

A Community Health Needs Assessment of Horconcos, Honduras
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Clendening Fellowship Proposal
February 13th, 2013

Introduction:

With the support of the Clendening Fellowship, I plan to complete a Community Health Needs Assessment for the communities served by the Blumenschein Clinic in Horconcitos, Honduras. The clinic has identified the need for basic demographic and health information about the population they serve as they explore how they can better serve their patients and their communities. I will collect this information by traveling within the area served by the clinic and administering a standardized, oral survey to a sample of households. I will compile the data I collect into a report that presents an overview of the demographic makeup of the communities served by the clinic. This report will also identify current health needs within the community that the clinic could potentially make the focus of future programs (i.e. sanitation education, improving access to the clinic itself, etc).

Background:

Before I thought of health care in terms of anatomy, physiology, and pathology I thought of it in terms of delivery and disparities, and I thought of it on a global scale. Now that I've had some preliminary experience treating patients at the JayDoc clinic, I see more than ever how good medicine requires a good delivery system.

Prior to my decision to apply to medical school, I was pursuing a career in international aid with a focus on international health, and I hold a B.A. in International Relations and a Master's of Public Administration with a specialization in International Development and Administration. The focus of my Master's degree was international program planning and evaluation, and the project I am proposing makes full use of my training in these arenas. I have already been able to put my skills into professional practice domestically while formulating Quality Assessment measures and procedures for a safety-net clinic in Kansas in the time between completion of my MPA and my entrance into the School of Medicine. However, I have not yet been able to apply my professional training to an international health project such as the one I am proposing.

Although I have not worked in international health abroad, I have experience living, studying, and working abroad in Lebanon, China, and Ecuador. It was in Ecuador, where I spent the better part of a year working as an English teacher, that I learned Spanish. I gained further experience with the language while volunteering and working at a safety-net clinic in Eastern Kansas, where I served in a variety of roles interacting with patients (including as an interpreter). The community needs assessment that I am proposing to carry out in Horconcitos, Honduras will allow me to utilize my training in international evaluation and program planning, my Spanish skills, and my developing perspective as a health care provider. Not only will this project be of substantial utility to the Blumenschein Clinic and its patients, but will provide me with a professional experience that I can build upon when addressing systemic health disparities both domestically and internationally throughout my career.

Description:

I am proposing to undertake a health needs assessment of the communities served by the Blumenschein Clinic, a non-profit primary care clinic in Horconcos, Honduras. The clinic currently has no data regarding the demographic makeup or health status and needs of the communities from which they draw their patient population, and would use this data for their future clinical operations and community health programs.

This project design was modeled after two community health assessments of similar communities in Honduras. The first, conducted in 2008 by the University of Arizona, Salud Juntos, and Cornell University, assessed the health needs of the residents of La Guacamaya, Honduras by administering an oral survey door-to-door to a sample of households in the community (Mohler, et al). The second was a 2009 assessment of the health priorities of mothers in a small village in the same department (province) as Horconcos (Sullivan). Both projects were able to successfully use orally administered surveys conducted by people who were from outside the community (and the country) to collect sufficient data to construct an assessment of the health needs of the local population.

To collect the data for this assessment, I will conduct a door-to-door survey of households in the surrounding communities. The clinic serves an area that contains seven distinct communities, or *aldeas*, and I will travel to each one to collect data. Data collection will likely take several consecutive days per *aldea*, and I plan to return to the Blumenschein Clinic each evening. The survey will be conducted orally in Spanish, and contain questions on basic household demographics, economic indicators, water and sanitation, nutrition, health practices, health conditions, and access to healthcare (a copy of the survey is attached in the appendices of this application). Questions will be asked as they appear on the survey, and the response sheet will contain a list of expected responses to allow for standardized recording and analysis, though responses that deviate from this list will also be recorded. The survey will also contain items for observational data that I will collect, such as the presence/location of a latrine on the property.

Clinic staff estimates that the seven *aldeas* in total contain about 800 households of an average of 6 persons each. Because the number of households is an estimate provided by clinic staff, and because there is no information on the number of households in each individual *aldea*, the number of households to be interviewed in each will be determined upon arrival. To conserve time, I plan to approach every third household. This will allow me to interview a sample of households that is spread out geographically. If a household does not answer, I will proceed to the neighboring one, but subsequently return to the original numbering. If the staff estimate of 800 households is accurate, this would mean that I would ultimately interview about 267 households, or about 38 each week for seven weeks. Assuming each interview takes about half an hour, and accounting for travel time, this appears to be a realistic goal.

Upon reaching a house, I will explain that I am there to collect information about the communities of Horconcos and their needs on behalf of the Blumenschein clinic. I will explain that their individual information will never be used, that I will not be recording their names, and that the data I collect will be reported in aggregate only. I will then ask that they sign a form indicating that they understand this.

The final product of this project will be a compiled report with the quantitative and qualitative results of my assessment. In it, I will present both the results of my survey as well as an analysis of the data in which I identify the key needs of the communities. In addition to this final report, I will formulate a list of recommended objectives (goals) on which the clinic could focus its future program planning. For example, if I find that 70% of households drink untreated water, I might recommend that the clinic make it a goal to increase the proportion of households that consume water from a safe source to 40% in five years. These objectives will be presented along with the method of measurement (i.e, the percentage of households that report drinking water from a safe source in an orally conducted survey) and possible programs the clinic could implement to focus on this need.

I plan to arrive during the second week of June and remain in Honduras through the last week of July. Throughout the first seven weeks I will travel (via bus or on foot, or a combination of both) to each of the seven *aldeas* and conduct the surveys. After the completion of the surveys in each *aldea* each week, I will spend some time shadowing providers at the clinic to get a better sense of their operations in order to better formulate recommendations in my final report. I will use the eighth and final week to compile the final copy of my report and recommendations and present it to the clinic's administration.

Methods:

Throughout the formulation of this proposal, I have been in contact with Dr. Pamela Stewart, a Garden City-based physician who runs a recently organized clinical elective at the Blumenschein Clinic and who herself volunteers at the clinic regularly. It was she who helped me craft a project that would speak not only to my own interests, but would also serve the current needs of the clinic. If my proposal is selected for the Clendening, Dr. Stewart would continue to be my main contact at the clinic as I make plans for my time in Honduras. Please see Appendix II for a email from Dr. Stewart reflecting her approval of this application.

I will travel to Horconcos, Honduras, where the clinic is located, by first flying into the airport in San Pedro Sula. From there I will travel the 2 hours to Horconcos via transportation provided by the clinic. The Blumenschein Clinic regularly hosts volunteers and students, and provides room and board at the compound where the clinic is located (La Buena Fe) for \$700 each month. The dorms have power and internet, which will allow me to work on my project on my computer in the evenings.

My methods of transportation when administering the surveys will vary, depending on the remoteness of each *aldea*. I will use a combination of public transportation and travel on foot,

the same as any local resident would use. Due to the constraints of printing/copying resources in country, I will plan to bring a sufficient number of copies of the survey with me from the United States. Due to the nature of my project, I will apply for IRB exempt status from the KU Human Subjects Committee prior to leaving for Honduras.

Budget:

Airfare **\$585.90**
R/T from Kansas City to San Pedro Sula, Honduras. Based on search at STATravel.com.

Room/Board/Transportation to and from Airport **\$1400**
The Blumenschein Clinic regularly hosts volunteers and provides room, board, and transportation for them for approximately \$700 each month.

Printing/Copying Costs **\$100**

Total **\$2085.90**

AIRLINE	DEPART	ARRIVE	DURATION	PRICE
OUTBOUND FLIGHT				
	KANSAS CITY, MO (MCI) Mon 03 Jun 6.00AM	SAN PEDRO SULA, HONDURAS (SAP) Mon 03 Jun 6.55PM	2 STOPS 13h 55m	1 SEAT(S) LEFT! \$585.90 ⓘ Per person incl. taxes & fees \$585.90 for all travelers RESTRICTIONS APPLY Fare rules Airline Baggage Fee Info
Major Airline Major Airline Major Airline			FLIGHT DETAILS +	SELECT EXCLUSIVE DEAL ★
INBOUND FLIGHT				
	SAN PEDRO SULA, HONDURAS (SAP) Fri 26 Jul 7.20AM	KANSAS CITY, MO (MCI) Fri 26 Jul 8.25PM	2 STOPS 12h 05m	
Major Airline Major Airline Major Airline			FLIGHT DETAILS +	

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Works Cited

Sullivan, Brittney J. "Community Needs Assessment: Villa Soleada, Honduras, Latin America." 2009.

Mohler MJ, D'Huyvetter K, Bigelo R, Heier J, MacKenzie D, Mann S, Moyer D, Rankin N, Reiger S, Rodriguez M, Wagner J, and Weinreich M. "La Guacamaya Community Health Needs Assessment." November, 2008. Arizona Center on Aging, Division of Global Health, University of Arizona.

Appendix I: Survey Questions

This survey is a modified version of the one used in a 2008 community health needs assessment of La Guacamaya, Honduras conducted by a team from the University of Arizona. I am currently in the process of obtaining permission from the PI of this study to use this modified questionnaire. If permission is not obtained I will construct a new set of questions collecting the same information.

Full Citation:

Mohler MJ, D’Huyvetter K, Bigelo R, Heier J, MacKenzie D, Mann S, Moyer D, Rankin N, Reiger S, Rodriguez M, Wagner J, and Weinreich M. “La Guacamaya Community Health Needs Assessment.” November, 2008. Arizona Center on Aging, Division of Global Health, University of Arizona.

Note all external conditions prior to interview:

- Pit latrine Y___ N___
- Pila Y___ N___ If yes, estimated distance from pit latrine ___ meters
- Is Latrine uphill from the water source? Y___ N___
- Approx home size ___meters x ___ meters
- Roofing materials: tin ___ thatch ___ other (name) _____
- Intact window screens and doors Y___ N___
- Housing Material: Adobe ___ Cement ___ Other ___
- Dirt Floor? Yes ___ No ___
- Are discarded tires on or near property? Yes ___ No ___
- Is standing water on or near property? Yes ___ No ___ Other: _____
- Are there animals on property? Yes ___ No ___ Types: _____

How many families live in your aldea?

Family members

Age (head of household, oldest to youngest)	Sex	Relationship to Head of household	Work Y/N	Contribute to Family Income Y/N	Type of work? Farming Manufacturing Home Bus. Service	If >15 yr Able to read/write Y/N	Grade completed

Number of Children:

- Boys ___ Girls ___
- Do they all attend school? Yes ___ No ___
- If no, why not? _____
- Are any family members currently working outside of the country? How Many # _____ Where? _____
- Where does your household receive most of its money? _____

Occupational Exposures

Are any family members regularly exposed to occupational hazards?

- Pesticides
 Burning fields
 Chemicals
 Loud machinery
 Dangerous machinery
 Repetitive motions (sewing, sugar cane cutting, etc)
 Other

Home

Do you:

own this home Y___ N___;

rent this home Y___ N___;

other Y___ N___ (specify)

Water

What kind of water does your family drink?

- Bottled
 Untreated, piped to house
 Untreated, from local source (river, pond)
 Boiled
 Chemically treated
 Other

How do you store your water?

- la pila
 el barril (container)
 Pitcher (el cántaro)
 not stored, obtained only by faucet

Do you ever have no water or have to ration your water? Y___ N___

If yes, why was there a shortage of water? _____

Sanitation

Do you have a:

- Pit Latrine
 Indoor Toilet
 None (free)
 Other _____

How often do you have trouble with sewage disposal?

- Often
 Rarely
 Never

Types of problems:

- 1.
- 2.
- 3.

Garbage disposal

How do you dispose of your garbage? (check all that apply)

- Burn garbage Where? Near home Far from home Other
- Bury garbage
- Take to landfill
- Feed to animals
- Compost for your garden
- Other (specify) _____

Nutrition

Were all of the children in the house nursed? Yes No

How long did you nurse your children? (range) _____ months

Was formula also used? Yes No

Are you currently taking vitamins? Yes No

How many liters of soda does your family drink in a week? _____

Do you ever worry about not having enough to eat? Yes No

If so,

Why? _____

What did your family eat yesterday:

Beans _____ Rice _____

Tortillas _____ Meat _____

Vegetables _____ Fruit _____

Fried foods _____ Desserts _____

Others:

Livestock:

Do you raise animals to eat ? Y N sell? Y N

if yes, check all that apply

Chicken for meat

Chicken for eggs

Pigs

Goats for meat

Goats for milk

Sheep

Cows for meat

Cows for milk

Others: _____

Food Obtainment

Check all that apply:

home vegetable garden?

fruit trees in yard?

community garden plot?

Where do you buy most of your food?

Bodega/soda _____ Supermercado _____ Mercado Abierto _____

How far do you go to buy food? _____

Food Preparation

Check all that apply: Do you have a:

Refrigerator in your home?

Indoor stove

What fuel do you use to cook? (check all that apply)

Wood

Gas

Electric

other _____

Where do you cook? Indoors _____ Outdoors _____

When you're cooking, does the smoke bother you/make you cough? Yes _____ No _____

Arthropod borne disease risk

Are all beds raised off of the floor? Yes _____ No _____

Are there pets who live indoors? Yes _____ No _____ Kind _____ Surveyor inspection Yes _____ No _____

Mosquito-borne diseases

Do you have a bed net?

If so, do all family members use mosquito nets? Yes _____ No _____

Substance abuse:

Does anyone living in the home smoke? No _____, Yes _____ How many _____

If so, do any smoke inside the house? No _____, Yes _____

Does anyone in the house drink? No _____, Yes _____ How many _____ How Frequently _____

Infectious Health Conditions

In the past two years have any household members been told that they have any of the following? 0 if none

Malaria # _____

Dengue Fever # _____

Tuberculosis # _____

Worms # _____

Giardia # _____

Leishmaniasis # _____

Chagas's Disease # _____

Chronic Health Conditions

In the past two years have any household members been told that they have any of the following?) if none

Anemia (tired blood)# _____

High Blood pressure? # _____

Asthma or Chronic Lung Problem # _____

Diabetes # _____

Arthritis # _____

Heart Disease # _____

Obesity # _____ Visual Assessment: Yes _____ No _____

Depression # _____

Other: _____

Other: _____

Other: _____

Are any family members unable to work due to disability # _____

Are any school-age household members unable to attend school due to a disability# _____

In the past two years, has anyone in the household died? # _____ Of what?

Has a member of your household lost a baby within the past five years? Yes___ No___
 Miscarriage ___ Stillborn ___ in the first year of life___

Utilization of Care:

What do you when a family member is sick or injured? _____
 Have you ever heard of the Blumenschein Clinic? Yes___ No___
 Have you ever been to the Blumenschein Clinic? Yes___ No___
 Where was the last family baby born? House___ Hospital___ Other: _____
 Do you have trouble getting the medicine that you need? Yes___ No___
 Where do you get your medicines?
 Where do you usually go when you need medical care? _
 How do you get there? _____

Do you get medical help from curanderos or other natural healers? Y___ N___
 Do you use traditional plants or remedies when you are sick? Y___ N___
 Which ones do you use?

Questions - Spanish

Cuántas familias viven en su aldea?

Miembros de la familia

Edad	Sexo	Relación a la cabeza de la residencia	Trabajo Sí /No	Contribuye al el ingreso de la residencia Si/No	Tipo de Trabajo? Agricultura, Manufactura, Negocio en casa Servicio	Si >15 años puede leer/escribir Sí/No	Grado más alto completado

Numero de Niños:

Niños___ Niñas___
 Todos asisten la escuela? Sí___ No___
 Si no, por qué no?
 Hay algunos miembros de la familia que estan trabajando afuera del pais? Cuantos # _____ Donde? _____
 De donde recibe su familia lo mayor parte del ingreso de la residencia?

Exposiciones Ocupacionales

Hay alguien en la familia que está expuesto regularmente a:

- ___ Pesticidas
- ___ Campos quemados
- ___ Químicos
- ___ Maquinaria ruidosa
- ___ Maquinaria peligrosa
- ___ Movimientos repetitivos
- ___ Otro

La residencia

Es usted el propietario de la residencia? Sí ___ N ___;

Alquila la residencia? Sí ___ N ___;

Otro Sí ___ N ___

Agua

De donde viene su agua potable?

___ Comprado en botella

___ Transportado por cañería, sin tratamiento

___ De un río o un estanque, sin tratamiento

___ Hervido

___ Tratado con químicos

___ Otro

Como almacena su agua?

___ la pila

___ el barril

___ el cántaro

___ No la almacena

Hay algunas veces que no tiene agua o tiene que almacenar su agua? Sí ___ N ___

Si sí, por qué no haría agua? _____

Sanidad

Tiene:

___ Letrina

___ Baño sanitario

___ Nada

___ Other _____

Con que frecuencia tiene problemas con depuración de aguas residuales?

___ A menudo

___ Rara vez

___ Nunca

Tipos de problemas:

1.

2.

3.

Garbage disposal

Cómo dispone de la basura? (marque todo lo que aplica)

___ Quema la basura Donde? Cerca de la casa ___ Lejos de la casa ___ Otro ___

___ Entierra su basura

___ Mandar a un vertedero

___ Dar de comer a animales

___ Usar para fertilizer

___ Otro: _____

Nutrición

Todos los niños mamaron (lactaron)? Sí ___ No ___

Por cuánto tiempo han mamado? _____ meses

Uso fórmula (o pepe)? Sí ___ No ___

Está tomando las vitaminas Sí ___ No ___

Cuanto litros de refresco bebe su familia en una semana? _____

Se preocupa por no tener suficiente para comer? Sí ___ No ___

Porqué? _____

Que comó su familia ayer?

Frijoles _____ Arroz _____

Tortillas _____ Carne _____

Vegetales _____ Frutas _____

Comidas fritas _____ Dulces y postres _____

Otros:

La Cria:

Cria animals para comer? Sí ___ No ___ vender? Sí ___ No ___

Marque todo lo que aplica:

___ Pollo para carne

___ Pollo para huevos

___ Cerdo

___ Chivo para carne

___ Chivo para leche

___ Ovejas

___ Vaca para carne

___ Vaca para leche

___ Otros: _____

Obtención de comida

Marque todo lo que aplica:

___ Tiene un jardín de vegetales

___ Arboles frutales

___ Un jardín communitario

Dónde compra la mayoría de su comida?

En la Bodega _____ El supermecado _____ Mercado abierto _____

A que distancia va a comprar su comida? _____

Preparación de Alimento

Compruebe todo el que aplíquese: Usted tiene a:

___ Refrigerador en su hogar?

___ La estufa de interior expresó?

¿Qué combustible usted utiliza para cocinar? (compruebe todo el que aplíquese)

___ madera

___ propano

___ otro

Enfermedades Transmitidas por Artrópodo

Están elevadas todas las camas del piso? Sí ___ No ___

Viven mascotas dentro de la residencia? Sí ___ No ___

Enfermedades Transmitidas por Mosquitos

Tiene un mosquitero?

De tener uno, todos los miembros de la familia lo utilizan?

Abuso de sustancias

Fuma alguna de las personas que viven en su hogar? Sí ___ No ___ Cuantos ___

De alguna fumar, fuma dentro de la casa? Sí ___ No ___

Bebe alcohol alguna de las personas que viven en su hogar? Sí ___ No ___ Con que frecuencia? _____

Condiciones de la Salud Causadas por Infección

Durante los pasados dos años algún miembro de su hogar ha padecido de lo siguiente? (0 si ninguno)

Malaria #: ___

Dengue #: ___

Tuberculosis #: ___

Gusanos #: ___

Giardia #: ___

Leshmaniasis #: ___

Chagas #: ___

Condiciones Crónicas de la Salud

Durante los pasados dos años algún miembro de su hogar ha padecido de lo siguiente? (0 si ninguno)

Anemia #: ___

Presión alta #: ___

Asma o problemas crónicos de los pulmones #: ___

Diabetes #: ___

Artritis #: ___

Enfermedades del corazón #: ___

Obesidad #: ___

Depresión; #: ___

Otro #: ___

Algún miembro de su familia tuvo que parar de trabajar a causa de algún padecimiento? #: ___

Algún miembro de su familia tuvo que parar de asistir a la escuela por ese padecimiento? #: ___

Durante los pasados dos años algún miembro de su hogar ha muerto? # ___ De que?

Durante los pasados cinco años algún miembro de su hogar ha perdido un bebe? Sí ___ No ___

El aborto: ___ Mortinato: ___

Utilización del Cuidado

Que hace cuando un miembro de la familia está enfermo o herido?

Ha oído de la clínica de Blumenschein? Sí ___ No ___

Ha visitado la clínica de Blumenschein? Sí ___ No ___

Donde nació el último bebé de la familia? Casa ___ Hospital ___ Otro ___

Tiene problemas para obtener la medicina que necesita?

Donde obtiene sus medicinas?

Recibe atención médica de curanderos o algún otro curador natural? Sí ___ No ___

Utiliza plantas tradicionales o remedios caseros cuando está enfermo? Sí ___ No ___

Cuales utiliza?

Appendix II

Below is a screenshot of an email from Dr. Pamela Stewart reflecting her approval of the proposal outlined in this application.

