

Po 45 : A Rapid Review of the Current and Potential Future Use of Drones to Improve Access to Healthcare in Sub-Saharan Africa

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Background: Drones are changing healthcare delivery, particularly in Sub-Saharan Africa (SSA), where traditional logistics face geographical, infrastructural, and resource limitations. This review examines applications across emergency, routine, and non-communicable diseases (NCD)-related healthcare delivery, alongside operational challenges. **Methods:** A rapid scoping review methodology was employed, sourcing literature from Google Scholar, Cairn info, PubMed, SCOPUS, Web of Science, and grey literature using targeted keywords like “drones,” “medicine delivery,” and “Sub-Saharan Africa” to build a search query. Twenty-five papers met the inclusion criteria, providing qualitative and quantitative data on drone operations. **Results:** Drone delivery systems have improved healthcare logistics across SSA by enhancing emergency responses, addressing rural access issues, and optimising routine medical deliveries. In Ghana, the government’s partnership with Zipline has provided emergency and routine medical supplies to over 2,200 facilities, reducing stockouts and improving maternal and child health outcomes. For instance, drones facilitated over 14,900 additional immunisations in Ghana in 2021. However, challenges such as payload limitations, dependency on unreliable power supplies, and workforce shortages hinder scalability. These systems also require robust infrastructural and logistical support to sustain operations. **Conclusion:** Drones have great potential for healthcare delivery in SSA, offering rapid, efficient and cost-effective solutions. While their contributions to improving maternal health and emergency responses are notable, addressing systemic issues like power infrastructure, supply chain inefficiencies, and workforce limitations is crucial. Integrating drones into broader healthcare strategies could significantly enhance their impact, particularly for managing NCDs in underserved regions. **Keywords:** Drones, Unmanned Aerial Devices, Health Services Accessibility, Africa South of the Sahara.