

Despite the advantages of the electronic registry which has been explained in other areas of health and other parts of the world, there has been no empirical research conducted with the aim of assessing the impact of the electronic immunization registry practices on the availability of immunization commodities.

Objectives

To assess the effect of electronic immunization registry practices on the availability of immunization commodities.

Methods

A cross-sectional study was carried out to health facilities providing vaccination services in Tanga City Council. A total of 27 health care workers in 27 health facilities were interviewed for availability of vaccines and their experience in using electronic immunization system in supply chain system functioning using structured questionnaires. The data from the vaccines manual ledger and electronic TimR system were also collected administered in April-June, 2019 specifically for Bacillus-Calmette Guerin (BCG), Diphtheria-Pertussis-Tetanus-Hepatitis B-Haemophilus influenza type b (DPT-HepB-Hib), bi-oral polio vaccine (bOPV), Measles-Rubella and Human Papilloma Virus Vaccine (HPV). These data were analyzed by statistical software SPSS using one sample T test and 95% confidence interval.

Results

The study affirmed that the mean numbers of children registered at the health facilities using electronic immunization registry was 1.5-3 times higher than the target population for the three months preceding the study given by the National Bureau of Statistics (NBS). The number of doses for the studied vaccines (DPT-HepB-Hib, measles rubella, HPV, BCG and bOPV) were found to be different in the manual and electronic TimR systems. Also, the number of doses available at the health facilities increased significantly with the number of the electronic system registered children.

Conclusion

This study found that the adoption of Electronic immunization registry has improved the health supply chain in terms of improving the vaccines availability. Rwanda J Med Health Sci 2021;4(2): 223-236