A Community Health Needs Assessment of Horconcitos, Honduras
Claire Elisabeth Thomas
University of Kansas School of Medicine – Wichita
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 Horconcitos, 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 Horconcitos (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 Horconcitos 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 an email from Dr. Stewart reflecting her approval of this application.

I will travel to Horconcitos, 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 Horconcitos 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:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Airfare</td>
<td>$585.90</td>
</tr>
<tr>
<td>R/T from Kansas City to San Pedro Sula, Honduras. Based on search at STATravel.com.</td>
<td></td>
</tr>
<tr>
<td>Room/Board/Transportation to and from Airport</td>
<td>$1400</td>
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<tr>
<td>The Blumenschein Clinic regularly hosts volunteers and provides room, board, and transportation for them for approximately $700 each month.</td>
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<tr>
<td>Printing/Copying Costs</td>
<td>$100</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$2085.90</strong></td>
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Contacts:

Pamela E. Stewart, M.D., M.S.
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911 N. Main St
Garden City, KS 67846
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Home: 620-275-5811
Cell: 620-271-1276
drpes@me.com
Works Cited


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:

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

<table>
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<tr>
<th>Age</th>
<th>Sex</th>
<th>Relationship to Head of household</th>
<th>Work Y/N</th>
<th>Contribute to Family Income Y/N</th>
<th>Type of work?</th>
<th>If &gt;15 yr Able to read/write Y/N</th>
<th>Grade completed</th>
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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

Cuantas familias viven en su aldea?
Miembros de la familia

<table>
<thead>
<tr>
<th>Edad</th>
<th>Sexo</th>
<th>Relación a la cabeza de la residencia</th>
<th>Trabajo Sí/No</th>
<th>Contribuye al ingreso de la residencia Sí/No</th>
<th>Tipo de Trabajo? Agricultura, Manufactura, Negocio en casa</th>
<th>Si &gt;15 años puede leer/escribir Sí/No</th>
<th>Grado más alto completado</th>
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Numero de Niños:

Niños______ Niñas______
Todos asisten la escuela? Sí__ No_____

Si no, por qué no?
Hay algunos miembros de la familia que están trabajando afuera del país? 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

Cómo almacena su agua?
___ la pila
___ el barril
___ el cántaro
___ No la almacena

Hay algunas veces que no tiene agua or 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 fertilizante
___ 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 comió 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 apliquese: Usted tiene a:
__Refrigerador en su hogar?
__La estufa de interior expresó?

¿Qué combustible usted utiliza para cocinar? (compruebe todo el que apliquese)
__ 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 bebé? 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.

---

Claire Elisabeth Thomas <claireelisabeth.thomas@gmail.com>  Feb 13 (4 days ago)

Hi Dr. Stewart,

I've attached the proposal I was planning to submit for funding for Christina and my work this summer in Honduras. As she mentioned, we have made our proposals very distinct for the purposes of applying for the summer research funding from school, but will be working on both sides of the project together. I hope what I've put together still looks like what you had in mind - please let me know if it does, so I can (with your permission) include your approval in my final application.

Thanks!

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Pamela Stewart  Feb 14 (3 days ago)

Excellent -
Very professional
WOW - you are awesome!!!