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Reducing Maternal and Child Morbidity and Mortality Through Project Recommendations

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Abstract

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MS, Long Island University, 2002

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Capstone Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

Haiti is a Caribbean island with a humanitarian medical center providing healthcare services to 90,000 residents. Pregnant women visiting the medical clinic for prenatal care often do not return for delivery; instead, they return home to deliver alone or with the assistance of a traditional matron. Home-birth practices increase maternal-child health morbidity and mortality in an already fragile country. The purpose of this project was to gain a deeper understanding of Haitian pregnant women's preferences to deliver at home or at the healthcare clinic. The transtheoretical model for behavior change and the Johns Hopkins nursing evidence-based practice model guided the project. Two focus groups of 10 pregnant women total were recruited in the community of Delmas 32, Haiti. Group 1 was comprised of 5 women who delivered at home with matrons and Group 2 was comprised of 5 women who delivered at the clinic. Structured questions were asked to identify themes related to delivery location preferences. Focus group transcripts were analyzed guided by the Krueger and Casey strategy model. The thematic analysis was aligned with the peer-reviewed literature. Findings revealed that lack of access to care, lack of education and sensitization, and the attitude of healthcare personnel impacted women's preference for delivery at the clinic. Findings also supported a need to educate staff and the community in the best options for maternal-child care. A workshop was developed, based on the project findings, to share the recommendations with the clinic staff. The clinical leadership have indicated that they will implement the project recommendations. This project has the potential to support social change by reducing maternal-child deaths in Delmas 32 and across the Caribbean.

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Dedication

I dedicate my DNP capstone project to my children for their patience, encouraging words, and love. To all of you out there who have heard it at least once, "you should maybe do something else, maybe this is not for you". If you can envision it, you can achieve it.

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Table of Contents

Section 1: Nature of the Project

Introduction

The purpose of this project was to obtain a deeper understanding of why pregnant women in Haiti's Delmas 32 community choose not to give birth in a health clinic. Maternal and child mortality is a public health issue and an indicator of population health and healthcare quality (Stampfel & Kroelinger, 2012). In 2010, roughly 287,000 women across the world died from pregnancy- and or delivery-related complications, and 3.1 million newborns died during their neonatal period (World Health Organization [WHO], 2013). Haiti has the highest rates of mortality for mothers, infants, and children under five among nations in the Western Hemisphere (United Nations International Children's Emergency Fund [UNICEF], 2010). Every year, about 630 out of 100,000 women die from pregnancy or delivery complications in Haiti (Direct Relief, 2011). Six out of 100 children born will die before their first birthday (Institut Haitien de L'Enfance [IHE], 2012).

The WHO (2010) has established Millennium Development Goals (MDGs) 4 and 5 to reduce the under-five infant mortality rate to 20 in 1000 lives births by 2015. Although 2015 is upon us, certain developing countries, such as Haiti, lag behind in achieving these goals. Despite the improvements made, many developing countries need more years to meet their MDG objectives (Lozano et al., 2011). One of the reasons why maternal-child deaths persist in this Caribbean island is because pregnant women deliver at home with untrained birth attendants, also known as matrons. To address this shortfall, I conducted a qualitative study using focus group interviews of women who delivered at

the medical clinic and women who delivered at home. Understanding why women prefer to deliver at home was useful. Based on these findings, I developed and implemented recommendations to promote positive behavior change among pregnant women in Haiti seeking prenatal care and to increase the rate of women who deliver in the clinic.

Healthcare providers and nursing practice leaders have a responsibility to improve health outcomes for both mothers and babies through promotion of evidence-based clinical practice (White & Dudley-Brown, 2013). This project was targeted to serve pregnant women and will contribute to the MDGs 4 and 5. Goal 4 aims to decrease the infant mortality rate by two-thirds by the year 2015. Goal 5 seeks to ameliorate maternal health by cutting the maternal mortality rate by three-quarters by 2015 (UNICEF, 2010). Specific indicators of Goal 5 include an increased number of births undertaken by skilled personnel to reduce maternal mortality (UNICEF). Studies have shown that multidisciplinary community-based maternal-child programs have successfully reduced the incidence of death in this target group (Maxson et al., 2011).

Background

Haiti, a nation steeped in strong cultural traditions including natural remedies and folk medicine, has a long history of delivery at home with a traditional birth attendant who lacks formal medical and nursing training. Social, economic, and cultural factors may further contribute to the problem, which in turn leads to increased maternal-child morbidity and mortality. When pregnant women stay at home and deliver with matrons under precarious conditions, they risk their lives and the lives of the unborn (UNICEF,

2010). Less than 36% of deliveries in Haiti occur at healthcare centers (IHE, 2012), and about 40% of infant mortality occurs in the first year of life (UNICEF, 2012).

Several non-governmental and governmental organizations have built and strengthened obstetrical centers throughout the nation in an attempt to assist pregnant women and encourage them to give birth in the health facilities. However, these efforts have fallen short because there are still not enough facilities and healthcare providers to accommodate the number of pregnant women in the country. Also, attempts to educate the population on the importance of preventing maternal child deaths have not been widely received **(**Plan International, 2013). The ratio of trained medical doctors to the Haitian population is about 2.8 per 1000 people (Garfield & Berryman, 2012). Additionally, the target community for this project only has one women's clinic with an obstetrical suite for a population of 90,000 residents, of which more than 50% are of child-bearing age (JPHRO Indicator Tracking Table [ITT], 2014).

Socio-economic factors such as unemployment and illiteracy affect how pregnant women plan their care. These essential social elements lead to poor health (Healthy People 2020, 2012) and contribute to the high incidence of maternal-child mortality in Haiti (UNICEF, 2010). In a study on literacy and the rate of death, Chowdhury et al. (2009) concluded that maternal-child morbidity and mortality rates decrease as the mother's level of education increases. Even one extra year of education among mothers made a difference. The study showed a 66% reduction in death rates due to a higher level of education. Women with poor economic status in Haiti often reside in shacks with dirt floors, no running water, and no sanitation, far away from access to medical services.

These conditions also pose health threats that augment mortality levels (Korkodilos et al., 2013).

Cultural beliefs and practices about pregnancy also have the potential to lead to poor health-seeking behavior, resulting in increased mortality rates. More than 75% of births take place at home using matrons (Direct Relief, 2014). Many women may prefer matrons over healthcare providers because of their accessibility. The matrons travel to the home of the women in labor, and then stay during labor and after delivery for three days, during which the matrons care for mother and child (Colin & Paperwalla, 2003). This trusted interaction develops a relationship and creates a bond between the mother/child and the matrons.

Delmas 32, the location for this project's development and implementation, is a neighborhood in the district of the Western State of Haiti that has a high maternal and child mortality rates and heavy utilization of unsafe home childbirth. This issue is a public health concern because poor health among community residents renders communities weak (Healthy People 2020, 2012; New York State Prevention Agenda, 2012).

Problem Statement

The problem addressed in this project was the high rate of maternal/child morbidity and mortality in an urban area of Haiti due to the prevalence of home birthing with untrained matrons. During the period from January to April 2014, 3,205 prenatal visits occurred at my practicum medical clinic site**.** Of that number, only 115 deliveries

took place at the institution (ITT, 2014). This information was of major concern as it indicated that the vast majority of these women delivered with untrained birth attendants.

This project is significant for nursing practice because it will impact prenatal care, which is essential to the health and welfare of mothers and babies (Meyers, 2014). Evidence-based nursing interventions focus on ensuring that quality care is maintained through promoting, maintaining, and restoring health (Chen, 2009). The WHO and UNICEF have identified home births as a major contributing factor to maternal-infant mortality in developing countries that can be addressed using a community-based maternal/child program (WHO, 2013; UNICEF, 2010). The PICO problem statement I developed was:

Population: Pregnant women living in Delmas 32, Haiti.

Intervention: Developing recommendations for expectant women to deliver in clinics.

Comparison: Delivery of children with the use of matrons.

Outcome: Reduction in the rate of morbidity and mortality in mothers and infants.

Purpose Statement

The purpose of this project was to gain a deeper understanding of why pregnant women in Haiti do not use clinics and prefer to deliver at home with the aid of matrons. In the project, I explored relevant factors such as lack or poor access to care, socioeconomic deprivation, tradition, and culture as contributing to high infant mortality and morbidity in Haiti. I worked to discover the best approaches that can be used to help

women realize the importance of the clinic and to encourage them to start using its services to increase supervised births to save the lives of mothers and their children.

The translation of evidence to improve clinical outcomes is an essential role for the Doctorate of Nursing Practice-prepared nurse ([DNP]; White & Dudley-Brown, 2010). DNPs are leaders and change agents with the duty to apply and promote evidencebased research to practice to improve patient care quality and safety. Currently, there is little formal understanding of the factors that influence women to give birth at home. To reduce mortality and morbidity, researchers can use the key information I gained by conducting this project to develop and implement recommendations that will support and promote health among pregnant women through behavior changes related to home births.

Goals and Objectives

In this project, I sought to identify the underlying reasons for the low turnout in childbirth delivery in the clinic, and made recommendations based on the findings to improve institutional birth rates. It is possible that factors such as lack of understanding of the risk of home deliveries, socioeconomic factors, accessibility, and cultural traditions of using matrons influence behaviors regarding home births. Improving the conditions through sensitization on behavior change have demonstrated that there was an increase in delivery in health facilities and thus a reduction in mortality (Gillmore, 2013). The insight of Gillmore's study was valuable as it provided me a better understanding of how the women of Delmas 32 perceived delivery and what they understood about the risks of delivery.

Through two focus group discussions, I (a) gathered information about issues that prevented pregnant women from delivering in the clinic, (b) gained information on available resources and accessibility to care in the community, (c) gathered data on the perceived gap in care provided in the clinic versus staying at home, and (d) collected data on what factors would impact their decision to deliver in the clinic**.** My future plan after completing this capstone project is to create a community-based maternal child health program in Delmas 32 with emphasis on sensitization for behavior change to increase deliveries in the clinics. The result of this project was crucial in designing and implementing relevant and culturally-appropriate mater the medical director programs in Haiti. I submitted a brief outline to the medical director, delineating future program development after completion of the focus group interviews.

Theoretical Foundation

The trans-theoretical model of behavior change (TTM/BC) stages of behavior change guided the framework for this project. The TTM theorizes that health behavior involves evolution through the stages of change: *precontemplation, contemplation, preparation, action,* and *maintenance* (Parekh et al., 2014). The TTM is based on purposeful behavior change that results in changed awareness (Grove, 2011). The acknowledgment of such behavior promotes a predictability that the output will lead to adherence and sustainability of the desired health behavior (Prochaska & Prochaska, 2011). The TTM is a tool that is used to modify a person's perception with the goal of promoting a behavioral routine that will result in adherence with the desired comportment

(Prochaska & Prochaska, 2011). This approach to behavior change incorporates all aspects of a person's wellbeing (Nash et al., 2013). The TTM is a self-efficacy method for behavior modification that involves the individuals' confidence and their readiness and feeling that the desired health action can be accomplished to their benefit. The model has shown positive patient outcomes in various settings, including community healthcare (Patterson, 2012). Programs that apply behavioral change models to reduce risks have been successful in fostering adherence to health behaviors (Nash et al., 2011). This model will be useful to promote the behavioral change of delivering at healthcare facilities rather than at home.

Significance of the Project

The United Nations sought to improve maternal-child mortality and morbidity rates through MDG 4 and 5 (UNICEF, 2013)**.** Haiti is among the countries that continue to have high infant death rates, and a major part of what contributes to this problem is the continued patronage to matrons for child delivery. In this project, I sought to understand, via focus group discussions, why women in the urban, low-income region of Delmas 32 are deterred from delivering at healthcare facilities. Identifying barriers to deliveries in healthcare facilities contributed data, which I analyzed and in turn used to enhance nursing practice by implementing programs that improved patient care quality and safety.

Focus group discussions with female residents of Delmas 32 provided me a better understanding of the reasons why women in this population prefer to deliver at home. Information I obtained can be used to develop outreach programs and educational activities targeted to these women that lead to positive social changes**.** Findings from this

project and the initial programs I developed were just the first leg of the advanced community program that I will later develop for the community. Pilot programs and endeavors in a smaller region like Delmas 32 can be studied in detail, which may lead to recommendations that improved compliance with professional health requirements and advanced policy in Haiti.

Implications for Social Change

The project will bring about positive social changes to the population of Delmas 32 as well as mothers and children in other areas of Haiti. This project was geared towards increasing institutional child deliveries in Haiti based on the premise that institutional deliveries are a solution to the problem of increased maternal-child mortality in Haiti. The proposed plan will create a significant impact on the lives of women as it empowers them to learn the benefits of delivering in clinics. If successful, the project will ensure the sustainability of maternal-child health and the empowerment of women. Upon the implementation of the subsequent program, it will serve as a maternal and child health model for other communities in Haiti, and even in countries that have the same problems with infant-maternal mortality rates (Mushi, 2010).

Nature of the Project

In this quality improvement project, I used qualitative methodology comprised of focus group discussions to gather data. The purpose of the focus groups was to ascertain why women in Delmas 32 do not deliver at the clinic and choose to deliver at home. The focus group method was appropriate because it allowed me to obtain in-depth information

about cultural, socioeconomic, and other factors that affected birthing decisions (Grove, Burns, & Gray, 2013).

For this project, I convened two focus groups for wich I acted as the facilitator**.** I used a snowball sampling technique to obtain data to build a sample of women who have given birth at least once, either in clinics or by use of traditional matrons. Focus Group 1 was comprised of women who delivered at home with matrons, and Focus Group 2 was comprised of women who delivered in the clinic.

Qualitative data that I obtained and analyzed from focus groups provided insight to these women's conceptualizations about birthing (Pohl, Sandlund et al., 2015). My preceptor, Dr. Laforest, checked the thematic analysis and verification of data. I was the moderator. The data I obtained from the focus groups were recorded, and I transcribed the responses to identify major categories and themes that provided extensive information on the reasons behind women's preferences for either clinical childbirth delivery or homebirth using the service of traditional matrons. The resulting information enabled me to make recommendations for the development and implementation of programs offering more effective education on safe birthing practices in clinics, and for necessary behavior modification among the Haitian women who prefer to birth at home.

Definitions of Terms

The following are the operational definitions of the terms used for this project:

Community: A collection of people who live within the same geographical area and share many characteristics (Avvila, 2011).

Infant mortality: The number of children who died before the age of one among living children in a geographic region during a year, per 1,000 live births (Doskoch, 2011).

Haiti: A country located in the Caribbean region. It shares Hispaniola Island with the Dominican Republic on its eastern side (World Bank, 2013).

Maternal mortality: The death of a woman that occurs during pregnancy or within 42 days of a pregnancy's termination (Doskoch, 2011).

Matrons/unskilled birth attendants: Traditional birth attendants, male or female, who are often older, poorly educated, and respected women in the community who assist pregnant women in childbirth (UNICEF, 2013).

Millennium Development Goals (MDGs): Eight objectives set by the United Nations member to be attained by 2015. Goals 4 and 5 are devoted to child survival (World Health Organization, 2013).

Women's clinic: A health institution specialized in attending to female patients' health needs (Korkodilos et al., 2013).

Healthcare quality: Efficient, safe, patient-centered, effective, equitable, and timely care offered at hospitals, clinics, and other healthcare facilities (Douglas, Nicol, & Robertson, 2009).

Delivery-related complications: Refers to all unexpected, and sometimes expected, complications (hemorrhage, distress, mortality) experienced during child birthing (Douglas et al., 2009).

Neonatal period: Period of < 28 days after birth (Douglas et al., 2009).

Prenatal period: Period that starts from 22 weeks of gestation and ends seven full days after birth (Douglas et al., 2009).

Prenatal care: The preventive care provided by midwives and doctors through regular check-ups to ensure the safety of both child and mother (Douglas et al., 2009).

Healthcare providers: Professional and skilled people tasked with ensuring the well-being and recovery of patients. They include doctors and nurses among others (Douglas et al., 2009).

Behavior change: Transformation of human behavior from one state to another (Douglas et al., 2009).

Community outcomes: What the community aims to accomplish by promoting the cultural, political, social, environmental, and economic interests of its inhabitants (Douglas et al., 2009).

Supervised births: Births conducted under the professional eyes of skilled attendants (Douglas et al., 2009).

Assumptions and Limitations

Assumptions

Assumptions are declarations that bear no scientific bases but are presumed true or present (Grove, Burns, & Gray, 2013). In this project, I made the following assumptions:

- Participants' responses may be based on religious and cultural beliefs.
- The matron's perceptions could influence the participants' responses, allowing a potential bias.

- The participants in the focus groups will all be representatives of the target community**.**
- Women usually deliver at home because of the predominant tradition within the culture.

Limitations

Grove, Burns, and Gray (2013) define limitations as any flaws that might impede the smooth flow of a project. The limitations of this project include:

- Outdated and limited research data on infant mortality may affect the literature review used to support the project.
- The participants may be reluctant to provide truthful information on where they plan to deliver or where they delivered their babies.
- The project findings may not be generalizable to other parts of Haiti.
- Finding members of the population may be delayed due to lack of community support.

Summary

In Chapter 1, I presented the highlights of the existing state of maternal health services in Delmas 32, Haiti, where pregnant women are exposed to high maternal and child mortality risk because of reliance on home child delivery aided by birth attendants/matrons instead of delivering at health centers. I used focus group discussions to obtain in-depth information about what affected birthing decisions. I used the result of the information gathered to make recommendations for behavioral modification strategies using the TTM. The TTM of behavior change stages were used to understand the

powerful principles of the Haitian women who give birth at home with the aid of the traditional matrons and deliver in the clinic. Such an approach will significantly contribute to the local community and impact prenatal care—an essential component to the health and wellbeing of both mothers and infants. Identifying the women's reasons for delivering with untrained, traditional matrons, this information was essential to my development of an actionable behavior change program for educating and sensitizing pregnant women in Delmas 32 to prioritize clinical services during childbirth.

Section 2 includes critical reviews of the maternal health situation in Haiti and the determining factors that incline women to rarely seek clinical maternal health services for traditional birth matrons. This was done by assessing the maternal health concern in Haiti, including the maternal morbidity and child mortality. Additionally, in Section 2 I highlight the status of Haiti maternal health services delivery with the Millennium Development Goals 4 and 5 that sought to address the reduction of maternal-child mortality during childbirth. I review the current birth practices in the region, and discuss some benefits and risks associated with the predominant home delivery practice that is preferred in Haiti. Also, I show some factors that predetermine the choice of home delivery over clinical birth services. After focus group discussions, I needed to understand how change occurs and how best to reach the participants to attain desired positive behavior. Therefore, I used the TTM for behavior change framework to analyze how the identification of limiting factors in the use of clinical maternal health services can assist in the development of intervention programs that will improve the use of clinical maternal health services and ultimately safe childbirth.

Section 2: Review of Literature and Theoretical and Conceptual Framework

Introduction

The purpose of this project was to gain a deeper understanding of why pregnant women in Delmas 32 choose not to give birth in a health clinic. Understanding the pregnant women's perceptions of care and satisfaction with services may help to increase clinic births (Srivastava et al., 2015). I formulated recommendations based on critical findings from the focus groups. The recommendations may help pregnant women realize the benefits of professional health services during delivery. In Section 2, I evaluate the attributes that predetermine the choice of home delivery as well as the benefits and challenges of home delivery and childbirth in clinical institutions. I also evaluate and synthesize evidence-based literature on maternal-child health and mortality, current birth practices in Haiti, the dangers of delivering at home, and the factors that limit the use of the clinical maternal health services. I used the TTM of behavior change to guide the necessary recommendations for program development in Delmas 32.

Literature Search Strategy

I developed this project to formulate recommendations based on the reasons why pregnant women do not deliver in the clinic. I completed a comprehensive search for evidence-based research using databases and search tools available from Walden University Library, PubMed, ProQuest, CINAHL, Medline, and Cochrane. Other resources included the WHO website, UNICEF website, the Haitian Ministry of Health website, Google, and Google Scholar. To access an extensive and relevant scope of literature regarding the project, I used the following search terms and phrases separately

and in combination: *factors preventing pregnant women from seeking clinical services, maternal-child health, mortality in developing countries, Haiti, pregnancy, cultural practices, community health outreach,* and *behavior change communication.* I grouped the articles I obtained by the following themes: maternal health concerns facing pregnant women in Haiti, millennium development goals 4 and 5, accessibility to healthcare facilities, current childbirth practices in Haiti, dangers of delivering at home and pregnancy in Haiti, and the TTM of behavior change. I used Booleans operators "and" and "or" between the key words to access a larger volume of articles.

The search using Johns Hopkins Nursing Evidence-Based Practice appraisal summary model (Dearholt & Dang, 2012) generated over 50 articles. I limited the search to articles written in English that were published between 2003 and 2015. However, I did not limit the scope of the search to the nursing profession or to the countries in which I conducted the study. I included work from 2003 because there was an article published in 2003 that serves as a seminal work on the Haitian culture that encourages home birthing. Twenty articles were approved for review based on the quality and rigor of information provided in relation to the current research project. I determined the articles' relevance based on the similarity of the maternal-child health services and practices with Haiti.

Maternal Health Concerns Facing Pregnant Women in Haiti

Background/Demographics of Delmas 32, Haiti

The DNP practicum's site, a community-based healthcare clinic, is situated in a slum area in Delmas, Haiti. Before the devastating earthquake on January 12, 2010,

Delmas was a middle-class, urban-industrialized section in west Haiti, encompassing an area of 27.74 km^2, with about 359,451 people (IHSI, 2011). However, the earthquake changed the landscape, as the area was heavily affected. The target area for this study covered Delmas 32, one of the most densely inhabited places in the world. It has approximately 100,000 residents livingin one square kilometer (World Bank, 2013). This neighborhood is poorly built with terrible infrastructure and little access to transportation. Delmas 32 was among the city's most damaged neighborhoods after the earthquake (Institut Haïtien de Statistique et d'Informatique IHSI, 2011). Nearly five years later, there is still rubble littering the streets, and there is an unsafe and unhealthy environment which contributes to the poor health of its inhabitants. These dire environmental conditions negatively affect maternal-child health and may lead to morbidity and mortality (Chaudhari et al., 2008).

Factors Which Can Affect Child Delivery Decisions in Haiti

Globally, pregnant women are recommended to obtain at least four antenatal care check-ups by a skilled birth attendant during childbirth. However, in developing countries women are unable to obtain the recommended services owing to a myriad of social and economic challenges. There has been significant improvement with regard to reproductive health service provision in Haiti. For instance, there has been an increase in the percentage of service delivery in Haiti rising from 26% in 2005-2006 to 36% in 2012 (Avvila, 2011). However, the maternal and child health services indicators in Haiti remain the worst in the Western Hemisphere. Numerous studies have indicated that up to

90.7% of pregnant Haitians do not receive all antenatal visit attended by a skilled provider (Douglas et al., 2009).

Furthermore, only 67% of them obtained the recommended four visits according to WHO standards, and only 35% of pregnant women seek professional child birthing services in clinics (WHO, 2011). Some of the factors that are attributed to such low use of health services across developing countries include conformity to cultural norms at the personal and community level, and the inadequate and unequal distribution of health resources in such regions. Notable examples include personal factors such as the age demographic in which older women are inclined to seek traditional childbirth methods that contribute to the low turnout for maternal health services. Also, the level of education may influence the awareness level of such individuals, while religious inclination tends to keep women from seeking maternal health care. Haiti is also a recent victim of one of the worst earthquake disasters which destroyed basic infrastructure including roads and social amenities such as healthcare facilities in 2010. In addition to the poverty status of the country, these dire environmental conditions negatively affect maternal-child health. Harmful domestic environments may lead to morbidity and mortality (Chaudhari et al., 2008).

Maternal-Child Health Socio-Economic Influences in Haiti

Delmas 32 is one of the poorest urban places in Haiti. In this part of the country, people survive on less than $2 each day (Gage & Calix, 2006; World Bank, 2013). Due to this, many women cannot raise the required amount of resources to use for maternal care. As a result, these women are compelled to give birth at home with the help of unskilled

matrons, thereby risking their lives and the lives of their children. Although some scholars blame these conditions on the 2010 earthquake that destroyed several healthcare facilities and hospitals, Haiti is still not a good place to live while pregnant. The risk of losing a life during childbirth in Haiti is 1:44 (Seraphin et al., 2014). This number is alarming, considering that in most developed countries this ratio stands at 1:4300. A study conducted by Amibor (2013) showed that for every 100 babies born, six or more did not survive the first 12 months of their lives.

Accessibility to Health Facilities

Access to maternal health care in low-income nations, including Haiti, is normally hampered by poor infrastructure such as bad roads and lack of ambulance services. Gage and Calix (2006) found that pregnant women in rural areas were more likely to miss prenatal visits than their counterparts in urban areas because of poor roads. Women who lived 30 kilometers away from the hospital or health facility were less likely to give birth at a healthcare center or in the presence of a health professional. The majority of the women who lived far away from maternal health facilities (93%) did not make prenatal visits and eventually gave birth at home. Women who also lived in mountainous areas and did not have access to public transport made their deliveries at home (Gage & Calix, 2006).

A study conducted by Seraphin et al. (2014) showed that distance can be an issue in decision making regarding where women give birth. Over 20% of pregnant women who are able to access healthcare services were forced to travel a distance of several kilometers to the nearest health care clinic. Of those patients, 17% of them had to walk

for over two hours. Notably, the closest healthcare facilities available to 60% of the population in rural areas are located approximately 15 kilometers away from the communities (Seraphin et al., 2014). Distance is a great determinant in the choice that many women take when it comes to going to a health facility to deliver. As a result, many women stay a home to deliver their babies (Seraphin et al., 2014).

Maternal-Child Morbidity and Mortality Among Pregnant Women in Haiti

The use of maternal-child health services is considered important to the reduction of maternal and child mortality, as is the achievement of universal reproductive health services access. With regard to childbirth, there is a high mortality rate standing at 670 per 100,000 children born in Port-au-Prince (UNFPA, 2013). Also, 75% of the births are normally performed outside of the clinics and health care facilities, while 15% of pregnant women do not receive any prenatal care. As a result, most pregnant women find themselves at risk of developing prenatal or at-birth complications that ultimately end up in fatalities.

Birth matrons use traditional methods of antenatal care and are incapable of handling complications that may arise during childbirth. In some cases, childbirth results in the death of the mother or in a stillbirth. The high mortality figures in Haiti fall behind the WHO Millennium Development Goals 4 and 5 for achievement in maternal health services and access, and serve as an indicator of the severe state of the use and access to maternal health care in Haiti.

Millennium Development Goals (MDG) 4 and 5

Between 1990 and 2005, the MDG 4 and 5 were formulated to decrease child mortality ratios globally by two-thirds, and maternal mortality ratios by three-quarters. According to Seraphin et al. (2014), an average of 289,000 women worldwide lost their lives during childbirth and pregnancy. Since 1990, a few countries in North Africa and Asia have decreased the rates of child and maternal mortality tremendously. However, maternal mortality among women in low-income nations remains 15 times higher than that of first world countries. Sub-Saharan Africa also reported progress, where the maternal mortality ratio is 1:38 (WHO, 2012). However, the United Nations committee that focuses on women and children's health has aimed to prevent over 30 million unnecessary pregnancies in four years. This endeavor will cut the number of women and children who might be at risk of dying during childbirth and pregnancy (WHO, 2012).

Apart from that, the WHO is stressing the significance of antenatal care and institutional delivery in a bid to reduce child and maternal deaths. According to Amibor (2013), increased institutional delivery will prevent 33% of the deaths that result from complications during delivery in developing countries. By 2014, Haiti had still not shown much progress in attaining its objective of decreasing the maternal mortality rate by 75% and under-five child mortality by two-thirds (Amibor, 2013). Before the earthquake, however, Haiti had experienced 40% reductions in both maternal and under-five child mortality rates. In developing countries, high child and maternal mortality rates have always been attributed to: (a) delay in obstetric care, (b) delay in access to the nearest clinic, and (c) delay in receiving quality services on arrival (Seraphin et al., 2014). As a

result, women tend to stay at home and deliver their babies alone or with the assistance of matrons.

However in a bid to address these issues and to increase clinic births in developing countries such as Haiti, The United Nations has strategized numerous actions to assist in meeting its goals to reduce maternal-child death by increasing clinic and hospital births. One of the action plans is strengthening the process of care in terms of quality, access, and meeting the pregnant women's needs (Srivastava et al., 2015). The process of care includes assessing patients' satisfaction regarding services, treatment, and attention received; establishing accessibility to maternal-child clinics and hospitals; providing fast and efficient care; and ensuring availability of care, supplies, and equipment (Srivastava et al., 2015).

Current Childbirth Practices in Haiti

Predominant Use of Matrons

In Haiti, about 75% of pregnant women deliver at home with the assistance of matrons (WHO, 2011). Pregnant women seeking matrons is attributed to the cultural norms where matrons have existed in the Haitian culture for centuries. Another reason is linked to the low accessibility to clinical maternal healthcare facilities and socioeconomic challenges. Matrons are respected members of that society. Most of the matrons are not medically skilled but do possess traditional knowledge of assisting women during labor. Hemorrhaging during childbirth, infection due to unsanitary conditions as well as complication such as maternal to child HIV transmission for HIV positive pregnant mothers are some of the complications that unskilled matrons are unable to handle using

their traditional methods (Cage & Calix, 2006). Investing in skilled care will help prevent the 3 million stillbirths that are experienced all over the world (WHO, 2011).

Use of Maternal-Child Health Clinics

According to the WHO report of (2012), the possibilities of a mother losing a baby or even losing her life is very high when she delivers at home under unsanitary conditions and lack of qualified healthcare personnel. Although the Haitian government in collaboration with various health organizations have provided 50 hospitals that offer free obstetric services to poor women in Haiti, the population per facility is still high (WHO, 2012). However, the introduction of these facilities has not resulted in an increase in the use of maternal clinics and does significantly impact on the population of pregnant women that continue to give birth at home under risky conditions.

Notably, although there are newly built hospitals complimented by donor funded clinics that were meant to take away the worry of meeting costs, to increase accessibility, to encourage women to frequent maternal health clinics, the number of women visiting and giving birth at these the facilities were still overwhelmingly low. The chances of maternal-child deaths in Delmas 32 remain high because most of the women still cannot afford safe deliveries and antenatal care. Therefore, knowledge gained on reasons why women favor one practice of giving birth versus the other is essential to incorporate them in the development of effective programs that can facilitate effective use of the clinics by pregnant women as the primary maternal healthcare facilities for delivery.

Maternal-Child Health Socio-Economic Influences in Haiti

Delmas 32 is one of the poorest urban places in Haiti. In this part of the country, people survive on less than $2 each day (Gage & Calix, 2006; World Bank, 2013). Due to this, many women cannot raise the required amount of resources to use during maternal care. As a result, these women are compelled to give birth at home with the help of unskilled matrons thereby risking their lives plus the lives of their children. Although some scholars blame these conditions on the 2010 earthquake that destroyed several healthcare facilities and hospitals and Haiti is still not a good place to live while pregnant. The risk of losing a life during childbirth in Haiti is 1:44 (Seraphin et al., 2014). This number is alarming, considering that in most developed countries, this ratio stands at 1:4300. A study conducted by Amibor (2013) showed that for every 100 babies born, six or more did not survive the first 12 months of their lives.

The Benefits and Potential Risks of Home Birthing in Haiti

In developing countries, such as Haiti, there are more potential risks to home birthing than benefits. The benefits are very minimal. Some of the benefits are: being in the comfort of one's home, surrounded by family and have a one-to-one attendant. However, the potential risks of complications are overwhelming. Among the risks are hemorrhaging in pregnant women during childbirth. In the absence of skilled personnel and the requisite equipment such as emergency obstetric care facilities, excessive bleeding complications may lead to death. Also, worldwide, 15% of all maternal death is attributed to infection (WHO, 2012). Infection may result from the use of unhygienic condition during childbirth such as unclean water, hands, and the environment. Exposures

to diseases such as cholera which are brought about by unhygienic conditions have a high likelihood of manifesting in rural Haiti (UNFPA, 2013). Therefore, it is vital to eliminate any unhealthy and risky traditional methods practiced in accordance to the cultural influence.

Maternal-Child Health Cultural Influence in Haiti

According to Colin (2003), the Haitian culture values pregnancy. Pregnancy is viewed as a good period in most women's lives: a joyous moment. Therefore, many women in Haiti who are expecting their babies do not seek prenatal care. Cultural influences may affect where a person births in Haiti. Many pregnant women prefer delivery at home because there are specific cultural rituals that are performed for the women. The use of matrons with childbirth is a known cultural influence in Haiti (Colin, 2003). Cultural practices during the first three days post-partum are: (a) new mothers are on bed rest, wrap their heads, and plug their ears with cotton to avoid windy drafts; (b) post-partum women dress warmly and drink rejuvenated teas; (c) post-partum women take special baths with medicinal leaves (papaya, mint, sour orange, and bugleweed) to tighten their muscles and reestablish equilibrium. Notably, these practices are not done at a health facility (Purnell, 2013).

Theoretical Framework Literature

The Trans-Theoretical Model of Behavior Change

This project was guided using the TTM of behavior change. Trans-theoretical model (TTM) of behavior change, first developed and applied by Prochaska and DiClemente in the 1970s (Prochaska, Norcross, & DiClemente, 1994). Trans-theoretical

model is a model of intentional change that concentrates on the decision making of the individual. TTM of behavior change offered an explanation for how individuals can adjust negative behaviors to desired positive behaviors through lived experiences and factors that influenced their behavior change. This model may help the participants to accept the application of evidence-based research into practice. The trans-theoretical framework regards change as a process that evolves through its four stages: (a) the stages of change, (b) decisional balance, (c) self-efficacy, and (d) the processes of change (Prochaska &. Prochaska, 2011).

Pre-contemplation: This stage involves an individual who does not intend to change in the near future, mostly within six months. The behavior might be due to resistance or that the individuals have no thoughts about the behavior entirely (Lach, Evarard, Highstein, & Brownson, 2004). Some pregnant women lack information while others just think that they might not succeed in changing their negative behaviors at all. For example, some older women in Delmas 32 might not find it easy to leave the tradition of home birthing as they find it part of their cultural endowment.

Contemplation: This stage involves individuals who are considering changing in the near future, most probably within six months (Lach et al., 2004). Due to their considerations, they might open up to new information about the advantages of the new behavior and how they might go through the transition successfully. Although they might not have a concrete reason to change, they might do so considering the results they might enjoy from the process. However, some people might easily get stuck here and never change at all. An example is a woman who has had a successful home birth before.

Because the delivery was successful, she might not have a reason to start adopting the use of professional maternal services; but when she obtains information on the number of women and children who perished during home birthing, she might consider delivering through hospitals in the near future.

Preparation: Preparation stage, folks, plan to change in the near future, probably within one month (Lach, Everard, Highstein, & Brownson 2004). People might start taking little steps toward the new behavior, for example, attending maternal health classes and coming to prenatal clinic visits.

Action: At this stage, individuals have already made a change and have been taking part in the new behavior for a period of fewer than six months. According to Lach, Everard, Highstein, & Brownson (2004), this stage needs a commitment before a person can make the new behavior work. Those helping them to change need to encourage and support them in every way possible.

Maintenance: At this stage, individuals have currently engaged in the modified behavior for a period of at least six months (Lach et al., 2004). Individuals find it challenging because they might easily fall back into the old habits. However, consistent support from their mentors and facilitators will help them get used to the new behavior. For example, a woman who uses healthcare facilities for the first time during childbirth needs to be attended to well to encourage her to return.

The second construct of TTM behavior change, *decisional balance*, looks at the advantages and disadvantages of making the change. Pinpointing the most significant benefits is crucial for individuals in the preparation and contemplation stages. If the

advantages outweigh the disadvantages, individuals are more apt to passage into the action stage (Lach, Everard, Highstein, & Brownson, 2004).

Trans-theoretical model of behavior change has been applied research on smoking cessation, medication, birth control compliance. This model has demonstrated the efficacy of interventions aimed at the application of safe learned behavior to reduce maternal-infant mortality during the perinatal period. Also, it is a self-efficacy model for behavior change interventions that has shown positive patient outcome in various settings including maternal-child health and community healthcare (Patterson, 2012). The TTM of behavior change may contribute to developing recommendations that may help to change the way in which the pregnant women in Delmas 32 see birthing thereby, increase clinic births. This change in perception may promote a routine in behavior that may result in compliance (Prochaska & Prochaska, 2011)

Background and Content

Delmas 32 maternal child health clinic is a non-profit health facility in the Delmas, Haiti that provides health care services to over 90,000 residents. Established right after the devastating earthquake that ravaged Haiti and killed thousands of people and left many more victims without food, shelter and healthcare facilities. The clinic receives on average 70 to 80 pregnant women per day, five days a week. The rate of delivery ranges between two to three deliveries a day (Delmas 32 J/P, 2014). The organization's mission is to save lives, and its mission is to work with the community to build sustainable programs quickly and effectively. Therefore, the low delivery rate compared to the number of women who received prenatal care is alarming. I decided to

take on the low clinic births problem as DNP proposal project and planned to develop recommendations that may help in increase clinic births.

The WHOrganization has set regulatory mandates that set requirements that stipulate to reduce maternal-child deaths; pregnant ladies are sensitized to give birth at healthcare centers (WHO, 2011). Due to Haiti current poverty level and poor healthcare system, it has been a daunting task in meeting the WHO recommendations. One strategy that the Haitian government has used through its Department of Health included: invested in building clinics, reinforced obstetrical and maternal-child clinics and trained community health agents who will sensitize pregnant women on the benefits of delivering in safe clinics and healthcare facilities with trained medical personnel (IHE, 2012). As the organization transitions from an emergency state to a development state, the mission to save lives remains the same. This project was harmonized with I preceptorship organization's mission and vision. The outcome of the project was based on the focus group discussions, data analysis, evidence-based research and literature search reviews. This data assisted me in making recommendations that may help to improve and save lives of mothers and children in Delmas 32.

Review of the Relevant Literature Section

Perry et al. (2007) conducted descriptive exploratory qualitative research in northern Hinche in Plateau Central, Haiti, between 1958 and 1999. The researchers then compared the national mortality rate among children five years or younger with the mortality rates of the population in Plateau Central that received health and other community development programs, including those receiving care and services from

trained health workers and agents, healthcare providers, and community outreach programs. A total of 3,427 women of reproductive age participated in this study. The women were surveyed and interviewed about the long-term impact of health and other comprehensive community-based created projects working to reduce infant mortality. The results of the study revealed programs that combined community health outreach with educating and sensitization on health promotion were shown to contribute to a sustainable reduction in mortality of children five years and younger (Perry et al., 2007).

Cost remained a significant barrier to women receiving skilled health care during child deliveries. In comparison to the 67.5 % for the richest one-fifth of women, among the poorest quintile of women only about 6.4% have had a skilled attendant at delivery (Dining, 2013). Lack of adequate education has left most of the Haitian population entwined in myths about health and illness. These myths have remained to be the some causes of the delayed efficient treatments and in some cases caused of direct harm. Most pregnant women in Haiti do not seek prenatal care and deliver with unskilled matrons. Despite the fact that these matrons are ill-trained and equipped to respond to emergencies that arise during labor and delivery, many women entrust their lives and the lives of their babies (Dining, 2013).

In the process of childbirth education, birthing environment risks should be considered. For most pregnant women with low socio-economic status, Haiti remains a high-risk environment for infant deliveries. At least one woman succumbs to death every minute from childbirth complications, 20 more suffer infection, disease and injuries across the word (Gibson & Bowles, 2013). The greatest fraction of these deaths can be

linked to hemorrhage and infection facilitated by generally poor-quality care, inaccessible, and unaffordable services (Gibson & Bowles, 2013). Deaths and diseases can be prevented where there is access to efficient health equipment, services, and trained healthcare workers. The highest percentage of mother-child demise happens during labor and birth and the sudden post-delivery period accompanied by sepsis, excessive bleeding that are the primary causes.

Across the world, approximately 25% of maternal deaths are due to hemorrhage. The onset of hemorrhage is unpredictable and immediate, without quick intervention it can lead to hypovolemic shock succumbing to mortality (Gibson & Bowles, 2013). The delays in recognizing postnatal hemorrhage, delays in transportation to health centers, and delays in medical attendance have had a contribution to the high maternal mortality rate. Infection is responsible for 15% of maternal death. Unhygienic environmental conditions that lead to the high rate of mother-child sepsis can be prevented by implementing sterile environment in the health clinics during birth (Gibson & Bowles, 2013). Basic birth kits can be used to increase knowledge of perinatal care, aseptic delivery practices, and infection prevention. The study shown, when birth kits were used in perinatal care, women and babies fared better, the rate of infection was 13 times less probable to occur among them (Gibson & Bowles, 2013).

Many organizations both governmental and non-governmental have gone into the field to figure out the problem facing Haiti, and at the same time reinforced knowledge among women, healthcare personnel, and community health agents to encourage birthing in health facilities. Together with the trans-theoretical model of behavior change, the

organizations have the potential to come out of the field with positive results. An idea refuted by many involves training of birthing attendants. I also believes training, educating birth attendant is an idea that should be analyzed as one of the measures to reduce maternal-child death during delivery since the majority of women in Haiti uses their services. Trained and educated matrons will refer high risk and complex cases to the clinic for safer deliveries.

Summary

Section Two, literature search and review concerned on maternal child health, mortality, what factors contributed to these conditions and ways to apply the transtheoretical model behavior change to make recommendations that may lead to increase clinic births. By discussing maternal-child health and mortality, accessibility to healthcare facilities, current childbirth practices in Haiti among others, this section acts as a roadmap upon which the reader can easily picture why and how there are less institutional births in Delmas 32. Some of the factors undermining institutional births may be associated with the lack of enough maternal health facilities, the socioeconomic status of the group under study, and the cultural beliefs associated with home birthing. The trans-theoretical model of behavior change was used to help me to understand the reason why the women who prefer to use matrons do so base on their current stage of behavior change. Also, it offered comprehensively an understanding of how women still rooted in the culture of home birthing can change their behavior and adopt institutional birthing. Through this model, sustainable recommendations encouraging women to begin using professional childbirth services was outlined. The information collected from this

DNP proposal project may act as a stepping-stone towards the future program development aligned with behavior modification.

Section Three discussed the approach of the DNP proposal project took towards understanding why the practice of institutional birth in Delmas 32's is still uncommon. Section Three described the method, project, rationale, sampling technique, participants, ethical considerations, methods of data collection, and data analysis procedure. The section also discussed the ethical considerations that were applied.

Section 3: Methodology

Introduction

I desigend this project to help reduce maternal-child morbidity and mortality rates in Delmas 32, Haiti. To do this, I identified reasons why pregnant women in Haiti do not give birth in the clinics and factors informing the preference for home delivery. I then developed with recommendations that may help promote awareness among pregnant women in Delmas 32 regarding the importance of seeking maternal-child health services and the risks of delivering at home. The TTM of behavior change served as the framework for crafting the recommendations for behavior change (Prochaska, Norcross, & DiClemente, 1994). I used a focus group approach to collect information for this project. The data I gathered and analyzed for this project, informed these recommendations that can be used to modify current practice, increase clinic birth, and save lives.

In this section, I discuss the approach that was used to undertake the project and the rationale, the sampling technique, the participants, ethical considerations, methods of data collection, and data analysis procedures. I was in charge of all aspect of the project. This section includes a chart (Figure 1) that outlines the timeline of events, including the following steps:

1. Put together a project team of stakeholders (community and institutional).
2. Shared evidence-based literature to clinics leadership and the stakeholders.
3. Secured Internal Review Board approval from Walden and approval from the Clinical Director.
4. Put together two focus groups of mothers of five participants each.

5. Performed data collection and analysis.
6. Shared focus group feedback and data collection to clinics leadership and the stakeholders.
7. Made recommendations to modify and improve current practice.

Tasks	Nov	Dec	Jan	Feb	March	April	May	June
DNP Proposal Approval								
IRBApproval								
Focus Group								
DataAnalysis								
DataVerification								
Share Data with Organization								
Recommendations								
Completion DNP Project								
Submitting project								

Figure 1. Gantt chart with timeline for DNP project.

Project Team

Selection of project team members was crucial to the success of the project (Grove, Burns, & Gray, 2013). I identified and recruited team members according to their competencies, their commitment, and their role in the success of the project objectives. The members I invited to participate included pregnant women as well as women who have given birth. For the purpose of ensuring accurate data analysis, the DNP preceptor who is versed in evaluating data collection was also present. I led the focus group discussions. Team members of the DNP capstone project included:

1. Me in the role of the leader and the facilitator of the focus groups, and the sole researcher who oversaw the transcription and analysis of data.
2. The two groups of mothers (five from each group) from Delmas 32 who voluntary participated in the focus groups.

3. The preceptor who helped in the verification of the data analysis process. He was included in the team because of his experience and expertise in evidence-based nursing research.
4. The Chief Medical Director of my study site because she supported and was responsible for implementing the recommendations for change.

Review of Evidence

The project was conducted at my practicum site, a community-based health center in Delmas 32, Haiti. The participants who took part in the focus group section of the project were from the area of intervention. The project team members were provided with the summary of the framework of the project. Alongside the framework, I provided the clinical leadership team with themes I had identified on why pregnant women do not seek the use of clinical maternal health services. This presentation was done in a meeting-like format with PowerPoint presentations.

I used the TTM for behavior change as the basis for planning the project. The TTM behavior change stages of information, education, and communication (I, E, C,) assisted in guiding me to propose recommendations that may aid the stakeholders in developing, and implementing the action plan for programs to direct pregnant women's current behaviors toward positive, desired behaviors. The collaboration of stakeholders and team members was essential for project success (Richardson et al., 2010). The focus groups were the backbone from which the recommendations to create positive change and increase clinic births stemmed. The TTM was significant in the identification of the various forces that are involved during the change between two behaviors. Using the

TTM, I was able to determine some of the reasons behind the increased maternal mortality in various regions of Haiti.

Method/Focus Group

In this DNP capstone project, I used a focus group approach that was rooted in evidence-based methods. Pregnant volunteers participated in the focus group to assist me in identify their insights and opinions on the reasons why they do not or will not come to the clinics to deliver. The pregnant volunteers were divided into two focus groups: women who will give birth at the clinics, and women who will not give birth at the clinics but will return home to give birth there. Each group consisted of five pregnant volunteers. I collected the identified themes from the focus group discussions to make appropriate recommendations to increase the number of women who give birth in the clinic (See Appendix A for the focus group questions).

Sampling and Population

The sampling method was purposive. Grove and Burns (2012) have noted that the purposive technique allows the researcher to identify a certain group of people with similar characteristics for the purpose of the study. In this case, all the attention was focused on a population of women who gave birth at the clinic and those who delivered at home with assistance of matrons. I used a convenient, snowballing sampling technique to select participants. This technique is normally used when the target population is small (Grove & Burns, 2012). The participants in this project included:

- Five women who will give birth in the health clinic (*These participants had the capability of providing qualitative data regarding why they chose to use maternal clinics*).

- Five women who will not give birth at the health center but will return to their homes to deliver with the assistance with matrons (*These participants had the capability of providing qualitative data regarding why they choose not to use the maternal clinics*).

Strategies of Recruiting

I used a variety of strategies to recruit participants. First, I announced the plan for the project in the general clinics during regular clinic hours and at the community center. The invitation to volunteer to participate in the focus group for the DNP capstone project targeted all pregnant women, regardless of their gravida status or where they planned to deliver their babies. I made the invitation on flyers explaining the content, date, time, and place of the focus group. This flyer explained that light refreshment would be provided as a thank you for participation. I posted the flyers on bulletin boards, the walls of consultation rooms, and in the community outreach center (see Appendices F and G for flyer template). I developed a good working relationship with the community and its occupants by participating in some of the communal health events, educating them on the issues of child and maternal health. I was able to elaborate extensively on the aims that I sought to achieve with the project. I had an opportunity to request participation in the focus groups. Developing a good rapport with the target population was the first step towards accomplishing the project (Grove & Burns, 2012).

Ethical Considerations

First, I sought approval from the Walden University IRB by submitting the proposal and other required documents. After the approval, number 03-02-16-0437533, I

recruited the participants for the focus groups. Measures to ensure the ethical protection of the participants were taken. Before the data collection, I informed all volunteers who participated in the process of the project and received their informed consent. Their consent indicated that they were able to understand all aspect of the project including its purpose, goal, and intention (Polit & Beck, 2011).

The Health Insurance Portability and Accountability Act (HIPAA) served as a guide to protect, ensure, and maintain the participants' right to privacy and confidentiality in the study. HIPAA regulations require that patient information remains private (Polit & Beck, 2011). In data gathering, issues relating to available resources in the community and what the stakeholders consider as their strengths are important points to cover (Grove et al., 2011). I also sought the consent of the medical program director of the clinic to use it for the project. The volunteers were allowed to withdraw at any stage of the project.

Data Collection Method and Analysis

Data were collected through focus group discussions (FGD). I followed Krueger and Casey's (2009) guidance for focus group interviews. The main tools of data collection were semi-structured interviews and an FGD questionnaire. The FGDs were conducted in conducive environments. My goal for these groups was to answer the project question; gather data on needs and available resources in the area; and determine the reasons why the women do not use the clinic to deliver their babies. I collected information and vital statistics on the ten participants using their verbal accounts during the focus group discussion. Honest, straightforward, simple, open-ended survey

questionnaires served as the tool to collect qualitative information (Grove, Burns, & Gray, 2013).

I conducted the focus groups at the clinic's media center. Each session took 30 minutes. Sessions were done in Haitian Kreyol, which is one of Haiti's official languages and the volunteers' maternal language. The answers to questions in the FGD reflected the stakeholders' viewpoint, philosophies, outlooks, attitudes, needs, accessible resources, and ways they resolve conflicts they face in the community (Kettner, Moroney & Martin, 2013).

I audiotaped the focus group sessions to review in case words or phrases were missed, and I transcribed the taped discussions. Focus group method, as a mode of data collection, only includes a small group of participants and may not cover a larger portion of the target population's point of view that may be less noticed and could potentially be overlooked (Kettner, Moroney & Martin, 2013). I led the focus groups and maintained objectivity. As a leader and facilitator, the best practice was to remain neutral and keep the group in the discussion without interjecting personal ideas and opinions (Kettner, Moroney & Martin, 2013). The practicum preceptor reviewed and analyzed the transcription records for accuracy and reliability, and offered guidance.

I used coding as the beginning step of data analysis. I coded the discussions and then looked for themes and described the findings. The focus was on the descriptive analysis of the focus group responses. Qualitative data analysis can be arduous but is effective in ensuring that every aspect of the process is captured (Sandelowski, 2010). My strategy for evaluating the data was as follows: (a) audiotapes of the interview were

coded; (b) and volunteers remained anonymous. The names of the participants were not identified to maintain anonymity and confidentiality. I asked the women to initial the consent form, and they participated without being asked to share their names. To compare the results from the two focus group sessions, I used a descriptive exploratory approach to identify themes in the data to assess the meaning presented by the participants (Sandelowski, 2010).

Educational Workshop

Curriculum Development of Limitation to Low Use of Maternal Health Services

The best way to tackle the issues related to low clinic birthing was to use the qualitative data obtained from the focus groups and peer-reviewed evidence-based literature to develop educational workshop curriculum's content. The team members including my preceptor and the chief director reviewed workshop's content to issues any critiques and approval before disseminating the content with stakeholders. The recommendation for the workshops were disseminated orally through PowerPoint presentation and handouts to stakeholders, healthcare providers, and staff. Evidencebased models of perinatal care provision based on behavior change have shown that community care and health education effectively reduces newborn mortality rate (Kirkwood et al., 2013). The DNP practicum's organization is always looking for innovative ideas from staff and interns that support its mission and vision; the recommendations may become part of the strategy plan that improves maternal-child health outcome for the upcoming year.

Educational Delivery Modalities

Learning takes place through passive and active listening, observation, imitation and modeling (Rutledge, Renaud, Shepherd, 2011). The educational delivery modality would foster capacity building of all staff involve in maternal-child care at the facility. Evidenced-based literature reviews, presentation, class discussions, role plays, hands-on modalities were the basis for the workshop that promoted skills and knowledge to serve better, meet the identified needs and concerned verbalized by the pregnant women**.** The workshop would include a component that will train trainers, who would be able to replicate the training to new incoming staff as part of their continuing education program for the department.

Develop Implementation Plan

After disseminating all the information from focus group data analysis, verification and approval from all parties involved discussion of development and implementation of the plan. A frank discussion occurred with Chief Director and the project team members on which budgetary line or program resources would support the funding for the workshop. Developing an implementation plan helped to guide the project, it contributed to the understanding the goal, identified challenges and allowed participants to be proactive (Kettner, Moroney, & Martin, 2013). The proposed implementation workshop plan:

1. Determined content/curriculum to be covered during workshop
2. Decided where funding will come from
3. Determined site, date, and total hours needed for workshop

4. Determined availability of staff; scheduled to complete workshop without compromising patient safety
5. Covered equipment/supplies/meals/administrative needs for workshop
6. The practicum's site will implement the workshop

Evaluation Plan

The evaluation process was set to assess the knowledge obtained and skilled improved and or acquired during the workshop. Evaluation is a fundamental part of program development as it facilitates the continuous quality improvement of a project for the optimum outcome (Neufeld et al., 2011). Data regarding awareness, knowledge, and skills will be evaluated through pre and post-test. The test will cover gaps, barriers, challenges, positives identified during focus groups including nursing and medical information related to maternal-child care. The pre-test and post-test will be administered to each participant of the workshop at the implementation stage which is the agreed responsibility of the practicum site. At the end of the program implementation, another assessment to evaluate the impact of the workshop to be conducted yearly to see if the number of clinic births has improved. The planned mediation to increase clinic births can include awareness, education, and communication (Dettrick et al., 2013).

Summary

This section of the project addressed the limitation which prevented pregnant women in Delmas 32 to seek clinical maternal-child health care. The approach was done via focus group discussions and confidentially was collected and maintained according to

HIPPA regulations. Ten volunteers were gathered in the clinic's media center and used focus group discussions, with questions that I prepared post IRB approval to collect the data. Data were analyzed through coding of the focus group discussions, themes identified and finding described. The results of the focus groups were presented to stakeholders, and recommendations for the development of a curriculum stemmed from its themes. The workshop will be conducted to help the stakeholders to develop and implement an appropriate community-based maternal-child behavior change program. Pre and post-test will be administered to evaluate knowledge and skill acquisition. A year later the facility leader will further conduct its evaluation to assess the long-term outcome of the project.

Section Four highlighted the findings, evaluation, the implication, strengths and limitation of the evidence-based project with an analysis of how the project may contribute to social change. It also included analysis of self in relation to the DNP evidence-based project and an overall conclusion statement about the project.

Section 4: Findings, Discussion, and Implications

Introduction

The MDGs 4 and 5 were set by the WHO (2010) to reduce the under-five infant mortality rate throughout the world. These goals can best be achieved when developing countries like Haiti implement policies and practices that focus on education, empowerment of women, and establishing safe obstetric and maternal health clinics and health centers. The purpose of this project was to gain insight to reasons and factors that lead to low childbirth delivery in clinics. I aimed to understand reasons why pregnant women in Delmas 32 prefer childbirth delivery at home to childbirth delivery at clinics. My goal in this capstone project was to come up with recommendations based on the responses obtained from the two focus groups. With this project, I aimed to increase institutional births by providing adequate support and assistance to influence behaviors and perceptions of pregnant women regarding childbirth delivery options. The primary objective of the project was to reduce child mortality by increasing delivery in health facilities by increasing awareness and understanding of the related risks of delivery at home. The purpose of this project was to ascertain why women in Delmas 32 do not deliver at clinics and choose to deliver at home. I sought to investigate why the women prefer delivery at home than clinics. The results of the project showed that the participants did not go to the clinic to give birth because clinics do not have sufficient health care facilities such as sonography or laboratory tests. Lack of access to healthcare facilities because of poor infrastructure, climatic conditions, inadequate transportation, and long distances make it difficult for the pregnant women to give birth at clinics and

compel them to give birth at home. Also, findings showed that there was lack of education and limited post-partum assistance at clinics which led women in Delmas 32 to prefer matrons.

Findings, Evaluation and Discussion Development

Focus Groups

After obtaining IRB approval (#03-02-16-0437533) from Walden University, I recruited ten pregnant volunteers. These women planned to give birth either at the clinic or with the assistance of matrons. I conducted two semi-structured focus groups of five pregnant women each in the media center of a Delmas 32 clinic. The media center was well lit, chairs were arranged in a circle-like formation, and the sessions were comprised of an open group discussion to allow volunteers to feel connected and to encourage participation. Before starting each of the focus group discussions, I welcomed the participants to the media center and identified myself and my role. I thanked the volunteers for their willingness to participate in the focus group discussion to help improve the clinic functioning and the activities around perinatal care to increase clinic births and improve overall health outcomes for mothers and babies.

I shared the purpose, goal, and benefits of the project, and disclosed that responses were recorded and transcribed with the participants. I also shared information that highlighted minimal risks involved, including 40 minutes of sitting to go over the content of the consent form, participants initialed it, and we carried out the discussion of the questions. Each participant received a consent form. As each volunteer held a consent form, a member of the group read its content out loud in Kreyol. After this reading of the

consent form, I asked volunteers if they had any questions or concerns. The women were advised that they could leave the focus group at any time if they felt uncomfortable or no longer wanted to participate. To maintain anonymity of the participants, I informed the participants that their identity would be safeguarded.

Once the volunteers accepted the agreement of instructions, they initialed the consent forms, and we began the focus group discussions. I conducted the focus group and ensured that each volunteer participant contributed to the conversations. Each focus group consisted of me and five pregnant participants. The volunteers were asked questions, and each member was given the opportunity to discuss her thoughts and answer the questions (Appendix A). The responses were given in Kreyol, which I transcribed into English.

Focus Group Demographics

A total of 10 volunteer pregnant women were selected from Delmas 32. The ten women participated in this DNP project developed to identify underlying reasons for a low turnout in childbirth delivery in the clinic. I had hoped that their responses may assist in developing recommendations to improve clinic births that may reduce maternal morbidity and mortality. I collected demographic information by asking each participant for their age, residence, plan for delivery, and choice regarding attendance of pre-natal care at the clinic. Each focus group had five women, and their ages ranged from 20 to 40 years old. See table below.

Table 1.

Demographics of Focus Groups

Title	N	(%)
Total number of participants	10	(100)
Participant who plan to deliver in clinic	5	(50)
Participant who plan to deliver with matron	5	(50)
Gender		
Female	10	(100)
Age		
20-30	8	(80)
31-40	2	(20)
Residence		
Delmas 32	10	(100)
Prenatal Visits		
Attending clinic for prenatal care	8	(80)
Not attending clinic for prenatal care	2	(20)

Transcript Analysis Process

I analyzed the focus group data using descriptive and content analysis. Using the Krueger and Casey strategy (2009), I took several steps in the transcript analysis process to ensure that the analysis was comprehensive and attained proper results. On the day after the focus group, I reviewed the tapes and transcribed verbatim the audiotape recording to hard copy. I followed this step by reviewing participants' responses to detect any omissions.

After transcribing the data, I read and re-read the transcripts, and examined and coded the data to search for repetitive patterns, relationships, and relevant information (Grove, Burns, & Gray, 2013). Then, I categorized the identified codes into major and minor themes. Codes were developed to organize and ensure the reliability of the data (Grove, Burns, & Gray, 2013). I coded the transcript from each focus group separately, then analyzed the transcripts across both groups. Codes were arranged into groups based on their likeness and frequency to arrive at the major themes. Once I identified the themes, I compared them with the transcript data. The preceptor reviewed the data to ensure consistency and coherence for validity and reliability. Using these focus group discussions with participants, I explored perspectives about clinic births and home births and discussed ways to increase clinic births. The results presented here represent the data collected during the focus group discussions. The following three major themes emerged:

1. Access to comprehensive maternal and child care.
2. Staff training and sensitization of patients on post-delivery care for mothers and babies.
3. Customer-relation training for the improvement of attitude of personnel vis-à-vis patients.

These are shown in Table 2. The above steps were conducted for both focus group transcripts. Finally, I shared the report with the preceptor.

Table 3
Focus Group Themes: Factors Affecting Low Clinic Births

Themes	Quotes

Access to care	Lack of comprehensive approach to care: ”The clinic does not have a laboratory to do blood work”. ”There are two laboratories across from the clinic that is near the clinic, the physicians do not accept the results from those facilities”. “The clinic used to offer sonography, but that service no longer exist due to lack of money”. “Patients have to travel far distance away from the clinic to get sonogram” “Patients have to go to expensive clinics to get sonograms done, so it is easier to just go to another clinic that has all of the services”. “The clinic does not perform C-sections” “When it rains, lots of mud and traveling is difficult and we don’t want to fall”
Education/sensitization	Lack of adequate education and sensitization on nursing, caring for baby, and mothers self-care: “Women only stay in the clinic for six hours after

	delivery, then are discharged home with very minimal, to no teaching on what to do for self and baby". "After delivery, there is not enough time to teach mothers' breast feeding techniques and breast care. The nurse midwife hands you the baby and gives you a short demonstration on how to put the baby to the breast". "After delivery women are not taught how to care for the infant. The nurse midwife hands you the baby, gives you a brief teaching on umbilical care". "There is no follow-up in the home after a mother is sent home, no one contacts you, and no one calls you". "Community Health Agents can visit us after discharge to sensitize, help us and reinforce teaching on maternal-child" "Matron will stay with us for a couple of days, care for us and the baby. She is easily reached by us."
Professional attitude of healthcare personnel	"Some of the staff are sometimes, not too nice or friendly, so one prefers to stay home where matron will give one attention".

	"Most times, you are afraid to ask the doctors, nurse midwives questions"

Thematic Analysis

Themes in Evidence-Based Literature

I used thematic analysis of transcripts from the focus group discussions to identify themes to come up with recommendations to improve institutional births. Access to care was one of the barriers to institutional delivery for pregnant women in rural Haiti that was evident from the literature as well as focus group discussions (Seraphin et al., 2014). The evidence-based literature likewise indicated that the lack of access to care is associated with morbidity and mortality in maternal child health because pregnant women found it difficult to reach clinic at the time of delivery.

The focus group participants shared views regarding the lack of access in term of lack availability of services at clinics, assistance at clinics, and distance of clinic vis-à-vis their home base as reasons for low delivery turnout. In addition to the above responses from focus groups, the clinic does not have the funds to provide the standard requirement needed for the delivery such as laboratory nor offer sonography, which are among important aspect of maternal child care. As a result, pregnant women have to travel long distances to reach other clinics and obtain procedures at costly institutions or either the patients were sent to other labs to get their test done.

Even respondents living next to clinics preferred traveling long distances to access clinics that offered comprehensive services. Other barriers to access included the lack of

adequate transportation, and inclement weather conditions. During the rainy season, the poor quality of roads in Delma 32 makes it risky for pregnant women to travel. These obstacles have made matrons preferable for daily consultation.

Other themes from the focus group that paralleled the evidence-based literature were education, sensitization, and community outreach. The women felt that if the clinic offered a community health outreach program that would include infant care and signs and symptoms of post-partum problems, women in Delmas 32 would have less need for matrons. Participants' comments resonated with the findings of Perry et al., (2007) who found that maternal health programs which focused on education, sensitization, and health promotion aided in the long-term reduction of maternal-child morbidity and mortality.

Both groups of participants agreed that matrons do offer personalized care which is helpful. Also, they verbalized that sensitization on clinic births would improve their knowledge based and change the behavior tendency to stay home to give birth. If pregnant women knew that they would get pre- and post-partum sensitization on caring for the babies and for themselves, more women would decide to deliver at the clinic. The findings from focus groups also showed that pregnant women were not satisfied with the post-partum care and assistance provided at the clinics, which made them prefer matrons.

Challenges

Focus group discussion is a good method to obtain in-depth information on subject's perception, belief, and views on a particular issue (Krueger & Casey, 2009). However, it is not without its challenges. During the focus group discussion, reasons were

identified that why the clinic in Delmas 32 delivers prenatal care to the pregnant women. Three challenges faced during the project were:

1) Getting the participants who reside in Delmas 32 to partake in the focus group, they feared that they may face retaliation from staff,
2) Coordinating time to conduct focus group,
3) Deciding on how many days the workshop should be and content of the curriculum regarding each of the three issues identified.

Many pregnant women reported that they eagerly wanted to take part in the focus group. However, many resided outside of the target area. It was a challenge to get women in Delmas 32 to participate in this project. It took some work on the part of I to convince the women that their answers would remain confidential, they would not have to sign, just initials on the consent, they would not be asked to identify themselves and only I and her preceptor would have access to the answers given during the focus group discussions. Once the group of volunteers were completed for the focus group, I arranged a meeting to share the challenges and other information. However, some participants had to work, and others had childcare issues, which made setting a date, day and schedule difficult.

Recommendations for Policy and Practice

Policy

The recommendations for the organization were to develop a policy regarding maternal child peri-partum care specifically tailored for the clinic that the medical staff will adhere to when a pregnant initially comes into the clinic (Appendix B). Currently, the maternal-child health clinic has written policy that strengthens pre-natal care, but

none that addresses post-partum and newborn care. The post-partum in-clinic and community-based maternal-child policy should clearly define peri-natal care practice that will cover, patient bill of right, discharge planning initiated on first prenatal visit and communication to improve the patient-staff relationship. A successful policy that aids in reducing maternal and child mortality is the one that is uniquely tailored for that group (Kuruvilla et al., 2014). There is a need to have set of policy that incorporates community-based maternal-child care practices aiming to increase deliveries at the clinic to reduce the maternal child deaths. This set of guideline will be developed and enforced by the maternal child program manager

The evidence-based literature search has supported policy for the training of staff and sensitization for patients has been tried and proven beneficial in improving patient outcome and service capacity at other institutions (Guo, Zakus, & Liang, 2008). The DNP capstone project revealed that capacity building through training, sensitization for patients and communication development skill are best practice for Delmas 32 beneficiaries to improve clinic births. Mothers and infants are at high risk for illness and deaths during the post-partum period (Tesfahun, Worku, Mazengiya, & Kifle, 2014). Awareness of perinatal care which includes getting vaccination (tetanus for pregnant mothers and other required vaccination for infant after birth), counseling on family planning, counseling and advise on danger signs and symptoms of pregnancy, nutritional teaching, breastfeeding techniques, and benefits and sensitization of matrons so they can refer high-risk patients to the clinic. Also, it is also necessary that the availability of the ambulance transportation to women living within the two-mile radius of the clinic.

Furthermore, working in collaboration with the Center for Ambulance Services was also required.

Community health agents will be more active in the sensitization and follow-up of these pregnant women in the community. Through outreach sensitization program, the community health agents, who reside in the pregnant women's neighborhoods will also form psycho-social health-based clubs for pregnant and post-partum women. Each community health agents will be assigned to make individual visits with the pregnant women from the first month of pregnancy through the second month post-partum. Community health agents are ideal candidates for the success of the community outreach program to sensitize the women. They can become part of the community, and build community trust. Moreover, they are well trained by the maternal child clinic and are competent to do the sensitization and health activities well (Avvila, 2011).

Practice

The practice will require every pregnant woman to have a discharge planning package that includes maternal care, child care, available resources, and a community health agent for follow-up home visits. Nurse-midwives will conduct monthly peri-natal classes for the pregnant women. The community health agents will be responsible for:

a) Conducting mandatory post-partum phone call within 24 hours,
b) Post-partum home visits for the residents of Delmas 32 within one week of discharge,
c) Sensitization of women of pro-creation age in the community,
d) Organizing and conducting mothers' clubs.

Also, the practice will include yearly refresher continuing maternal child training for doctors, midwives, and community health agents. There will be women whom despite all interventions still chose delivery by matrons. To protect them from preventable deaths, I proposed an unconventional recommendation that the clinic needs to sensitize matrons in the community on danger signs and symptoms of labor and delivery so they will know to refer pregnant women at risk to the clinic. Training and sensitization of matrons (traditional birth attendants) can promote a reduction in perinatal infection and hemorrhage that which may lead to a decrease in maternal deaths (Sabin et al., 2012).

Implications

WHO is committed to improving birth outcome (WHO, 2010). The administrators, medical staff, community health agents at the clinic along with the community must work together to improve births at the clinic. The project using focus group discussion helped me to obtain a deeper understanding of why pregnant women in Delmas 32 chose not to give birth in a health clinic. In these focus group discussions, many factors such as lack of access to care, poor communication, and knowledge deficit were revealed as potential causes for the lack of delivery at the facility. Delivering patient-centered care, focusing on quality improvement, practicing evidenced-based medicine, working with multidisciplinary, and inter-professional teams are part of the core competencies of the Institute of Medicine (IOM) for healthcare professionals that are essential to providing high-quality and safe care (IOM, 2010).

The findings from the capstone project indicated a need to educate staff, sensitize the women and the community in maternal-child care which will improve outcome. The

proposed recommendations, when the administration and stakeholders agree to implement them, will impact the community at large. The implication of such project will impact the clinic and community, and if successful, development of clinic-community based programs based on the recommendations may become a prototype that may be replicated to other areas of Haiti.

Policy

Clinics will create a policy that will reflect standardized post-partum care of mother and infant. Policy on mandatory continuing education on maternal child health for all maternity clinic medical staff should be initiated. Matthews, Gulmezoglu, & Hil, (2007), Ronsman, Collin, and Filippi (2007) highlighted that the policy for education on maternal child health is essential as it enhances knowledge and awareness about the critical issues, which is directly related to mortality.

Practice

Clinical staff will be trained in patient relations. Patients will be sensitized through classes in the clinic and community outreach program conducted by community health agents. Discharge planning will begin with admission assessing the health of the patient. Adequate measures will be undertaken to improve the quality of health outcome of the patient. The policies for post healthcare assistance and consultations should be charged at nominal charges to encourage patients to choose institutional health facilities instead of matrons. **Social Change**

Upon implementation, these project recommendations may bring constructive social changes to the population of Delmas 32 and other areas of Haiti. The DNP project

was focused on identifying the factors that prevented pregnant from giving birth at the clinic. I was able to make recommendations that may increase clinic births to reduce maternal child mortality in Delmas 32 and other areas in Haiti that occur when the women seek help to deliver their babies from home birthing with matrons or unskilled people. There should be training given to the nurses and should ensure that the women will not give the birth alone. It is important to develop policies through which the professionals and attendants will be given adequate training to reduce the risks. However, in some of the developing countries, there is no significant difference between mortality rate of children because of the lack of access to healthcare and training to the staff. There is a need to enhance the level of skilled and experience staff that can only be attained if the traditional knowledge is rooted in the local culture to improve education and skilled staff.

Strengths, Limitations, and Recommendations

Strengths of the capstone project lied in the homogeneous culture of the participants. The volunteer pregnant women were from the same living community; they shared the same customs, traditions and environment. In focus groups discussion where participants are homogeneous, they tend to be more responsive, comfortable and participate more freely (Grove, Burns, & Gray, 2013). Also, the varying level of the women's age, education, gravida, and social status, allows flexibility of the project's target population, which can be replicated, throughout the country.

Limitations

The limitations of a project are the factors that may affect the generalizability of results to other populations (Grove, Burns, & Gray, 2013). Outdated and limited research data on infant mortality affected the literature review used to support the project. Another limitation of the project's findings was the sample size. The focus group consisted of five pregnant women in each group. The project findings may not be generalizable to other parts of Haiti.

Recommendations

The findings offered valuable perspective in the ways women perceive clinic services when it comes to delivering their babies. However, more extensive research is needed to go beyond this capstone project on the subject of reduction of clinic/health facility births. More focus group researches are needed that include pregnant women of different regions, communes, counties throughout Haiti for a more generalizability. Another recommendation is to support sustainable programs development that focuses on women empowerment, health literacy, and community health associations.

Analysis of Self

The DNP capstone project, the final academic exit product for the student in the DNP program gives the foundation for future scholarship (American Association of College of Nursing [AACN], 2006). Successful completion of the DNP capstone project signifies that the student has mastered knowledge and expertise in the field. The DNP program has been a transcending journey for me. I have worked on several extensive projects, proposal writing, project presentation, but none as intense, and scholarly as the

DNP capstone. The journey has elevated my confidence as a practitioner, a scholar, and a program manager.

As a practitioner, I was able to identify an issue in practice, the poor clinic birthing among pregnant women who visited the maternal health clinic for prenatal care that needed to be rectified. Seeking evidenced-based practice ways to ensure that quality care is provided to the target population to improve patients' outcome effectively and efficiently. As a scholar, throughout the DNP program, I was equipped scholastically to conduct an evidence-based literature search, apply framework, determine the method, analyze findings, and disseminate evidence-based research. I used Johns Hopkins nursing evidence-based practice model and TTM of behavior change as guidance in applying evidence-based research and comprehending the dynamic of the practicum site to make the recommendations based on focus group findings to implement a program to improve practice, quality of care positively, and save lives.

The role of the project manager was the least stressful because of my many years of experience as a medical program manager. For the capstone project, once the IRB approved the proposal, I was able to conduct the focus groups, evaluate, use evidence, manage and lead interdisciplinary teams. I made the recommendations to stakeholders, administrators, and clinic staff to develop programs that will improve the lives of individuals, communities, and the nursing profession. However, the actual writing of the proposal was the part that broke my spirit. The Gantt chart and the quarterly plans had to be revised several times. I underestimated the number of corrections, revisions, resubmissions and response time from IRB.

My long-term goals in six months from graduation, is to present this capstone project at the Haitian Nurses Association (ANHIL) conference. A year later postgraduation, to return to Delmas 32 facility to evaluate the outcome of the recommendations based on the focus group for the clinic to increase clinic births. Then, present the project to the National Institute of Health (NIH) for possible funding to implement the recommendations on a larger scale to evaluate their outcome and impact nationally. These goals will further contribute to my own professional development and practice.

Haiti is one of the most affected countries on maternal child death according to WHO's statistics (WHO, 2010); given the limited research on maternal child issues in there, I plans to conduct further research on maternal child issues in other parts of Haiti. I plans to continue growth as a scholar, a practitioner and a program manager by being a change agent and a leader in the field by assessing, implementing, evaluating outcome and impact of evidence-based practice projects that will reduce maternal child morbidity and mortality in Haiti.

Summary

The IRB approved the proposal for the project. Soon after, a focus group approach grounded in evidence-based methods was made to identify why women do not return to deliver their babies at the clinic, to make recommendations to improve birthing at the clinic. The evidence-based literature search has supported the emergent themes: lack of access to care and knowledge deficit. The themes have been attributed to maternal-child health morbidity and mortality in developing countries, such as Haiti (Seraphin et al.,

2014). A third theme that was not identified in the literature review was: poor communication in term of staff-patient relation. The curriculum for the workshop to present the recommendations to increase the number of pregnant women who comes to the clinic to give birth was focus group findings theme-based.

The maternal health clinic has adopted the perinatal policy set by the Haitian Department of Health (Ministere de la Sante Public & Population [MSPP]). However, there is no policy governing peri-partum care at the clinic. The clinic needs a policy that focuses on peri-partum care inclusive of post-partum and newborn care that will include education, sensitization, and patient relation communication uniquely designed for it and the community of Delmas 32. The policy will integrate community-based maternal child care practices with the purpose to augment clinic birthing. The role of nurses, midwives, obstetricians and community health agents will be defined to ensure optimum performance.

Section Five presented the recommendations in an educational workshop as the scholarly product derived from the results of the evidence-based DNP capstone project. A plan was presented to the medical director, the community health manager, and the administrators regarding the method to implement and evaluate the recommendations to improve childbirths and to reduce maternal-child mortality. I informed the team members that the project would be presented to NIH for possible funding and other channels that the project will be disseminated, such as ANHIL, journal publications, and posters presentation at conferences.

Section 5: Recommendations Presentation Workshop Product

Introduction

The issue of concern that gave light to this project was an observation that I made at the clinical site. I observed that pregnant women came for prenatal visits, but yet did not return to deliver at the clinic. In a quest to increase clinic birthing rates that will lead to improved maternal-child health and reduce morbidity and mortality, this became my focus for the capstone project. Therefore, I created a curriculum to address the proposed recommendations to improve clinic births and save lives in Delmas 32. The goals and objectives of the workshop that were met included:

1. Implementation of two focus groups.
2. Identification of training topics: improve access to care, communication, and knowledge among staff and patients through education and sensitization.
3. Creation of the curriculum.
4. Recommendations shared among organization leadership.
5. Dissemination of the project's findings.

I disseminated the educational workshop based on the recommendations to the interdisciplinary team, the nursing leadership team, the medical director, and the community health manager.

Workshop Curriculum Development

I developed curriculum for the staff workshop based on the outcome of the focus group discussions and evidence-based literature review. It included improving access to care, and the need for continuing education of clinical and patient-relation services. The

development of the curriculum framework was used to guide me in educating the clinical staff on identified issues that may improve access to care in the clinic, education topics on peri-partum care to sensitize the patients, and patient relations related to the professionals' attitude in healthcare. Adequate training of staff is an essential aspect of patient care that is holistic, safe and improve outcome (Curtis, 2016). Curriculum development on these subjects may increase clinic births and thereby reduce maternalchild morbidity and mortality in Delmas 32. The preceptor reviewed the curriculum content and the medical director approved it for dissemination. A one-day workshop was needed to deliver all these points. The medical director agreed to implement the project into the clinic's continuous medical education.

Workshop Content

The educational workshop consisted of three topics developed from a thematic analysis, peer-reviewed literature, and my recommendations based on focus group findings to increase clinic births (see Appendix B). The topics covered: a) an overview of effective communication, b) ways to improve access to care, and c) methods to increase knowledge among staff and patients. The teaching strategies will start with a short didactic presentation, followed by activities that include open discussion, role-playing, and case scenarios. The three strategies help the learner to gain new knowledge and skills, and encourage behavior change (Anonymous, 2016).

Open discussion forum is a teaching strategy that enhances the learning experience (Colbert, Pelletier, Xavier-Depina, & Shields, 2016). It allows the participants to engage in the workshop and motivates them to share their ideas. Also, open discussion

promotes learners' deeper participation in the subjects where they can share their perspectives, and present and defend their views. The workshop's opening discussion involved the focus group outcomes and the recommendations.

Role play is an effective teaching strategy that can help to facilitate communication skills (Anonymous, 2016). It allows subjects to gain insight into their approach and biases they project to others. The role play technique can facilitate a change so the learners can begin to empathize and sympathize with others in the particular situation. In this setting, the staff will be more receptive to learning, will retain more information, and can transfer that knowledge when they interact with one another and when they care for their patients. The role-playing centers on a pregnant woman's interaction with the health facility at various stages of her pregnancy.

Case scenarios teaching techniques facilitate learning by presenting real life situations that are relevant and generate critical thinking (Pole, Breitbach, & Howell, 2016). These techniques help the learner to make the connection/transition from theory to practice. The acquired knowledge from this technique can help with future clinical decisions, critical thinking, and better patient care management. The maternal-child clinical staff of Delmas 32 is very competitive among themselves, and the case scenarios generated lots of ideas and interactive participation in the workshop. The curriculum content was well received by the staff, was approved by the department medical director, and the workshop will become part of the clinical staff employee orientation and their continuing education program.

Frameworks

I used the Johns Hopkins nursing evidence-based practice model as the framework to develop the workshop's curriculum. The three-step approach to problemsolving (practice question, evidence, and translation) was appropriate as I incorporated the findings from focus group discussions into patient care to improve outcomes

(Dearholt & Dang, 2012). First, all preparatory work was done during the practice step. The practice question was identified, the stakeholders selected and approved, and the scope and the area of intervention were determined for the project.

The Johns Hopkins nursing evidence-based practice appraisal summary model was helpful during the evidence step. I conducted extensive data searches for evidencebased research using online peer-reviewed scholarly journals (Dearholt & Dang, 2012). Secondly, as demonstrated in Section 3 in the evidence phase of the proposal, I conducted the literature review, formed a team, created a Gantt chart timeline, organized two focus groups, performed a thematic analysis with validation, and disseminated the findings to stakeholders. The last stage of the model was the translation. In the translation step, the acquired knowledge from the evidence-based literature review and the thematic analysis outcomes of the focus groups were essential to the curriculum development.

Trans-Theoretical Model of Behavior Change

I used the TTM of behavior change to educate the staff on how individuals can adjust undesirable behaviors to preferred positive behaviors through lived experiences (Prochaska & Prochaska, 2011). The model may facilitate the participants to apply this

evidence-based research into practice. The curriculum developed was geared towards teaching staff how to interact positively with pregnant women, and to improving service to increase clinic birth rates. I also used the TTM as the framework for the staff to train and sensitize the community for behavior change modifications that they can incorporate into their daily routine that can lead to increased admission in the maternal child clinic for delivery.

Implementation

This DNP capstone project's implementation will contribute to nursing advancement and professional development (Ay, Gençturk, & Turan, 2014). As previously mentioned, the medical director, administration, and stakeholders of the practicum site will implement the educational workshop. The workshop will be carried out in a joint effort among the women's health clinic, the community health program, and human resources managers. The workshop will be an eight-hour, one-day program that will cover three subjects: effective communication, perinatal care, and sensitization through community outreach (see Appendix C).

The funding for the workshop as part of the clinic's continuing education program will come from the budget training line. These endeavors are intended to increase clinic births which can reduce maternal-child morbidity and mortality and are a pivotal part of improving patient outcomes (Srivastava et al., 2015). The literature indicates that a multidisciplinary approach is essential to improving maternal-child (Meyers, 2014). Every new incoming employee will receive this training as part of their core orientation

package, and senior staff will have the workshop every two years as part of their refresher continuing education.

Evaluation

Progress in reducing maternal-child morbidity and mortality is incremental; therefore, staff are encouraged to continue with the sensitization of pregnant women, work on improving access to care, and maintain effective communication as recommended. I discussed the recommendations to evaluate the effectiveness of the workshop with the clinical leadership. The short-term goal will focus on staff‘s retention of the objectives and their ability to transfer the knowledge. Evaluation of retention of the workshop’s material can be done through pre- and post-tests, with a post-test passing grade of 90 percent (questions to be determined by the clinical team in charge of implementing the workshop).

The long-term goal of the workshop can be evaluated through a random survey on patients’ satisfaction. This survey will be administered during clinic days to pregnant women who frequent the clinic. Another evaluation tool will be the notable data collected in the daily-delivery logs that reflect an increase in women giving birth at the clinic. Effective behavior change in pregnant women has shown an increase in delivery in health facilities which leads to a decrease in maternal-child mortality and morbidity (Gillmore, 2013).

Dissemination

Dissemination of an evidence-based project is the final step in research, and it is necessary for evidence-based practice (Oermann, Shaw-Kokot, Knafl, & Dowell, 2010). I disseminated the educational workshop curriculum to the clinic leadership via a PowerPoint presentation. I also shared recommendations on methods to evaluate and implement the workshop at the clinical practicum site. I plan to send a proposal to the National Institution of Health (NIH) to seek funds to develop a community-based outreach program to reduce maternal-child morbidity and mortality in Delmas 32. I also plan to present this capstone project at the yearly Haitian Nurses Association (ANHIL) conference and to submit it to a maternal-child nursing journal.

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Appendix A: Focus Group Questions

Questions Used in the Focus Group with Women Who had not Used or will not Use the Center to Deliver their babies.	**Questions Used in the Focus Group with Women Who had Used or Will Use the Center to Deliver their babies.**	**Comments**
1. Where do you reside?	1. Where do you reside?	
2. Why do you come to Delmas 32 maternal child health community clinic for prenatal care?	2. Why do you come to Delmas 32 maternal child health community clinic for prenatal care?	
3. What factors determine which clinic you come to for prenatal care?	3. What factors determine which clinic you come to for prenatal care?	
4. What is your belief about pregnancy	4. What is your belief about pregnancy	
5. What are the dangers associated with childbirth?	5. What are the dangers associated with childbirth?	
6. What is your opinion on women who deliver at home versus women who deliver in hospitals/clinics?	6. What is your opinion on women who deliver at home versus women who deliver in hospitals/clinics?	
7. Why do you prefer giving birth in clinics instead of the use of traditional matrons?	7. Why do you prefer delivering at home instead of the clinic?	

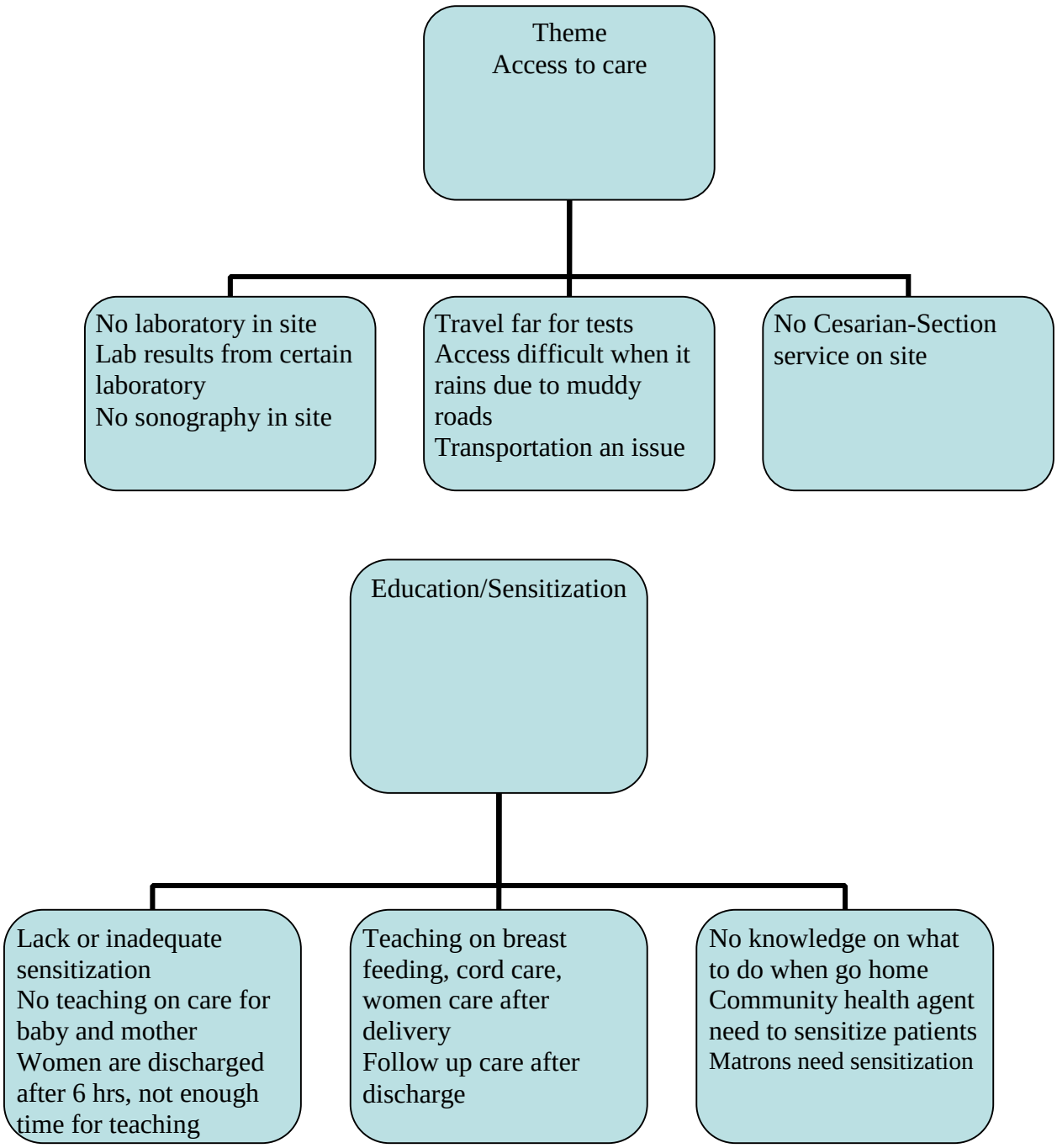
8. Do you think level of a person's education determine where they choose to have their babies? Agree, somewhat agree, disagree, strongly disagree	8. Do you think level of a person's education determine where they choose to have their babies? Agree, somewhat agree, disagree, strongly disagree	
9. What are your thoughts on the care received here at the clinic and how satisfied are you with services that may help to increase clinic births?	9. What are your thoughts on the care received here at the clinic and how satisfied are you with services that may help to increase clinic births?	
10. What do you think that can be done better, or differently to encourage women of Delmas 32 to see trained personnel to assist with childbirth?	10. What do you think that can be done better, or differently to encourage women of Delmas 32 to see trained personnel to assist with childbirth?	

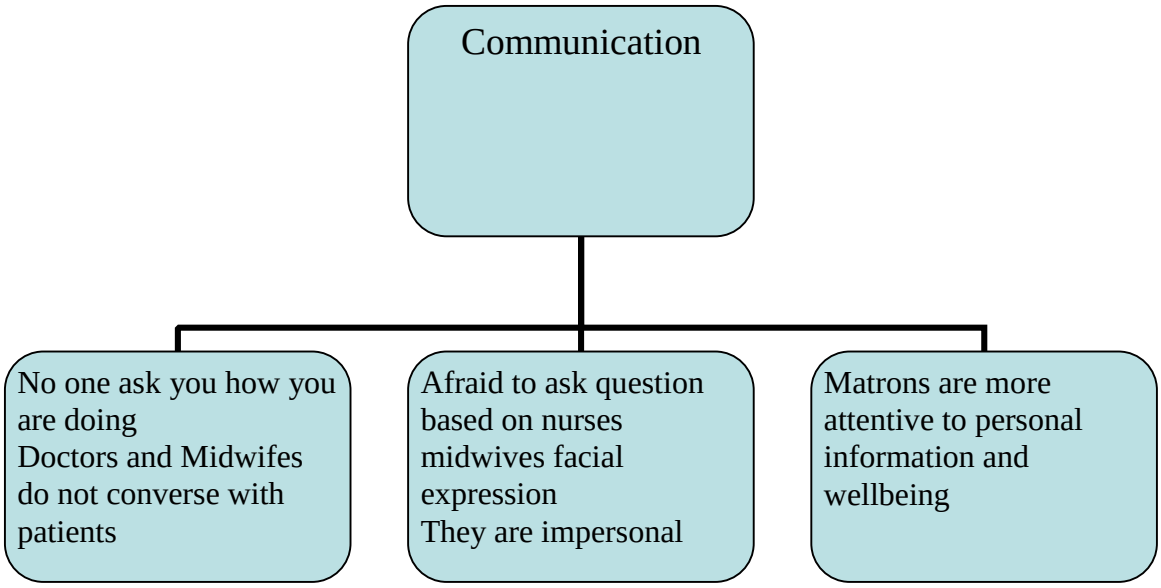
Appendix B: Maternal-Child Mortality Reduction Recommendations Flyers

Recommendations for Policy	**Recommendations for Practice**
• Development of policy regarding maternal child peri-partum care for Delmas 32 clinic-clearly defined peri-natal care practice that covers: patient bill of right, discharge planning initiated on first prenatal visit. • Amelioration of ccommunication to improve the patient-staff relationship. • Development and enforcement of perinatal care guideline by the maternal child program manager. • Sensitization and training of staff and patients Sensitization of matrons so they can refer high-risk patients to the clinic. • Availability of clinic ambulance transportation to women living	• Discharge planning package that includes maternal care, child care, available resources, and a community health agent for followup home visits. • *Nurse-Midwives will*: • Conduct monthly peri-natal classes for the pregnant women. • *Community Health Agents will*: • Conduct mandatory post-partum phone call within 24 hours, • Post-partum home visits for the residents of Delmas 32 within one week of discharge, • Sensitization of women of precreation age in the community, • Sensitization of matrons in the community on danger signs and symptoms of labor and delivery so

within the two-mile radius of the clinic. Collaboration with the Center for Ambulance Services. Form psycho-social health-based clubs for pregnant and post-partum women. Community health agents will be assigned to make individual home visits with the pregnant women from the first month of pregnancy through the second month postpartum.	they will know to refer pregnant women at risk to the clinic. Organization and conducting mothers' clubs, Yearly refresher continuing maternal child training for doctors, midwives, and community health agents.

Appendix C: Thematic Analysis





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Appendix D: Focus Group Questions

Questions Used in the Focus Group with Women Who had not Used or will not Use the Center to Deliver their babies.	**Comments/Answers**	**Questions Used in the Focus Group with Women Who had Used or Will Use the Center to Deliver their babies.**	**Comments/Answers**
. Where do you reside?	Delmas 32	. Where do you reside?	Delmas 32
. Why do you come to Delmas 32 maternal child health community clinic for prenatal care?	Free medications, free consultation	. Why do you come to Delmas 32 maternal child health community clinic for prenatal care?	Free, good service Free vitamins, medications and vaccination,
. What factors determine which clinic you come to for prenatal care?	Proximity, access to care, comprehensive services	. What factors determine which clinic you come to for prenatal care?	In the neighborhood, close by, has emergency room that functions 24/7, How they welcome the patients
. What is your belief about pregnancy	Benediction from God, not a sickness, natural	. What is your belief about pregnancy	Not a sickness, not an illness, not a sickness beautiful thing, normal process, period vulnerable
. What are the dangers associated with childbirth?	Death, hemorrhage, bad infection	. What are the dangers associated with childbirth?	Could die mother and child, can bleed to death, infections, pass disease to child specially if delivered at home
. What is your opinion on women who deliver at home versus women who deliver in hospitals/clinics?	Their choice, better one-to-one care for mother and child by matrons, surrounded by family	. What is your opinion on women who deliver at home versus women who deliver in hospitals/clinics?	Risky, risk their life and baby, may have no choice, may have family who can help post-partum. May want to practice

			country tradition with rituals
. Why do you prefer delivering at home instead of the clinic?	Matron stays with us for a couple of days, care for us and the baby. She is easily reached by us	. Why do you prefer giving birth in clinics instead of the use of traditional matrons?	If there is a problem, the doctors and nurse-midwives are right there, the emergency room is right there
. Do you think level of a person's education determine where they choose to have their babies? Agree, somewhat agree, disagree, strongly disagree	No	. Do you think level of a person's education determine where they choose to have their babies? Agree, somewhat agree, disagree, strongly disagree	No
. What are your thoughts on the care received here at the clinic and how satisfied are you with services that may help to increase clinic births?	Satisfy, but more can be done	. What are your thoughts on the care received here at the clinic and how satisfied are you with services that may help to increase clinic births?	Satisfied with care but, need women can stay longer and spend more time after delivery for teaching, education, sensitization
. What do you think that can be done better, or differently to encourage women of Delmas 32 to see trained personnel to assist with childbirth?	More teaching on infant care and mother care, doctors and nurse midwives can be more patient oriented, can take more time with patients, they can be nicer Transportation service	What do you think that can be done better, or differently to encourage women of Delmas 32 to see trained personnel to assist with childbirth?	Class and training for staff, patients, matrons, more service like sonogram, labs, community health agents can be more involved in teaching, sensitization and home visits

Appendix E: Curriculum of Maternal-Child Mortality and Morbidity Reduction

Recommendations for Workshop Based on Focus Group.

Topics	Content	Method	Time
Communication improving professional attitude of healthcare personnel	Definition of communication Importance of communication in healthcare setting Effective communication Communication skills Types of communication: Interpersonal, Non-Verbal, Written & Oral	Didactic	4 hours
Case scenarios	Dr./patient interaction	Discussion	1 hour
Role Play	Pt undecided about where to give birth	Role play	½ hour
Improve access to care	Brainstorming	Didactic/Discussion	1 hour
Education/Sensitization	CME/patient health literacy	Didactic/discussion	1 hour
Evaluation/feedback	form	Written	1 hour

Appendix F: Recruitment Flyer in Kreyol

Fanm Ansent ki ap viv nan Delmas 32 yo envite yo patisipe nan yon Fokis Gwoup

Sijè: Sa fanm panse de akouchman ki fet nan klinik la e akouchman ki pa fet nan sant
sante
Dat: 9 Fevrye, 2016

Tan: Sesyon I --10 am- 10:30 AM
Moun: -5 Fanm ansent ki chwazi akouche nan klinik la

Tan: Sesyon II--12:30 PM - 1:00 PM
Moun: -5 Fanm ansent ki chwazi pa akouche nan klinik la, men ki pral itilize matron

Kote: Sant Medya Delmas 32 Sante Kominotè Klinik

*Yap bay yon ti rafrechisman apre fokis gwoup la.
Janvye 2016

Appendix G: Recruitment Flyer in English

Pregnant Women Who Live In Delmas 32 Are Invited To Participate In A Focus Group

Topic	Women's perceptions of clinic and non-clinic deliveries at Delmas 32 Clinic
Date:	February 9, 2016
Time	Session I --10 AM- 11:00 AM -5 Women who choose to deliver in the clinic Session II 12:30 PM – 1:30 AM -5 Women who choose not to deliver in the clinic, but will use matrons
Location	Media Center Delmas 32 Community Health Clinic

*Light refreshments will be served.

February 2016