General Information

a. Semester & Year:	Spring 2020	d. Student Intern:	Kaitlyn Lee
b. Internship start date:	Jan. 21st 2020	e. Internship Site (Organization):	National Institutes of Allergy and Infectious Disease – Office of Global Research
c. Internship end date:	April 30th 2020		
f. Preceptor Name & Credentials:	Nancy Touchette, PhD		
g. Preceptor's Job Title:	Health Research Program & Policy Analyst		
h. Preceptor's Office phone:	301-451-2486	i. Preceptor Email:	ntouchette@niaid.nih.gov

Mission and Services of Organization

The National Institutes of Allergy and Infectious Disease (NIAID) is one of the 27 Institutes and Centers of the NIH. NIAID conducts and supports basic and applied research to better understand, treat, and ultimately prevent infectious, immunologic, and allergic diseases ("Global Research", 2019). NIAID collaborates with researchers and organizations across the globe and provides funding to research and other public health efforts specific to what is most prevalent in each country and region. With infectious disease as a primarily cause of suffering and mortality, global research is integral in discovering treatments and preventions for such diseases. NIAID-funded research is conducted in international settings as a means of understanding infectious disease and immunology in various environmental and social conditions and allows for opportunities to study the effectiveness of investigational drugs and vaccines in populations that vary both genetically and immunologically ("Global Research", 2019). As a result of the international research efforts that stem from NIAID funding, scientists continue to protect the public against infectious disease threats, advance public policy and clinical practices, promote international and political stability, and improve the overall health and wellbeing of individuals around the world.

The Office of Global Research (OGR) lies within NIAID's Office of the Director (OD). OGR facilitates and coordinates international activities and collaborative research programs by working closely with other NIH institutes and centers, the Department of Health and Human Services, U.S. Government agencies as well as foreign government agencies (NIAID Global Research: Improving Health in a Changing World, 2011).

References:

Global Research. (2019, March 21). Retrieved February 4, 2020, from https://www.niaid.nih.gov/research/global-research

NIAID Global Research: Improving Health in a Changing World. (2011). U.S. Department of Health and Human Services, 11–6433, 24.

Intern Goals

1. Gain experience and knowledge around program evaluation in a global health setting.
2. Better understand program evaluation in the context of funding/use of resources (as opposed to program implementation).
3. Further understand epidemiology in a global context and gain knowledge around the most prevalent infectious diseases and the complexities in addressing them.
4. Understand the decision-making process around grant funding.

My fellowship experience in the Office of Global Research will not allow me to reach the goals above but will also be integral in furthering my knowledge and skillset around program evaluation. My site preceptor(s) were generous enough to tailor my projects around my interests as well as my goals for this experience and for my career. A large portion of my efforts here will be dedicated to evaluating various pilot projects in Mongolia which stemmed from NIAID-funded grants. In addition to that, I have and will continue to take on smaller tasks as they arise, all of which force me to learn a lot before beginning. I was

very intentional when choosing a site for this internship experience in that I didn't choose a field I was familiar with or had experience working in. Instead, I chose an unfamiliar environment, in a relatively unfamiliar field, where I would [hopefully] be taking on tasks that I had no prior experience doing. Now that we've established my tasks as a fellow, I believe that this experience will be exceed any expectations I initially had.

Project 1: US-Mongolia Evaluation of Pilot Programs

1.1. Problem Statement

While it is one of the most sparsely populated countries, Mongolia is also home the world's highest rate of liver cancer (HCC) and mortality from the disease. Viral hepatitis, specifically chronic HBV and HCV infections are the most common risk factor for developing hepatocellular carcinoma, which accounts for over 95% of liver cancer cases (Baatarkhuu et al., 2017). In 2017, Mongolian Government approved the Hepatitis Prevention, Control and Elimination (HPCE) plan with the mission of eliminating HCV in Mongolia and significantly reducing liver cirrhosis and mortality cases by 2020 (The Hepatitis Prevention, Control, and Elimination Program in Mongolia | Coalition for Global Hepatitis Elimination, n.d.). In 2015, a symposium was organized in Mongolia as a means of promoting extramural collaboration with scientists in the US to address the viral hepatitis endemic. As a result of this event, six small-scale pilot projects were funded as a means of furthering the efforts of ending the viral hepatitis endemic. My role is to evaluate what has been accomplished as a result of these pilot projects, as well as other subsequent activity proceeding the symposium as a means of determining the possibility of future collaboration with researchers and organizations in Mongolia whose efforts are dedicated towards ending the viral hepatitis endemic.

1.2. Goals

- Determine if extramural collaboration between NIAID and Mongolia should continue in the future by performing a project evaluation for 7 pilot projects.

- Determine whether these small-scale projects led to any additional research to end viral hepatitis, or if they led to any changes in policy.

1.3. Methods

- Utilize QVR (an internal system to search and view detailed information about grant applications and awards) to explore whether the PIs from the pilot programs are continuing their research efforts around viral hepatitis/HCC
- Utilize iSearch: Grants to explore any NIH funded grants between the US and Mongolia as a means of gaining insight as to how the NIAID is currently involved in any ongoing research in Mongolia
- Review final technical reports from CRDF Global, an independent non-profit that provides services to organizations seeking to conduct research collaborations abroad
- Explore current ongoing research efforts in Mongolia pertaining to viral hepatitis outside of internal databases.
- Compile all relevant findings into a formal report
- Compile highlights into a final presentation

1.4. Evaluation

I will know if I have accomplished the identified goals of this project via the feedback I receive during ongoing weekly meetings as well as when I present the findings to the team, but also if my efforts and final report are reflective of those from previous fellows.

1.5 References

1. Baatarkhuu, O., Uugantsetseg, G., Munkh-Orshikh, D., Naranzul, N., Badamjav, S., Tserendagva, D., Amarsanaa, J., & Do Young, K. (2017). Viral Hepatitis and Liver Diseases in Mongolia. Euroasian Journal of Hepato-Gastroenterology, 7(1), 68–72. https://doi.org/10.5005/jp-journals-10018-1215

2. The Hepatitis Prevention, Control, and Elimination Program in Mongolia—Элэг бүтэн Монгол үндэсний хөтөлбөр (National program) | Coalition for Global Hepatitis Elimination. (n.d.). Retrieved February 15, 2020, from https://www.globalhep.org/programs/hepatitis-prevention-control-and-elimination-program-mongolia-eleg-buten-mongol-undesniy

Project 2: Research into Infectious Disease Efforts in Bolivia

2.1. Problem Statement

While there are many emerging infectious diseases in Bolivia, there is very little collaboration between researchers and organizations at NIAID and those in Bolivia. Vectorborne diseases such as malaria(Salud: Bolivia está cada vez más cerca de acabar con la tuberculosis, n.d.), Chagas (Mayta et al., 2019), yellow fever (n.d.) and dengue (acacha.org, n.d.), and other non-vectorborne zoonoses such as Leptospira and Hantavirus (Escalera-Antezana et al., 2020) are only some of the many infectious diseases that impact those who reside in Bolivia and those who travel abroad. Some of these infectious diseases remain non-vaccine preventable, and thus it is necessary to maintain an interdisciplinary collaboration with scientists and organizations globally as a means of preventing recurring outbreaks of emerging and re-emerging diseases. Given the complexities of an interconnected environment, especially in a country like Bolivia where landscapes are undergoing deforestation, and thus minimizing the barriers between wildlife and humans, and where indigenous communities are being forced to uproot as a result of government-funded programs, disease surveillance efforts are fundamental in protecting the health of the public. My role is to delve into any ongoing efforts around emerging and re-emerging infectious diseases in Bolivia, such as contacting and researching the leading scientists in the fields of epidemiology, immunology, virology, pathology, as well as clinical research and vaccine development.

2.2. Goals

- Write a white paper on Bolivia

- Gain knowledge around the most prevalent infectious disease in Bolivia
- Identify potential collaboration opportunities between NIAID's intramural scientists and those in Bolivia
- Increase collaboration with scientists and organizations in Bolivia that address infectious disease

2.3. Methods

- Explore recent/relevant literature as a means of identifying the most prevalent infectious diseases in Bolivia as well as who is prominent in infectious disease research in Bolivia and in surrounding areas
- Identify centers/laboratories whose efforts are dedicated to furthering research in the realm of infectious disease
- Connect with personal contacts from my abroad experience to better understand the ongoing efforts around zoonoses but also to establish other points of contact
- Compile all relevant findings into a white paper
- Compile relevant highlights into final presentation

2.4. Evaluation

I will know if I have accomplished the identified goals of this project if the OGR team feels they have valuable insight into the most prevalent infectious diseases in Bolivia as well as the organizations/laboratories /scientists whose efforts are addressing these diseases.

2.5 References

1. acacha.org, S. T. B.-. (n.d.). Adminlte-laravel. Retrieved March 9, 2020, from http://demo.adminlte.acacha.org/

2. Escalera-Antezana, J. P., Torrez-Fernandez, R., Montalvan-Plata, D., Montenegro-Narváez, C. M., Aviles-Sarmiento, J. L., Alvarado-Arnez, L. E., Bonilla-Aldana, D. K., & Rodríguez-Morales, A. J. (2020).

Orthohantavirus pulmonary syndrome in Santa Cruz and Tarija, Bolivia, 2018. International Journal of Infectious Diseases, 90, 145–150. https://doi.org/10.1016/j.ijid.2019.10.021

3. Mayta, H., Romero, Y. K., Pando, A., Verastegui, M., Tinajeros, F., Bozo, R., Henderson-Frost, J., Colanzi, R., Flores, J., Lerner, R., Bern, C., Gilman, R. H., & Chagas Working Group in Perú and Bolivia. (2019). Improved DNA extraction technique from clot for the diagnosis of Chagas disease. PLoS Neglected Tropical Diseases, 13(1), e0007024. https://doi.org/10.1371/journal.pntd.0007024

4. Salud: Bolivia está cada vez más cerca de acabar con la tuberculosis. (n.d.). Retrieved March 9, 2020, from https://www.minsalud.gob.bo/3234-salud-bolivia-esta-cada-vez-mas-cerca-de-acabar-con-la-tuberculosis

Project 3: WHO Collaboration Organization System Development

3.1. Problem Statement

When an infectious disease outbreak occurs, the NIH remains one of the last research agencies to access samples and obtain information around the event. This then leads to missed opportunities to perform valuable clinical research and collaborate with other organizations who respond to and contain disease outbreaks. To enhance the involvement to NIAID's intramural scientists during the initial investigation of outbreaks, a NIAID-WHO collaboration center was proposed and has since been approved. The goal of the NIAID-WHO Collaboration on Emerging Infectious Diseases is to enhance collaboration between NIAID and WHO on emerging and epidemic-prone diseases. In the midst of establishing a collaborating center of this caliber, it is necessary to remain organized as a means of complying with reporting requirements, maximizing productivity and avoiding duplicate efforts. My role in this is to address the workflow aspect, which means establishing a system to organize requests, assign tasks (i.e. to the appropriate intramural labs) and track progress on proposed activities and deliverables. The system must be a well-documented one which complies with WHOs reporting requirements.

3.2. Goals

- Establish a sharepoint site for the WHO Collaborating Center
    - Sustain an organized workflow throughout the developmental stages of the collaborating center
    - Organize international activities within institute for both intra- and extramural tasks/activities via a collaborative tracking system

3.3. Methods

- All workflow organization efforts will occur within SharePoint, which is a collaborative platform for managing and storing documents.
- From the workplan, which is a detailed list of concrete activities and deliverables, create an interactive chart in excel to organize those deliverables and who is accountable for them
- Identify WHO reporting requirements to ensure that (1) all requests and other documentation adheres to WHO's standard, and (2) that formal outcome evaluation can occur
- Develop flow chart for WHO project requests and assignments

- Establish a working group – that when a request comes from WHO, it is referred to the appropriate scientist or location who is best suited to perform the request

3.4. Evaluation

Establishing a tracking system in the SharePoint site that adheres to WHO guidelines, permits an organized workflow, and is reflective of other ongoing projects.

3.5 References

N/A

Appendix: Competency Assessment within UMD SPH MPH Applied Practice Experience

Kaitlyn Lee

MPH – BCH

NIAID – Office of Global Research – Spring 2020

1. Select 3 Foundational Competencies from the MPH Foundational Competencies (listed below – CEPH Criterion D2)

	Competency addressed	Work products/artifacts demonstrating attainment of each competency
1.	Apply epidemiological methods to the breadth of settings and situations in public health practice	Project 2 Research on prevalent infectious diseases in Bolivia and interviewing professionals in the field
2.	Select quantitative and qualitative data collection methods appropriate for a given public health context	Project 1 Observing certain metrics (i.e. grant funding, publications, PIs continued research in the same realm) to evaluate the success of the program and observing public health outcome.
3.	Interpret results of data analysis for public health research, policy or practice	Project 1 Analyzing a combination of final technical reports and other documents pertaining to the pilot projects. (will be included as a piece of the final report and not a separate document)

2. Select 2 Competencies from the MPH Concentration Competencies provided separately by program – (see below CEPH Criterion D4)

	Competency addressed	Work products/artifacts demonstrating attainment of each competency
1.	Identify critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions.	Projects 1 + 2 A list of potential collaborators working in the field of infectious diseases and their current efforts. Included in that list will those I am contacting directly as well as what I learn from them.
2.	Conduct evaluation and research related to behavioral and community health.	Project 1: Mongolia funding evaluation – a final report with all findings compiled.

MPH students must present a minimum of two products or artifacts from their internship activities, but must have products matched to all competencies outlined above demonstrating the attainment of each competency. A single product may serve to demonstrate attainment of multiple competencies.

*Students must organize the required internship documents, products, and related artifacts in a portfolio that is accessible online for instructors.

Signature Page

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Student Intern Date

I have read Kaitlyn's Internship Work Plan and agree work with her toward meeting the work plan's stated objectives.

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Site Supervisor Date

NOTE: Submit the IWP as a word document (for grading purposes), signature page as a pdf (signed hard copy)