

African Digital Health Strategic Plans Analysis: Key Weaknesses in Contextualization, Intervention Focus, and Technological Foresight

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Abstract:

Similarly to many Low- and Middle-Income Countries, the effective management of pharmaceutical data in Burkina Faso is critically hampered by fragmented, non-interoperable local databases employing heterogeneous coding systems. This fragmentation fundamentally limits the capacity for robust regulatory oversight, effective pharmacovigilance, and the reliability of national health statistics. This paper introduces the design and initial outcomes of a national drug ontology developed to establish a unified and standardized pharmaceutical reference system for Burkina Faso. The ontology systematically consolidates and standardizes key drug attributes, including active substances, concentrations, international non-proprietary names (INNs), specialties, dosage forms, administration routes, and manufacturers. Crucially, it is mapped to the World Health Organization's Anatomical Therapeutic Chemical (ATC) classification system to ensure alignment with international standards while retaining essential local specificities. Preliminary results demonstrate that this ontological framework achieves semantic harmonization, providing a foundational basis for enhanced data interoperability, advanced pharmacovigilance capabilities, and the strengthening of national digital health sovereignty in Burkina Faso.