.

Being analytical is an essential behavior for leaders because they become more attentive to details and are poised to make the decisions on time. Participant 12 voiced this sentiment and said, "I improved our services by carefully gathering and analyzing the data to see how we can make our process better." Analytical and critical thinking encourages leaders to seek out other viewpoints from the team. Participant 5 exemplified this approach and said, "We usually sat at the table and discussed the problems and outcomes of our programs and looked for ways to serve our community better."

Being a skilled problem solver with regards to accountability, allows leaders to be able to guide teams toward achieving the organization's goals. When leaders are highly engaged in problem-solving activities, team members become excited and motivated, knowing that their contributions and input will be valued for developing solutions. Participant 1 described how he performed this approach and stated, "I usually met with my team and talked about their concerns. Together with my team, we regularly discuss our budget and expenses for the program and make appropriate changes as needed." Participant 2 provided the same approach and said,

> My team meets every month to address challenges and other issues we have been encountering with the malaria programs. Getting together in one room for sure

> provides an opportunity for clarity and for everyone to be heard and gain feedback from others.

Having a leader that is highly involved in problem-solving is beneficial for the team and the organization because everyone is accountable for the results and success of the program.

Committed and Passionate

A leader that is passionate and committed increases the morale of a team and the whole organization. A passionate leader inspires the team, and it has a ripple effect that makes employees excited and focused. Participant 12 described his team saying, "Everyone in my team is fully engaged and committed to making an improvement and making a difference to our people and the community." A similar thought was shared by Participant 9, who said, "Having the responsibility of being a leader, I like to influence and empower my staff, so we all can work together as one unit and achieve our organizational goals." The leader must be the source of this energy for employees to be excited and engaged in what the organization is trying to achieve for the long-term.

A committed and passionate leader looks for ways to support and help the team. Participant 1 stated,

> I am committed and passionate to show every day how much I care for my employees and the organization. I usually made sure my employees have the right tools and resources to do their job. I worked very hard to get the funding needed for the projects every year. There is no greater satisfaction for me as a leader to

> see my employees and my team succeed. I tried tirelessly to show my support and encouragement for my subordinates.

Parallel behaviors were described by Participant 4 who said,

> My focus had been on getting better results and outcomes in our malaria programs. Often, I provide extensive support to my employees by listening to their feelings and other work-related problems. Problems like the rugged terrain in our areas and limited resources when they go out in the field, but I made sure that my employees understand that we are all in this together. I am highly passionate about my role and committed to achieving our organization's long-term goals, no matter what.

Being committed and passionate encompasses the ability to influence and involve others. As evident from these leaders, the support and encouragement they provided to their employees help to boost commitment in the job. The leaders' relentless guidance and support for their employees showed a genuine commitment and passion they have for their role and their organization.

Personal Integrity

Participants regarded integrity as a core trait or attribute to managing people and organizations. According to most of the participants, integrity provides the standard for a leader to behave consistently. Integrity has many facets, but participants believe that honesty and transparency are the most fundamental for leadership in public health. Participant 10 said, "my personal and professional qualities are honesty, being

approachable, and resourceful." Participant 10 added that "A leader must be honest at all times for the subordinates to have trust and confidence in their administration."
The same thought was mentioned by Participant 6, who said, "I tried to be honest with my subordinates by being straightforward with them according to how I felt and understood based on the information." Participant 4 described his behavior and said, "I strive to maintain integrity with my role as a leader by doing the right things and treating everyone fairly." An honest leader can quickly build and demonstrate personal integrity within the team and the organization by being straightforward with their actions.

A person of integrity should have open and transparent communication with their team and partners. Participant 12 described her approach and said, "With my team, we have two-way communication, including our partners and stakeholders. Being transparent with my employees helped me established personal integrity" The same practice was mentioned by Participant 8, who said, "Open communication helped us build better collaboration. I made sure I provided my subordinates with accurate information and honest reports about our programs." Open and honest communication allows the flow of timely information, which creates transparency within the organization and helps leaders strengthen their integrity.

Inclusiveness

Inclusive leaders play a role in today's globalization and the promotion of diversity. Inclusiveness brings people together and creates diverse thoughts and ideas. Participants from the interviews provided valuable perspectives on how they promote inclusiveness to their organization. Participant 1 stated that,

> I encouraged everyone in my team to provide their input during brainstorming and roundtable discussions. Each group, such as the community officials, community members, staff, and volunteers, must be represented in the table so we can obtain more diverse thoughts and opinions.

Participant 2 expressed similar practices and said, “My team frequently met every month. I listened to everyone and embraced all points of view. I tried to be respectful to my team members. Showing respect to one another promotes the inclusiveness we need in our workplace.” Participant 12 shared her experience and said,

> Being a democratic leader, I highly supported the culture of inclusiveness in our workplace. I advocated inclusiveness since I started my leadership position. In our organization, inclusiveness is evident during group discussions and team meetings. At this meeting, I encouraged each one to share their ideas and concerns about the issues or topics in hand. Everyone is allowed to talk and express their thoughts freely.

For Participant 3, inclusiveness is all about organizational culture. According to her, the leader is responsible for bringing and ensuring inclusiveness as part of the culture. Participant 3 described her style and said,

> I considered my style as a participative leader. I like to get involved in the process. As a leader, I valued my employees’ ideas and suggestions and promoted collective decision making. I changed our culture to a more friendly and inclusive environment.

Participant 6 also had a similar approach and said,

> I described myself as a collaborative leader. Being a leader, I put greater emphasis on the subject of inclusiveness. In my organization, all the employees have shared responsibilities with their managers and leaders. Inclusiveness is essential for us to have an active collaboration within our organization.

Leadership behaviors such as collaboration and accountability foster inclusiveness in a team structure of an organization. A leader creates this inclusiveness by being the driving force of cultural change. Inclusiveness allows subordinates to be involved and empowered to do what is expected from them.

Research Subquestion 2

Research Subquestion 2 focused on how creating a vision and setting direction supports the efforts for a cost-effective approach to malaria surveillance. To find out how leaders used their organizational vision and direction setting to advance the cost-effectiveness approach of the malaria programs, I asked the participants these questions. How did you set direction and vision for the malaria program and your organization? How did you improve the programs or services that were being offered? I also asked them some probing questions to obtain a complete picture of their processes. Participants discussed how they set direction and vision for their organization, how it impacted their malaria program, and how they improved the programs.

Results Driven

Crafting a vision allows leaders to dream big and articulate what they hoped for their organization to achieve in the future. This process also enables a leader to align its organization's purpose and values to their vision. Participant 10 stated,

> Making our community a malaria-free zone is our organizational vision for the future. I used a results driven approach for the creation of our vision to ensure we focus on priorities and the costs. As a leader, I like to see the results and the progress we are making in our programs. To motivate my employees, I need results to show and inspire them to continue working hard to reach our organization's ultimate goals. No matter how small the progress, it is vital to use it as a motivating factor for my employees.

Participant 12 shared their process and said,

> When I set up our vision, my team members were involved throughout the process. We all agreed to use data results as the basis to measure our performances and program success. By the way, our vision is to eradicate cases of malaria in the next decade. It is a daunting task, but worthy endeavors. Being a results driven team helps us tremendously in making sure we are moving in the right direction and not overspending beyond our budget.

Five other leaders reported similar visions for their organizations, which is to make their communities malaria-free zones in the future. Participant 3 described her experience during a vision setting and said,

> How to evaluate our overall performance for each of the programs was my first challenge as a leader. My colleagues recommended using reported results as a way to measure our progress. When I had the opportunity to set the vision for our organization, I introduced the results driven philosophy. Fortunately, everyone

> from my organization embraced this mentality, and it helped me manage our programs within budget.

For these participants, being results driven individuals enables them to be mindful of the costs and the progress of their programs. These participants understand the benefits of adopting results driven philosophy to their organizational culture to achieve their vision. Additionally, the focus on results helps leaders to motivate their employees.

Open Minded and Creative

Setting a vision for the organization provides an opportunity for leaders to step back, reflect on what is important, and look at different views. Participant 3 described her experience and shared,

> I realized right from the start that for me to be successful in my role, I need to be an open minded and creative leader. When I set up our vision, I did just that. I welcomed and listened to many ideas and thought hard on the long-term aspiration for our organization. I also realized that cost is a critical factor to consider if we wanted to achieve our goal. Being an open minded and creative leader allowed me to be impartial and to consider different points of view.

For Participant 11, leading an organization requires a leader to be flexible or adaptive to new and different ideas. Participant 5 described her leadership and said,

> I was trained by a mentor who encouraged me to be open minded and be respectful to other perspectives. I liked this approach a lot, so I applied it to my role as a leader. When I set up our vision for the organization, I welcomed all the contributions and ideas I can get from my employees. It works well for my team

> and me when doing problem-solving, particularly on the issue of limited funding. Being an open minded leader enabled me to solicit ideas from employees and use those ideas to produce creative solutions.

Participant 12 expressed a similar style and stated,

> A big part of me being a democratic leader is my inclination towards teamwork. I urged my subordinates to be an active participant. I listen carefully and consider their ideas before making any decision. When we set our vision, I entertained all my subordinates' ideas and suggestions. My approach as an open mended leader was in display during the process. I realized that creativity could only be achieved through an open minded attitude. I am confident that our vision is aligned with our costs to sustain the malaria programs in the future.

Characteristics that include flexibility, good listener, and teamwork promotes open mindedness and creativity. An open minded leader allows a new way of thinking and a unique strategy for solving the problem. By doing so, the leader becomes creative in seeing new possibilities and opportunities.

Research Subquestion 3

Research Subquestion 3 focused on how delivering strategies such as case finding, diagnostic testing, and treatments advance the implementation process of a cost-effective approach to malaria surveillance. To understand the impact of delivering a strategy to the implementation process of malaria surveillance, I asked participants about strategies they have used, the challenges they encountered, and how they did address the issues (see Appendix C: IQ7-10). I also asked participants what other leadership traits

they could share that may help advance cost management in the malaria program. Moreover, I did document analysis in each organization to gain a more in-depth understanding of their approaches or strategies.

Delegate Tasks and Empower Others

Most of the participants noted the importance and the benefits of delegating tasks to their subordinates and empowering them to carry out strategies necessary for a cost-effective approach to malaria surveillance. Participant 2 shared her experience and said,

> As a leader, it was difficult for me to do everything, so I delegated much of the tasks and empowered my employees with my support. Our work in malaria surveillance relies heavily on my staff to gather and collect information from the field. If there is one thing that made delegating tasks possible for me, I would say increased communication between my staff and me was the key. Through communication, I was able to empower my employees. I believed in themselves that they could do the job I have assigned to them. Delegating a task and empowering my employees enabled me to work on other important matters. This approach saves us time and money in accomplishing the organization's goals.

Participant 7 had used collaboration, and she explained the significance of collaboration in her organization. Participant 7 stated,

> If you want your employees to follow you as their leader, you need to collaborate with them. My style as a leader is participative, so it comes a bit easy for me to work and collaborate with others. Like many of my colleagues, I delegate tasks to my team members and employees to get more things done and save money in the

> process. Delegating a responsibility needs a strong collaboration between the team members and their leader. I empowered my employees by building a good relationship and providing them the resources they need in their job.

For Participant 9, coaching allowed her to share responsibility with others. She mentioned,

> I used coaching as part of my leadership style to motivate my subordinates and team members. Coaching allowed me to see and learn the potential of my subordinates. Delegating a task to subordinates is not that difficult once you find out their skill sets. With our malaria programs, I delegated a specific task to individual employees and provided them the resources and training they need to succeed. Through coaching, I continue to empower my employees with the support and trust I have for them.

Document analysis from all the sites showed that leaders empowered their employees to carry out the strategies necessary for malaria surveillance. Such strategies include the case finding, test results reporting, and treatment. Subordinates were also responsible for performing cost analysis for the program and making the recommendation to curtail the program's cost. Documents from each site revealed that subordinates shared responsibility with their leader and were given the assignments to work on specific tasks and duties.

The increased communication, collaboration, and coaching that these leaders demonstrated help them to become a great delegator. Delegating a task enables leaders to empower their employees to make decisions and be accountable. Leaders who delegate

tasks and empower subordinates are in an excellent position to adequately deliver strategies in a malaria program that guarantees to save money and valuable resources.

Embrace Alliances

Embracing alliances can have a positive impact on cost-effectiveness measures and to the efficiency in delivering strategies to the malaria surveillance program. Participants provided their insights as to how embracing alliances advance the implementation process and reduce the cost of the program. Participant 2 said,

> I encouraged my team and employees to build and embrace alliances with the local leaders in the communities that we serve. My team collaborates with our local leaders regularly. We let them know about our programs and schedules of our visits to the communities. These local leaders help us organize when we have medical outreach in their communities. They volunteer their service, so there is no cost associated with the partnership.

For Participant 6, delivering strategies in disease surveillance may need partners from the community:

> We partnered with community health workers (CHWs). These CHWs are trained health workers in first aid, maternal and child health, environmental health, and health education. We collaborated with CHWs to help us educate the people about malaria infection, its symptoms, and how to get tested for the disease. My team provides health education about the disease in a community on a scheduled basis. However, CHWs have closer relationships with the people in our community. They are more accessible, helping us a lot in terms of information dissemination

> and surveillance efforts. Also, we save money because the local government employs CHWs. I used them frequently when we had a staffing problem, and they are an excellent resource in our community.

Participant 5 also described how she used a partnership with others and said,

> I established alliances with nongovernment organizations such as the WHO, The Global Fund to Fight AIDS, Tuberculosis, and Malaria, and Bill and Melinda Gates Foundation. These nongovernment organizations are in alliance to fight malaria infection in our communities. I managed our alliances through collaboration and excellent communication. Our partnerships with the nongovernment organizations help us secure grants as additional funding for our malaria surveillance program, testing, and treatment.

Evidence showed embracing alliances has many benefits for delivering strategies in the malaria program. These benefits include increasing resources, raising community involvement and awareness, and providing additional funding for the program. Effective collaboration and constant communication were critical to the process, which promotes successful alliances in public health. Document analysis showed the effort to maintain an excellent relationship and alliances with the local community leaders, the community health workers, and the nongovernment organizations. Communication between leaders of the organizations and outside partners were part of the record evaluated.

Take Action

Implementing strategies requires a leader to be proactive and attentive to challenges that may arise during the process. Participants shared their experiences on how they took action to address the issues. Participant 8 said,

> The two primary challenges that we had encountered when we rolled out our strategies were staffing shortage and limited funding. As a leader, I had to decide and act quickly to address these issues. When we had a staffing problem from time to time, I promptly took action to alleviate the problem. I called in for trained volunteers or community health workers to help us with our shortage. When it comes to limited funding, I looked for government grants or additional funding from the local municipal officials. Otherwise, I had some instances where I left with no choice but to drop other health programs to be able to sustain our malaria surveillance program. I need to be decisive to take action when needed.

Participant 4 described her experience and stated,

> My challenge was aligning our priorities with the outside partners, such as the local government and other health agencies. I had to take prompt action to implement our strategies fully and to avoid any conflict. I had to coordinate our program schedules to other health agencies, so we can plan and inform the people in the communities ahead of time. This practice saves us money because there are some programs that we can combine with our partners which can result to lower the cost, like health education on disease prevention and training programs.

For Participant 10 and Participant 12, taking actions had proved to be crucial to the success of their program. Participant 10 said,

> I had to take action to address the challenges for our program implementation. One of the most significant issues we had was the inability of the people in our community to follow our mandates. People do not listen and continue to resist our health instructions. I had to educate them regularly to get their buy-in for the program. I had to be responsive to fix the issue, so we get better outcomes.

For Participant 12, it was about being aware of the situation to be able to act and make decisions appropriately. She said,

> I understand my role, and I take it seriously. I embraced taking action whenever the need arises. In the past, I had to take action in making sure I had the right employees for the job. I hired extra people when funding was suitable and cut employees whenever the cost was a bit higher. Being mindful of the situation or circumstance helps me make the right decision.

Document analysis corroborated with the participants' interview accounts. Documentation showed these leaders took proper actions. These actions included when a particular leader requested volunteer trained health workers to help with their workload; when they sought out additional funding, and the time when they reorganized their workforce. Moreover, a cost-benefit analysis was taken by each leader to ensure their expenses were within the budget.

For these leaders, being decisive, mindful of the situation, and responsive on time enabled them to take action more effectively. Taking action requires courage and

confidence. These leaders demonstrated that they were not afraid to come out of their comfort zone and took the appropriate measures or actions to position their teams and organizations for success.

Summary

This study focused on understanding leadership qualities that may advance cost-effective approaches in a malaria surveillance program in the Philippines. The overarching question was whether, if any, do leadership qualities contribute to a cost-effective approach in malaria surveillance. The themes that emerged from this study provided substantial answers to the research questions. Subquestion 1 investigated personal leadership qualities that may contribute to cost-effective approaches in malaria surveillance. The 12 participants shared their leadership experiences and their preferred leadership style to leading their respective organizations. The themes that came up include accountability, commitment and passion, personal integrity, and inclusiveness.

Subquestion 2 focused on how creating a vision and setting direction supports the efforts to a cost-effective approach in malaria surveillance. The themes that emerged were results driven and open minded and creative. Finally, for Subquestion 3, I explored, how do delivering strategies such as case finding, diagnostic testing, and treatments advance the implementation process of a cost-effective approach to malaria surveillance. In addition to the interviews, I performed document analysis to understand more about the participants' cost-effective practices. As a result, three themes emerged that included delegate tasks and empower others, embrace alliances, and take action.

In Chapter 5, I provide an interpretation of my study findings, study limitations, and recommendations for future study. Also, I address the study implications and provide a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to identify and highlight leadership traits that are crucial to the implementation process and the cost-effective approach of a malaria program in the Philippines. This study was conducted to explore leadership qualities that may have a positive impact or influence on the cost-effectiveness of approaches in the malaria surveillance program. I conducted this research to fill a gap in the existing literature related to this topic. The findings from this research may be essential to public health leaders facing similar circumstances to adopt new leadership styles for cost-effective measures.

I used a qualitative single case study method for this study and conducted face-to-face semistructured interviews with 12 public health leaders/managers. I recorded all my interviews with the participants' informed consent and performed document analysis. I transcribed all the interviews and used data analysis software (NVivo 12) to organize, manage, and store the data. I employed values coding for data analysis. I applied the three constructs of values (V), attitudes (A), and beliefs (B) on the initial coding. Then, I categorized the codes using the three constructs of values coding. On the final coding, I returned to previous coding cycles and reexamined the codes for trends, patterns, and themes. I stayed focused and unbiased through the entire coding process and dismissed any of my preexisting assumptions.

The key findings from this study provide answers to my overarching research question as to what extent, if any, do leadership qualities contribute to a cost-effective

approach to malaria surveillance. Research Subquestion 1 sought to understand leadership qualities that may contribute to cost-effective approaches in malaria surveillance programs, and the study findings included personal integrity, accountability, commitment and passion, and inclusiveness. Subquestion 2 explored how does creating a vision and setting direction support efforts for a cost-effective approach in malaria surveillance, and the findings were results driven and open minded and creative. Finally, Subquestion 3 investigated how do delivering strategies, such as case finding, diagnostic testing, and treatments, advance the implementation process of a cost-effective approach to malaria surveillance. The results included delegate tasks and empower others, embrace alliances, and take action.

Interpretation of the Findings

No demographic data were collected for this study. Participants were selected based on criteria established for the study. Participants met the inclusion criteria of serving as a full-time public health leader/manager, holding a leadership or supervisory role in the department, and having worked or been involved in malaria prevention and surveillance programs with budgetary oversight. Participants' organizational roles included 10 public health leaders and two public health managers.

Research Subquestion 1

Accountable. Many of the participants identified accountability as a critical leadership trait to ensuring the malaria surveillance program is adequately managed and implemented in the most cost-effective ways. Malaria surveillance is a continuous process that requires a systematic approach to data collection and data reporting for

prevention, intervention, and treatment (WHO, 2017). Participants expressed the importance of collaboration, analytical, critical thinker, and problem-solving to leadership accountability. Participants showed accountability by being excellent collaborators to their team members. As a result, the participants noted better relationships with their subordinates and improved work performances. Accountable leaders increase employee work efficiency and improve overall organization productivity (Walsh et al., 2018). Moreover, accountability helps public health leaders create a strong partnership with local officials to achieve the organization's long-term success (Johanson, 2017).

Committed and passionate. Leaders with commitment and passion showed the ability to influence, inspire, and encourage others to be excited (Trastek et al., 2014). Participants identified the impact of a committed and passionate leader on employees' confidence and team success. One of the participants stated that he makes sure his employees have the right tools and resources to succeed. Other participants commented that they were relentless in their support and guidance to employees and determined to achieve organizational goals no matter what. A committed and passionate leader understands the importance of team building and partnership within the organization (Trastek et al., 2014).

Personal integrity. The participants noted that personal integrity is essential to building and maintaining a relationship. Participants considered integrity an indispensable trait for leading a team and an organization, as subordinates are more likely to emulate their leader behaviors. Participants credited honesty and transparency in

developing integrity for a public health leader. A leader who values integrity shapes an organization's culture and strengthens the relationship with employees (Choi et al., 2016). Participants noted that when leaders act and make decisions with integrity, they tend to be more productive and successful with their teams and the organization. Personal integrity helps leaders promote trust, respect, and improve their relationship with their followers (Macomber, 2019).

Inclusiveness. Participants stated that inclusiveness empowers employees to do more creative thinking and contribute solutions to the best of their ability. According to most of the participants, employees were appreciative of the opportunity to share their views and concerns safely. Participants in this study identified inclusion in the workplace as an essential feature of organizational culture change. Participants noted that an inclusive leader recognizes the unique personalities and experiences that each individual brings to the table. Participants also pointed out that, as a leader, they were respectful and appreciative of their employees' contributions. Participants valued their employees' input and welcomed collaborative efforts. As a result, an employee who feels accepted, respected, and appreciated tends to be more productive and satisfied in their job (Choi et al., 2016). Participants mentioned that they actively promote inclusivity in the workplace to ensure their employees are treated fairly and justly. Inclusive leaders create a culture that encourages employee engagement and participation (Choi et al., 2016). An inclusive leader motivates and supports employees to achieve their potential and improve their overall performance (Choi et al., 2016).

Research Subquestion 2

Results driven. Participants described how creating a vision and setting direction supports the efforts for cost-effective approaches to malaria surveillance. Participants noted that being results driven had helped them set an organizational vision aligned with cost-effective strategies and priorities. Participants mentioned that they were adept at performance measurement and cost management to assess the organization's progress accurately. Results driven leaders ensure the organization's long-term sustainability through continuous monitoring and scanning of the outside forces of the market (Du Plessis et al., 2016).

Open minded and creative. The opportunity to learn, grow, and succeed, can only be attained if an individual is willing to listen and be open to other ideas (Smith, 2015). Participants stated that being open minded leaders enabled them to listen to many different perceptions and points of view and provided them the ability to look at the bigger picture of a problem. Open minded and creative individuals are adaptive to finding new solutions and consider all the possibilities (Kaweckyj, 2018). Participants noted that they regularly sought unique ideas and knowledge from their subordinates to find a cost-effective approach to achieving the organization's vision. Open minded leaders allow creativity to develop to find solutions to a problem (Kaweckyj, 2018; Smith, 2015).

Research Subquestion 3

Delegate tasks and empower others. The leadership role provides enormous power and responsibilities for any leader (McLean, 2015). Leaders in any business sector inherit this power, and sometimes, it is hard to let go or share it with others (McLean,

2015). Research Subquestion 3 focused on how do delivering strategies such as case finding, diagnostic testing, and treatments, advance the implementation process of a cost-effective approach to malaria surveillance.

Participants agreed that delegating tasks to subordinates resulted in increased productivity for their organization and enabled employees to feel empowered. Participants pointed out the significance of coaching, collaboration, and communication in the successful delegation of tasks. Participants acknowledged that they were able to save time and valuable resources and create a culture of trust within the organization through proper delegation of responsibilities or duties. The results confirmed the literature review noting that the delegation of tasks enables leaders to empower subordinates and create a team approach for shared decision making (McLean, 2015).

Embrace alliances. Alliances in public health are essential to program implementation and the long-term sustainability of an organization (Johanson, 2017). Public health leaders should identify the key players and stakeholders to build coalitions (Johanson, 2017).

Participants indicated local government leaders, volunteer trained health workers, and nonprofit organizations were strong alliances that supported the fight against malaria and promoted health awareness in communities. Participants noted that their organizations benefited from the alliances through increased resources, increased community participation, and supplementary funding. Alliances encourage the leader to establish a strong partnership with local government officials to ensure long-term organizational success (Johanson, 2017). Participants understood that for alliances to

work and be beneficial to cost-effective measures, leaders needed to ensure that partnerships are aligned with their organizational goals and vision.

Take action. Participants recognized that failure for a leader to act could result in some unintended consequences, such as followers may erode trust in their leader, reputations or relationships may be damaged, and the opportunity to advance the organization may be derailed. Participants indicated that they were proactive in taking actions whenever it is necessary. Participants mentioned examples of these actions, including the use of volunteer trained health workers to help out during staffing shortages and the reorganization of health program resources to save money. Participants noted that they were able to successfully address the problem and reduce the cost of the malaria program by taking action swiftly and appropriately. Take action contributes new knowledge regarding leadership qualities and cost-effective malaria programs because there was nothing in the literature found on this subject.

Conceptual Framework

I used the NHS LF as the conceptual framework for this study of leadership qualities that may help to advance a cost-effective approach to malaria surveillance in the Philippines. This framework was built on the concept that leadership is a shared responsibility and commitment of both the leader and the employees to achieve the organization's long-term goals (Department of Health and NHS Leadership Academy, 2011).

In this study, participants described their experiences and chosen leadership styles that contributed to the cost-effectiveness approach in a malaria surveillance program.

Findings from this study confirmed the leadership qualities in the LF that are beneficial to managing the team and the organization. First, my findings on accountability, open mindedness and creativity, and personal integrity were consistent with the LF that emphasizes demonstrating personal qualities. In this domain, leaders acknowledge their mistakes, seek opportunities, and act with integrity. Participants mentioned that there were times when they failed to communicate with their teams, which resulted in confusion and mix-up. These participants candidly acknowledged those mistakes and made efforts to rectify the problem. Participants cited open minded and creative traits helped them view a problem as an opportunity to work with others and find plausible solutions. Participants added that having a multidisciplinary team enabled them to seek unique ideas and take advantage of their diverse talents to advance their organization's long-term goals. Participants also noted that they showed personal integrity through honesty and by consistently doing the right things.

Second, my findings on committed and passionate, embrace alliances, and inclusiveness were compatible with the LF when working with others. For this domain, leaders create opportunities for individuals or groups to participate and collaborate as a team (Department of Health and NHS Leadership Academy, 2011). Participants noted that they were committed and passionate by making sure their employees had the right tools, support, and resources to do their jobs. Participants embraced alliances to build community support and reinforce funding capability. Moreover, participants used inclusiveness to ensure employees' input was valued and respected. These leadership

behaviors created an environment and opportunities for employees and outside partners to participate and collaborate as a team.

Lastly, my findings on delegate tasks and empower others, take action, and results driven were consistent with the LF that emphasizes leaders' delivering the strategy, managing resources, and critically evaluating performances (Department of Health and NHS Leadership Academy, 2011). Participants indicated that they delegated tasks to their employees, evaluated program progress assessment, and empowered employees with their trust and support, which were essential to delivering the strategy more effectively. Participants were proactive to take action in managing their resources properly, such as to request for additional funding, and petition to use volunteer trained health workers. Furthermore, participants demonstrated results driven personality by utilizing progress report data to evaluate their resources and program performances critically.

Limitations of the Study

There were several limitations to this study. The first limitation is transferability. The data were collected in the Philippines, and the participants were public health leaders from the rural locale. The interviews took place in offices where participants work, which may limit transferability. The findings from this study may not be transferable to larger populations or other settings (Amankwaa, 2016). Also, this study was strictly focused on the malaria surveillance program to examine leadership traits that may advance the cost-effectiveness approach. Therefore, findings may not be transferable to other health

programs because leadership traits may vary from every situation or environment. A thick description of the data was employed to mitigate the issue of transferability.

The second limitation of this study was related to participant selection. The study participants included only leaders and managers with a budgetary role in malaria programs, thus, limiting more diverse perspectives from other leaders. To address this limitation, I used purposeful sampling to obtain a close representation of the workforce, such as nurses, physicians, and other public health professionals. Purposeful sampling is a process in which study participants are selected based on their extensive knowledge and experience about the phenomenon and who could provide answers to the research questions (Patton, 2015).

Finally, the third limitation was data dependability. In qualitative research, dependability refers to the stability and consistency of the data collection process and the study findings (Connelly, 2016). As a novice researcher, I may not be thorough or attentive enough to detail during the data collection and data analysis. However, I provided accurate and complete documentation of the data collection process by writing a reflexive journal and an audit trail. I also performed data triangulation using different data sources; in this case, interviews, and document analysis to strengthen the dependability of the study results.

Recommendations

Although there was a great deal of research done on leadership qualities, there are still areas in public health leadership that needs to be explored. In this study, I investigated the leadership qualities of public health leaders who were involved in the

budgetary role for a malaria surveillance program and were instrumental in the cost-effective approaches for the program. Further research needs to be done on leadership qualities and cost-effective approaches with other infectious disease prevention programs such as tuberculosis, AIDS/HIV, and influenza using a quantitative method to obtain a large sample size and see what traits are prevalent. Another recommendation is a study concerning employees' behaviors that may support cost-effectiveness measures to their organization.

Implications

The potential impact of this study for positive social change is the knowledge about leadership qualities that help to advance cost-effective approaches in a malaria surveillance program. This research identified public health leadership traits that were essential to cost-effective strategies, greater program sustainability, and higher success rate in cost-effective malaria control and prevention. The findings from this study, such as accountability, commitment and passion, personal integrity, open mindedness, and inclusiveness, could benefit public health leaders in managing the program in infectious disease surveillance more cost-effectively. Application of these specific leadership traits may empower leaders, who are experiencing similar challenges and circumstances. These findings can be used as learning tools and guides for leadership training and development and fiscal responsibility promotion. Moreover, these findings may provide a breakthrough for public health leaders to manage their resources effectively, advocate for policy change to improve public health funding, and integrate newer knowledge as an evidence-based approach to many developing countries.

I plan to publish the study findings in a peer-reviewed journal and present it to public health leaders and managers at the Philippines' annual regional conferences. Sharing my study findings may advance the knowledge of effective leadership styles to reducing the cost of health program implementations.

Conclusion

This study aimed to identify leadership traits that may contribute to cost-effective approaches in a malaria surveillance program in the Philippines. In this study, I investigated 12 public health leaders/managers to understand and capture their experiences and insights and collected the data through in-depth interviews and document analysis. I found that there were leadership traits that advance cost-effective approaches in a malaria surveillance program. The findings answered my overarching research question of whether or not; there are leadership qualities that could directly influence and contribute to the cost-effectiveness approach of a malaria surveillance program.

In Research Subquestion 1, I explored personal leadership qualities essential to a cost-effective approach in malaria surveillance. I found the following traits, accountability, commitment and passion, personal integrity, and inclusiveness to be helpful to leaders. These leadership traits facilitate leaders to be prudent with the organization's expenditures and trustworthy with their role. In Research Subquestion 2, I examined how does creating a vision and setting direction supports the efforts to a cost-effective approach in malaria surveillance. I found two significant leadership traits, which were results driven and open minded and creative. Using the NHS LF, I confirmed that results driven leaders are focus on managing resources and critically evaluating

processes. Open minded and creative leaders were also consistent with the NHS LF for learning and development. Participants stated that they listened to different points of view and sought out diverse ideas from their subordinates before setting the organization's vision.

Finally, in Research Subquestion 3, I examined how do delivering strategies advance the implementation process of a cost-effective approach to malaria surveillance and performed document analysis related to the program's budget and finances. I found three leadership traits that are integral to a cost-effectiveness approach that includes delegating tasks and empowering others, embracing alliances, and taking actions. Participants described how they empowered employees through coaching and support, how they used outside partners to improve their resources, and how they became proactive and decisive when taking action.

Leadership in public health continues to evolve. Public health leaders are at the forefront of the fight against deadly infectious diseases. This study provided evidence that specific leadership trait helps public health leaders to be successful in their role. Leaders that exhibit these traits are more adept at moving the organization in the right direction and highly capable of achieving the long-term goals of their malaria surveillance program.

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Appendix A: Invitation for Final Study Participation

Dear Sir/Madam,

My name is ... As part of my doctoral study at Walden University, I would like to invite you to participate in my final research study. This study intends to explore and identify leadership traits that are crucial to the implementation process and cost-effectiveness approach of a malaria program. I would like to understand deeper how you manage malaria surveillance programs despite funding deficiency and limited resources. I am reaching out to you because you are a local public health leader/manager. The criteria for participation are a) full-time employee, b) holds leadership or supervisory role in the department, and c) has worked or been involved in malaria prevention and surveillance programs with budgetary oversight. Participation in this research study is voluntary, and any personal information will be kept confidential. If you meet the criteria and willing to be part of the study, I would like to invite you for an interview. The face-to-face interview will take about 45 minutes but no more than an hour and will be audio recorded. There is a $10 thank you gift for participating in the study.

If you are interested and willing to participate, please notify me via phone or email so we can schedule the interview and I can make a travel plan in advance.

After the interview, you will have the opportunity to review the interview transcripts to ensure the accuracy and completeness of the information. I appreciate your time and hope you will consider and accept my invitation.

Sincerely,

Appendix B: Invitation for Pilot Study Participation

Dear Sir/Madam,

My name is ... As part of my doctoral study at Walden University, I would like to invite you to participate in my pilot research study. The purpose of this pilot study is to test my interview questions. The data collected from this pilot study will not be used for the final study, but rather for me to make adjustments and revisions before the main study. This pilot study intends to explore and identify leadership traits that are crucial to the implementation process and cost-effectiveness approach of a malaria program. I would like to understand deeper how you manage malaria surveillance programs despite funding deficiency and limited resources. I am reaching out to you because you are a local public health leader/manager. The criteria for participation are a) full-time employee, b) holds leadership or supervisory role in the department, and c) has worked or been involved in malaria prevention and surveillance programs with budgetary oversight. Participation in this pilot research study is voluntary, and any personal information will be kept confidential. If you meet the criteria and willing to be part of the study, I would like to invite you for an interview. The face-to-face interview will take about 45 minutes but no more than an hour and will be audio recorded. There is a $10 thank you gift for participating in the study.

If you are interested and willing to participate, please notify me via phone or email so we can schedule the interview and I can make a travel plan in advance.

Sincerely,

Appendix C: Interview Protocol

Interview Protocol

What I will do**:**	What I will say**:**
Greet the participant and introduce myself	Hi, my name is ... I am a doctoral candidate at Walden University in the College of Health Services with a specialization in Health Care Administration. The purpose of this interview is to collect data based on your experience on how leadership might affect cost-effective approaches in malaria surveillance programs. Your participation in this research study could provide insights on how leadership styles influence cost-effective approaches in malaria surveillance program. This study is entirely voluntary, and you can withdraw at any time or choose not to answer the question if you feel uncomfortable. The information that will be collected, including your name and your organization, will be held confidential and will not be shared with anyone.
Review the informed consent form with the participant	• Go over on the informed consent and ask the participant to read and sign the form, unless consent was made in advance via email with the words “I consent.”

	• Provide a copy of the signed informed consent to the participant. • Ask the participant if they have questions or concerns • Remind the participant that the interview will be audio recorded and will last at least an hour. • Provide the $10.00 thank you gift to a participant.
Set the stage before starting the interview	Before we begin the interview, I would like to thank you for agreeing to participate in this study. If you need clarification, feel free to ask me questions at any time. In addition to audio recording, I will also be taking notes for my journal. When you are ready, I can start the interview.
Begin the interview: • Observe for non-verbal queues • Paraphrase and ask probing question as needed	1. As a leader or a manager, what are your personal or professional qualities that help you manage the malaria program in a most cost-effective way? 2. How did your team or staff respond to your approach or style? 3. How do you describe your relationship with your staff?

	4. How do you promote strong teamwork in the workplace? 5. How did you set direction and vision for the malaria program and your organization? 6. How did you improve the programs or services that were being offered? 7. What strategies have you used to improve the implementation process and lower the cost for the malaria program? 8. What (if any) were the barriers or challenges to implementing the strategies to controlling the cost for the malaria program? 9. How did you address those barriers or challenges? 10. What other information would you like to share about leadership traits that are essential in cost management for the program?
Wrap up the interview	Thank the participant for their time and participation.
Discuss member checking method for accuracy	In the following week, I will provide you a copy of the interview transcript for you to review for accuracy and an opportunity to add comments.

Provide a copy of the interview transcript Again, thank the participant for their time.	Ask the participant to review the transcript and make necessary corrections.