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Enhancing Rural Healthcare: Insights from Patients Utilizing a Medical Mobile Clinic in the Philippines

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BACKGROUND

- Noncommunicable diseases (NCDs) such as hypertension (HTN) and diabetes mellitus (DM) are a significant cause of disease burden in the Philippines, accounting for 70% of the 600,000 annual deaths nationwide
- NCD case incidence is projected to double by 2040
- Filipino communities are disproportionately affected by NCDs due to limited access to healthcare, unhealthy lifestyles, exposure to environmental risks, limited education, poverty, urbanization and stress
- The Philippine health system has historically focused on infectious diseases and maternal and child health
- Universal Health Care (UHC) Act of 2019 is a reform encouraging a shift to a primary care model, but appropriate rural medical infrastructures have not yet been established
- ABC's for Global Health, a nonprofit organization was founded in 2009 and deployed its first medical mobile clinic in 2016 by clinicians at Stanford University School of Medicine in collaboration with the Social Action Center of Pampanga (SACOP). The primary goal of ABC's for Global Health-MMC (ABC-MMC) is to provide access to healthcare for the medically underserved population in the Philippines
- ABC-MMC currently serves 18 rural Filipino villages (barangay) by offering routine monthly medical services and access to low-cost medications

OBJECTIVE

- **The aim of this study was to evaluate ABC's for Global Health Mobile Medical Clinic (ABC-MMC) patient perceptions in providing access to primary healthcare services and prevention and management of HTN and DM in rural Philippine villages**

METHODS

- An exploratory qualitative study design using open-ended, semi-structured focus group interviews took place in November 2021
- Participant eligibility: male or female; ≥ 18 years of age; known diagnosis of HTN, DM2, or both; literacy in Filipino or Kapampangan; attended ABC-MMC appointments on at least two separate occasions
- 6 of the 18 barangays served by ABC-MMC were selected to participate in the study
- Community health workers (CHWs) from each barangay were instructed on how to engage the barangays throughout focus groups
- The groups were recorded by the physician on the Stanford University Zoom meeting platform (zoom.stanford.edu)
- Data analysis: Two research staff were trained in qualitative data analysis by a qualitative research expert on open coding (MB). The two trained staff independently applied open coding to identify unique categories and concepts relevant to the analysis of the program
- Approved by Stanford University Institutional Review Board

RESULTS

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Theme 1: Barriers for access to healthcare

Competing Responsibilities	"No, not everyone is able to come because they need to go to work" (46)
	"I still have household chores and I take care of my grandchild, and I can't just leave all of those behind" (77)
	"I take my medicines everyday if I have money, but if I don't have money, I'm unable to take my medicine" (12)
Adverse Climate	"Even if the flood is high, we'll still go because we need the medicine. It's you who has the problem because the roads are difficult when the floods are high" (35)
Patient Attitudes	"I am forgetful. I am so forgetful that sometimes I ask around when you are arriving" (14)

Theme 2: Facilitators for access to healthcare

Information dissemination and communication using technology as an aid	"It's nice that you have contact with our number. There is also Messenger [from Facebook] and we are able to talk with you there" (20)
	"We are personally being texted and you are informing us" (39)
Providing low-cost medications	"Life was made easier because you don't have to buy medicine from a pharmacy" (54)
	"My medicines are very expensive, but here I get them for free. That is why I am very thankful to [ABC-MMC]" (13)
Two-way communication between trained CHW and healthcare staff in each barangay for cultural competency	"I am able to contact you whenever our patients have problems, I can call you… Even the personal life of Doc we are already disturbing. Super kind" (36)

Theme 3: Positive perceptions towards ABC-MMC

Kindness of medical staff	"The doctor is kind, he is being accommodating. Even if the patient is new, you accommodate them" (34)
Satisfaction with monthly appointments and preference for in-person vs. telemedicine	"I really like that you see us every month because we can really tell you what we feel" (74)
	"Doc, during this time of the pandemic, [telemedicine] is okay. However, we think it's better that we see you personally" (42)
Desire for expanded pharmaceutical and medical services	"If there are vitamins available, it would be better" (42)
	"Do you have X-ray, ultrasound, or CT scan because there is none here" (40)

Theme 4: Patient health literacy levels

Variable understanding of the relationship between diet and HTN/DM	"Don't eat lots of rice. That is the one that really increases your sugar" (44)
	"If not controlled, I find ways and medicines. If there is still no medicines, I'll drink juice" (27)
Varying comprehension on the concept of telemedicine	"Telemedicine is the use of cellphone for them to talk to you properly and for them to know what to do" (21)
	"I don't know what telemedicine is" (21)
Widespread beliefs regarding HTN/DM etiology, treatment, and prevention strategies	"Complications [of hypertension and diabetes] may damage your lung, kidney, liver, heart" (8)
	"Diabetes may cause you to have cancer. Our white blood cells increase, then resulting to increase in BP which leads to worsening of diabetes which may result to heart attack" (2)
Differing opinions on the importance of routine medical care and medication adherence	"If you don't have yourself checked-up, you wouldn't know if [your blood sugar] goes up or down; you'll know what food to avoid especially if you are hypertensive and diabetic" (9)
	"Sometimes Doc, my blood pressure is low and that is why I don't take [medicines]" (12)

PARTICIPANT DEMOGRAPHICS

- 6 focus groups were completed with a total of 57 adult Filipino participants (28.1% male and 71.9% female)
  Mean age of participants: 61 years
- 84.2% of participants had a diagnosis of HTN, 42.1% DM2, 49.1% HLD, 8.8% CKD, 7.0% CAD, 3.5% CVD
- 70.2% of participants belonged to the low-income social class, which is around $184 – 378 USD as a monthly income
- 52.6% of participants had general education (high school) degrees, 31.6% had a college degree
- The average duration of enrollment in the ABC-MMC clinics was 2.3 years

LIMITATIONS

- Participant population (filtered those with conflicting work schedules from the study)
- Methodological constraints (not all participants were required to respond to all questions)

For more information and references:

DISCUSSION

- **This is the first qualitative study to explore community engagement with the MMC model of care in a rural, medically underserved Philippine population**
- This study did show that ABC-MMC serves as a facilitator for health care access and that patients are generally satisfied with ABC-MMC services
- Patients are more motivated to follow-up because of their recurrent positive experiences with the physician and their trust in his ability to care for them
- Barriers to access include but are not limited to geographical challenges, work, household chores, and not knowing when MMC comes
- This study supports the finding that underserved areas globally can improve control of chronic diseases like HTN and DM with the MMC model because it makes medications more accessible to patients at low costs or free-of-charge

CONCLUSION

- NCDs such as HTN and DM are significant causes mortality in the Philippines. Access to care is challenging in many areas of the world, and MMC is one cost-effective way to provide access
- To be an effective program, greater infrastructure and an on-going feedback mechanism to integrate patients' perspective are needed. While telemedicine can increase access, it cannot replace a wholesome, in-person relationship with a healthcare provider

CALL TO ACTION

More attention and resources should be directed to NCD management and prevention as they are the highest contributor to mortality and morbidity in the Philippines, Asia, and globally. Join us in our fight against NCD in the Philippines:

ABC's for Global Health — www. ABCsforGlobalHealth.org

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