Global Health Interprofessional Program  
Summer 2018 - Rwanda

<table>
<thead>
<tr>
<th>Title of Proposed Project</th>
<th>First Assessment of Injection Drug Use Practices and Associated HIV Risks in Kigali, Rwanda</th>
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<tbody>
<tr>
<td>Country</td>
<td>Rwanda</td>
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<tr>
<td>Faculty name</td>
<td>David Riedel, MD, Associate Professor of Medicine</td>
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<td>School</td>
<td>University of Maryland School of Medicine</td>
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<td>Length of trip</td>
<td>3 weeks, starting either the week of July 23rd or July 30th</td>
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<tr>
<td>Number of students</td>
<td>2</td>
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<td>Disciplines of students</td>
<td>Law, Medicine, Nursing, Public Health, Social Work</td>
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<tr>
<td>Estimated student cost</td>
<td>$1600-2400 (depending on housing choice and meal preferences)</td>
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**Background:** Injection drug use (IDU) was one of the earliest risk factors identified for acquisition of HIV infection and it remains an important risk in the United States, Eastern Europe (e.g. Russia), and some South Asian countries (e.g. Thailand). However, IDU is much less frequently recognized in sub-Saharan Africa, yet the true scope of this high risk behavior is not widely known.

One review of adults in 6 sub-Saharan African countries (Egypt, Kenya, Mauritius, Nigeria, South Africa and Tanzania) estimated that 0.2% of the adults were using heroin, approaching the global average [Dewing et al.]. A targeted survey of 480 participants in Mwanza, Tanzania found that 79 (16%) participants reported injecting heroin, while a larger number (434 [90%]) reported smoking heroin. The most commonly injected drug in Africa is heroin, followed by cocaine and “speedball,” a combination of heroin and coke [Adelekan et al.]. According to some reports [Reid], IDU is increasingly common among young adults in sub-Saharan Africa and is associated with high risk sex, thus linking the two high risk behaviors to the concentrated generalized HIV epidemics in the region. IDUs have been identified by the WHO as a Key Population, i.e. one of several groups with high risk behaviors that both have high rates of HIV infection and may serve as a reservoir for new infections in the general population. In Rwanda, no current data exists about the prevalence of this practice or associated risk factors.

Among IDUs in Africa, knowledge about needle sharing and syringe reuse and how these habits may transmit HIV is very limited, which contrasts with the knowledge of IDUs in other countries as well as the more widespread knowledge in the general population of the risk that HIV is transmitted sexually. Demand reduction programs that are based on effective substance use education and drug treatment services are very limited. One of our University of Maryland projects in Kenya has recently initiated a methadone replacement program to assist IDUs with decreasing dependence on injecting drugs. Gaining the knowledge of the scope of the local practices is a critical first step in developing plans to address the problem.
Data obtained from this pilot study is expected to inform the Rwanda national HIV program and lay the foundation for incorporating IDU questions into the next national HIV/AIDS Behavioral Surveillance Survey (BSS), which are carried out in 5-year intervals.

**Project goal:** The main goal for this project is for students to work in an interprofessional and cross-cultural environment to make the first assessment of IDU practices in Rwanda.

The objectives for this project are:

- Complete a review of the literature of IDU in sub-Saharan Africa and its potential association with HIV infection.
- Partner with a team of Rwandan students (medical and nursing) to develop a directed survey to conduct a pilot study at one clinical site in Kigali, Rwanda to ascertain the prevalence and associated behaviors for injection drug use.
- In collaboration with the Rwandan students, write a short study protocol and then seek and gain approval from the Rwanda National Ethics Board and UMB IRB for the study.
- Travel to Rwanda where we will: a) convene the student study team under the guidance of the Rwanda Biomedical Center; b) carry out the survey among all patients visiting Biryogo Health Center in Kigali over 2 weeks; c) build a database and then enter all data from the survey; and d) work with partners in RBC to analyze the data.
- Write up the study results for presentation at an international infectious disease or public health conference and subsequently for publication.

**Student role:** The role of the students is to collaborate to carry out the project. As such, they will be responsible for completing the research training (HIPAA and CITI) required by UMB on their own. They will initiate a literature review on their own and then collaborate to develop a brief survey and study protocol that will then be submitted for approval. After traveling to Rwanda, the students will work together with the partnering Rwandan students to carry out the survey at Biryogo Health Center in Kigali. The students will not have any role in clinical practice during this project.

Dr. Riedel will accept and supervise students who are looking to earn academic credit through this experience.

**Logistics:** While in Kigali, students will have access to transportation around the city and to the clinical sites through IHV’s in-country program’s vehicles and drivers. Housing is an expense students cover and options will be discussed during the first group meeting. Students will work collaboratively through the project with professional students in Rwanda who speak English so language is not expected to be a barrier.

**Pre-departure:**

- **January:** Meeting will cover all the logistical planning for the trip including housing, visa, travel preparation. The group will review details about the project and project expectations. Students will complete the literature review. Partner students in Rwanda will be identified, and a group conference call for introductions will be scheduled.
- **February-March:** The students will develop the survey and write the protocol for submission to the ethics boards in each country, RNEC and UMB IRB. Faculty will meet monthly with students during this time, and students will be responsible for biweekly Skype conference calls with their Rwandan peers.
• **April-May:** Approval of the pilot study protocol. Faculty will meet with students to review travel preparations, housing plans, etc.

• **June:** Last pre-departure meeting to discuss cultural issues, safety, and other pertinent information with respect to Rwanda and the partnering providers.

**References:**


