Impact of Telehealth in Medically Underserved Areas

Resolving health disparities – Improving access for all

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

- We’re improving access to care and reducing health inequities in the U.S. and throughout the world by connecting doctors with patients at remote locations through a telehealth system.
- Focus is on services to individuals and families with the greatest need, but the most limited access to care.
Healthcare Heroes

- There are many medically underserved areas in the world today, including:
  - Low- and medium-resource countries
  - Disaster areas
  - Conflict zones
  - Refugee camps
- Physician volunteers are the key
- Medical missions are important
- Some heroic physicians work in conflict zones with
  - Syrian American Medical Society
  - Médecins Sans Frontières (MSF = Doctors Without Borders)
  - Partners in Health
  - Other NGOs
Expanding the Pool of Volunteers

• Many more physicians 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.

• The Global Telehealth Network makes that possible by letting them use computers in their own offices or homes to treat patients virtually anywhere in the world.
Telehealth

- Telehealth (a.k.a. “telemedicine”) = use of two-way video and audio communication systems that allow physicians to treat patients at remote locations.
- Available for decades through military and university medical centers that offer specialty consultations for physicians who practice in rural areas.
- Now becoming mainstream, offered by Kaiser Permanente and other large provider groups.
- Reimbursed by payers in most states.
AT&T VideoPhone 2500 – $1,599.99 in 1992
The Five Senses
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GTN Pilot Projects

- Physician in a small city seeing patients in an isolated rural clinic in northern California with a paramedic as facilitator
- Diabetes specialist managing care of patients at a free medical clinic in inner-city San Jose, CA
- Specialists at Stanford University in California consulting for patients in a remote mountain village in the Dominican Republic
Telehealth Volunteers

• GTN is developing and credentialing an extensive network of volunteers, including:
  • Primary care physicians
  • Medical and surgical specialists
  • Behavioral health specialists (psychiatrists and psychologists)

• These volunteers will assist health workers who are employees or volunteers with NGOs or Ministries of Health, including:
  • Physicians
  • Nurses
  • Paramedics
  • Mental health workers
  • Community Health Workers
  • Nurse Midwives
  • Traditional Birth Attendants
  • Members of disease eradication teams
Volunteer Profiles

• Volunteers’ profiles will include
  • Training and expertise
  • Interests
  • Language skills
  • Any limitations on geographic areas, situations or organizations they are willing to help

• Profile information is used for
  • Credentialing
  • Introductions to health workers requesting consults
  • Matching physician volunteers with patients and health workers
Telehealth Encounters

• Physicians or other health workers who encounter patients with problems beyond their expertise will
  • Use a smart phone or tablet to record patient’s history and physical findings, any available test results and perceived degree of urgency
  • Go online to upload the information to the GTN website
• GTN is developing a website that includes a cloud-based system with an algorithm that
  • Matches the patient and health worker with the most appropriate physician volunteer who is (or soon will be) available to consult
  • Will utilize Artificial Intelligence and Machine Learning to continually improve the matching process
• Volunteer physician or psychologist selected by the matching algorithm will evaluate the patient and help determine the appropriate treatment and follow up
• Each encounter is a learning opportunity at both ends, and helps to build local capacity.
Telesurgery

Long term plans include mentoring, proctoring and even robotic surgery by remote volunteer surgical specialists.
Planned Pilot Projects

Examples of planned projects include:

• Liberia
  • Only 50 physicians for 3.5 million people
  • Rural health clinics staffed by nurses with little or no physician backup
  • Nurses will be equipped and trained to consult with Global Telehealth Network volunteers when they encounter patients with complex problems

• Tanzania
  • Rural hospital in northern highlands has 11 Tanzanian physicians, all primary care
  • They will soon have 24/7/365 access to free consultations in a broad spectrum of specialties
Al-Zaatari, Jordan

- Largest camp for Syrian refugees is Al-Zaatari, Jordan
  - Population of 80,000
  - Equivalent of Jordan’s 4th largest city
  - Over 50% of camp population is under 24 years old
  - 20% of population is under 5 years old
  - Access to health care is limited
  - Lack of consistent care for both acute and chronic conditions
Growing Awareness of Problem

Angelina Jolie, Special Envoy for UNHCR (UN Relief Agency)
at Al-Zaatari Refugee Camp, Jordan
January 28, 2018
Syrian American Medical Society (SAMS)

- SAMS operates clinics for Syrian refugees in Jordan, Lebanon, Turkey and Greece
- New SAMS clinic in Al-Zaatari camp
  - Opened in late 2017
  - Expects 7,200 patient services per month, including primary care and a few specialties
  - Periodic medical and surgical missions provide specialty care onsite for 1-2 weeks at a time.
  - Many specialties are not readily available.
  - SAMS has some ability to obtain long-distance consultations now, but could use much more support for the doctors and nurses on the ground in refugee camps and in conflict zones.
Global Telehealth Network and SAMS

• The Global Telehealth Network is offering its services free of charge to physicians and other health workers in SAMS clinics.
• We suggest an initial pilot project with the new SAMS clinic in Al-Zaatari camp.
• As soon as both organizations agree that the system is functioning properly, we can begin launching with additional SAMS clinics.
• GTN will request assistance from SAMS in recruiting physician volunteers from throughout the Syrian diaspora and from other Arabic-speaking countries.
• We anticipate recruiting enough Arabic-speaking physicians to cover most of the specialties needed both in conflict zones and in the refugee camps.
• However, SAMS will also have access to all of GTN’s other physician volunteers as a backup.
Missions

- We still want to encourage volunteers to serve with missions.
- There will be at least 3 missions to Jordan in 2018:
  - March 31 – April 5, 2018
  - July 7 – July 12, 2018
  - Oct. 26 – Nov. 2, 2018
- If you can’t go to Jordan, you can still be of great help by volunteering through telehealth.
- And if you **DO** go for a week or two, you can continue helping the same medical team on the ground through the rest of the year with the telehealth network.
Thank You!

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