HiV-Link: A mobile phone-based expert consultation platform for HIV/AIDS care in Ethiopia and Uganda

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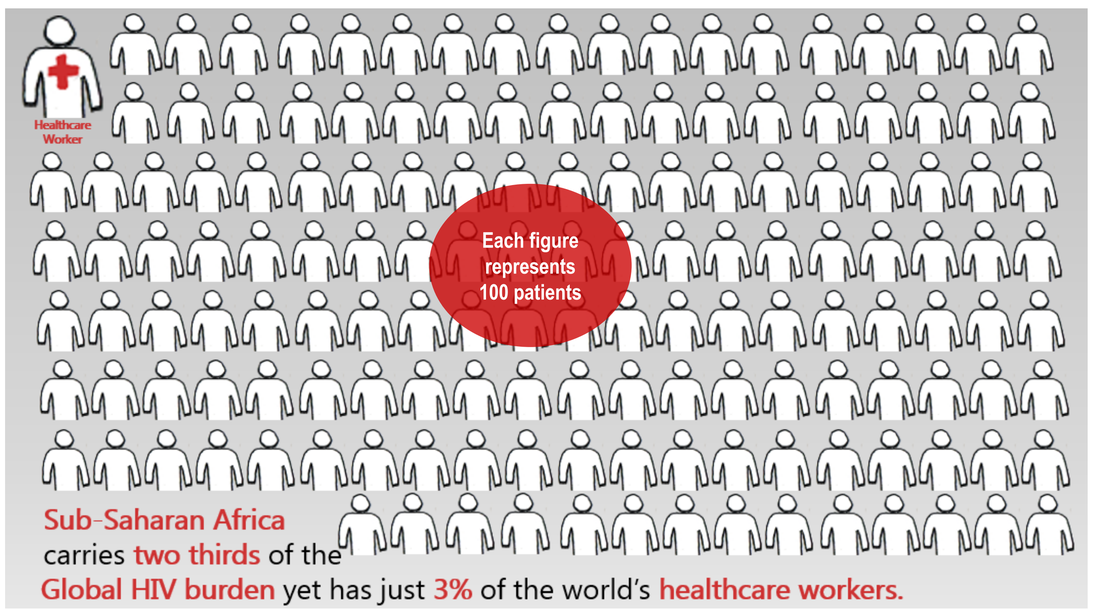
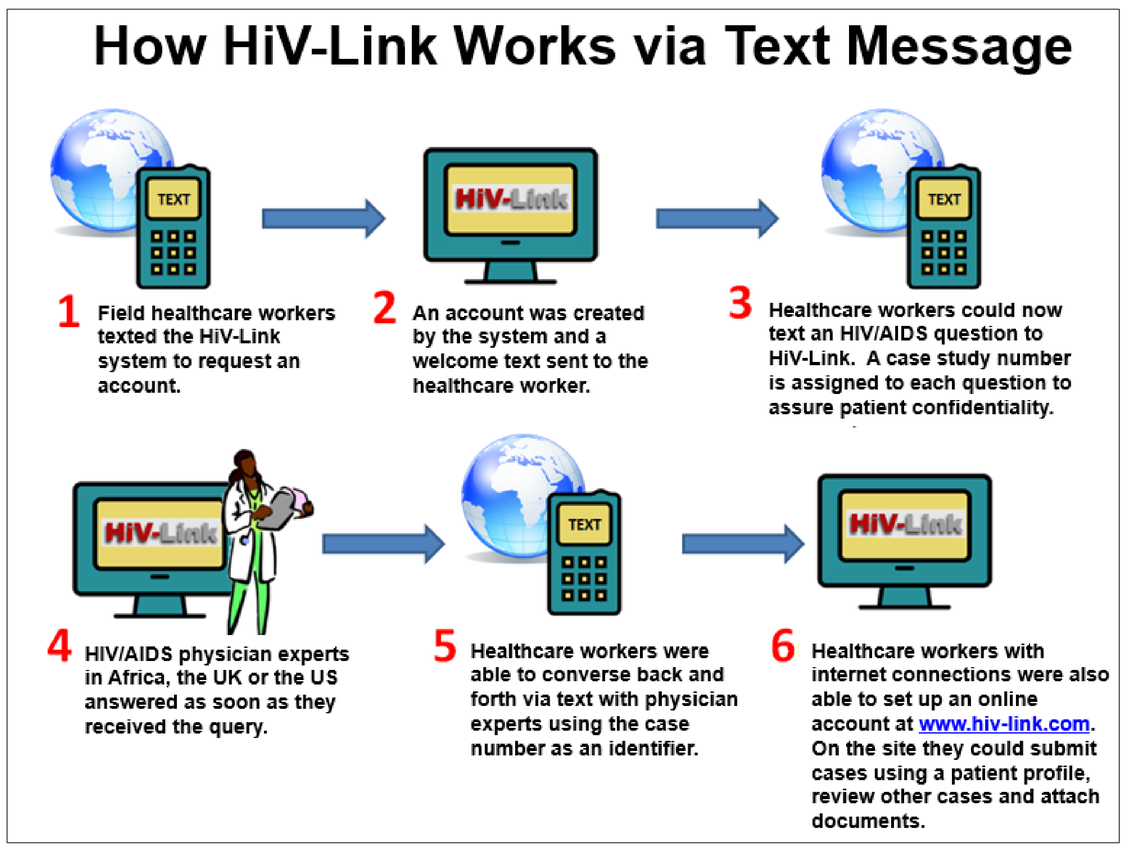
BACKGROUND

Two thirds of the world's HIV burden is in Sub-Saharan Africa while only 3% of the world's trained healthcare workers reside there[1]. Non-physicians and healthcare workers are increasingly employed in initiating and monitoring therapy and addressing complications. It is essential that these individuals receive expert support to maximize therapeutic outcome. In contrast to the rudimentary healthcare infrastructure, cellular phone technology and coverage is relatively wide spread and provides a unique opportunity to support medical care providers in the field through remote consultation and mentoring. Parallel pilot studies were conducted to explore the feasibility of mobile phone-based asynchronous expert consultation for HIV/AIDS care in Ethiopia and Uganda.



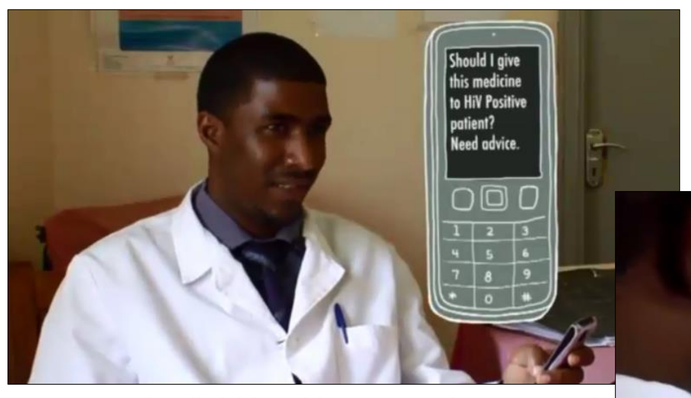
METHODS[2]

A web-based platform whereby queries via SMS are processed and archived was developed. 146 physicians, nurses and healthcare workers signed up for expert clinical consultation via HiV-Link in Ethiopia (n=38) and Uganda (n=108). Expert consultants for the Ethiopia project were 3 physicians experts based in Addis Ababa and 2 in US, whereas 5 physician experts based at Mbale Regional Referral Hospital supported by 5 physicians from the UK provided consultation for the Ugandan project.

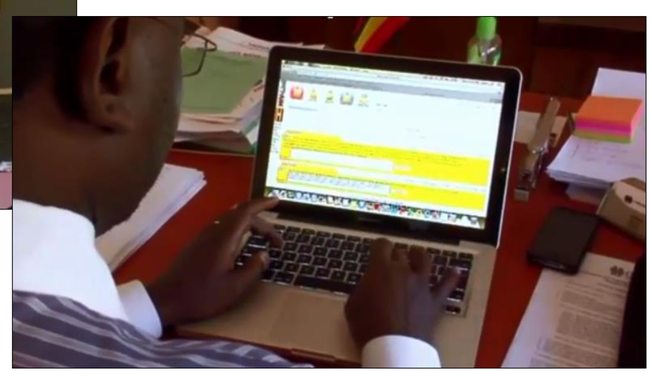


RESULTS[2]

66 (45.2%) used the system at least once; 323 patient case queries were texted to the HiV-Link system. Expert response times were <12 (30.9%) and 12-24 hours (60.7%). The breakdown of queries was similar in both Ethiopia and Uganda. 58% questions focused on treatment advice; 19.6% on general HIV information, 18.4% on drug side effects.



In Uganda, field healthcare workers texted questions to physician experts at Mbale Regional Healthcare Center. Additional experts in London were on standby for consultation in complex cases.

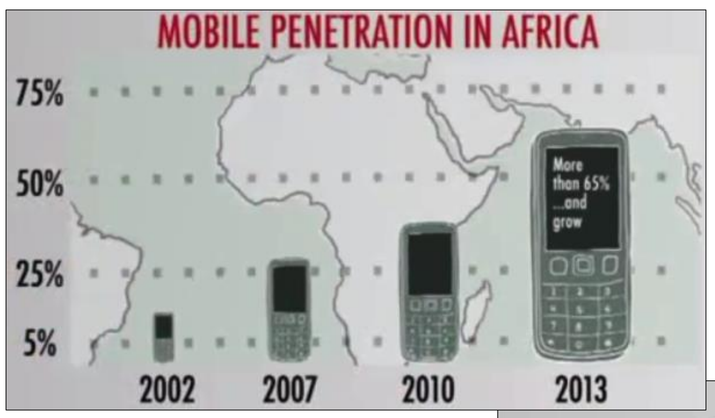


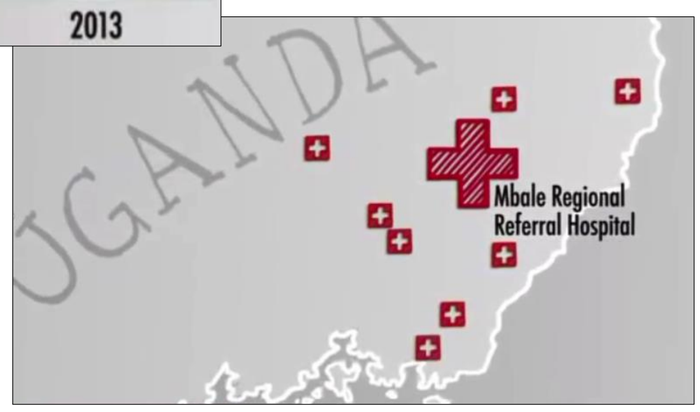
Physicians responded via their phone or computer and text message answers were sent to the healthcare workers.

96% of system users support continuation and expansion of the initiative to other disease states.

CONCLUSIONS

These pilot studies demonstrate that an easy-to-use system linking widespread mobile phone availability in rural Africa to a centralized website permits rapid and clinically useful exchange of information and advice. It also is instructive to medical and government authorities on areas of greatest need for continuing medical education. Although this pilot was within the setting of HIV, it should be expanded to other disease areas in anticipation of similarly positive outcomes.





ACKNOWLEDGEMENTS

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References:
[1]http://www.aidforafrica.org/blog/world-health-day-how-can-sub-saharan-africa-have-25-percent-of-the-disease-burden-but-only-3-percent-of-the-world%E2%80%99s-trained-health-workers/
[2]Gilead data on file.