



## Background

Socio-economic, geographic, and cultural barriers prevent many patients in the Philippines from obtaining healthcare. Healthcare access is delayed until conditions have worsened, requiring medical attention in-hospital or in emergency departments.

Many Filipino healthcare providers pursue work in urban centers, abroad, or in non-medical careers for higher financial stability. Rural, remote, and less urban barangay communities thus face a shortage or absence of medical personnel.

Telemedicine technology provides an avenue to expand medical services and bridge this gap. Through mobile, Bluetooth technology and internet connection, we can connect patients in less metropolitan areas with remote physician visits.

## Community Partner

ABC's for Global Health (ABCGH) was founded in 2009 by Dr. Julieta Gabiola. ABC's is a non-profit organization dedicated to finding practical solutions to health problems of disadvantaged and underserved communities with a focus on prevention, treatment, research, education, and innovation.

ABCGH seeks to expand health care access, especially for those with noncommunicable diseases, with a focus on:

- ❖ Advocacy for health equity and access
- ❖ Betterment of community health and well being
- ❖ Commitment to sustainable continuity of care.

ABCGH has established Telemedicine partnerships with Philippines medical schools: St. Luke's College of Medicine and Our Lady of Fatima University College of Medicine.

Ultimately, ABC's for Global Health (ABCGH) seeks to reach more communities through telemedicine and expand healthcare access to a greater amount of urban underserved and rural patient populations in the Philippines.

## Project

Telemedicine Project objectives:

1. Increase healthcare access for urban underserved and rural barangay communities across the Philippines
2. Establish a cost-effective primary care solution to physician shortages
3. Partner with Philippine medical schools to establish sustainable, local physician workforce

Biometric information will be tracked: blood pressure, blood sugar, weight, treatment adherence, rate of intervention and specialty care referral, and frequency of care.



Figures 1 & 2. Telemedicine Kits with Bluetooth-compatible medical technology.



## Outcomes

For our pilot program, we identified 4 barangay communities from 18 receiving care with our Medical Mobile Clinic: Santa Ines, Guagua; Santa Catalina, Minalin; Balibago, Masantol; and Sagrada, Masantol.

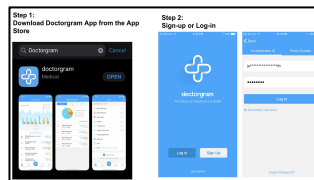


Figure 3. Doctorgram mobile Application.

Table 1. Cost analysis per telemedicine kit.

Program Components	Cost
Telemedicine Kit	\$600
iPad and training at Medical School	\$500
Service operations and equipment maintenance	\$1,000/year

## Lessons Learned

We aim to increase health visits and follow-up care rates, improve health literacy, better prevention and control of chronic diseases, faster diagnosis and treatment of acute problems, and decrease hospitalizations and ED visit rates.

Barriers for expansion include:

- ❖ Limited internet availability.
- ❖ Limited technological literacy of patients.
- ❖ Limited interaction with patients to discuss program details.
- ❖ Limited availability of local officials to foster patient involvement.

We will work with community officials to enhance patient involvement and technological literacy to overcome these barriers.

Currently, we are in the process of receiving FDA approval for a final device in the kit, the Bluetooth-integrated stethoscope.

## Recommendations

- ❖ Build relationship with partners for referrals, specialty services, funding and research direction.
- ❖ Expand our telemedicine program to partner with more communities.
- ❖ Strengthen partnerships and collaboration with local digital health and big data networks.

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- ❖ Contact: [www.abcsforglobalhealth.org](http://www.abcsforglobalhealth.org) & [hilarytang@stanford.edu](mailto:hilarytang@stanford.edu)