Rotary Telehealth Project

Reducing Health Disparities and Fighting Poverty Around the World

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Global Telehealth Network

Child Health & AIDS Prevention

Rotary Club of Los Altos

Rotary eClub of Silicon Valley Smart Village

Rotary Club of Cupertino

Rotary District 5170

Global Telehealth Network

Fighting Health Inequities

The Global Telehealth Network was founded on the belief that no one should be denied access to health care because of location, social status or ability to pay.

Global Telehealth Network

The Challenge

- In many underserved areas in the world, people ARE denied access:
  - Limited-resource countries
  - Conflict zones (e.g., Syria and Ukraine)
  - Refugee camps
  - Underserved urban and rural areas in the U.S.
  - Tribal lands in the U.S.
  - Disaster areas anywhere
- One partial solution – Doctors and nurses who volunteer with medical missions
- However, most physicians who want to help are deterred by challenges:
  - Inability to take time away from their practices
  - Expense and risks of travel

- WE NEED A SOLUTION THAT ALLOWS VOLUNTEERING WITHOUT TRAVEL

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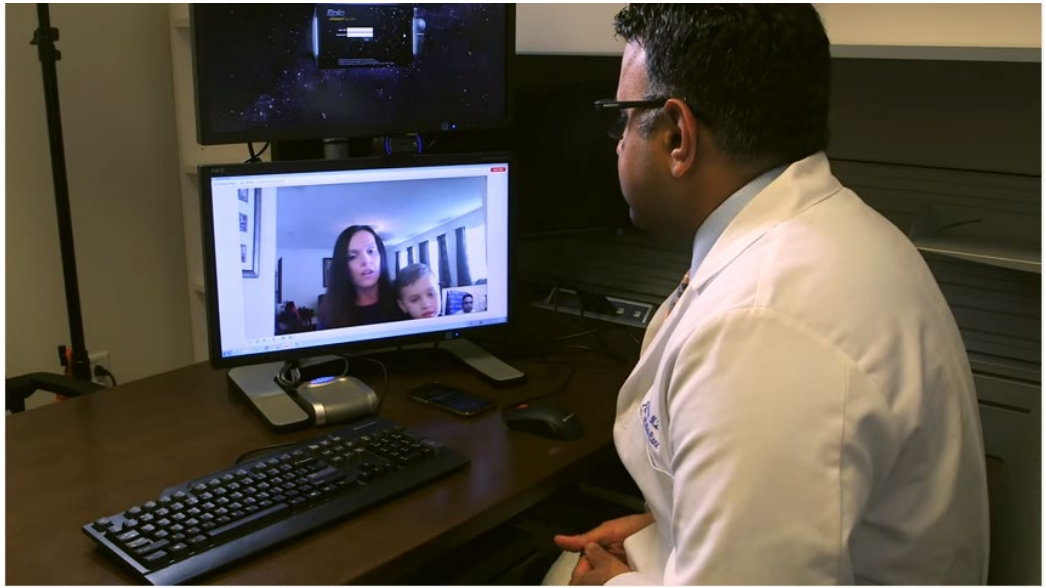
Expanding the Pool of Volunteers

- Many doctors and psychologists say they would volunteer to help patients in need if they could do so at minimal cost or risk, and without disrupting their practices and personal lives.

- Telehealth lets professionals use computers in their own offices or homes to treat patients virtually anywhere.



Global Telehealth Network (GTN)

- Doctors and nurses working in underserved areas often encounter patients with complex problems.
- It's often difficult or impossible to obtain specialty consultations.
- GTN's volunteer physicians and psychologists offer free online consults for health workers located in underserved areas.
- The nonprofit Global Telehealth Network (GTN) can reduce health inequities in medically underserved areas in U.S. and world-wide.

Global Telehealth Network

How It Works

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- Local Provider (doctor or nurse) uploads consultation request to GTN's website, including patient history & exam findings.
- GTN matches them with most appropriate physician or psychologist to provide needed consult.
- However, many locations that we want to serve lack Internet access and/or reliable electricity.
- IEEE Smart Village members have the expertise to develop solar power systems and enhanced Internet connectivity wherever they're needed.

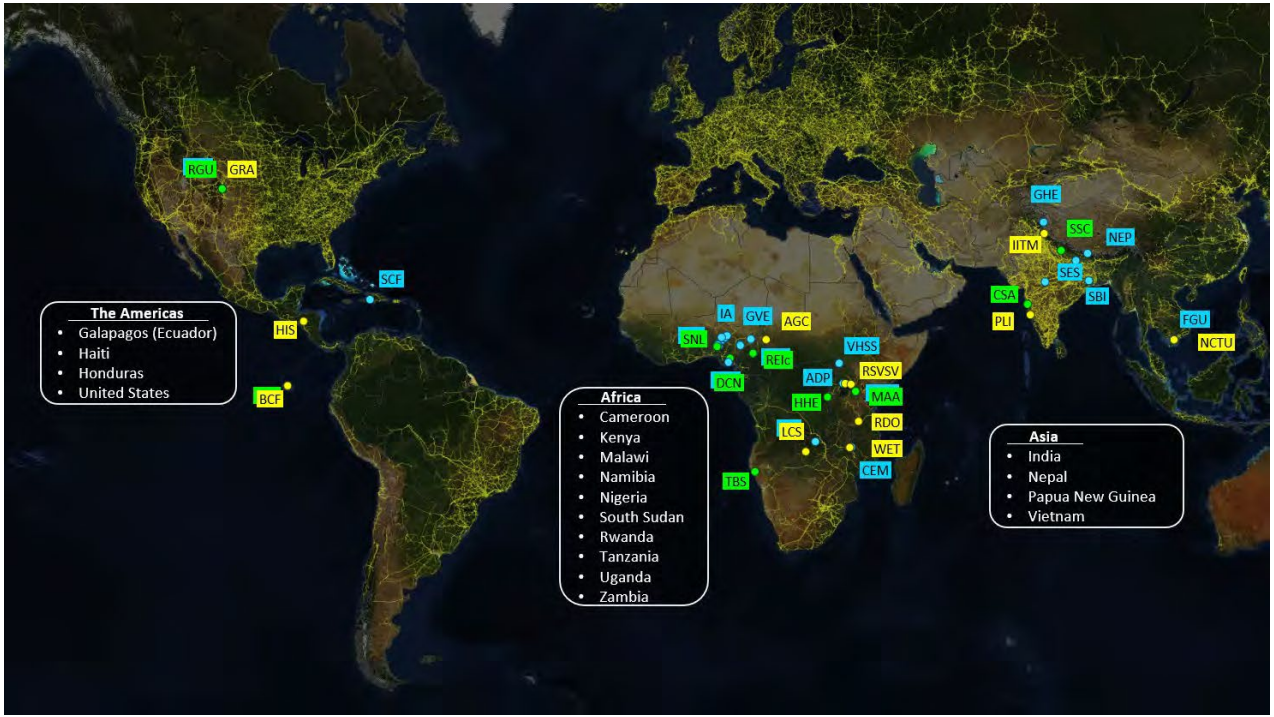
- Institute of Electrical and Electronics Engineers (IEEE)
  - World's largest technical professional organization
  - Dedicated to advancing technology for benefit of humanity
  - Over 400,000 members in 160 countries

- IEEE Smart Village (ISV)
  - A humanitarian initiative of IEEE
  - Focuses on Technology, Education and Entrepreneurship
  - Improving thousands of lives across the globe so far, with plans to impact millions

IEEE Smart Village: A Global Network

- 87 projects funded in 18 countries since 2009
- 16 active projects in 9 countries:

  Cameroon, Honduras, Ecuador (Galapagos Islands), India, Kenya, Nigeria, Rwanda, Vietnam, USA



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Lingshed Monastery

- Buddhist monastery in Ladakh Region, Indian Himalayas
- Established in year 1440 at an elevation of 12,000 feet
- Remains brightly lit to this day thanks to IEEE Smart Village's 2016 project with local developer: Global Himalayan Expedition
- See National Geographic video, "Power to the People" at: https://vimeo.com/403961329

The Collaborative

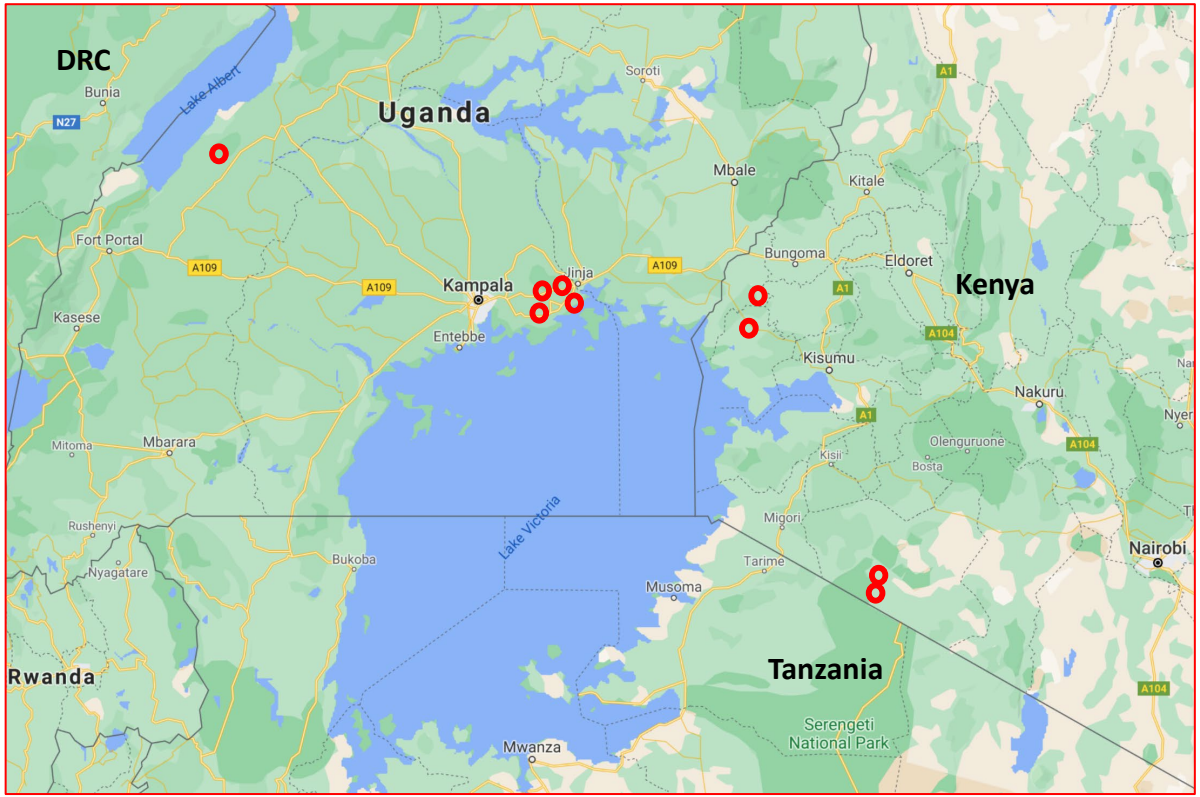
- **IEEE Smart Village** (program of IEEE Foundation) supports entrepreneurs who install solar power and Internet access for healthcare, education and economic development.
- **Global Telehealth Network** provides consultations to assist doctors and nurses on the ground.
- **10 Rotary Clubs in 5 Districts** provide volunteers, connections, mentoring, fundraising, monitoring & evaluation.

Sub-Saharan Africa

- Initial pilot projects in Uganda and Kenya

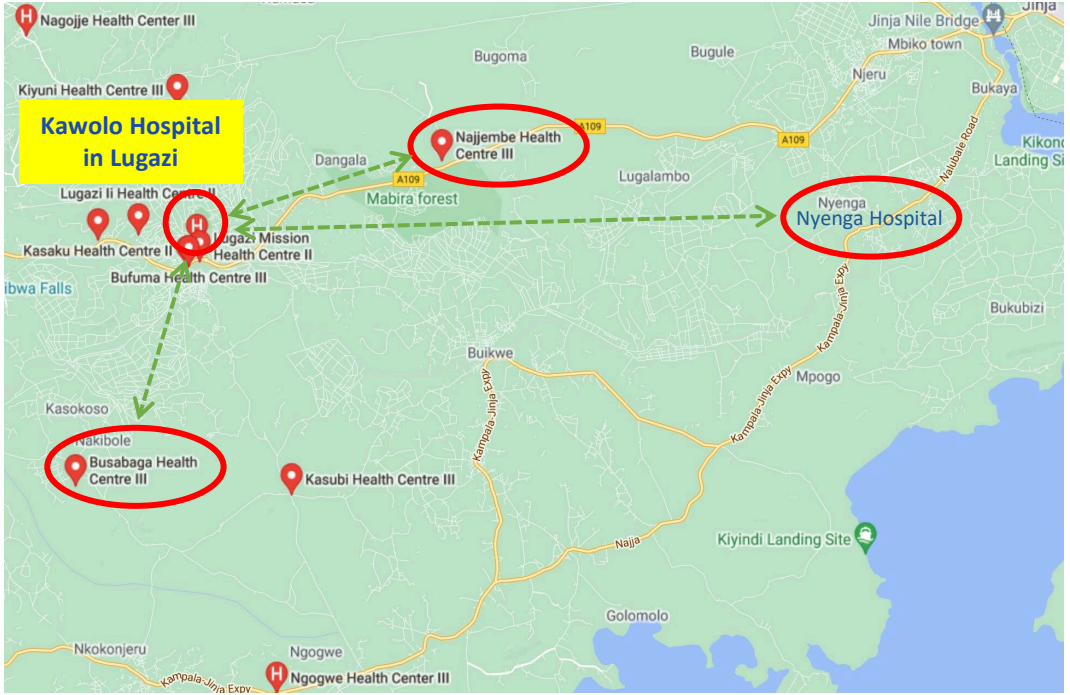
Pilot Projects in Uganda and Kenya

- Solar Power / Internet / Telehealth for 9 sites
  - 3 Hospitals
  - 4 Community clinics
  - 2 School clinics
- Projects vary depending on results of local community needs assessments



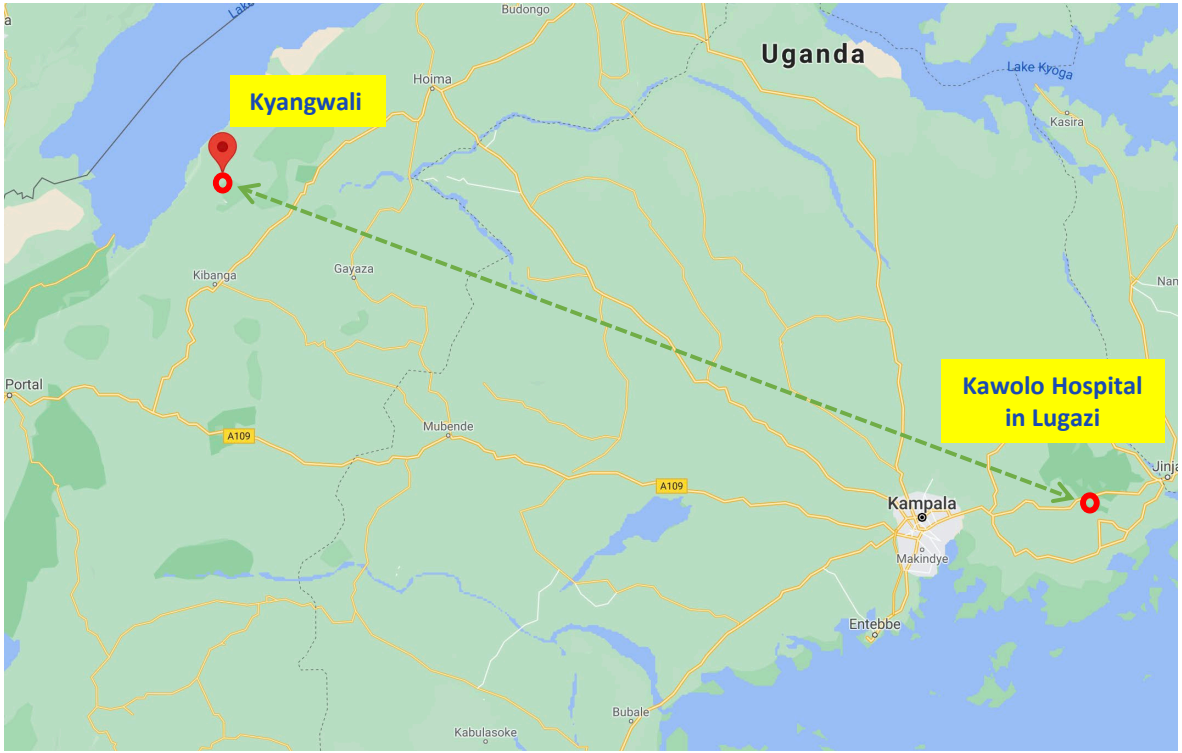
Pilot Projects in Eastern Uganda

- Telehealth, Solar Power and Internet:
  - Kawolo General Hospital
  - 3 of the 53 smaller facilities that refer to Kawolo General Hospital
    - Nyenga Hospital
    - Najjembe Health Centre III
    - Busabaga Health Centre III



Pilot Project in Western Uganda

- Kyangwali settlement for 120,000 refugees, mostly Congolese
- COBURWAS School
- One nurse cares for 816 students and 43 staff, had no physician back-up previously
- Now nurse can access telehealth consultations and continuing medical education



Pilot Projects in Kenya

- Telehealth, Solar Power and Internet:
  - Matibabu Foundation Hospital
  - Talek Community Health Center (adjacent to the Maasai Mara)
  - Sekenani Health Center (in the Maasai Mara)
  - Nambale Magnet School

Collaborating Rotary Clubs and Districts

- Rotary E-Club of Silicon Valley Smart Village
- Rotary Club of Los Altos, CA, USA
- Rotary Club of Cupertino, CA, USA
- Rotary Club of Branson-Hollister, Missouri, USA
- Rotary Club of Hollister, Missouri, USA
- Rotary Club of Belleville, Ontario, Canada
- Rotary Club of Mengo, Kampala, Uganda
- Rotary Club of Kololo-Kampala, Uganda
- Rotary Club of Milimani, Nairobi, Kenya
- Rotary Club of Busia, Kenya
- Rotary District 5170, California, USA
- Rotary District 6080, Missouri, USA
- Rotary District 7070, Ontario, Canada
- Rotary District 9214, Uganda
- Rotary District 9212, Kenya

10 Rotary Clubs
5 Rotary Districts

We intend to collaborate with many more as we scale across Africa and to other continents.

Next Round(s) of Projects/Services

- Africa
  - Additional sites in Kenya and Uganda
  - Nigeria
  - Liberia
  - Tanzania
  - Ethiopia
  - Cameroon
  - Sierra Leone
  - Côte d'Ivoire
- Latin America and the Caribbean
  - Galapagos islands
  - Peru
  - Guatemala
- North America
  - Free clinics in California (later in other states)
  - Tribal Lands of Native Americans, Alaska Natives and First Nations

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Sustainable Development Goals (SDG)

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Sustainable Development Goals (SDG)

Initial SDGs Addressed Through the Pilot Projects

Additional SDGs Addressed Through Scaling and Collaboration

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Community Resource Centers

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Productive use of sustainable energy and infrastructure for multiple purposes:

- Community Health Clinic
- Public library
- Computer lab
- Meeting rooms
- Adult education / Vocational training
- Women's co-ops for business and agriculture
- Tree nursery
- Food processing facility (industrial kitchen, honey extractor, rice mill, etc.)
- Cold storage facility / ice machine
- Maker space / shop
- Garage for shared equipment (electric trucks, tractors, motorcycles)

Contact Information

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Global Telehealth Network (GTN)

www.globaltelenet.org

IEEE Smart Village (ISV)

https://smartvillage.ieee.org

https://vimeo.com/403961329 (NatGeo “Power to the People” video)