

Delivery of Contraceptive and Maternal Health Commodities with Drones in the Most Remote Areas of Madagascar

Authors : Josiane Yaguibou, Ngoy Kishimba, Issiaka V. Coulibaly, Sabrina Pestilli, Falinirina Razanalison, Hantanirina Andremanisa

Abstract : Background: Madagascar has one of the least developed road networks in the world with a majority of its national and local roads being earth roads and in poor condition. In addition, the country is affected by frequent natural disasters that further affect the road conditions limiting the accessibility to some parts of the country. In 2021 and 2022, 2.21 million people were affected by drought in the Grand Sud region, and by cyclones and floods in the coastal regions, with disruptions of the health system including last mile distribution of lifesaving maternal health commodities and reproductive health commodities in the health facilities. Program intervention: The intervention uses drone technology to deliver maternal health and family planning commodities in hard-to-reach health facilities in the Grand Sud and Sud-Est of Madagascar, the regions more affected by natural disasters. Methodology The intervention was developed in two phases. A first phase, conducted in the Grand Sud, used drones leased from a private company to deliver commodities in isolated health facilities. Based on the lesson learnt and encouraging results of the first phase, in the second phase (2023) the intervention has been extended to the Sud Est regions with the purchase of drones and the recruitment of pilots to reduce costs and ensure sustainability. Key findings: The drones ensure deliveries of lifesaving commodities in the Grand Sud of Madagascar. In 2023, 297 deliveries in commodities in forty hard-to-reach health facilities have been carried out. Drone technology reduced delivery times from the usual 3 - 7 days necessary by road or boat to only a few hours. Program Implications: The use of innovative drone technology demonstrated to be successful in the Madagascar context to reduce dramatically the distribution time of commodities in hard-to-reach health facilities and avoid stockouts of life-saving medicines. When the intervention reaches full scale with the completion of the second phase and the extension in the Sud-Est, 150 hard-to-reach facilities will receive drone deliveries, avoiding stockouts and improving the quality of maternal health and family planning services offered to 1,4 million people in targeted areas.

Keywords : commodities, drones, last-mile distribution, lifesaving supplies

Conference Title : ICFP 2024 : International Conference on Family Planning

Conference Location : Sydney, Australia

Conference Dates : January 18-19, 2024