

FALL 2004 MIRT NEWS

Multidisciplinary International Research Training Program, 206-543-7559

Research Accomplishments of MIRT 2004

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Thanks to the support from faculty mentors from the UW and from elsewhere in the world, the 2004 MIRT fellows achieved important milestones in several research projects.

This fall 2004 issue highlights several student projects, and the students also reflect on their experiences from the summer.

MEXICO

Benjamin Vazquez

Project Topic: Attitudes toward and Behaviors Relating to HIV in Mexico

Mentor: Ken Morrison, Director, Department of Economics and Politics

UW MIRT Mentor: Dr. Annette Fitzpatrick

Research Synopsis

The objective of this project was to evaluate the effectiveness of HIV/AIDS Diploma course offered to health care and related workers by the National Institute of Public Health of Mexico.

From data collected using questionnaires sent to past participants of different versions of the course, the demographics, knowledge and capacities gained, attitude changes, amount and type work done in HIV/AIDS after the course, as well as satisfaction with the course and recommendations for improvement were assessed.

Among the results found was that an educational course can impact participants' work with HIV/AIDS by increasing their involvement. The comparison between the different versions of the courses also indicated that the short version of the course is almost as effective as the long version; although expansion of program planning may be necessary.

“ My current goals have been influenced by my MIRT experience, for it reaffirmed my interest in public health research”

Post Trip Reflection

“ Going into the experience I expected to learn more about public health research, and that is exactly what I learned. It is fair to say that my expectations were realistic going into the program.

My current goals have been influenced by my MIRT experience, for it reaffirmed my interest in public health research, specifically in the area HIV/AIDS. I'm thankful I had an opportunity to explore my interests.

In the end it was very hard to leave. We had made some great friends, and we had learned so much. Without MIRT, I wouldn't have had such a wonderful opportunity. “



A beautiful scene in Vietnam
Ha long Bay

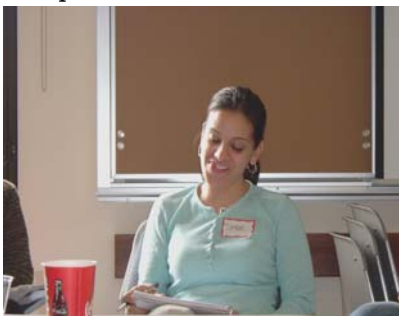


Benjamin Vazquez, Graduate Student, UW

Project Topic: Factors Associated with Sexual Initiation in Early Adolescents.

Mentor: Dr. Aurelio Cruz Director, Investigations of Cardiovascular Disease and Diabetes

UW MIRT Mentor: Dr. Annette Fitzpatrick



Simone Rivera, Graduate Student, UW

Research Synopsis

A multivariate analysis was performed on data from questionnaires completed by 13,293 public-school, male and female students, ages 11-24 in Morelos, Mexico.

Multi-nomial logistic regression was used to compare the associations of the three groups of students (those who had not yet initiated sexual activity, those who initiated in late adolescences (15 or older), and those who initiated sexual activity at 14 years or younger). Demographic, behavioral, and psychological factors were included in the analysis.

The conclusion drawn from the analysis was that risky behaviors are associated with sexual activity of adolescence in Mexico. It also showed that knowledge of HIV/AIDS may help delay sexual activity among Mexican youth. Understanding the factors associated with delayed initiation of sexual activity and improving and expanding education around HIV/AIDS is critical for improving the sexual health of adolescents in Mexico.



Gabriela Saenz, Graduate Student,

Michigan State University

Gabriela Saenz

Project Topic: Predictors of Returning to Mexico in Rural Elderly Migrants to the United States

Mentor: Dr. Nelly Salgado

Director, Community and Social Health

UW MIRT Mentor: Dr. Annette Fitzpatrick

Research Synopsis

The purpose of the study was to access the quality of life and poverty and compare migratory history, social support, and demographic characteristics of migrants to the United States who had returned to Mexico

with migrants who remained in rural areas of Texas. The analysis was performed from questionnaires completed in 2002 by 385 elderly Mexicans who had migrated to the United States.

The study noted that Mexican migrants who stay in the U.S. tend to be more educated, have stronger family support systems, and are able to secure more stable work. Although migrants returning to Mexico appear to have more difficult family relations, they may have strong friendships in Mexico and may have a financial bond with family. These data provide greater understanding of factors involved in U.S.- Mexico migratory patterns in this era when migration to the United States is rapidly increasing.



Cuernavaca, Mexico



Dr. Annette and Benjamin

Kathryn Sinclair & Jose Flores

Project Title: A Survey of Migraine Headaches in Men, Pregnant and Non-pregnant Women in Lima

Mentors: Dr. Julio Perez and Dr. Sixto Sanchez, Dos de Mayo Hospital

UW MIRT Mentor: Dr. Michelle Williams



Kathryn Sinclair, Graduate Student, UW

Research Synopsis

Unlike their colleagues in Mexico and Thailand, MIRT Peru fellows participated in intensive field primary data collection activities.

Kathryn & Jose were involved in a Survey of Migraine Headaches in Men, Pregnant and Non-pregnant Women in Lima.

They participated in the conduct of the first study of migraine headache prevalence and risk factors in Lima, Peru. This pilot and feasibility study was designed to provide preliminary data necessary for designing larger more comprehensive epidemiological studies that will help to inform Peruvian physicians and public health workers about the magnitude of undiagnosed morbidity associated with migraines in Lima.

As of late August the team enrolled and interviewed 270 of 450 subjects. Preliminary analysis performed on the 270 subjects indicated that the prevalence of migraine for the female population attending the outpatient neurology clinic is higher, followed by the male neurology clinic population, and then the pregnant prenatal care population. They will still work on the analysis once they get the full sample size from Dos de Mayo Hospital.

Good luck folks!

Post Trip Reflection

Jose describes his MIRT fellowship experience as follows:

“I went in to the program with very high expectations. I figured that since I had been chosen out of a pool of candidates, that I would be expected to perform at a high academic level and dedication. I felt that in the end, my expectations were realistic and that I put in my best effort. The modes of thinking between me and Peruvians was interesting to notice, but it was never a problem.

Having experiences with patients in which the patient went away happy and satisfied in having helped us in our research. It was very rewarding when patients would ask questions about what we were doing in Lima. When they asked about our research, I felt very happy to explain to them what our intentions were and to get to know them better as people. At times, I would be humbled by their realities such as some families having to rely on a minimum wage of 130 dollars per month. Seeing this made me realize that in the US we don't have it that bad; that people in developing countries such as Peru have to face realities such as poverty and lack of work. “



Jose Flores, Undergraduate student, U of California

“I figured that since I was chosen out of a pool of candidates, that I would be expected to perform at a high academic level and dedication. I felt in the end, my expectations were realistic”



Dr. Sixto, Kathryn, and Jose (Left to right) with an alpaca



Emma Moreno , Graduate Student, UW

Project Title: Validation of Peruvian Food Frequency

Mentor: Dr. Sixto Sanchez
Obstetrician and Researcher,
Dos de Mayo Hospital

UW MIRT Mentor: Dr. Michelle Williams

Research Synopsis

In Peru, there are no validated food intake questionnaires that can be used to assess maternal dietary intake before and during pregnancy. Therefore with this preliminary pilot study Emma's objective is to evaluate the extent to which a newly created Peruvian dietary intake questionnaire can be used to assess reliability and validity of maternal intake during pregnancy.

By the end of August Emma has enrolled and interviewed 113 of 165 pregnant women who were receiving prenatal care at Dos de Mayo Hospital in Lima, Peru. Emma will be doing the validation analysis during this quarter after having all the data.

Post Trip Reflection

"I had a great experience with the program. It provided me with a great International experience, a project that was interesting. It provided me with a great work experience and the understanding of the health system of Peru. Moreover, it allowed me to create a network of UW students and professional in the health area in the USA and Peru.

It also provided me with the opportunity to travel and to reencounter with the Latino culture, it gave the unique opportunity to see myself being able to move comfortably within the two worlds. A real sense of what being bicultural and bilingual really means. "

"It gave me the unique opportunity to see myself being able to move comfortably within the two worlds. A real sense of what bilingual and bicultural means"



Courtyard at Machu Picchu



Jose and Kathryn going to Huayna Picchu... Keep going!



Looking over Machu Picchu

The Thailand fellows analyzed data and wrote manuscripts that summarizes findings from epidemiological studies that were recently completed in Harare, Zimbabwe. In addition, they attended the International AIDS conference in Thailand and completed an introductory Thai Language course.



April Noble, Undergraduate,
Xavier University

Project Topic: Maternal Sexually Transmitted Infections and Other Infections as Risk Factors for Preterm Delivery

UW Mentor: Dr. Michelle Williams

Research Synopsis

The objective of this project was to examine preterm delivery risk in relation to maternal HIV infection, history of malaria, and other infections among Zimbabwean women. This study used a multivariate analysis of a data collected in a cross sectional study of pregnant women who delivered at the Harare Maternal Hospital in Harare, Zimbabwe during July 1998 through March 1999.

From overall analysis of the data, it was concluded that maternal non-STD infections, (i.e., tuberculosis, malaria, and chest infections) occurring in the year prior to pregnancy were associated with an increased risk of preterm delivery. Moreover the association of non-sexually transmitted infections and preterm delivery was particularly strong among women who did not use iron supplements during pregnancy.

What does April say about her summer experience?

“My overall experience was overwhelming. I had the opportunity to learn the language, to attend the international AIDS conference and experience the culture which have impacted me. “



Ribka, Chinyere, Linda and April (Left to Right) taking brake at the AIDS conference Hall

“I was able to see the similarities and the differences of the people, and what united them as one.”



Chinyere Ogbonna, Undergraduate,
Johns Hopkins University

Project Topic: Maternal Height, Weight and Mid-Arm Circumference as Predictors of Fetal Growth

UW Mentor: Dr. Michelle Williams

Research Synopsis

This project was to examine relationships between maternal anthropometric measures of obesity of pregnant Zimbabwean women and infant birth size. Logistic regression procedures were used to measure the association between maternal anthropometric measures and low birth weight infant status. Multiple linear regression models were also generated to assess the impact of each maternal anthropometric measure on each index of infant size at birth (i.e. birth weight, length, head circumference, and ponderal index).

The results of this study showed that maternal weight, BMI, and mid-arm circumference were strong indicators of infant size, while maternal height alone was not predictive of infant and women who were heavier at the time of delivery were less likely to have a LBW infant than women who were lighter.

Post Trip Reflection

Chinyere describes her post trip experience as follows

“My expectations were very realistic academically and personally. I think that is why all my expectations were exceeded in this trip. I got to see and do a lot more than I thought I would be able to.

Having the freedom to explore the country in its entirety and go out to local markets and restaurants enhanced the cultural experience and exposed me to different perspectives and lifestyles of the country

I think that was very important in terms of understanding the people and the cultures. I was able to see the similarities and the differences of the people, and what united them as one. I was also able to go to Laos, a neighboring country while I was in the area, with another MIRT fellow and spend three days with her cousins. It was interesting to hear the similarities in the language and compare the two cultures. The most rewarding was learning the language and being able to practice with local Thai people. It made communication easier and I think people really appreciated that we were trying to talk to them in their native language. The biggest challenge was during the AIDS Conference. Trying to do and see as much as you can during a large conference was hard. But in the end it was an amazing experience and I'm happy that it was a part of the MIRT Program.”



**Linda Pham, Undergraduate,
Rice University**

Project Topic: Seroprevalence and Risk Factors of Syphilis Infections in Pregnant Women and Newborns

UW Mentor: Dr. Michelle A. Williams

Research Synopsis

The focus of her research was to present the seroprevalence of syphilis, determine the risk factors and the impacts of syphilis during pregnancy among a cohort of pregnant women. Univariate and multivariate analyses were performed to determine risk factors and measure the impact on pregnancy outcomes of syphilis infection. From the analysis it was concluded that syphilis affects many sub-Saharan countries where effective educational outreach, screening, and treatment should take place to prevent the transmission of this venereal disease, especially among reproductive age and pregnant women.

Post Trip Reflection

How was Linda's experience in the program?

“My academic expectation was met through the crucial data analysis and manuscript writing skill development.

I definitely feel more confident in writing all parts of a research manuscript and to submit it for abstract approval. I am not usually a strong writer, but I worked hard to organize my thoughts to write the manuscript. I was very proud when I finally finished it. On a personal level, I expected to interact more with Thai people and their public health problems.

Learning Thai and getting around independently was a great learning experience on how to communicate with people with limited ability to do so. Before, I had family or friends that showed me around in a foreign country. This time, it was just my friends and I that had to find the places to go and to actually go out and experience it. It was a trial and error process which was very fun overall. We all took initiative to travel to different places and to experience different things in Thailand.”

**“ Now I definitely
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**Ribka Ayana, Undergraduate,
Villanova University**

Project Topic: The Epidemiology of Adverse Pregnancy Outcome

Mentor: Dr. Tu T.T. Phung

Professor, Department of Obstetrics and Gynecology

UW MIRT Mentor: Dr. Michelle Williams

Research Synopsis

The objective of her project was to identify risk factors for pre-term delivery among Zimbabwean women at Harare Maternity Hospital. Data collected for a cross sectional study of pregnant Zimbabwean women at Harare Maternity Hospital was analyzed using univariate and multivariate analysis.

Among the results of the analysis, it was concluded that maternal demographic, behavioral and medical characteristics were significant risk factors for pre-term delivery. And suggested further study with a larger and more diverse sample population is needed to identify additional risk factors and possible targets of intervention that may be relevant for this population.



**Ribka, April, Linda, Chinyere with their
Thai Teacher Mrs. Nareeboon
Rachkeeree (Left to Right)**

Post trip reflection

Ribka said that

“My trip to Thailand was all that I expected and more. I learned a lot, but it was still such a relaxing and fun environment. I happened to love Thailand and the Thai people. The country was beautiful and rich with tradition and culture. It seems impossible to me to go to a place such as Thailand, which is completely different from what I have experience before both by living in the States and in Ethiopia, and leave without, at least, an appreciation for a different way of being. The Thai are a people that adore their royal family, a concept that is foreign to most people and hard to understand for most visitors. However, I believe that, from what I have read and heard from the Thai people during those seven weeks, Thailand may be one of the few countries in the world with a royal family that perhaps is not completely undeserving of this kind of respect and adoration. The royal family seems to genuinely care for the well-being of their people and their country. “

*“ My trip to
Thailand was all
that I expected
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**Golden triangle- a river where the
countries Thailand, Myanmar and
Laos meet**

Lisa Nguyen & Kelly Bui

Project Topic: The Epidemiology of Adverse Pregnancy Outcome

Mentor: Dr. Tu T.T. Phung

Professor, Department of Obstetrics and Gynecology

UW MIRT Mentor: Dr. Michelle Williams



Lisa Nguyen, Undergraduate, UW



Kelly Bui, Undergraduate, UW

Research Synopsis

The Vietnam fellows worked hard on two projects.

In their first project they assessed the risk factors associated with term and preterm low birth weight (LBW) in Thai Nguyen, Vietnam. They performed secondary analysis of data collected from case-control study of the risk factors associated with LBW in the Thai Nguyen province in order to identify and compare the risk factors associated with term and preterm LBW. They analyzed the data using univariate and multiple logistic regression for unadjusted and adjusted odd ratios.

Although term and preterm LBW deliveries arise from different biological mechanisms, their analysis has shown that they share certain etiological determinants including parental unemployment during pregnancy, reduced weight gain, exposure to environmental tobacco smoke, and placental abnormality. They also inferred that the risk factors for term LBW were mostly those that affected the current pregnancy's environment while risk factors for preterm LBW included factors predating the pregnancy that may have predispose the mother for preterm delivery.

“ This experience will contribute to my career by encouraging me to be a doctor that is aware of the greater context of healthcare”

In conclusion, the study suggested that further research is needed to assess biological mechanisms underlying preterm delivery, including the effects of weight gain, nutrition, and socioeconomic status indicators.

The main purpose of their second project was to compare farming and non-farming mothers in Thai Nguyen, Vietnam. Using secondary analysis of cross-sectional study they compared the characteristics of 103 farming and 253 non-farming women in order to identify possible factors that could lead to the differences observed in pregnancy outcomes.

This study's results highlighted the possible factors that may influence the elevated incidence of LBW deliveries among farming women, providing a preliminary direction for the policies and programs which need to be implemented to assist the needs of this unique population.

Post trip reflection

Lisa on her trip experience

“I feel extremely privileged to have gotten the opportunity to be a part of this program in Vietnam. I feel that I was able to learn so much, both scholastically and personally. Working in my parent's homeland, I truly experienced Vietnam to the fullest extent—through food, language, music, work, and my interaction with the people living in town. I was truly able to appreciate my heritage through all of these experiences.

Although I am Vietnamese, I soon realized how westernized my attitudes have become, and I had to learn to adapt to the infrastructure that characterizes this country's work environment as well as social customs. Learning to understand these differences helped to make our work more productive and efficient.

This experience will contribute to my career by encouraging me to be a doctor that is aware of the greater context of healthcare, as I have learned while working in the hospital at Vietnam. It has stretched me to become more understanding, sensitive, and has widened my view of the world—all of which will be beneficial to me in the future.”

Post trip reflection

How about Kelly?

“My overall experience exceeded my expectations. Over two and a half months, I have seen and learned so much about the local culture, how to conduct research and even gained clinical experiences abroad.

I was surprised to observe the cultural differences that existed in the northern region compared to the southern regions of Vietnam. Learning how to immerse myself in the local culture was a huge part of my learning, because it was necessary for us in order to complete our research training successfully. What I saw in Vietnam also allowed me to do a comparison across cultures (the local culture in Vietnam vs. the American culture). It was interesting to be able to observe the differences and how it could potentially result in a cultural clash if one did not know the local culture. This lesson has been valuable, giving me the skills to work with people from diverse backgrounds and in various settings, which is useful to me as an aspiring physician.

Completing the research process from start to finish was an important experience. I really liked having the opportunity to translate the research questionnaire, to learn about related research topics in Vietnamese, and to try to make sense of it by translating some portions to English. Lastly, completing the research papers was a fascinating experience. Doing research on the specific topics at hand, I found very interesting information about Vietnam that piqued my interest.

I was very fortunate to have been given clinical research experiences during this research program. This made the research even more realistic for me, for I saw its clinical implications right before my eyes. I also learned about the financial and medical needs of the hospital and patients in Vietnam, which was what I initially wanted to see. Now I know how I can contribute to the populations in third world countries.”

“This lesson has been valuable, giving me the skills to work with people from diverse backgrounds and in various settings, which is useful to me as an aspiring physician.”



Kelly and Lisa



Riding a boat—Ha Long Bay

Tania Hernandez
MIRT '97 Alumna



Since 1995, MIRT Program has trained 115 students, including the 2004 fellows. In reflecting back on their fellowship experience: what do the alumni say?

Tania Hernandez MIRT '97 Peru Alumna said :

“After 7 years, I still feel that MIRT has been one of the best opportunities to ever knock on my door. I am currently a third year medical student at Lake Erie College of Osteopathic Medicine. I am also working in my own project entitled "Community-based Screening For Diabetes in a Latin/Hispanic Population," with the collaboration of Sea Mar Community Health Center. My goal is to take one year off from medical school and further my research career through a scholarship from the NIH, I will be applying for it this winter. My experience as a MIRT fellow has pointed me in the direction of a career in public health and community medicine, and I will forever be thankful to the people who made this experience possible.”

We wish you best of luck!

**“After 7 years,
I still feel that
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been one of
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MIRT CALENDAR

Let's know where you are

MIRT Program Grant renewal is due on December 15, 2004. Please let us know how you are doing and where you are so that we can report your success in the renewal. If you could take a moment and please send us an email listing your current employment/position. Also tell us about your research activities since MIRT, list of publications and current address so that we may provide an accurate report to NIH about our alumni. Your response will help future fellows .

MIRT Reunion

The MIRT reunion will be scheduled for the 2005-2006 Academic year Updates will come soon.

MIRT 2005

Application Deadline for MIRT 2005 Fellowship is December 15, 2004!

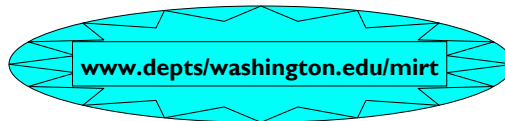
Possible MIRT projects for 2005 are being considered the following sites:

- ◆ Mexico
- ◆ Peru
- ◆ Chile
- ◆ Republic of Georgia
- ◆ Ecuador



MIRT is a national program designed to encourage students from underrepresented groups to pursue careers in biomedical and behavioral research. This program provides support for undergraduates and graduate students to receive research training in an international setting. Conceived and funded by the Fogarty International Center of the National Institutes for Health, the UW MIRT Program has been developed in collaboration with Dillard University and Western Washington University. The program focuses on population-based health research in developing countries and builds on established linkages with academic institutions in Zimbabwe, Vietnam, Thailand, Ecuador, Peru, Argentina and Brazil.

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