

Maternal c/PPH in Haiti: Global Health Initiative for Haiti

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Abstract

Haiti is a small underserved country in the Caribbean that shares an island with Dominican Republic. Like many underserved third world countries, Haiti is plagued with global health burdens such as high amounts of non-communicable disease related deaths, maternal mortality and childhood mortality under five years of age. "Every 20 minutes, a woman dies from childbirth in Haiti, a statistic that captures the grave nature of maternal mortality". With an anonymous ten-million-dollar donation this article illustrates a potential plane to decrease maternal mortality rates in Haiti through the initiation of Project Save Mom.

Keywords: Maternal mortality; Global health; Childbirth; Save mom

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Background and Significance of the Issue

My name is Felicia Douglas and I am the founder of Project Save Mom in Haiti. Project Save Mom is an initiative that was gifted 10 million dollars in 2018 to provide aid for a project that will potentially decrease maternal mortality rates related to post-partum hemorrhage in Haiti [1].

Haiti is a small underserved country in the Caribbean that shares an island with Dominican Republic. It is home to 10,847,000 individuals with the mean age of 22.2 (WHO, 2015). The crude birth rate is 25.6 per 1000 population and the crude death rate is 8.6 per 1000 population (WHO, 2015). Like many underserved third world countries, Haiti is plagued with global health burdens such as high amounts of non-communicable disease related deaths, maternal mortality and childhood mortality under five years of age. "Although maternal mortality rates have decrease since 1990 to 2013 by 45%, Haiti's maternal mortality rates remains one of the highest in the Caribbean and Western hemisphere at an astonishing rate of 350 per 100,00 live births" [2]. With global maternal mortality rates being down to 210 per 100,000 live births, it is clear that Haiti is in need of an intervention to help decrease their rates. "Every 20 minutes, a woman dies from childbirth in Haiti, a statistic that captures the grave nature of maternal mortality" [1]. There are many factors

that can contribute to maternal mortality with the leading causes being pre eclampsia and/or eclampsia at 23% and post-partum hemorrhage at 22% according to the Pan American Health Organization. Cultural factors can also play a role in maternal mortality as seeking prenatal care is not the norm in countries like Haiti.

The child bearing process is seen as a natural one where the assistance of trained personnel is not usually sought, especially in rural Haiti. This fact leaves child bearing women at a great risk for unforeseen complications during child birth. Births in rural Haiti are often attended by individual with little to no obstetrical training. Deep rooted cultural norms cause for a challenging endeavor to implement healthcare changes that is needed to improve outcomes in Haiti. In my research of this topic, it was noted that even after providing trained persons to attending deliveries in rural Haiti, 90% of the rural populations still chose to deliver at home without the presence of trained individuals, possibly not recognizing the potential dangers of childbirth.

Haiti's government has recognized that maternal mortality is a priority and has partnered with Midwives for Haiti, an educational program initially geared to train nurses to become proficient in the child birthing process. Through hospital training and classroom didactic, every nurse in Haiti is exposed to the potential threats of child birth and is prepare to intervene if necessary. However, with most of the rural population not using medical services during their pregnancy, maternal mortality remains a problem.

Hagaman et al. divulges that less than one third of the country has education pass primary school and the majority of the country is impoverished, half of which lives in extreme poverty [3]. Their financial status leaves little room for rural families to afford travel to medical facilities let alone afford healthcare. Nurses migrating to other countries outside of Haiti for higher pay and better opportunities inadvertently caused task shifting from obstetricians and nurse midwives to untrained traditional birth attendants which further perpetuates the high maternal mortality rates.

The primary focus of my initiative was to create a low cost, self-sustainable plan that would help lower the maternal mortality rates in Haiti. Taking into consideration that global initiatives established from abroad was going to be a challenge due to finances, cultural differences, and social norms in Haiti; I was prepared to take on the challenge. I decided to attack maternal mortality caused by postpartum hemorrhage. The initiative would include continued education for the traditional birth attendants, immediate initiation of skin to skin contact and breastfeeding, use of misoprostol, bimanual uterine massage, placental remnants extraction with sterile gloves, prophylactic antibiotic administration as needed and community involvement.

Literature Review

Recognizing that Haiti has a real problem with their high maternal mortality rate, the article "Utilizing Task Shifting to Increase Access to Maternal and Infant Health Interventions: A Case Study of Midwives for Haiti" [4], focused on increasing access to trained nurses who would be prepared to handle obstetric emergencies in rural Haiti. When this attempt proved to be unsuccessful due to the lack of participation from the pregnant women in the rural areas, Midwives for Haiti then decided to help empower the traditional birth attendants by educating them and giving them the tools they would require to be better prepared for deliveries. This article supports my initiative in the continuum of support for the traditional birth attendant.

The article, "The fourth delay and community-driven solutions to reduce maternal mortality in rural Haiti: a community-based action research study" [5], also recognized that rural Haiti has dire maternal mortality situation and conducted a research to focus on the causes of delay which placed these pregnant women a higher risk. These delays included the lack of seeking care, lack of ability to reach help, lack of ability to receive adequate help and last, the fourth delay, holding the community as a whole responsible and accountable for maternal mortality. The article supports my initiative for community support. No one person can be responsible for the healthcare of rural Haiti, but with the support of the neighbors and ultimately with the community getting involved, healthcare initiatives that are started are more likely to thrive and succeed.

"The main cause of postpartum hemorrhage is uterine atony", Dahlke et al. notes that post-partum hemorrhage was responsible for one-quarter of maternal deaths globally, approximately 140,000 deaths annually. There are medications that can be given prophylactically to prevent post-partum hemorrhage such

as Pitocin, Misoprostol, and Hemabate. In developed countries like the United States, Oxytocin would be the first-line drug therapy for such incidences. When in a third world country such as Haiti, where medications are at times inaccessible, and thermoregulation of medications cannot be maintained as need, and financing is low, other options are needed. In the article "Postpartum hemorrhage in the developed world: whither misoprostol?", Gibbins, Albright, & Rouse notes that the use of misoprostol to control postpartum hemorrhage may be justified in developing countries without access to oxytocin, while keeping in mind, if Oxytocin is available, it should always be the first line treatment for a post-partum hemorrhage. "Misoprostol is recommended by the Royal Australian and New Zealand College of Obstetrics and Gynecologists guideline as a second-line preventive medication or when oxytocin is not available for PPH prevention" [6].

In the article "Prevention and management of postpartum hemorrhage: a comparison of 4 national guidelines", 4 national guidelines compared definitions of hemorrhage and how to treat it [6]. While the definitions may have differed a bit, the one consistent treatment was the use of Oxytocin for treatment, keep in mind that the recommendation are all from developed countries like, America, Australia, New Zealand and Canada. I found it interesting that America is normally known as the invasive country yet out of all four guidelines, the American College of Obstetrics and Gynecologists is the only one that did not encourage routinely actively managing the third stage of labor. All four national guidelines recommended the use of Prostaglandins E, misoprostol rectally, as in my initiative. The guidelines also indicated risk factors for a postpartum hemorrhage. The agreed upon risk by the majority of the national guidelines, 3 or more, can all be easily determined by a traditional birth attendant. This risk includes a history of a postpartum hemorrhage, over-distended uterus, prolonged labor, and infection. I did not include abnormal placental presentation as it is unlikely that the rural community would have access to sonography.

In a retrospective cohort study in New South Wales Australia, 7,548 records were analyzed between 2009-2010, which proved that postpartum hemorrhage was decreased when skin to skin and breastfeeding was initiated within 30 minutes of delivery. As mentioned before and endorsed by national guideline bodies, oxytocin is the first-line drug for prevention and treatment of a postpartum hemorrhage. Oxytocin is naturally released by the pituitary during labor and breastfeeding. This hormone stimulates contractions of the uterus which inevitably decreased bleeding. The article entitled "Does skin-to-skin contact and breast feeding at birth affect the rate of primary postpartum haemorrhage: Result of a cohort study" [7] notes that with the use of "pronurturance", skin-to-skin and breast feeding, post-partum hemorrhage cause by uterine atony was decreased by 50%. This ties into my initiative because it cost absolutely nothing to implement other than time and consistency and will be easily sustained by a community that is rich in culture [8].

All five articles spoke to the importance of decreasing post-partum hemorrhage as it relates to the maternal mortality and its

potential treatments. Although all of the research studies were not conducted in Haiti, I believe that the treatments remain applicable to all women regardless of geography. These articles help guide my initiative to decrease maternal mortality in rural Haiti [9].

Action Plan

With the 10-million-dollar donation, and the development of Project Save Mom, I would start by creating with a proposal to submit to Midwives for Haiti, an organization who has had great success already in the country and Zero Maternal Deaths from Hemorrhage, and initiative specifically created to prevent maternal deaths by postpartum hemorrhage in countries like Haiti. By gaining the respect and trust of entities that are already familiar with the infrastructures available in Haiti and how things work, I believe the chances of success of any initiative implemented in the county will be greater. Having feet already on the ground in the country that have the same goals will work in Project Safe Mom's benefit. The proposal would include further education for traditional birth attendants in prevention and management of post-partum hemorrhage. This donated curriculum created and taught by Obstetrics & Gynecology doctors, Midwives and Nurse Practitioners from the United States will consist of techniques such as bimanual uterine massage, initiation of immediate skin-to-skin and breastfeeding, placental remnants extraction, and the administration of rectal misoprostol. Skin-to-skin and breastfeeding initiation should be started regardless of postpartum hemorrhage. The targeted population would be women in rural Haiti that are anticipated to have vaginal deliveries in the home. SUV's with terrain capability, amount depending on population in specific towns, will be donated in the event that the women needed to be transported to medical facility urgently. In the event that bimanual massage or placental remnant removal is needed, antibiotics should be administered prophylactically to prevent infection. The majority of the money donated would be used towards medication such as misoprostol and antibiotics. Misoprostol was chosen over the preferred method of oxytocin because of its cost effectiveness and ease of administration for the non-professional person. Essentially birthing bundles would be created which would consist of sterile gloves, misoprostol, antibiotics, sterile laps, and a brochure inserted in the bundle with information on how and when to use the content of the bundle, contact for the community person responsible for emergency transport to the hospital and a trained person to call in the country for emergency inquiry.

The short term goals for Project Save Mom will be the ability to organize the initiative and curriculum, and secure partnership with Midwives for Haiti and Zero Maternal Deaths by Hemorrhage to help implement the initiative, as well as allow for collaborative communication between the two organizations, ensuring that this approach is feasible and what is needed in the country. Their feedback and help is needed to help ensure the success of the project. Long term goal would be the actual implementation of the initiative with longevity and ultimately the decreasing of Maternal Mortality by 50% within the first 5 years. Sustainability of Project Save Mom will heavily rely on the involvement of Midwives for Haiti upon the completion of the 5 years with

the expectation that they will be able to continue the program without the physical presence of my team. Incentives will be allocated to pharmaceutical companies who continue to supply misoprostol and antibiotics past the 5 years from the WHO.

The participation of the government is essential as travel for noncitizens, and the importation of goods needed for the initiative will be an important part of this plan. Those medical professionals who donate their time as part of the curriculum have to have safety and security during their time in the country. It's important that we can depend on governmental support to limit corruption of the process. The communities will have to take responsibility for their own health and create a group of people that will be involved in the initiative. Since Haiti is rich in religion and culture, using a church space as a meeting place for the curriculum will ensure that the majority of the town is aware and informed. This is the location where the classes will take place for the traditional birth attendants and where the person who'd be responsible for hospital transport will be chosen. Each traditional birth attendant, once identified, will be responsible for keeping log of all deliveries complicated by a postpartum hemorrhage, their interventions and the outcomes, good or bad. Log should be given to Midwives for Haiti, who will share this information with both the World Health Organization and Project Save Mom.

Conclusion

The strength of this initiative lies in the actual statistical facts. I feel that it will be easy to get people on board to support such an initiative, especially in Haiti, as the maternal mortality rate high. The loss of a mother doesn't end there. With every mother that is lost, the infant mortality rate and childhood mortality rate under 5 years also increases as the ability for a newborn to thrive is lessened. By promoting this fact, more mothers in Haiti may take heed and seek the help of those who are involved with Project Save Mom and Midwives for Haiti. Potential barriers that can hinder the success of this initiative include political corruption, lack of traditional birth attendants exhausting the resources provided by these initiatives, lack of the rural community in Haiti understanding or realizing the severity of the complications in childbirth.

Notice that the majority of my initiative is low to no cost at all. This was strategically implemented in a way that would allow for the 10-million-dollar donation to go a long way. If this project is a success, and the people of rural Haiti are self-sustainable with the bundles provided from Project Save Mom, the assistance of Midwives for Haiti and Zero Maternal Deaths by Hemorrhage, this can potential be a program that can be moved to other third world countries with high maternal mortality rates, potentially decreasing the worldwide mortality on a whole. Long term sustainability would rely heavily on a solid infrastructure on the ground such as Midwives for Haiti.

My role as the DNP was to recognize the global problem, create the initiative with funds donated, partner with governmental and non-governmental agencies in Haiti, and implements the initiative while ensuring data collection to help measure the success or failure of the initiative.

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