

ORIGINAL RESEARCH

Harnessing the Benefits of NutriAfya Application as a Personalized Nutrition Partner for Better Health.

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Abstract

Malnutrition, encompassing undernutrition, micronutrient deficiencies and rising overweight/obesity, poses a significant, multi-faceted challenge to public health and economic development globally and particularly in Kenya. Currently, Kenya faces the triple burden of malnutrition with a stunting rate of 26% which translates to Non-Communicable Diseases in adulthood. Additionally, overnutrition is a growing pandemic leading to diet-related diseases, which have a negative economic impact attributed to the cost of medication, long-term complications, frequent absenteeism at work and even mortality; costing the nation and estimated KES 373.9 billion annually (6.9% of GDP). This has been attributed to low nutrition literacy, low access to affordable nutritious foods, whereas processed food is readily available and affordable. This problem necessitated the intervention of the Nutri Afya Application, which is a cost-effective solution that bridges the knowledge gap and eases access to nutritious foods. This novel mobile-based platform aims to influence healthier meal choices for over 30.8 million smartphone users in Kenya for overall improved nutrition and health status in the country. The application's core features are built on providing personalized, evidence-based nutrition advice through an Anthropometric Assessment Calculator, Nutrient Intake Recommendations, tailored Meal Plans, Nutrition Education Videos and Progress Tracking. Crucially, Nutri Afya will also provide linkages to certified food and supplement distributors and licensed dietitians for professional advice. The application will collect both qualitative and quantitative data, analyse it so as to diagnose the nutrition status and prescribe the appropriate diet. Ethical consideration measures will be put in place to ensure confidentiality of all data in the app, and relevant licensing, such as patent protection and copyright license, will be obtained. The successful implementation of Nutri Afya will provide a scalable model for how Applied IT Support can effectively support nutrition and dietetics goals in resource-constrained settings, contributing directly to better health outcomes and sustainable development in the 21st century.

Keywords: Applied IT Support, Non-Communicable Diseases, overnutrition, affordable nutritious foods, economic impact.