Preserving 2 decades of healthcare gains for Africa in the coronavirus disease 2019 era

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As coronavirus disease 2019 (Covid-19) restrictions upend the community bonds that have enabled African communities to thrive in the face of numerous challenges, it is vital that the gains made in community-based healthcare are preserved by adapting our approaches. Instead of reversing the many gains made through locally driven development partnerships with international funding agencies for other viral diseases like HIV, we must use this opportunity to adapt the many lessons learned to address the burden of Covid-19. Programs like the Academic Model Providing Access to Healthcare are currently leveraging widely available technologies in Africa to prevent patients from experiencing significant interruptions in care as the healthcare system adjusts to the challenges presented by Covid-19. These approaches are designed to preserve social contact while incorporating physical distancing. The gains and successes made through approaches like group-based medical care must not only continue but can help expand upon the extraordinary success of programs like President's Emergency Plan for AIDS Relief.

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Introduction

As the coronavirus disease 2019 (Covid-19) pandemic continues its march to all corners of the world, there is urgent concern about the risks a novel, highly contagious, and deadly virus poses for Africa. Although the pandemic presents a universal health threat to all populations, the

economically disadvantaged are at the greatest risk of short-term and long-term consequences as Covid-19 restrictions upend all aspects of daily living and threatens already fragile livelihoods. Patients with chronic conditions – including HIV, hypertension, diabetes, and cancer – are at even higher risk of suffering adverse health outcomes associated with complications of Covid-19

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itself and more generally from inevitable interruptions to healthcare throughout all phases of the pandemic.

The remarkable improvements to healthcare infrastructure, delivery, and outcomes, facilitated in part through assistance from programs like the President's Emergency Plan for AIDS Relief (PEPFAR) and developed over 2 decades through local partnerships, are at risk to be significantly reversed as patients face potential interruptions in care in trying to adhere to social distancing restrictions. In the absence of a specific plan and coordinated effort for implementation, the investment of tens of billions of dollars by development organizations, and the gains in population health that have resulted, are at risk of facing significant losses. Fortunately, these investments and partnerships have generated evidence-based and field-tested innovations for delivery of healthcare. Many of them were developed to overcome the challenges of responding to the HIV pandemic; they may now be the key to overcoming the daunting challenges presented by coronavirus.

One example of these successful partnerships is the Academic Model Providing Access to Healthcare (AMPATH), which is a consortium of North American and Kenyan universities who work side-by-side with partners from the Kenyan government to serve over 8 million people across Western Kenya. Through direct partnership with local governmental and academic partners, AMPATH has established itself as a leader in developing and implementing innovative solutions to address the needs of vulnerable populations suffering from chronic conditions like HIV, hypertension, and diabetes [1]. These initiatives are characterized by geographic decentralization, task redistribution, reliable access to medications, community engagement, community health worker involvement, group-based care outside of traditional health facilities, and initiatives designed to address social determinants of health alongside clinical care services.

Group medical care prior to coronavirus disease 2019 restrictions

A specific example is the integration of group medical visits into culturally appropriate microfinance groups which rely heavily on strong traditions of social connectedness. Within these microfinance groups, community members meet on a weekly or monthly basis to pool their savings and distribute interest-generating microloans that provide community members with liquid assets to help alleviate their economic challenges.

Across Africa, group medical care has been deployed in a variety of different fashions, including formation of patient groups to promote medication adherence and group-based health education sessions [2]. In a study conducted by our group, we compared communitycentered group-based care delivery with standard strategies based on receiving care at a health facility [3]. Patients with hypertension and diabetes received group medical visits comprising microfinance, group health education, personalized clinical consultation, laboratory tests, and medications from clinicians who travel to the group meetings. The combined interventions: first, increased their rate of linkage to care from 31 to 72 percentage; second, increased retention in care from 31 to 70 percentage; and had greater reductions in SBP (21.0 vs. 9.7 mmHg) [3,4]. Similarly substantial improvements in adherence, retention, and viral suppression have been realized in settings that incorporate group-based microfinance activities into HIV care delivery [5]. In addition to their superior effectiveness in care delivery and health outcomes, the community-based group care model decongests crowded clinics and provides more convenient care for stable patients in locations near their homes.

Group medical care during coronavirus disease 2019

On the contrary, patients who have benefited from group-based interventions and community-centric approaches are disproportionately at risk, given current guidance and instructions to remain physically distanced in their homes and avoid in-person gatherings. For instance, in-person home visits by community health workers and in-person group medical visits would not be feasible in the current context.

Although challenging, these new restrictions have presented an opportunity for us to develop novel ways to respect physical distancing requirements while preserving community connectedness in a culturally appropriate manner. Instead of completely abandoning the social connectedness that has made these past interventions impactful, it is crucial that readily available technologies are adapted to promote physical distancing while preserving social contact. AMPATH is accomplishing this by leveraging the ubiquity of mobile phones in Africa to digitize group-based microfinancing activities through mobile money applications, replacing in-person communication with digital communication, promoting further integration of point-of-care electronic medical records, and using text messaging to coordinate medication drop-offs to safe and convenient delivery points. Although these initiatives represent significant departures from our successful in-person community-centric approaches, the increased trust that group-based care has fostered between our providers and the community potentially eases the adoption of new models of care delivery.

Although Covid-19 has threatened the important social fabric that has enabled communities to withstand many past challenges, we hope to use this opportunity to create a viable and durable option for healthcare delivery that could serve as a model for other chronic disease programs worldwide. While respecting the need for physical distancing, we aim to use the proven effectiveness and viability of group-based care delivery to preserve social bonds by increasing our communication with the community and creating alternate strategies for community members to communicate with each other. In the face of the urgent need to preserve not only effective delivery of care for chronic conditions, but also the health and economic gains demonstrated through group-based care approaches, we are establishing both the framework and evidence for charting a way forward.

Conclusions

The gains and successes made through approaches like group-based medical care must not only continue but can help expand upon the extraordinary success of programs like PEPFAR. There is surely more to be done, but we remain committed to ensuring that the multinational partnerships and locally driven innovations will continue to thrive during and after the Covid-19 pandemic. We have an opportunity to use group-based care, in combination with mobile money and communication advances, to maintain and even improve upon the remarkable gains in healthcare delivery and outcomes realized during the past two decades.

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Conflicts of interest

There are no conflicts of interest.

References

- Mercer T, Gardner A, Andama B, Chesoli C, Christoffersen-Deb A, Dick J, et al. Leveraging the power of partnerships: spreading the vision for a population health care delivery model in western Kenya. Global Health 2018; 14:44.
- Njuguna B, Vorkoper S, Patel P, Reid MJA, Vedantha R, Pfaff C, et al. Models of integration of HIV and noncommunicable disease care in sub-Saharan Africa: lessons learned and evidence gaps. AIDS 2018; 32 (Suppl 1):S33–S42.
- Pastakia SD, Manyara SM, Vedanthan R, Kamano JH, Menya D, Andama B, et al. Impact of Bridging Income Generation with Group Integrated Care (BIGPIC) on hypertension and diabetes in rural Western Kenya. J Gen Intern Med 2017; 32:540–548.
- 4. Vedanthan R, Kamano JH, DeLong AK, Naanyu V, Binanay CA, Bloomfield GS, et al. Community health workers improve linkage to hypertension care in Western Kenya. J Am Coll Cardiol 2019; 74:1897–1906.
- Nadkarni S, Genberg B, Galarraga O. Microfinance interventions and HIV treatment outcomes: a synthesizing conceptual framework and systematic review. AIDS Behav 2019; 23:2238–2252.