

Basic Information

Grant title

Improving Rural Healthcare in Sonora Mexico: Help for today; Model for tomorrow.

Type of Project

Humanitarian Project

Address community needs and produce sustainable, measurable outcomes

Primary Contacts

Name	Club	District	Sponsor	Role
Barbara Kiernan	Catalina (Tucson)	5500	Club	International
Vicente Hernandez Mendez	Navojoa	4100	Club	Host

Committee Members

Host committee

Name	Club	District	Role
André Souza de Amorim	Navojoa	4100	Secondary Contact
Jorge Lam Kordell	Navojoa	4100	Secondary Contact

International committee

Alan Chesser	Catalina (Tucson)	5500	Secondary Contact International
Robert Grady	Catalina (Tucson)	5500	Secondary Contact International
Anita McDonald	Catalina (Tucson)	5500	Secondary Contact International
Maria Elena McElroy	Catalina (Tucson)	5500	Secondary Contact International

Do any of these committee members have potential conflicts of interest?

No

Project Overview

Tell us a little about your project. What are the main objectives of the project, and who will benefit from it?

The purpose of this Global Grant (#1865425) is to improve the infrastructure of rural healthcare in Mexico by increasing the capacity of rural health care facilities to extend medical service, provide training, and support wellness in under-served rural communities in that country. In this particular grant, we will work with the rural health agency Clinica Integral Almas A.C. (hereafter referred to as Clinica Almas) in the town of Alamos (Sonora) as they provide primary and emergency medical services to 7 Guarijio indigenous communities (1600 people) in the remote mountainous area surrounding Alamos. The project encompasses five major components:

- 1) Provide much-needed clinical resources (trained people and equipment) in 4 targeted community "hubs" (encompassing 7 communities) to support wellness, prevent disease, and expedite treatment of injury or illness. The goal is to enable community members to receive immediate care and prevention education for the common challenges threatening the welfare of that particular community. At a minimum, these resources will support a) Rehydration and Sanitation, b) Maternal, Child, Women's Health, c) Quality of Life services (e.g., audiology, vision services), d) Respiratory and Cardiac care, and e) First aid/Trauma.
- 2) Provide professional and vocational field-training to 4 health care "promotoras" (one in each of 4 geographic "hubs") and 14 youth assistants (2 in each of the 7 community encompassed by these "hubs"). These promotoras and assistants will help medical doctors serve the needs of families in these 7 communities with a total population of approximately 1600 people.
- 3) Provide training for all members of each community on how to interact with these resources and maintain their own wellness on a daily basis.
- 4) Provide a culturally and technologically appropriate, cost-effective, and sustainable communication system (e.g., telemedicine) that links the medical team at Clinica Almas with each of these outlying communities.
- 5) Provide Clinica Almas with portable diagnostic equipment for ultrasound, blood analysis, and sensory assessment. Such equipment will enhance and sustain this primary care clinic's capacity to make timely diagnostics and treatment available to the remote rural communities it serves – leading thereby to a significant improvement in morbidity and mortality rates overall. At present, there is a significant delay in providing this life-saving information due to distance, lack of transportation, and backlog in outside laboratories.

A long-term goal of this project is to create a sustainable and replicable model of culturally appropriate healthcare that can provide accessible and individualized care in remote communities throughout Mexico. It models a Medical+Community Health Team that has experience, training, and resources to work together on a continuing basis toward optimal health outcomes. Long after this grant ends, this team will continue working

Areas of Focus

Which area of focus will this project support?

Disease prevention and treatment

Measuring Success

Disease prevention and treatment

Which goals will your activity support?

Improving the capacity of local health care professionals; Promoting disease prevention programs, with the goal of limiting the spread of communicable diseases and reducing the incidences of and complications from non-communicable diseases; Enhancing the health infrastructure of local communities; Educating and mobilizing communities to help prevent the spread of major diseases

How will you measure your project's impact?

Measure	Collection Method	Frequency	Beneficiaries
Number of communities reporting an increase in access to local health facilities	Surveys/questionnaires	Every three months	1-19
Number of individuals reporting better quality of health care services	Surveys/questionnaires	Every three months	50-99
Number of health-focused events	Grant records and reports	Every year	1000-2499
Number of health educational campaigns	Grant records and reports	Every three months	100-499
Number of medical and health professionals trained	Grant records and reports	Every month	1-19

Do you know who will collect information for monitoring and evaluation?

Yes

Name of Individual or Organization

Clinica Integral Almas A.C.

Phone

From US: 619-519-3240 - Dr. Elizabeth Pettit

Email

almas.salud@gmail.com

Address

Juarez 28, C.P. 85760 Alamos, Sonora, Mexico

the Clinic for treatment, but more frequently the medical team goes out to them. It is a long journey with dirt roads and rivers to ford that only rugged 4-wheel drive vehicles (and mules, of course) can negotiate. Nevertheless, the Clinica Almas' medical team does it 2 times every week. One of their outstanding achievements has been to work successfully with indigenous community leaders, members, and local healers in developing this project (see community needs assessment). The staff of this non-profit effort is highly qualified to provide the training and measure the results of the program. With 4 years of service in the Sierra surrounding Alamos, they have gained the confidence of the people living there, and together with community leaders and healers have developed strategies for bringing sustainable healthcare to the region. The medical team has 3 highly qualified doctors, 1 audiologist, and new doctors called "Pasantes" (new docs who have just completed medical school and are required to spend one year serving in rural areas). Cultural sensitivity, experience in providing for and assessing medical needs and education in remote, rural settings along with knowledge of the indigenous language of the Guarijio will support their reliable gathering of data necessary to evaluate this program. In addition, outside evaluators with appropriate experience from Arizona Rotary Clubs will also be used on an annual basis to provide an independent assessment of the program along with its implementation, progress, and outcomes.

Location and Dates

Humanitarian Project

Where will your project take place?

City or town

Seven villages in the Sierra around Alamos: Burapaco, Mochibampo, Mesa Colorada, Guajarai, San Juan, Los Estrados, Colonia Macurawe

Province or

state

Sonora

Country

Mexico

When will your project take place?

2018-10-01 to 2020-09-30

Participants

Cooperating Organizations (Optional)

Name	Website	Location
Clinica Integral Almas CIAM A.C.	https://www.almashealth.org	Juarez 28 Alamos Mexico

Do any committee members have a potential conflict of interest related to a cooperating organization?

No

Why did you choose to partner with this organization and what will its role be?

We chose Clinica Integral Almas, a rural health clinic in Alamos, Sonora, as our medical/training partner because of its close working relationship with the remote areas of indigenous people living around Alamos for over 4 years. They had been working with what is now the host club in Navojoa previously on other projects to

and NGOs) with western medicine. Their doctors and nurses are very knowledgeable and experienced in working in remote areas and the solutions that must be found to barriers of distance, lack of hospitals and doctors nearby, and the scarcity of reliable basic services (e.g., water, electricity, cell towers, transportation) for their communities. They are leaders in this area and well known to the host Rotary club in Navojoa as well as to other Rotary clubs in Obregon, Nogales, Guaymas, etc.

Partners (Optional)

List any other partners that will participate in this project.

Volunteer Travelers (Optional)

No.	Name	Email
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Describe this person's role in the project.

Host sponsor confirmation of volunteer travelers

Rotarian Participants

Describe the role that host Rotarians will have in this project.

The Host Rotary Club of Navojoa will:

- a. Help develop budget; receive and administer funds; provide financial oversight throughout grant.
- b. Prepare financial reports – monthly, quarterly, annually.
- c. Assist in writing progress reports for RI.
- d. Meet, plan, review financials with Clinica Almas and International Club in US
- e. Assist in periodic site visits by Rotarians coming to review grant progress.
- f. Serve as liaison with host district (4100) and governmental entities in Sonora.
- g. Serve as liaison with other clubs in D4100; involve them in support projects involving grant (e.g., hosting visiting Rotarians coming for site visits).

Describe the role that international Rotarians will have in this project.

The International Rotary Club of Catalina (Tucson) will:

- a. Participate in community needs assessment prior to grant by visiting all participating communities in order to assist in planning grant components with community leaders and to assist in planning grant components with medical professionals at Clinica Almas
- 2. Assist Host Club in Navojoa in developing budget and preparing for financial management of grant
- 3. Arrange for Rotarians and external evaluators with appropriate experience to visit, review, evaluate, and support GG efforts.
- 4. Participate fully in writing RI Reports.
- 5. Assist in disseminating information and reports to organizations and governmental agencies involved in Rural Health programs in Mexico.
- 6. Project Coordinator, Barbara Kiernan, Ph.D., along with other Catalina (Tucson) Rotarians will also write articles and give club programs about the project to spread the word about the potential and opportunity for humanitarian Global Grants.

April 15 of 2018, multiple visits by Arizona Rotarians have been made to the communities this grant will serve: Mesa Colorada, Burapaco, Colonia Macurawe, San Juan, Los Estrados, and Guajarai.

Budget

What local currency are you using in your project's budget?

The currency you select should be what you use for a majority of the project's expenses.

Local Currency	U.S. dollar (USD) exchange rate	Currency Set On
MXN	18.5	24/03/2018

What is the budget for this grant?

List each item in your project's budget. Remember that the project's total budget must equal its total funding, which will be calculated in step 9. Every global grant includes a match of at least \$15,000 from The Rotary Foundation's World Fund. Project budgets, including the World Fund match, must be at least \$30,000.

#	Category	Description	Supplier	Cost in MXN	Cost in USD
1	Personnel	4 Workshop Trainers	Clinica Almas	160000	8649
2	Personnel	2 Village Mentor-Trainers	Clinica Almas	160000	8649
3	Personnel	2 evaluator-trainer	Clinica Almas	48000	2595
4	Travel	Gas and Transportation to remote villages	Local gas & transport companies	227651.4	12305
5	Training	Stipends for 4 "promotoras"	Clinica Almas	76800	4151
6	Training	Stipends for 14 Youth Health Assistants	Clinica Almas	100800	5449
7	Training	Training Materials	Clinica Almas	36000	1946
8	Accommodations	Lodging & meals for trainees (promotoras and youth) during workshops in Alamos	Clinica Almas	21600	1168
9	Training	Community trainings - food, supplies, event	Clinica Almas	96000	5189
10	Training	Field training supplies	Clinica Almas	48000	2595
11	Equipment	V-Scan - Fast ultrasound	Amazon Mexico	254328.75	13748
12	Equipment	CBC counter - blood analysis	Amazon Mexico	167294.21	9043

15	Equipment	Audiology Equipment - diagnostic & treatment	Amazon Mexico	148000	8000
16	Equipment	18 Stethoscopes for trainees	Amazon Mexico	2207.80	119
17	Equipment	4 Otoscopes for promotoras	Amazon Mexico	2164.5	117
18	Equipment	7 nebulizers - 1 for each village	Local Vendor	8960	484
19	Equipment	18 blood pressure cuffs for trainees	Local Vendor	6840	370
20	Equipment	4 Oxygen concentrator for promotoras	Amazon Mexico	15151.5	819
21	Equipment	18 thermometers for trainees	Local Vendor	5400	292
22	Equipment	4 water filters/purifiers for promotoras	Amazon Mexico	2164.5	117
23	Equipment	7 Pulsoximeters - measures oxygen levels in blood - 1 for each village	Local Vendor	4893	264
24	Equipment	4 sets of stabilization supplies for promotoras	Local Vendor	1852	100
25	Equipment	4 sets of scales & measures	Local Vendor	11996	648
26	Equipment	4 Fetal Dopplers to measure fetal cardiac frequency for promotoras	Local Vendor	3400	184
27	Equipment	4 Live Cor remote EKG for promotoras	Amazon Mexico	8658	468
28	Equipment	4 android smart phones for promotoras - telemedicine	Local Vendor	12000	649
29	Equipment	2 Multi-Sat ISAVI Mode 2 - telemedicine communication system for 2 villages	Amazon Mexico	54112.5	2925
30	Equipment	7 TelCel Service contracts for 7 villages - minutes for cell phone use for telemedicine calls	Local Vendor	134400	7265
31	Equipment	Solar charging panels & inverter 500 watts; 12 volts - 1 for each area	Amazon Mexico	51948	2808
32	Personnel	Project Manager - 24 mos @	TBD	111000	6000

	management				
34	Project management	Contingency	RI approved use	92500	5000
			Total budget:	2149162	116172

Funding

Tell us about the funding you've secured for your project. We'll use the information you enter here to calculate your maximum possible funding match from the World Fund.

#	Source	Details	Amount (USD)	Support*	Total
1	Cash from Club	E-Club of the Southwest	500.00	25.00	525.00
2	Cash from Club	Prescott-Sunup	500.00	25.00	525.00
3	Cash from Club	Sedona	1,000.00	50.00	1,050.00
4	Cash from Club	Mesa West	1,000.00	50.00	1,050.00
5	Cash from Club	Peoria North	1,000.00	50.00	1,050.00
6	Cash from Club	Tempe South	2,000.00	100.00	2,100.00
7	Cash from Club	Navojoa	10,000.00	500.00	10,500.00
8	District Designated Fund (DDF)	4185	2,500.00	0.00	2,500.00
9	District Designated Fund (DDF)	5495	3,586.00	0.00	3,586.00
10	District Designated Fund (DDF)	4100	2,000.00	0.00	2,000.00
11	District Designated Fund (DDF)	5500	33,500.00	0.00	33,500.00
12	Cash from Club	Kitchener-Conestoga	6,000.00	300.00	6,300.00

*Whenever cash is contributed to the Foundation to help fund a global grant project, an additional 5 percent is applied to help cover the cost of processing these funds. Clubs and districts can receive Paul Harris Fellow recognition points for the additional expense.

How much World Fund money would you like to use on this project?

You may request up to 52,586.00 USD from the World Fund.

52586

Financing subtotal (matched contributions + World Fund): 116,172.00

Total funding: 116,172.00

Total budget: 116,172.00

Sustainability

Humanitarian Projects

Project planning

Describe the community needs that your project will address.

Due to the distances from a city, poor roads (mostly dirt and river beds), and lack of transportation, the remote communities this grant will serve have very little access to healthcare. People generally can't get to Alamos or Navojoa when there is a problem. And local doctors don't go into the mountains. Indeed, other than infrequent and sporadic visits by Social Security - Solidarity mobile health vans that provide vaccinations and occasional medicines, only the Clinica Almas has made a sustained effort to serve these remote indigenous communities. And, even though the doctors from Clinica Almas do go out several times a week to different communities, those doctors are not always present when people get sick. When accidents happen and chronic conditions such as diabetes, arthritis, heart conditions need attending, the patients are often alone. One of the most important things this grant will do is to give each community trained people and equipment to keep itself healthy, even when doctors are not around. In addition, it will provide a culturally appropriate telemedicine communication system that allows trained individuals in each community to talk with doctors when problems first come up, consult on conditions they are not sure about, and get help stabilizing patients so they can be brought to the clinic or hospital. The need for this telemedicine communication system is great, but so are the constraints in selecting one that will work in an area where cell towers are absent and power sources unreliable. To make this system both effective and reliable, a system has been chosen here that will be based on satellite plus smart phone technology powered by solar panels. See below under culturally-appropriate technology for details.

How did your project team identify these needs?

Since 2013, over 1000 patients from Guarijio communities have come to doctors at Clinica Almas, either in the field or at the Clinic, with illnesses and injuries that could have been much more easily managed if they had been seen earlier. Last year alone, two children died of pneumonia for lack a nebulizer and the medicine that it could have provided. One community leader faced an amputated leg at the knee because an untreated injury to his foot had turned to gangrene. And, many children were born without any pre-natal care, with low birthweight and complications the result. All of these things could have been avoided if trained people and appropriate equipment (e.g., nebulizers) and medicine (e.g., Folic acid, vitamins) had been on site.

With these recurring problems, community leaders and healers (who had already developed confidence with Clinic doctors) came to Clinica Almas and discussed what could be done. Together, as monthly indigenous community meetings occurred and individual conversations were held with the medical team at Clinica Almas, the Guarijio communities and doctors began to consider ways their communities could keep themselves healthy even when doctors were not there. Dr. Ted Glatke, an audiologist affiliated with the Clinica Almas, had worked with the Catalina (Tucson) Rotary Club in Arizona and in Guaymas. He suggested that Rotary might help. Given the reputation of Rotary in Sonora and the clinic's previous work on a water harvesting project with the Navojoa R.C., everyone encouraged him to move forward. Upon contacting Dr. Barbara Kiernan, the World Community Service Chair of Catalina Rotary Club, discussions and site visits began as part of a community needs assessment effort. Since that initial contact, many Rotarian visits have occurred as part of that effort. As mentioned above, 12 Arizona Rotarians traveled to Alamos (Jan 12-15), Catalina Rotary Club World Community Service Chair Barbara Kiernan then stayed in Alamos for further assessment (Jan 12 -February 15), and Catalina Rotary incoming (2018-2019) President Robert Grady visited (April

How were members of the benefiting community involved in finding solutions?

Community leaders and healers have been involved from early on in this discussion. Indeed, it has been an ongoing topic of concern at monthly tribal and ejido* meetings. In essence, the Guarijio people and leadership have long recognized their community's health needs and had seen how western medicine could complement their traditional medicine based on plants and herbs. Indeed, Juan Rodriguez Zazueta, the Chief of Police and the Healthcare Representative for the Guarijio Tribe has been working with Dr. Elizabeth Pettit and Dr. Daniel Bernal of Clinica Almas for several years exploring the problem and considering the solution. So have the Guarijio healers, Cornelia and Berta Rodriguez (mother & daughter). Once Rotary became involved, they met with Dr. Kiernan and visiting Rotarians from Arizona when they came for a site visit in January, 2018. After the visiting Rotarians returned to Arizona, Dr. Kiernan remained for a month (until Feb 15) to visit each of the communities. In twice weekly visits to communities, she talk with leaders, healers, and other community members in group discussions and individual interviews. After that month of listening to what the indigenous communities needed and what the communities, Clinica Almas, and Rotary could do together, the 1st draft of the Global Grant presented here was developed. Members of each community were then engaged in community-wide meetings to consider the project. Each village decided that it was something they wanted to do. We have uploaded a picture of that January visit and a village meeting held in Burapaco.

* In Mexico, an ejido is an area of communal land used for agriculture, on which community members individually farm designated parcels and collectively maintain communal holdings and attend to the affairs of the area as participants in land management. This entity meets monthly and is overlapped with tribal authority and rural community members. The tribal authority is respected and consulted for the regional baseline assessment of needs and planning and meets frequently with the ejido & the educational entities as well as any health care resources either public or private to provide sustainable and ongoing care.

How were community members involved in planning the project?

Meetings and oral interviews with community members, leaders, and healers is described above. Together these community leaders and Clinica Almas also identified potential trainees who were interested in and capable of being trained as "Promotoras or Youth Medical Assistants.

Project implementation

1	Purchase Equipment and supplies	October 2018 - February 2017
2	Install Equipment as equipment arrives	October 2018 - February 2019
3	Calibrate, review, & maintain equipment	Monthly upon arrival
4	Train on equipment's use and maintenance -	Included in training sessions
5	4-day workshops for Trainees held at Clinica Almas in Alamos	2 times/grant year in October & April.
6	1-day mentored training in each of 7 villages for Trainees who serve that village	2 times/grant year in November & February
7	1-day community training events provided for all community members in each of 4 areas	2 times/grant year in December & March
8	Administrative meetings of grant team and staff from Clinica Almas	Weekly throughout grant
9	Administrative meetings of Project Manager and CPA providing financial oversight from Navojoa R.C.	October '18 (weekly); November '18 (bi-weekly); December '18 -September '20 (monthly)
10	Progress and Financial Reports for participating Rotary Clubs	Quarterly
11	Progress and Financial Reports for Rotary International	Annually; Final report within 2 months of grant's end
12	Visits by Interested Rotarians will be arranged	Annually
13	External Evaluation and Review - at no cost to Rotary	Annually

Will you work in coordination with any related initiatives in the community?

Yes

Briefly describe the other initiatives and how they relate to this project.

This grant will attempt to support, whenever possible, local health initiatives such as Mobile Medical Vans sent out sporadically by Social Security – Solidarity. This is the state-supported healthcare agency serving people who are not employed or who are part of the informal economy. Their services typically focus on providing vaccinations and providing medicine for chronic conditions such as high blood pressure. Specifically, this grant would work to coordinate training visits and events with mobile van visits to participating indigenous communities. The goal would be to engage doctors and nurses of these state-supported visits in this grant’s health promotion activities, enlisting their support for community healthcare training and pro-active efforts by the community to keep itself healthy.

Please describe the training, community outreach, or educational programs this project will

communities that include 4 promotoras (healthcare promoters) and 14 vinculadores (youth medical assistants) (15 - 17 years of age) who are knowledgeable about disease prevention and can assist doctors in treatment. They will also be trained to use medical and telemedicine communication systems to support the doctor's work in a community and contact him or her when needed. Community-wide training events that focus on prevention and treatment of important health problems confronting them will be available for 1600 community members

Trainees:

Promotoras trained in healthcare, prevention and treatment, have played a significant role in improving health care in many rural areas along the Mexico – Sonora border. (See Loustaunau, M. & Sanchez-Bane, M.J., 1999*). As respected community members, promotoras know the individuals and families in their own area, keep in touch with them, and are on site to note difficulties, answer questions, and contact the doctor for follow-up and care as people become pregnant, sick, or have accidents. In essence, they become the first-line eyes and ears of doctors as they seek to help remote areas of the countryside. Following their 2-year training in this grant, promotoras will have the skills to serve their community, and be eligible to pursue paramedical accreditation through the University of Etchojoa or the Red Cross. Although Trainees will be eligible to work toward a paraprofessional degree, a government or university certificate will not be issued here. Instead, a recognition certificate will be presented by the Clínica Almas to each trainee to acknowledge their successful 2-year training and mentored service learning experience. This will be given at a community meeting and celebration in September of 2020. *Full Citation: Martha Loustaunau (Editor) & Mary Joan Sánchez-Bane, (Editor), 1999, *Life, Death, and In-Between on the US-Mexico Border: Asi es la Vida*. Bergin & Garvey, Westport, Connecticut.

Vinculadores (Youth medical assistants) are 15-17* year-olds who are interested in developing vocational skills in health care. In this grant, they will train with the promotoras, assist them as they work in the communities, and be available to accompany patients, especially the elderly, to hospitals when necessary. As these young people are bilingual in both Spanish and Guarijío, they will help to ensure that patients who speak limited Spanish will understand what is being said to them by the medical staff at the hospital and can adequately communicate what is the problem to the doctors. Once patients are released from the hospital, these youth assistants can continue helping the patient in their communities to follow through on doctor's recommendations for medications, treatment, and follow-up. Following their 2 years of training in this grant, these young people will be eligible to apply for a scholarship to an EMS certificate program at La Universidad Tecnológica de Etchojoa. The scholarship is available from the Host Rotary partner, Club Rotario Navojoa, in this grant. *Note: On June 12, 2015, Mexico amended the Federal Labor Law, adopting the increase in the legal working age from 14 to 15 years old. These youth medical assistants will not be employees, but rather involved in a vocational development program. Their training has been specifically designed so as not to interfere with their school schedules or study requirements. Indeed, the program has been designed to complement their study of science, math, and humanities in school, and inspire young people to develop vocational skills in a country where those skills are very much needed.

Training Materials:

The curriculum for this project has been developed at the Clínica Almas for the population to be trained. It is aligned with the curriculum for paramedics used at La Universidad Tecnológica de Etchojoa and training materials available from the International Red Cross and the Hesperian Society's Health Guides summarized in "When There is No Doctor: A Village Health Care Handbook." Training methods are multi-faceted, including but not limited to observation, supervised hands-on patient-centered experience, hands-on equipment-centered training, case studies, group-based problem solving, and reviewable notes from texts. Materials and methods will be tailored to the learning styles of the trainees and the health needs of the communities. See Training Plan for full details and curricular materials uploaded in Budget section of this grant application.

Training Components:

2. **Training Team:** The doctors at Clinica Almas will be the instructors and mentors in both workshops and mentored service-learning experiences in the Guarijío villages. Dr. Elizabeth Pettit, MD, Executive Medical Director of the clinic, has more than 15 years of teaching experience with undergraduate and graduate students in the area of rural medicine and public health. In recent years, she has also trained and supervised paraprofessional volunteers and new medical doctors (Pasantes) completing their required clinical fellowship year in rural settings. Dr. Daniel Bernal, MD, Medical Director of the clinic and epidemiology specialist, holds a master's degree in Health Sciences with a focus on HIV and infectious disease. In addition, he has spent 4 years training paraprofessionals and Pasantes at the Clínica Almas and is currently an instructor at the Universidad Autónoma de Sinaloa, teaching courses in sexually transmitted diseases. Dr. Ted Glattke, PhD, is a certified audiologist with more than 25 years of research, teaching and supervisory experience with undergraduate and graduate students at the University of Arizona. In recent years, he has also trained audiology technicians in Sonora. All three professionals listed above have multiple publications to their credit. A licensed medical physician, Dr. Ricardo David Barton, MD, will also contribute his in-depth experience in IT and appropriate technology training related to the instrumentation and Telemedicine components of this program. In addition, an MOU signed this year with the Universidad de Sonora will extend clinical-fellowship year training to nutritionists and nurses, and each of these graduate students will be involved in training efforts as part of their professional development. Finally, professionals from the Red Cross in Obregon will also contribute their extensive practical experience in the area of infection, trauma, and emergency medicine.

3. **Workshop Training:** Twice each year of this grant (October and April), the Medical Team at Clinica Almas will provide 4-day workshops at their clinic in Alamos. For these workshops, trainees will be provided transportation to the Clinic and back to their communities (before and after each workshop) as well as room, board, and materials. Intensive hands-on training with prevention, treatment, and follow-up along with the appropriate technology used in any given area will be provided in the following areas. All units will be systematically interwoven with continuity and reinforcing competencies throughout workshops, mentoring sessions, and all other training opportunities (e.g., community trainings and doctor consults). See Training Plan for details of curriculum related to each area.

1. Leadership and community interface
2. Cardio-Respiratory diseases and Diabetes: prevention & treatment
3. Maternal, infant, nutritional, sex education, HIV-AIDS prevention and treatment
4. Quality of Life and the appropriate and sustainable technologies that sustain it (e.g., vision & hearing).
5. Water-borne diseases - prevention and treatment
6. Infection and Trauma – how to prevent, treat, and stabilize for transport to hospital
7. Telemedicine – how and when to use and maintain this equipment.

4. **On-Site Mentoring:** Twice each year of this grant (November and February), there will be formal on-site mentoring sessions for each community. For these on-site trainings, trainers will travel to each of the 7 communities throughout the month. Within any given community, the trainer(s) will spend a day helping promotoras and youth who serve that community apply knowledge and use equipment with patients there. In addition, when doctors are in each community in the normal course of their medical visits, promotoras (and youth, when available) who serve this community will accompany them for further mentoring and service to patients. Moreover, contacts between doctors and promotoras will be involved frequently whenever telecommunication / telemedicine equipment is used.

5. **Community Training Events:** Twice each year of this grant (December and March), all trainers will go to each of the four major "hubs" (Burapaco, Guajarai, Colonia Macurawe, and Los Estrados) to provide training and screening (along with food and entertainment) for all members of surrounding communities. Topics such as prenatal care, control of diabetes and high blood pressure, prevention of heart attacks, etc. will be considered using a number of methodological approaches that are effective in large groups in these communities. Screenings associated with the topic will also be provided. Food and entertainment are included to encourage as many people as possible to attend.

6. **Evaluation of Training:** Although trainers continually provide ongoing probes of progress, more formal evaluations are done monthly by the Medical Team from January to June of each grant year. These occur in

approaches in real time.

7. Training Goals for Trainees: Core competencies. In each of the 6 curriculum topics stated in #2, trainees will be expected to demonstrate the following clinical competencies related to that area.

- a. Initial assessment of presenting problems through patient and family interviews, physical examination and observational protocols.
- b. Reliable initial treatment of presenting problem.
- c. Reliable follow-up care of presenting problem following doctor's recommendations.
- d. Pro-active and culturally-sensitive reflection process at all stages.
- e. Mastery of equipment use and maintenance related to area.
- f. Community-training technique

8. Supervision Plan: An important component of training health promotoras is ensuring that they have proper professional supervision. As described below, supervision is an integral part of helping trainees perform their task effectively, reliably, and safely. Expert modeling, guided practice, supervised practice, and independent practice are built into the entire learning process. In this way, Trainees can learn at their own pace and proceed as they are ready to the next level of supervision. The following training methodologies and levels of supervision will be used to develop core competencies:

- a. Expert modelling (Trainer performs task with Trainee observing; Trainer comments as task is performed). Periodic video recording made. Trainer-Trainee debrief at end.
- b. Guided practice (Trainee performs task with Trainer observing at close proximity and commenting as task is performed). Periodic video. Trainer-Trainee debrief at end.
- c. Supervised practice (Trainee perform tasks with Trainer observing at a distance; no comments). Periodic video. Trainer-Trainee debrief at end.
- d. Ongoing telemedicine consults (2 per month minimum and more as needed).

9. Insurance:

Privatized insurance within the scope of a country with socialized medicine is not a common standard. In fact, it is not available in Mexico at all for Promotoras because they will be working under the supervision and direction of certified medical doctors. Trainees are involved in this grant's program because the community has expressed its desire to have them there to meet the urgent need for trained help when doctors are not available. When treatment is done with the support of a medical team and telemedicine, the outcomes for patients in remote villages such as those served in this grant are very positive. Training and supervised care are the keys to effective prevention and timely treatment of illness, injury, or diseases that now lead to disability or death. It should be noted, however, that during initial training workshops, the Medical Team at Clínica Almas will familiarize trainees with the complete scope of coverage with "Seguro Popular" and assure their registration and coverage in this Mexican national program of "salubridad," the national health care program. Moreover, throughout the grant, the Medical Team and promotoras will also familiarize all members of the Guarijío community with the scope of care and their rights within the national program.

10. Stipends:

Throughout this grant, stipends in the amount of MXN 800/month will be paid to promotoras and MXN 300 will be paid to youth medical assistants. These stipends are intended to incentivize program participation and cover expenses that would otherwise necessitate outside employment. Training for youth will be planned so that it does not interfere with their school schedule - and actually supports their studies of science, math, and humanities. Although the Medical Team at Clínica Almas will continue to support the promotoras work in each community after the grant ends, it is not in a position to continue payments of stipends. And, although the Medical Team and the Club Rotario Navojoa will help these youth seek scholarships to the paramedical health program at the University of Etchojoa, stipends to these youth will also be discontinued. Throughout this grant, every effort will be made to secure continuing funding for these Trainees, but at this writing, such funding is not available.

11. Telecommunication / telemedicine equipment:

and preventative medical care. <https://www.inmarsat.com/press-release/inmarsat-brings-me-saving-connectivity-remote-african-village/>

Press Release found at the internet site listed above: 9 December 2014

Families in areas of Benin, West Africa, and more than 1,000 children dispersed across the community are now able to receive enhanced medical care. Working in conjunction with Safe Triage Ltd and SOS Children's Village Benin, Inmarsat has deployed loan BGAN terminals and a three month BGAN Link GEO service at no cost, to connect local co-workers of SOS Children's Villages with specialists at an urban hospital and allowing for the sharing of medical data.

BGAN Link is Inmarsat's broadband data service designed specifically for users working in remote areas that require high monthly volumes of always-on standard IP data for sustained periods of operation. Operating over Inmarsat's reliable I-4 network, BGAN Link is powering crucial connectivity to allow specialist doctors to remotely monitor health conditions of patients in the village and flag early detections of diseases such as diabetes, hypothermia and high blood pressure, particularly amongst pregnant women and children.

"Across the world we are seeing how telemedicine can improve the lives of countless families, particularly children, living in remote and isolated regions of the world," said Drew Brandy, Vice President, Enterprise Strategic Development, Inmarsat. "But telemedicine can only succeed with a reliable, always-on communications network, which is often not available in the locations where remote health is needed most. BGAN Link and the Inmarsat network offer the type of uninterrupted, highly reliable connectivity that can help doctors around the world extend their reach and provide health services to those sorely in need."

The Safe Patient Systems telemedicine kit in use in Benin, Safe Triage, records a range of medical data that is then transmitted in real-time over Inmarsat's network, using BGAN Link, to doctors who can access the information via a shared server for remote monitoring and follow-up, thereby increasing the range of diagnostic and treatment options and opportunities available to patients attending the rural clinics

"We were delighted to support SOS Children's Villages International in their vision and that the STS Telemedicine Unit worked so effectively in the assessment and treatment of patients in remote areas of Benin who would normally have difficulty accessing specialist care," said David Morgan, Medical Director, STS.

"Allowing access to high level medical care is a fundamental human right so frequently denied. Telemedicine redresses this problem and is a real game changer not only for Benin but other areas in the world where medical provision is in short supply or unavailable."

In the first month of the program, more than 180 eHealth consultations have been conducting healthy assessments. Already, in sixteen of those cases, medical conditions serious enough to require hospitalisation were identified and acted upon.

"The medical follow up and monitoring of the children from our Family Strengthening (FSP), SOS Community Programme, is not an easy task, because they live in remote areas and sometimes in zones with difficult access", said Salimane Issifou, National Director of SOS Children's Villages Benin. "The Safe Patient kit allows the possibility to record health constants on a person and makes them available in real time on a server accessible by doctors. Our social co-workers and other community co-workers can, during the periodic visits to the FSP beneficiaries, use the kit for collecting medical data which will be transmitted in real time to the doctors at our medical centres who can ensure remotely the health follow up for these families".

"In an area of the world where the availability of power and electricity is no certainty, let alone broadband data, the connectivity provided by BGAN Link is crucial and has already helped to stave off serious and potentially life-threatening illness," Nada El Marji, Director, NGO Business states, "We are very proud to stand alongside our partners in this extremely worthwhile initiative."

For further information

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has been providing reliable voice and high-speed data communications to governments, enterprises and other organizations, with a range of services that can be used on land, at sea or in the air. Inmarsat employs around 1,600 staff in more than 60 locations around the world, with a presence in the major ports and centres of commerce on every continent. Inmarsat is listed on the London Stock Exchange (LSE:ISAT.L). The Inmarsat press release newsfeed and corporate updates are on @InmarsatGlobal.

About SOS Children's Villages

SOS Children's Villages is the largest non-governmental organisation focused on children without parental care and families at risk. The organisation was founded in 1949 and today runs more than 2,300 programmes reaching more than a million children and adults in 133 countries and territories.

SOS Children's Villages Benin, opened its first SOS Children's Village in Abomey-Calavi in 1987. In 1999, a second SOS Children's Village was opened in Natitingou. In 2005, Dassa-Zoumé experienced commissioning of the SOS Children's Village. SOS Children's Villages Benin is a social development organization independent and respectful of different religions and cultures. They work in communities where their mission can contribute to development of communities developing care, education and health programmes. SOS Children's Villages Benin works in the spirit of the UN Convention on the Rights of the Child. In SOS Children's Villages Benin, such as SOS Families and the Families of Origin, the decisions which are based on the best interest of the child allow us to provide children in need, with stable and reliable relationships, family environment and the assurance of individual development. For more information about SOS Children's Villages, please visit: www.sos-childrensvillages.org

How were these needs identified?

Community leaders and healers worked with the Medical Team at Clinica Almas to formulate a training program that was feasible for their communities and contained the scope and sequence of training recommended by the Medical Team. Observations, meetings, interviews, and experience in working together with healers was key to formulating this program

What incentives (for example, monetary compensation, awards, certification, or publicity), will you use, if any, to encourage community members to participate in the project?

Trainees will be given a monthly stipend for their participation in the grant (800 MXN for promotoras; 300 MXN for youth medical assistants). Community members will be offered free food and entertainment during community training events.

List any community members or community groups that will oversee the continuation of the project after grant-funded activities conclude.

Clinica Almas has been serving these villages for the past 4 years; it will continue to do so after grant has ended. And, with a telecommunication/telemedicine system in place along with trained promotoras, other public and private medical organizations have also offered their support and willingness to provide service. Please see below for greater detail as we discuss local funding source to help sustain project after grant funding has ended.

Budget

Will you purchase budget items from local vendors?

Yes

Explain the process you used to select vendors.

Local vendors come from those that have worked reliably with the Clinica Almas for over 4 years. These vendors have consistently provided competitive prices and serviced or replaced items in a timely fashion. A

Did you use competitive bidding to select vendors?

No

Please explain.

Formal competitive bidding has not been used here. Nevertheless, all people involved in this grant have carefully compared the specifications, cost, installation, and maintenance of the equipment in selecting vendors and items. The most appropriate technology at the most cost-effective price was chosen.

Please provide an operations and maintenance plan for the equipment or materials you anticipate purchasing for this project. This plan should include who will operate and maintain the equipment and how they will be trained.

The IT and medical technology specialists at Clinica Almas participated in equipment selection. They will be in charge of overseeing installation, periodic calibration, and repair. They will also participate in training medical staff and trainees in equipment use during the 4-day workshops at Clinica Almas as well as in the Guarijío communities themselves. All equipment should arrive in the first 4 months of the grant (Oct, Nov, Dec, Jan). As equipment is received, it will be installed by qualified installers. This is expected to take place during Nov, Dec, Jan, and Feb of Year 1 of grant. Calibration and review of equipment and its function will occur upon installation and monthly thereafter for both years of grant. Warranties and support have been included for equipment purchased.

Describe how community members will maintain the equipment after grant-funded activities conclude. Will replacement parts be available?

After grant funding has ended, Clinica Almas will continue to provide technical support for the equipment purchased in this grant. It will also work with its Foundation and local vendors to provide replacement parts.

If the grant will be used to purchase any equipment, will the equipment be culturally appropriate and conform to the community's technology standards?

Yes

Please explain.

The equipment purchased through this grant is intended to be used in rural areas that currently have unreliable access to electricity and power. It is also intended to be used by community trainees who will be learning to use and maintain it. Equipment was chosen, therefore, that is less complex and does not require a high level of technical experience to operate. Whenever possible, this equipment will have repairable mechanical parts (rather than electronic) and can be recharged with solar batteries and the solar panels provided for in this grant. As an example, the satellite equipment to be purchased for telecommunication and telemedicine has global coverage, is small, light, portable, and solar powered. It is also easy to use with a smartphone or tablet or via WiFi, and its application will be dedicated to sending and receiving calls and images along with connections to the internet. This equipment (Multi-Sat ISAV modem + smart phone technology) is available in Mexico at a competitive price and comes with warranty and service. A picture is uploaded in budget section.

After the project is completed, who will own the items purchased by grant funds? No items may be owned by a Rotary district, club, or member.

After the grant has ended, the equipment destined for the Clinic itself will be owned and maintained by Clinica Almas. For equipment destined for use in the Guarijío communities (including Telemedicine communication systems there) will be owned by Clinica Almas on behalf of the Guarijío communities. An MOU to that effect will be drawn up.

Funding

Please describe this funding source.

Upon completion of this grant, Clinica Almas has accepted the responsibility for sustaining this grant effort. It will continue to work with promotoras and youth medical assistants trained by this grant in the regular course of their medical services to these rural communities. It will also provide technical assistance for repair and maintenance of equipment provided here. Please see MOU from cooperating organization attached here. Although this will be sufficient to sustain this rural health initiative into the future, other members of the state and local health community have also offered their help and support. For example, once the communication system is in place, there are private sector doctors, both general practice and specialists, who have offered to be complementary or alternative telemedicine contacts (e.g., specialists from Clinica San Jose in Navojoa and the University of Sonora Medical School). In addition, the Grameen Bank and "Banco de Leche" have offered their support, and healthcare workers from La Cruz Roja de Obregon have offered to be available for trauma back-up.

Will any part of the project generate income for ongoing project funding? If yes, please explain.

At the moment, individuals in the communities have been experimenting with building portable solar panels capable of producing light and recharging hearing aids for grant-related devices. As this project moves forward, this activity may also produce ongoing funding. Although this is in an early stage, it is definitely a possibility as the training goes forward.

Authorizations

Authorizations & Legal Agreements

Legal agreement

Global Grant Agreement

I confirm and agree to the following:

1. All information contained in this application is, to the best of our knowledge, true and accurate.
2. We have read the Terms and Conditions for Rotary Foundation District Grants and Global Grants ("Terms and Conditions") and will adhere to all policies therein.
3. The grant sponsors ("Sponsors") shall defend, indemnify, and hold harmless Rotary International (RI) and The Rotary Foundation (TRF), including their directors, trustees, officers, committees, employees, agents, associate foundations and representatives (collectively "RI/TRF"), from and against all claims, including but not limited to claims of subrogation, demands, actions, damages, losses, costs, liabilities, expenses (including reasonable attorney's fees and other legal expenses), awards, judgments, and fines asserted against or recovered from RI/TRF arising out of any act, conduct, omission, negligence, misconduct, or unlawful act (or act contrary to any applicable governmental order or regulation) resulting directly or indirectly from a Sponsor's and/or participant's involvement in grant-funded activities, including all travel related to the grant.
4. The failure of the parties to comply with the terms of this Agreement due to an act of God, strike, war, fire, riot, civil unrest, hurricane, earthquake, or other natural disasters, acts of public enemies, curtailment of transportation facilities, political upheavals, acts of terrorism, or any similar cause beyond the control of the parties shall not be deemed a breach of this Agreement. In such an event, the Agreement shall be deemed terminated and the Sponsors shall refund all unexpended global grant funds within 30 days of termination.
5. TRF's entire responsibility is expressly limited to payment of the total financing amount. TRF does not

of both of the Sponsors to abide by the terms set forth in this Agreement and the Terms and Conditions.

Upon cancellation, TRF shall be entitled to a refund of any global grant funds, including any interest earned, that have not been expended.

7. The laws of the State of Illinois, USA, without reference to its conflicts of laws principles, shall govern all matters arising out of or relating to this Agreement, including, without limitation, its interpretation, construction, performance, and enforcement.

8. Any legal action brought by either party against the other party arising out of or relating to this Agreement must be brought in either, the Circuit Court of Cook County, State of Illinois, USA or the Federal District Court for the Northern District of Illinois, USA. Each party consents to the exclusive jurisdiction of these courts, and their respective appellate courts for the purpose of such actions. Nothing herein prohibits a party that obtains a judgment in either of the designated courts from enforcing the judgment in any other court. Notwithstanding the foregoing, TRF may also bring legal action against Sponsors and/or individuals traveling on grant funds in any court with jurisdiction over them.

9. This Agreement binds and benefits the parties and their respective administrators, legal representatives, and permitted successors and assigns.

10. If any provision of this Agreement is determined to be illegal, invalid or unenforceable, the remaining provisions of this Agreement shall remain in full force and effect.

11. Sponsors may not assign any of its rights under this Agreement except with the prior written consent of TRF. Sponsors may not delegate any performance under this Agreement without the prior written consent of TRF. Any purported assignment of a Sponsor's rights or delegation of performance without TRF's prior written consent is void.

12. TRF may assign some or all of its rights under this Agreement to an associate foundation of TRF. TRF may delegate any performance under this Agreement to an associate foundation. Any other purported assignment of TRF's rights or delegation of performance without the Sponsors' prior written consent is void.

13. Sponsors will comply with all economic and trade sanctions, including those implemented by the Office of Foreign Assets Control (OFAC) of the United States Department of Treasury, and will ensure that they do not support or promote violence, terrorist activity or related training, or money laundering.

14. This Agreement constitutes the final agreement between the parties. No amendment or waiver of any provision of this Agreement shall be effective unless it is in the form of a writing signed by the parties.

15. Rotary International (RI) and TRF may use information contained in this application and subsequent reports to promote the activities by various means such as The Rotarian, Rotary Leader, rotary.org, etc. Unless indicated otherwise in writing, by submission of the photos, the parties hereby grant to RI and TRF the worldwide right to publish and use the photos, including but not limited to, in RI and TRF publications, advertisements, and Web sites and on social media channels and to license use to others, including, but not limited to, media outlets and its partners and through RI's online image database, for the purposes of promoting Rotary. By submitting the photos, the parties represent and warrant that all persons appearing in the photos have given their unrestricted written consent to use their likenesses and to license use to third parties.

16. The Sponsors agree to share information on best practices when asked, and TRF may provide their contact information to other Rotarians who may wish advice on implementing similar activities.

17. The Sponsors will ensure that all individuals traveling on grant funds have been informed of the travel policies stated in the Terms and Conditions and have been made aware that they are responsible for obtaining travel insurance.

By submitting this global grant application, we agree to the following:

1. All information contained in this application is, to the best of our knowledge, true and accurate, and we intend to implement the activities as presented in this application.
2. The club/district agrees to undertake these activities as a club/district.
3. We will ensure all cash contributions (as detailed in the grant financing) will be forwarded to The Rotary Foundation (TRF) or sent directly to the global grant bank account after Trustee approval of the grant.
4. Rotary International (RI) and TRF may use information contained in this application to promote the activities by various means such as The Rotarian, the RI international convention, RVM: The Rotarian Video Magazine, etc.
5. We agree to share information on best practices when asked, and TRF may provide our contact information to other Rotarians who may wish advice on implementing similar activities.
6. To the best of our knowledge and belief, except as disclosed herewith, neither we nor any person with whom we have or had a personal or business relationship are engaged, or intend to engage, in benefiting from TRF grant funds or have any interest that may represent a potential competing or conflicting interest. A conflict of interest is defined as a situation in which a Rotarian, in relationship to an outside organization, is in a position to influence the spending of TRF grant funds, or influence decisions in ways that could lead directly or indirectly to financial gain for the Rotarian, a business colleague, or his or her family, or give improper advantage to others to the detriment of TRF.

All Authorizations & Legal Agreements Summary

Primary contact authorizations

Name	Club	District	Status	
Barbara Kiernan	Catalina (Tucson)	5500	Authorized	Authorized on 27/06/2018
Vicente Hernandez Mendez	Navojoa	4100	Authorized	Authorized on 28/06/2018

District Rotary Foundation chair authorization

Name	Club	District	Status	
Michael Drake	Tucson Sunset	5500	Authorized	Authorized on 28/06/2018
Luis Torres Leal	Tijuana Oeste	4100	Authorized	Authorized on 09/07/2018

DDF authorization

Senén Juárez Tinoco	Veracruz-Sur	4185	Authorized	Authorized on 27/06/2018
Cipriano Navarro Maya	Santa Rosa Ciudad Mendoza	4185	Authorized	Authorized on 11/07/2018
Jim Bissonett	E-Club of the Southwest	5495	Authorized	Authorized on 27/06/2018
Nancy Van Pelt	Glendale West	5495	Authorized	Authorized on 27/06/2018
Luis Torres Leal	Tijuana Oeste	4100	Authorized	Authorized on 09/07/2018
Santiago Soto Cota	Los Mochis Valle del Fuerte	4100	Authorized	Authorized on 13/07/2018
Michael Drake	Tucson Sunset	5500	Authorized	Authorized on 28/06/2018
Joseph Hentges	Marana Dove Mountain	5500	Authorized	Authorized on 30/06/2018

Legal agreement

Name	Club	District	Status	
Manuel González Dávila	Navojoa	4100	Accepted	Accepted on 29/06/2018
James Egbert	Catalina (Tucson)	5500	Accepted	Accepted on 27/06/2018