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Reinventing Supply Chains to Reach Patients in Remote Areas

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Greater access to medicines and other health commodities (as well as timely delivery of test results) in remote areas could improve health outcomes and potentially save lives. To broaden this access, the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, with the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) funding, launched a new approach to achieve the last-mile delivery in Malawi in Southeastern Africa using unmanned aerial systems (UAS or drones) for bi-directional delivery of medicines, lab samples and test results.

This project began over a year ago and is now making regular bi-directional deliveries to and from eight health facilities in this area. The drone lands autonomously with local health staff present to collect medicines and test results and then load the samples for the return flight. Prior to the use of drones for these tasks, the roundtrip transport took up to eight weeks, and some samples never even made it back to the health facilities, getting lost in transit entirely.

The drone delivery project is achieving faster and more reliable delivery of patient diagnostic samples and results for HIV, early infant diagnosis and tuberculosis. Since the project launched, the drone has traveled over 4,291 miles during 184 flights, and carried medicines, medical supplies, lab samples and test results to and from eight different locations. This project is pioneering in medical supply and lab test delivery because it:

- Extends the outer reaches of the formal supply chain by collecting and delivering to previously unserved or underserved last-mile health facilities;
- Successfully integrates the use of drones into the existing supply chain and distribution channels;
- Optimizes the use of drones;
- Demonstrates the relevance of sustained use drone over several months;
- Demonstrates the sustainability of using drones for public health programs;

- Builds local capacity by hiring and training locals to be part of the flight operations team; and
- Advances transparent information sharing for local and global actors interested in developing similar drone programs.

Ultimately, this project will contribute a body knowledge on the health impacts, costs and operational considerations of UAS programs for consideration by national and global actors.

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