

The use of a Campaign Information Management System for rapid and efficient mass distribution and monitoring of Long Lasting Insecticidal Nets in an urban setting of Bioko Island

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It is well established that long-lasting insecticidal nets (LLINs) can be used as a core vector control tool to reduce malaria transmission in endemic countries. LLINs provide both personal and community protection against malaria. For LLINs to provide community protection, universal coverage of every household having at least one LLIN for every two people in a given population is recommended. Ensuring universal coverage during mass distribution campaigns, and monitoring the use and durability of nets in urban settings characterized by high population density and mobility, particularly where houses are not enumerated, poses a major challenge. The Bioko Island Malaria Control Project (BIMCP) developed an Open Data Kit (ODK) and Geographical Information System (GIS) based Campaign Information Management System (CIMS) in 2014 for efficient and rapid household enumeration, LLIN distribution, and campaign monitoring on Bioko Island. The CIMS continues to be used in 2018 to carry out a mass LLIN distribution campaign on Bioko Island. Approximately 175,000 LLINs will be distributed door-to-door to a population of about 330,000 people in 85,000 households during a five-month period by a team of 50 enumerators and 100 volunteers. This system helps to identify enumerated households for field teams, facilitates revisiting closed or rejecting households to increase coverage, and can track nets distributed at the household level. Household information can be captured and analyzed in near-real-time to estimate coverages within defined geographic areas and used to allocate and mobilize additional resources if desired coverages have not been reached. The use of the CIMS tablet application has required substantial training for enumerators, but has ultimately increased operational efficiency and programmatic integrity, and has been adapted for use in multiple concurrent large-scale campaigns.