Operational Assessment of an Electronic Logistics Management Information System for Mitigating Vaccine Stockouts in Primary Health Centres, Federal Capital Territory, Nigeria

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Abstract

Vaccine stockouts at the primary healthcare level undermine immunisation programmes. An electronic logistics management information system (eLMIS) was introduced in the Federal Capital Territory, Nigeria, to improve supply chain visibility and reduce stockouts. This brief report aimed to conduct an operational assessment of the newly implemented eLMIS, focusing on its functionality, user experiences, and perceived impact on mitigating vaccine stockouts in primary health centres. A mixed-methods, cross-sectional assessment was conducted. Data were collected via structured observations of the eLMIS in use at selected health facilities, alongside semi-structured interviews with immunisation officers and logistics personnel responsible for system operation. The eLMIS improved data reporting timeliness and accuracy compared to the previous paper-based system, with users noting enhanced stock level monitoring. However, a key finding was that a substantial proportion of users reported persistent challenges, primarily intermittent internet connectivity and insufficient training, which hampered optimal system utilisation. The eLMIS shows potential for strengthening the vaccine supply chain by improving data quality for decision-making. Its effectiveness is currently constrained by technical and human resource challenges. Immediate actions should include investing in stable internet infrastructure at health facilities and providing regular, hands-on user training. A phased scale-up, accompanied by continuous technical support, is advised for broader implementation. vaccine stockouts, logistics management information system, immunisation, supply chain, primary health care, Nigeria This report provides practical insights on the operational realities of implementing an eLMIS in a resource-constrained setting, highlighting critical barriers that must be addressed to realise its full benefits.

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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