



Oral Abstracts

Bassey EBENSO, University of Leeds

How can digital health technologies be implemented to enable health systems to increase universal access to PHC services in resource-limited settings? Insights from Nigeria

Co-authors: Bassey EBENSO-University of Leeds; Matthew Allsop-University of Leeds; Babasola Okusanya-University of Lagos; Godwin Akaba-University of Abuja; Jamilu Tukur-Aminu Kano Teaching Hospital, Kano; Joseph Hicks-University of Leeds; Tolib Mirzoev-University of Leeds; James Newell-University of Leeds; Tolga Ors-Inmarsat Global Limited, London; OKey Okuzu-InStrat Global Health Solutions Ltd, Abuja, Nigeria; Terence Jagger-Inmarsat Global Limited, London

Purpose: Improving access to quality primary health care (PHC) is challenging for resource-constrained countries with chronic infrastructure deficits and shortages of trained health workforce. There is growing international consensus that information and communication technologies (ICTs) can offer innovative ways to strengthen health systems to extend the reach of PHC services to areas where health care challenges are most severe. While there is extensive literature on efficacy of ICT strategies for improving single health services problems (e.g. non-adherence to treatment, poor communications among rural health workers), few empirical studies report about implementing ICT interventions at scale, to solve health systems challenges.

In 2013, the Nigerian Government adopted ICTs as a strategy for achieving the targets of a “save one million lives” (SOML) initiative that aimed to increase universal access to essential PHC services for vulnerable mothers and infants. As part of SOML, several ICT Applications were implemented to improve quality of mother and child health (MCH).

Focus: This presentation focuses on a 2-year project (March 2017-March 2019) evaluating the use of satellite communication technology (SatCom) to provide communication links for health facilities in areas without mobile network connectivity. Through also implementing Apps for video training of health workers and digitization of health data, the project aimed to increase standards of MCH services and broaden access for pregnant women.

From March 2017, we used a mixed methods evaluation design to assess the process and impact of digital technologies (SatCom, video training, and digitization of data); and the influence of contextual factors on implementation of digital technologies in Ondo, Kano states and the Federal Capital Territory of Nigeria. Framework analysis was used to continuously triangulate quantitative health facility data and qualitative interviews (with patients, health workers, and policymakers) to understand the impact of the interventions on workers’ training, health systems functions and on health outcomes.

Significance for sub-theme area: Emerging findings suggest that using digital health technologies to configure health systems, can strengthen three key health systems components:

- i) Health workforce, through supporting staff at grassroots level
- ii) Health information systems, through data digitization, to improve the quality and management of health data
- iii) Governance, by providing real-time data to expedite policymakers’ decision-making

Simultaneous and sustained implementation of multiple digital health technologies can mobilize health systems to ensure workers enjoy unrestricted access to reliable training content and data necessary to improve standards of MCH and increase access for women in rural areas.