Digital Transformation of Grants Management for TB, Leprosy, and Lung Disease Programs in Kenya

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ABSTRACT

Background: Kenya faces persistent challenges in community-based TB case finding, often exacerbated by weak, manual grants management systems that hinder fund disbursement and intervention implementation speed.

Intervention: Amref Health Africa, acting as the Global Fund's non-state Principal Recipient, deployed the Microsoft Dynamics 365 Business Central ERP across 38 subrecipients spanning all 47 Kenyan counties.

Results: Between 2021 and 2023, financial cost eligibility rose from 50% to 76%, and fund absorption increased from 63% to 98%. Notably, TB notifications rose by 25% during this period.

Conclusion: Transitioning to digital ERP systems significantly improves accountability and resource tracking, which is essential for achieving universal health coverage and ending the TB epidemic.

Introduction

Kenya remains a high-burden country for Tuberculosis (TB) and TB/HIV. While donor- funded programs are critical for providing community-level interventions, their success is frequently limited by administrative bottlenecks. Prior to 2021, Amref Health Africa utilized manual sub-granting processes. These manual workflows resulted in significant disbursement delays and financial discrepancies, which in turn slowed the supply of essential medical commodities and tools to the front lines [1,2].

This paper details the implementation of a digital Enterprise Resource Planning (ERP) solution designed to modernize grants management and improve health outcomes for TB, leprosy, and lung diseases.

Materials and Methods

Setting and Participants The digital transformation was conducted nationwide, involving 38 subrecipient organizations that implement interventions across all 47 counties in Kenya.

The Intervention Amref Health Africa deployed Microsoft Dynamics 365 Business Central to replace manual systems. The system was designed to provide:
- Real-time financial tracking of all grant expenditures.
- Automated reporting to reduce human error and administrative burden.
- Integrated dashboards for continuous performance monitoring.

Implementation Strategy A phased rollout was conducted between 2021 and 2023, encompassing system customization, data migration, and extensive training for subrecipient staff. Impact was assessed by measuring reporting accuracy, turnaround times, and fund absorption rates.

Results

The transition to a digital system yielded measurable improvements in both financial management and clinical outcomes:

Financial and Operational Metrics (2021–2023)

- Fund Absorption: Increased from 63% to 98% by the end of the second year.
- Cost Eligibility: Financial cost eligibility improved from 50% to 76%.
- Disbursement Efficiency: Delays in quarterly cash disbursements were reduced by 50%.
- Error Reduction: Financial submission errors dropped by 24%.

Public Health Impact Improved financial flow directly supported clinical interventions, contributing to the following national trends:

- Notifications: A 25% increase in TB notifications was recorded between 2021 and 2023.
- Mortality: TB mortality rates declined from 37 to 27 per 100,000.
- Incidence: National TB incidence fell from 267 to 223 per 100,000 between 2019 and 2023.

Discussion

The implementation of Business Central demonstrates that digital transformation is not merely an administrative upgrade but a critical public health intervention. By automating fund disbursement, the program ensured that resources reached community-based case-finding initiatives without the delays inherent in manual systems.

The rise in TB notifications and the decline in mortality suggest that a "stronger backbone" of financial accountability enables a more responsive health system. However, the success of such systems relies on sustained capacity building for subrecipients to ensure data quality and system adherence.

Conclusion

Digital grants management systems like Microsoft Dynamics 365 Business Central provide the transparency and efficiency required to manage large-scale donor-funded health programs. Scaling these digital solutions to other disease programs is a viable strategy to accelerate progress toward ending TB and reaching universal health coverage goals in Kenya and similar high-burden contexts.

References

1. Global Tuberculosis Report. 2024.
2. Amref Health Africa internal program data (2021-2023).