

2008

# Report on Jesuit Grant Issued December 15, 2007 for "African Mothers Health Initiative: Future USF Partnership of Social Justice and Community Health?"

Marcianna Nosek

University of San Francisco, [mnosek@usfca.edu](mailto:mnosek@usfca.edu)

Follow this and additional works at: [http://repository.usfca.edu/nursing\\_fac](http://repository.usfca.edu/nursing_fac)

 Part of the [Public Health and Community Nursing Commons](#)

---

## Recommended Citation

Nosek, Marcianna, "Report on Jesuit Grant Issued December 15, 2007 for "African Mothers Health Initiative: Future USF Partnership of Social Justice and Community Health?" (2008). *Nursing and Health Professions Faculty Research and Publications*. Paper 81.  
[http://repository.usfca.edu/nursing\\_fac/81](http://repository.usfca.edu/nursing_fac/81)

This Report is brought to you for free and open access by the School of Nursing and Health Professions at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Nursing and Health Professions Faculty Research and Publications by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact [repository@usfca.edu](mailto:repository@usfca.edu).

REPORT ON JESUIT GRANT ISSUED DECEMBER 15, 2007 FOR  
“AFRICAN MOTHERS HEALTH INITIATIVE: FUTURE USF PARTNERSHIP OF  
SOCIAL JUSTICE AND COMMUNITY HEALTH?”

by

Marcianna Nosek, CNM, MPH, PhD

Assistant Professor

USF School Of Nursing

## AFRICAN MOTHERS HEALTH INITIATIVE: FUTURE USF PARTNERSHIP OF SOCIAL JUSTICE AND COMMUNITY HEALTH?

### Background

This report is presented as part of the requirement of a Jesuit Grant issued to myself, Dr. Marcianna Nosek on December 15, 2007. The proposal included a trip to Malawi, Africa to accomplish the following:

- 1) Conduct a Needs Assessment of the Malawian community that the African Mother's Health Initiative (AMHI) serves
- 2) Explore a Partnership or Liaison with AMHI to accomplish the following:
  - A. Feasibility of future visits by USF students to conduct community work with mothers and infants of the communities served by AMHI
  - B. Future fund raising and program planning involving USF students
- 3) Raise Awareness of the health status of the women and infants living in communities of Lilongwe, Malawi and related social justice issues.

### Malawi Facts

Malawi is a landlocked country in southeastern Africa with Tanzania to the north, Mozambique to the east and south, and Zambia to the west. (See Maps, Appendix A.) It is about the size of Pennsylvania and its major geographical feature is Lake Malawi which runs along the eastern border of Malawi and provides a rich source of fish for nearby inhabitants. The chief export goods are tobacco, tea, sugar, cotton, coffee, peanuts, wood products, and apparel. However, many factors have contributed to its being one of the poorest countries in Africa. With a GDP of \$700 U.S. a year and a 42%

external debt, it is estimated that 53% of its population is living below the poverty level (CIA World Fact Book).

One reason given is its dense population. With 14 million people, there are about 113 persons per square kilometer. In comparison, there are 12 and 30 persons per sq. km. in Zambia and Zimbabwe, respectively. This has caused much food insecurity resulting in 50% of Malawian children being malnourished (Malawi Association of Christian Support).

Other contributing factors include droughts and floods over the years, lack of proper irrigation, price hikes, and fall in real income. HIV/AIDS has impacted the country as an estimated 14% of the population have become afflicted. This not only decreases the workforce directly but also indirectly as women who typically attend to the growing of food, need to care for the increasing ill. Mismanagement of the economy has been blamed also. In 2002, the World Bank convinced the Malawian government to sell off 100,000 tons of surplus maize only to be followed by a subsequent famine later that same year (Malawi Association of Christian Support).

### *Health Facts*

An impoverished country lends itself to many health concerns which is gravely impacted by the lack of healthcare providers. The World Health Organization has identified a minimum standard of 20 doctors to each 100,000 inhabitants in any given country. In Malawi, there are 2 doctors and 56 nurses to 100,000 inhabitants (Liese, B., Blancher, N., Dussault, G., 2003). In comparison, in the U.S., there are 266 doctors and 799 nurses per 100,000 inhabitants. The infant and maternal mortality rates in Malawi are 91 per 1,000 live births, and 1,800 per 100,000 births, respectively (CIA World Fact

Book). Life expectancy at birth is 44 years. An estimated 900,000 persons are living with HIV/AIDS with 84,000 deaths recorded in 2003 from the deadly virus. Orphans resulting from these deaths are estimated to be around 300,000 (CIA World Fact Book; Liese, Blanchar, Dussault, 2003). With few healthcare providers in a country with high rates of poverty, food shortage, and illness such as HIV/AIDS, women's and children's health become greatly impacted.

#### African Mothers Health Initiative (AMHI)

The African Mothers Health Initiative was started by Joanne Jorrissen, an American midwife who had been volunteering at a local hospital in Lilongwe, Malawi since 2004. (Excerpts from her experiences were included in the original proposal ) After realizing the greater needs of the community and receiving donations from people who read her on-line blog ([www.babycatcher.com](http://www.babycatcher.com)), she began various community projects including: 1) provision of formula for infants of mothers who had died in childbirth or were too ill to breastfeed; 2) a feeding program for older orphans of mothers or parents who had died from HIV/AIDS; and 3) a postpartum home visit program for HIV women or women who had pregnancy related illnesses (AWHI, <http://africanmothers.org/>). It was the inspiration of Ms. Jorrissen and her plight to further assist the community she lived in that prompted the idea of bringing future USF nursing students to participate in her endeavors. A report on the findings from the trip follows.

#### Needs Assessment

This assessment was based on visits to the surrounding community and Bottom Hospital. Audio recorded interviews with Joanne Jorrissen, the midwife who started the

African Mothers Health Initiative and her main employee, Beatrice Namalayo were also conducted to obtain their perspective of the community needs.

### *Bottom Hospital*

I had the opportunity to volunteer at Bottom Hospital which is the district maternity hospital for the greater Lilongwe area. An average of 12,000 deliveries occur each year, a burden barely able to be accommodated by staff. The ratio of laboring women to nurses often is 10:1. There are two antepartum rooms for women in early labor; a “blood pressure” room; an intrapartum room that women move to when in active labor and ready to deliver; one operating room; and a nursery. Doctors and midwives from around the world volunteer at Bottom hospital since well trained healthcare providers are sparse in Malawi. To follow are some accounts of a day in Bottom Hospital. The first describes the sights upon approaching and entering the hospital.

Dirt roads lead up to the campus slightly wet from the recent rains. People scatter about around the buildings. Children run bottomless weaving in between the women sitting under trees. Their colorful garb contrast the bleak buildings. We enter the maternity building blinded by the darkness and struck by the mixture of rank chlorinated wetness from the freshly washed floors. The narrow hall dons posters on the walls reminding pregnant women who are HIV positive to take ARV medications. Others encourage fathers to become involved with their new families. To the right is a room with six beds mostly all blanketed not by bed sheets but by suitcases and bags of personal belongings. Women lie on some of the beds. We enter the intrapartum and delivery room. In front is the nursing station lined with cabinets, a sink on either side, a chair or two, multiple papers scattered about, boxes of plastic gloves, and drawers of various medications, syringes, alcohol swabs, etc. A few beds to the right behind a ripped plastic curtain appear to be empty. To the left three to four beds some separated by the plastic curtains, line the sidewalls. Three women occupy the beds on the left, one on the right. Black plastic cover the mattresses occupied by the women. They lie half covered by the chichengwas (native cloths) they have brought with them (Field notes, Dec. 2007).

While Joanne and I assessed a woman in preterm labor and gave her some medication, the nurse requested our assistance in finding a fetal heart rate of a woman in active labor. I left Joanne with the preterm laborer and went over to help the nurse. The following is an account of the subsequent minutes.

I pass behind the curtain and sight the nurse at a woman's side. Between the mother's spread legs, a floppy blue baby lies lifeless with no effort to breathe in a pool of fluid and blood. The nurse is cutting the cord. With shock in my voice, I ask, "Is it dead?" Calmly, she answers, "No, I think it has a heart rate." Wrapping the damp baby, I shout over to Joanne to prepare for another resuscitation. The mask is placed firmly against the baby's mouth and Joanne gives a breath. Heart rate is barely 60. I place two fingers firmly between the still chest and begin to push, "one, two, three." Again, Joanne gives a breath; I give three pushes. We continue for awhile until Joanne sends me for some adrenalin. I finally return after scrambling through the *one* drawer of various vials and return to the isolette. "Don't need it now, the heart rate is good," Joanne declares. Still no respiratory effort. I take over bagging until I am met with some gasping resistance. After some time the baby continues to gasp while maintaining the beat of his heart. Maybe only once does he make a sound, eyes remain closed, slight tension returns to his legs. Joanne delivers glucose through the umbilical artery and he remains quiet but breathing and beating. We wrap him and place him in the nursery head to head with another baby on the bed. O2 sat is good. He is left quiet, covered as we wonder of his days to come (Field notes, Dec. 2007).

The day ended with a tour of the rest of the hospital where Joanne pointed out the high risk postpartum ward where eight to ten beds crowded a few rooms each. She shared, "those are the eclampsia rooms," and I noted the sign on the wall, "blood pressure room." She explained that the ward can hold 80 patients with only one nurse caring for them. It was unfathomable to me. Joanne declared matter-of-factly, "Yes, Bottom has 12,000 deliveries a year, and this is how it is." We then walked over to the operating theatre; "one," she said with a sigh, which we both agreed could not possibly handle the burden of the need.

### *Infant Formula Program*

I interviewed Ms. Jorissen about how the infant feeding program began and how it works. This was a recap of the program:

So basically this work out of just my experiences at Bottom when I first came. I think the first part was at . . . when I realized, of course, maternal mortality is so high, and when a mother dies her baby usually dies as well. And if she has a toddler at home that child also dies, because there's not . . . what do you call it? Wet nursing is not practiced just because of HIV, and formula is just very expensive. So most people cannot afford just to buy formula. So the baby pretty much starves. And then the child I think also just dies kind of neglect. So from that then I started buying formula for a few babies. Initially the babies of the mothers who died and the baby survived. Following their families and going to the village and seeing their situation, and kind of supporting them in other ways with a few things that they would need (Interview with J. Jorissen, Dec., 2007).

She continued to share with me that caregivers are supplied with the formula and are taught how to properly prepare it. Formula feeding can be dangerous for infants if it is not properly prepared as it can be contaminated by use of poor water or improper cleaning of bottles, etc. They start the formula provision and teaching at Bottom Hospital, then follow up with home visits to assure continued health of the baby. She shared that very ill mothers are also visited at home to make sure they are recovering okay. She talked a bit about the feeding program for the older children also and the next section will cover details of the community visit where this currently takes place.

### *Community Feeding Program*

I had the honor of visiting the feeding program in a small village outside of the capital city, Lilongwe, called, Kwale with Beatrice Namalayo, a pediatric nurse who oversees the community program. We took about 3 different local busses, which were basically small vans crammed with about 12 persons. She made sure I didn't sit near the

door on the last one since it was held shut with a rope. I audio-recorded Mrs. Namalayo during this journey and asked her some questions about the program. I asked Beatrice why they started in this community and she responded, “Okay, the need was so high, because a lot of people here in the urban area . . . they are dying with HIV, leaving the children without proper care . . . Most of them, they are left with sick grandmothers who cannot take care of them, who cannot feed them” (Interview with B. Namalayo, Dec. 2007). Since AMHI provides formula for babies as well as providing meals for older children, I further inquired about how this takes place. I asked, “So this was both the formula program, and isn’t this also a feeding program for older children, where you’re actually serving them meals?” Her answer and the dialogue that follows explains the program further:

B: Yes. Those older orphans. Most of them . . . they were malnourished. When we started this feeding program they were malnourished. So, in the morning when they’re going to school, they were just going to school with no breakfast and nothing. So we started this feeding program. So, even though it’s three times a week, but at least the porridge is so nutritious. These children . . . now looking health. Yes. Yes.

M: *And what is the porridge? What do they actually feed them?*

B: We pour . . . we pour . . . we mix in corn with the ground nuts, and with the soy beans. So it’s so nutritious. So these children take this . . . and there’s a change in their bodies (Interview with B. Namalayo, Dec. 2007).

We arrived at the community site and the children (about 30 of the 40-60 children who are generally fed) were there waiting for us. The six women who cooked the meals accompanied them. It was not the actual feeding day but the children gathered to greet us. We received the royal welcome with one young boy who shared in English, “We thank you Mister because you have come to see us . . . and God Bless You. Thank You.” This was followed by a couple of very enthusiastic songs, one of which was dedicated to

Joanne. I could only recognize the word, “Joanna,” but tears welled in my eyes when Beatrice explained the song to me. It basically was, “Thank you Joanna for feeding us.” They mimed eating out of a bowl as they sang loudly. I found out later that Joanne had not heard the song yet herself. Beatrice introduced me to the women who ranged in ages, one of whom I was told had HIV but was receiving anti-retro treatment and was doing well. The elder women, barefoot and smiling, shared that they too were grateful for this program as it lessened their burden. They were requesting however, means to build a sheltered area in order to cook because the porridge was made outside in a courtyard over a wood fire. They said it become problematic when it rained.

On the way back, we stopped at a local market where Beatrice was looking for some seeds to start planting crops for the feeding program. She said this was part of the plan to grow their own maize, and raise their own chickens. She also wants to expand the program to work with the widows of the community to build support groups, and deal with general domestic and health issues.

#### *Traditional Birth Attendant (TBA)*

We also visited a local birth attendant who delivers babies in her “birth center,” a four room house made of unbaked brick, cement floors, and a metal roof. Each room, around eight feet by eight feet, served different purposes. The main room housed a cabinet with supplies and a “bush” ambulance—a tricycle with an extended cart to transfer laboring women from the surrounding areas. Two rooms had small cots and both were occupied by women who recently delivered. The other room was for deliveries—no bed, just a cement floor where women would lay upon their black plastic, and a tiny crib in the corner for the newborn to be placed. The TBA pointed to a candle in the corner

and lamented that at night her vision was compromised by the inadequate lighting provided by the candle flame. Later when I asked what her most prominent needs were, she requested means for a bed for women to deliver on, and electricity to be brought to her clinic.

I asked her many questions about her work and how she prevents and deals with complications. She shared that the ministry of health mandates that she not deliver women who are having their first baby nor those who are delivering their fourth or greater. When I asked about pre-eclampsia (a condition of increased blood pressure), she denied have the means to take blood pressures but said that she just “knew” when the women were “sick” and would send them to the hospital to deliver. She receives around \$5.00 for each delivery and that’s not all the time. Many cannot afford that, she said, but she never turns people away. I was told that women prefer delivering with her because they feel they get more personal attention than they would at the hospital and that she cooks for them afterwards. At Bottom Hospital, caregivers need to accompany the delivering woman to attend to her and bring food to her.

#### Future Partnership (Visits by USF Student Nurses)

A future partnership between USF and AMHI was explored to determine the feasibility of visits by USF student nurses. During the interview with Ms. Jorissen, I asked specifically how she envisioned such an endeavor. The following is an excerpt from her response:

I would see more like public health nursing... doing home visits to babies and moms, or doing post-natal checks at home... Or even doing the feeding program and doing weight checks and making some sort of assessments that way... To do teaching or... I mean there’s a nutritionist who’s American. She’s been here ten years. And she does a lot of outreach and goes into the communities and talks to people about how to improve

their nutrition using local foods and whatever, so, I am hoping that we can also integrate some of her practices and her knowledge into our programs. So I think assisting in those ... issues. But I think definitely there's a lot of nutrition issues here. So I think there would be opportunities as well (Interview with J. Jorissen, Dec.2007).

Ms. Jorissen did not think that rotations through Bottom Hospital would work well since she felt that there was very little supervision and that generally there are a lot of local students (nurses and health officers) who are frequently there. However, this potential could be explored further to perhaps at least have a day where students may shadow or observe at the hospital. To summarize the possible activities that student nurses could participate in, they would:

- 1) conduct activities in a public health nurse role
- 2) visit villages around greater Lilongwe, and small communities within the city
- 3) do health and growth assessments on older children (including weight checks)
- 4) visit mothers and/or babies in the homes to conduct assessments and reinforce proper formula preparation
- 5) conduct nutritional education

Barriers to this include the need for an interpreter (Chichewa is the main language), and approval from the National Nurse and Midwife Council. Mrs. Namalayo speaks English and Chichewa and she would serve as the main interpreter. Some preparation in the language could be achieved prior to the trip.

#### *Travel and Housing*

Air travel is probably the most prohibitive of the logistics. Estimated airfare ranges from \$1600 to \$2000 round trip from San Francisco to Lilongwe. Depending on when airfare is booked, the price could even be a bit higher.

Housing would be one of the easier logistics to accommodate. There are a couple of youth hostels in the area where a group can stay in dorm-like rooms. The price is around \$6-10 per day depending on how many share the room. Meals can also be provided at a reasonable price. Local food such as chicken, maize, vegetables and fruit are reasonably inexpensive. Another option here is to sub-lease a whole house. It would be more feasible during January when many ex-pats go home to their native countries for the holidays.

### Raising Awareness

The third goal of this proposal was to raise awareness of the social justice issues and health status of the people of Malawi. It is important to pique the interest of students who are in the formative years of their young adulthood. Student nurses are beginning to explore which areas of nursing they would like to continue in after they graduate. Exposure to the global world and the needs of the global community may be just the spark that some students need to potentially pursue a future career in international service work. Healthcare providers are needed around the world; therefore raising awareness of the needs of people, especially those who live in developing countries may inspire future USF nurses to continue the Jesuit mission of USF.

A powerpoint presentation of Malawi and the African Mothers Health Initiative was given at the USF Nursing Student Multicultural Interest Group on Monday, April 21, 2008. (Please see Appendices B and C.) A generous reception was received by faculty and students with many students expressing interest in future trips to Malawi.

As the advisor to Sigma Tai, the Nursing Sorority, I have suggested that future fund raising efforts conducted by the sorority could potentially focus on the African

Mothers Health Initiative. This idea was received well by the president and vice president alike.

### Conclusion

It is clear that a future partnership between USF School of Nursing and the African Mothers Health Initiative could be feasible. There is a need in the greater Malawian community and there is an enthusiastic interest of USF nursing students. The main obstacle perceived at this point in time would be airfare cost. It is my understanding that Dr. Walsh had received an outside grant to fund her biannual trips to Guatemala and this indeed is an option for trips to Malawi. However, the cost may limit the number of students that could go or the amount of visits a grant could cover. This should not be an utter deterrent but more as a realistic consideration. Future grantors will need to be investigated.

## References

CIA World Fact Book. On-line Resource. Accessed February 22, 2008.

<https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html#Geo>

Jorissen, J., Babycatcher Blog <http://babycatching.blogspot.com> African Mothers Health Initiative. <http://africanmothers.org/> On-line Resources. Accessed November 4, 2007

Liese, B., Blancher, N., Dussault, G. (2003). Background paper. The human resource crisis in health services in Sub-Saharan Africa. On-line Resource. Accessed March 14, 2008.

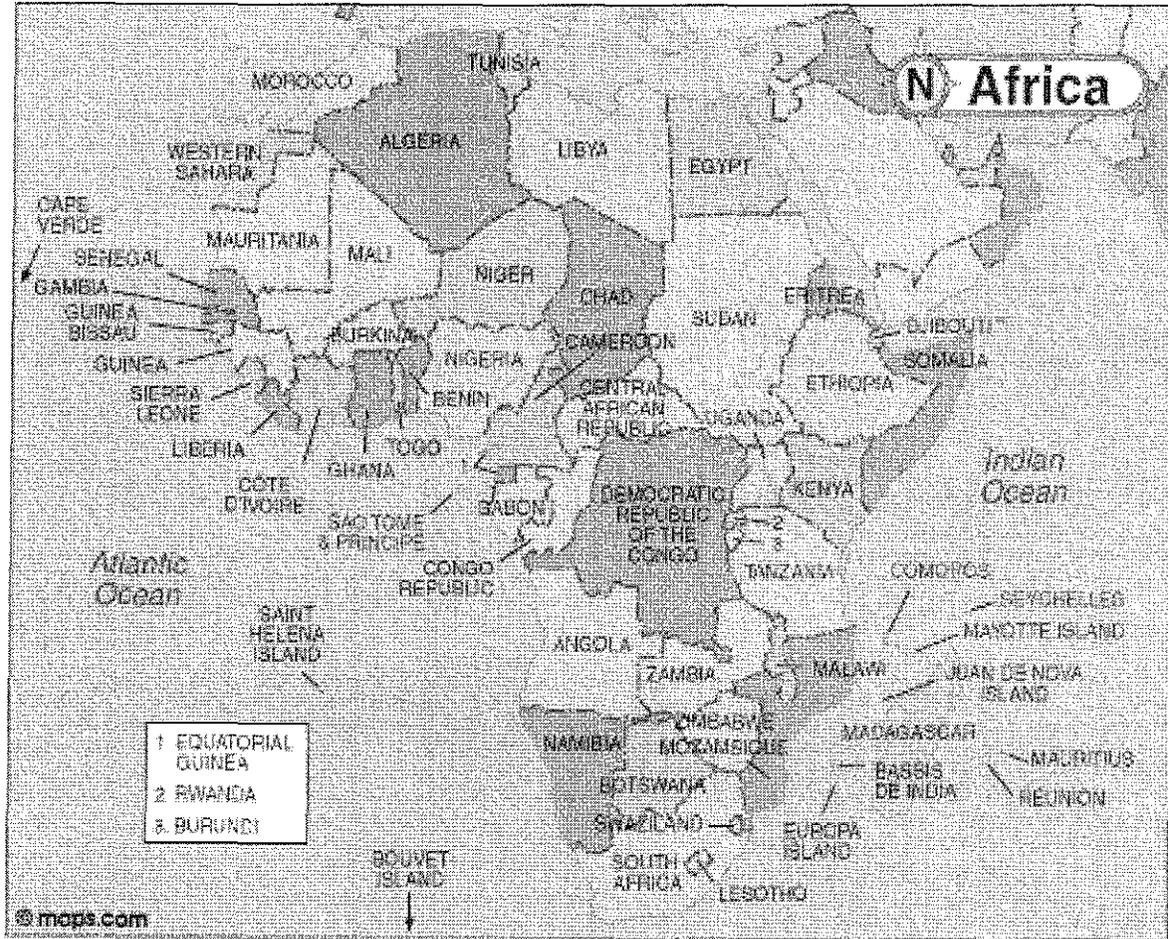
[http://citeseer.ist.psu.edu/cache/papers/cs/31265/http:zSzzSzecon.worldbank.org/SzfileszSz30373\\_29\\_Bernhard\\_Liese\\_The\\_Human\\_Resource\\_Crisis\\_in\\_Health\\_Ser.pdf/background-paper-the-human.pdf](http://citeseer.ist.psu.edu/cache/papers/cs/31265/http:zSzzSzecon.worldbank.org/SzfileszSz30373_29_Bernhard_Liese_The_Human_Resource_Crisis_in_Health_Ser.pdf/background-paper-the-human.pdf)

Malawi Association of Christian Support. On-line Resource. Accessed March 17, 2008.

[http://www.malawimacs.org/facts\\_famine.htm](http://www.malawimacs.org/facts_famine.htm)

# Appendices

## Appendix A. Maps of Africa and Malawi





**USF  
Nursing Student  
Multicultural Interest  
Group**

***Celebrate Diversity in the School of Nursing!***

**Please join us for  
a special event**

**Distinguished Speakers:**

**Dr. Linda Walsh  
Guatemala Immersion Program  
San Lucas Tollman, Guatemala**

**Dr. Marcianna Nosek  
African Mothers Health Initiative  
Malawi, Africa**

**Date: Monday, April 21st, 2008**

**Time: 12 noon to 1 PM**

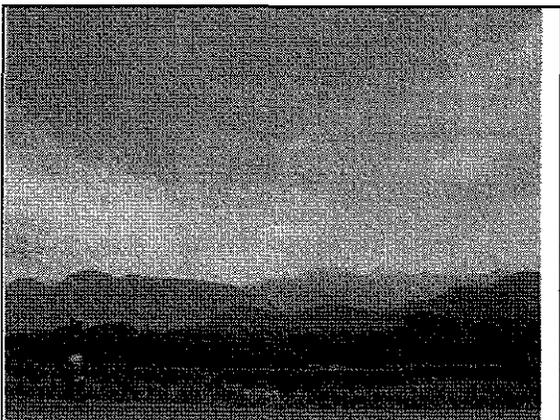
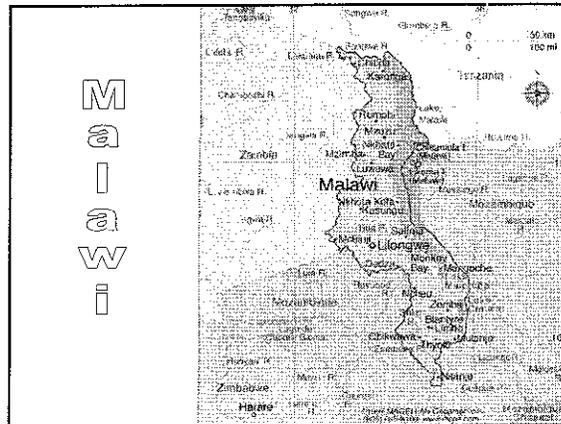
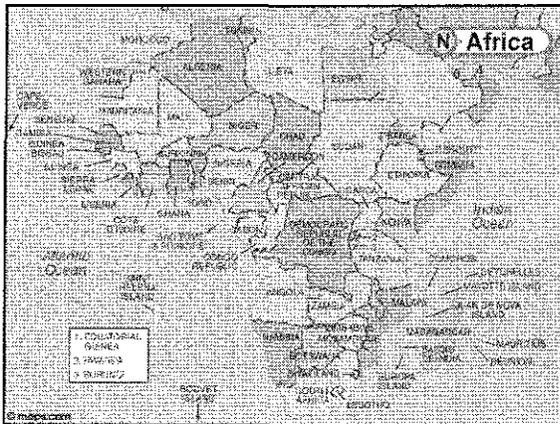
**Place: Cowell 223**

Appendix C. PowerPoint Presentation Handout

**African Mothers Health Initiative:  
Future USF Partnership of Social Justice and Community Health?**

**Project Purpose**

- 1) Conduct a Needs Assessment of the Malawian community that the African Mothers Health Initiative (AMHI) serves
- 2) Explore a Partnership or Liaison with AMHI
- 3) Raise Awareness of the health status of the women and infants living in communities of Lilongwe, Malawi and related social justice issues



**Malawi Facts**

- **Total area:** 118,480 sq km (land area: 94,080 sq km)
- **Comparative area:** size of Pennsylvania
- **Official languages:** English and Chichewa
- **Per capita GDP:** \$700 (2007 World Bank)
- **Capital City -** Lilongwe
- **Population:** 14 million (July 2008 est)
- **Population living below poverty line:** 53% (2004)
- **Literacy rate:** 63% (m: 76%; f: 50%, 2003 est )
- **Agricultural exports:** tobacco 53%, tea, sugar, cotton, coffee, peanuts, wood products, apparel
- **External debt:** 42.2% of GDP (2007 est.)  
(CIA World Fact Book)

## Famine/Poverty

- One of the **most food-insecure** countries in the world.
- Almost **50% of children** under the age of five are stunted as a result of **chronic malnutrition**
- **Highest population densities** in Africa: in Zambia there are 12 people per square kilometer, in Zimbabwe 30, in **Malawi 113**.

## Reasons for Famine

- **Weather**
- **Shortage of land**
- **Lack of irrigation**
- **Mismanagement of the economy**
- **HIV/AIDS**
- **Human greed**
- **Price hikes**
- **Fall in real income**



## Health Facts

- **Infant mortality rate:** 91 per 1000 live births
- **Maternal mortality rate:** 1,800 per 100,000
- **Life expectancy:** 44
- **Total fertility rate:** 5.7 children born per woman
- **Number of doctors:** 2 per 100,000
- **Number of nurses:** 56.4 per 100,000
- **People living with HIV/AIDS:** 900,000
- **HIV seroprevalence:** 14.2 (2003 est)
- **Deaths from HIV/AIDS:** 84,000 (2003 est)

CIA World Fact Book: Liese Blanchard Dussault 2003



## African Mothers Health Initiative



## Future USF Partnership ?

- Meet with Ms. Jorissen to discuss details and feasibility of a USF/AWHI
- Visit Bottom Hospital in Lilongwe
- Visit community projects
- Visit greater community that AWHI serves
- Interview Ms. Jorissen about her experiences and future vision

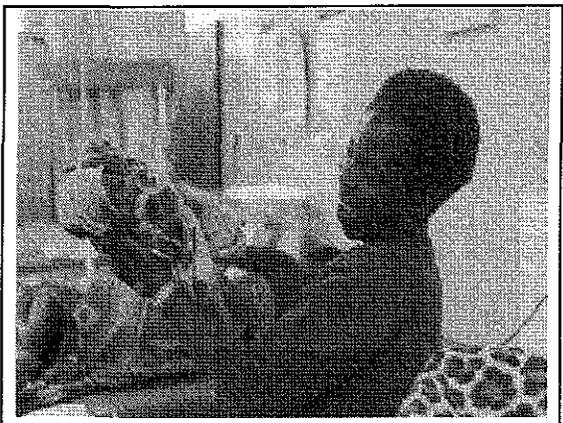


Joanne Jorissen, CNM

(Blog: Babycatcher <http://babycatching.blogspot.com> )

## Bottom Hospital

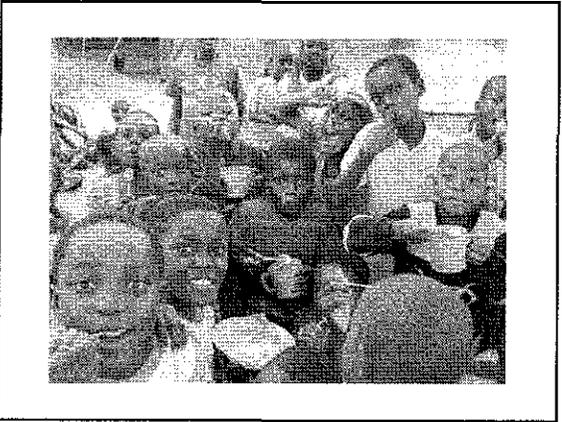
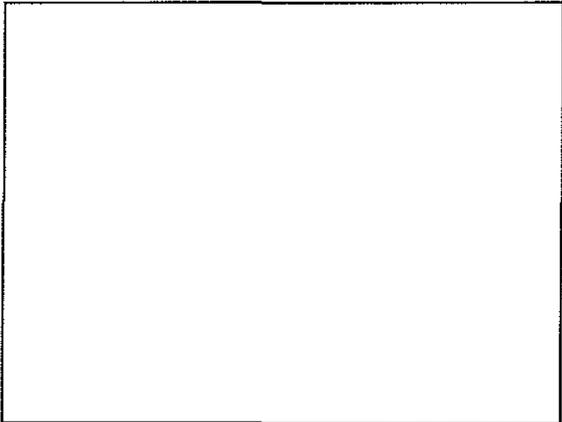
- District maternity hospital
- 12,000 deliveries per year
  - laboring women to nurse ratio 10:1
- Antepartum, intrapartum, postpartum, nursery, one operating room
- “Blood pressure room”
  - 80 patients with only one nurse caring for them



## African Mothers Health Initiative

- Formula for infant orphans
  - Moms who have died in childbirth or so ill their milk dried up
- Home postpartum visits for ill women
- Community feeding program
  - 50 to 80 children. 3 times a week
  - 11 volunteer women (widows grandmothers)
- School fees
  - currently sponsoring 4 secondary school students and 4 college students

<http://africanmothers.org/>





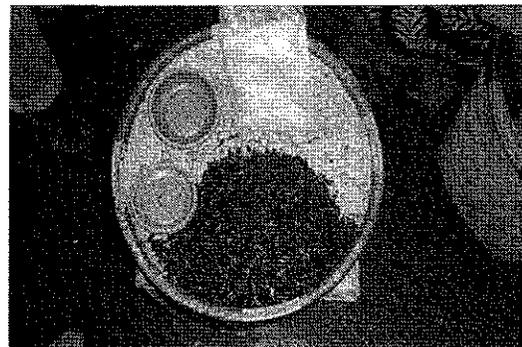
### **Future Visits by Student Nurses**

- Public health nursing/community work
- Home visits to babies and moms
- Weight checks, physical and nutritional assessments with feeding program
- Health and nutrition education in villages and small communities
- Attend births with local TBA



### **Logistics**

- Airfare: ~ \$2000
- Lodging: hostel--\$10 00 per night
- Language barrier
- Approval by Nurse and Midwife Council



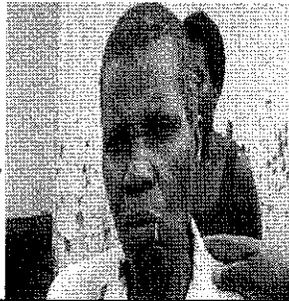
## Needs Assessment

- Nutritional education
- Funding:
  - Shelter for feeding program
  - Formula
  - Seeds for garden project
  - School fees
  - Bed for birthing (TBA)
  - Electricity (TBA)



## Future Vision

- Working with widows of community
  - Building support groups
  - General domestic issues; health issues
  - Garden project to grow own maize raise chickens



## Acknowledgments

USF Jesuit Foundation  
Joanne Jorissen  
Beatrice Namalayo  
Dean Karshmer  
The Wonderful People of Malawi



## References

- 1 CIA World Fact Book. <https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html#Geo>
- 2 Liese, B., Blancher, N., Dussault, G. (2003). Background paper The human resource crisis in health services in Sub-Saharan Africa. [http://siteset1.ist.psu.edu/cache/papers/cs/31265/http%25zzSzecon.worldbank.org%25zfilesz%20373\\_29\\_Bernhard\\_Liese\\_The\\_Human\\_Resource\\_Crisis\\_in\\_Health\\_Ser.pdf/background-paper-the-human.pdf](http://siteset1.ist.psu.edu/cache/papers/cs/31265/http%25zzSzecon.worldbank.org%25zfilesz%20373_29_Bernhard_Liese_The_Human_Resource_Crisis_in_Health_Ser.pdf/background-paper-the-human.pdf)
- 3 Jorissen, J., Babycatcher Blog <http://babycatching.blogspot.com> African Mothers Health Initiative <http://africanmothers.org/>
- 4 Malawi Association of Christian Support [http://www.malawimacs.org/facts\\_famine.htm](http://www.malawimacs.org/facts_famine.htm)
- 5 Music: Joseph Nkasa—Ndifedi Amalawi Malawi Singers; Mtengo mtengo—Lucius Banda (all accessed on Youtube [www.youtube.com](http://www.youtube.com))