

Connected and Digital Health

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[AP1-E2-1-02] Portable Health Clinic for Sustainable Care of Mothers and Newborns in Rural Bangladesh

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Keywords: Telemedicine, Maternal-Child Health Services, Global Health, Bangladesh

It is important for mothers and newborns to have regular health check-ups so that health problems are detected at an early stage. However, this is often difficult in low resource settings. Therefore, the Portable Health Clinic (PHC) for Maternal and Child Health (MCH), a telemedicine health check-up system, was introduced in a rural area of Bangladesh. The aim of this was to report findings we had observed at a mid-point of the intervention period.

In this intervention study, the study population comprised of pregnant/parturient women aged between 15 to 49 years and newborns. With the help of the newly set-up PHC that comprised a set of sensor devices in an attaché case, health workers visited mothers and newborns at home to examine their health data. Their health status was triaged into four categories and in the case of affected/emergent health status, they were placed on video consultation with a doctor.

In total, 94 women were included in the PHC for MCH intervention. Their mean age was 24 years. Those who received antenatal care four times or more increased from 29% to 49% compared with situation analysis data. Those who received postnatal care increased from 27% to 76% since the PHC was introduced. We detected a relatively high percentage of women had anemia, from 45% to 54%, depending on the pregnancy stage. Furthermore, we detected an abnormal pulse rate in 20% to 40% of pregnant women depending on their pregnancy stage.

The PHC for MCH is an effective program to improve mothers' and newborns' health. In the future, it is expected that this system is utilized as a primary resource for maternity healthcare not just in rural areas but in various other socio-environment settings.

Portable Health Clinic for Sustainable Care of Mothers and Newborns in Rural Bangladesh

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Abstract

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Note: This paper has been reviewed and recommended by AMAPI2020 Scientific Program Committee to be submitted to the International Journal of Computer Methods and Programs in Biomedicine (CMPB) in its "APAMI2020 Special Edition" as a full-paper scheduled to be published in 2021. Therefore, APAMI2020 Conference Proceeding has published only the abstract of this papers here to avoid any issue of double publication.