Malaria Control in Togo

Introduction

In December 2004, Togo had conducted for the first time a nation-wide campaign of measles vaccination for children aged 9 to 59 months. This campaign provided an opportunity not only to distribute ITNs but also to administer mebendazole tablets and two additional drops of oral polio vaccine (OPV) to target children.

Justification of the campaign

Malaria is the leading public health problem in Togo. Among children under-five years of age, who are the most affected age group, malaria accounts for 49% of consultations, and 66% of hospitalizations with a fatality rate of 6%. Malaria represents a greater threat for pregnant women, with a proportional morbidity of 13%.

In the context of malaria control, Togo established the national service for malaria control in 1960. This service became the National Malaria Control Programme (NMCP) in the 1990s. The strategy of malaria control is based on the nation-wide delivery of malaria-related prevention and case management service.

Malaria treatment and prevention policy was reviewed in May 2004. As a result, artemisinin-based combination therapy (artemether + lumefantrine; artesunate + amodiaquine) was adopted for the management of uncomplicated malaria. and Sulfadoxine-pyrimethamine (SP) was adopted for intermittent preventive treatment (IPT) of pregnant women.

The promotion of the use of insecticide-treated nets (ITNs) is the main thrust of vector control. Initiated in 1995-96, this strategy is implemented through various actions such as:

- Establishment of net treatment and distribution centres 137 centers countrywide, in all health districts;
- Subsidized prices for bednets and ITNs;
- Social marketing for ITNs by Population Services International;
- Support from partners (WHO, UNICEF, GTZ, Plan Togo, Rotary) to NMCP for the procurement and distribution of bednets and insecticides.

Despite all these efforts, coverage rates of bednets and ITNs have remained generally low. As of 2003, only 3.6% of children under five years of age and 3.5% of pregnant women slept under bednets while only 5.6% of households had at least one ITN.

Against this background, in 2003, the International Federation of the Red Cross and Red Crescent Societies (IFRC) unsuccessfully submitted to the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM) a joint campaign project involving measles immunization and ITN distribution for a number of countries. Subsequently, in 2004, the IFRC was able to mobilize resources from alternative sources for organizing the integrated campaign in Togo. The integrated campaigns in Ghana and Zambia involved only a few districts.

Goal and objectives

The aim of the integrated campaign is to help reduce morbidity and mortality from measles, malaria, poliomyelitis and anaemia among children under five years of age by pursuing the following specific objectives:

- To provide measles vaccination to at least 95% of children aged 9 to 59 months;
- To distribute long-lasting insecticidal nets to at least 95% of the target children;
- To administer one tablet of mebendazole (500 mg) to at least 95% of the target children;
- To administer two drops of OPV to at least 95% of the target children.

In Collaboration with

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Preparation

The preparatory phase of the campaign was managed by the national organizing committee composed of all the technical partners. The committee is subdivided into the technical, logistics and social mobilization subcommittees.

A comprehensive plan with a budget was developed and validated by the Interagency Coordination Committee (ICC) in July 2004. The plan was result of long discussions between the Ministry of Health (MOH) and technical partners. All these discussions were conducted under the leadership of the Expanded Programme on Immunization (EPI) which had the required expertise in campaign organization and micro-planning processes.

Micro-planning using a bottom-up approach was carried out from 3 August to 2 September 2004 in an integrated manner. Decentralized workshops, organized by region, helped develop micro-plans for national immunization days, an integrated campaign and implementation plan. The implementation plan set out a schedule of activities to be carried out in the run-up to the campaign period. This process benefited from the micro-planning tools that were developed for the 2001 measles campaign. The comprehensive plan was updated based on the realities of district micro-plans and adopted by the ICC interagency Coordination Committee in October 2004. Specific plans for communication and logistics were also developed.

Figure 1: Percentage of households with at least one ITN after the campaign, by region.

Figure 2: Percentage of children who slept under an ITN the night prior to the survey, by region.
specific to communication and social mobilization emphasized the development of materials and messages for the training of close-to-client mobilizers. Service provision contracts were signed with community radio stations which informed the population about campaign dates, targets and services to be provided.

The logistics plan detailed the practical procedures for receiving bednets and redeploying them immediately from the port to the districts. Vaccines and injection materials were received, initially stored at central level and subsequently redeployed to the districts.

The national coordination body for the campaign was ICC of the EPI which was expanded to include the National Malaria Control Programme, the Division of Family Health and the Nutrition Service. The ICC met five times between July and December 2004 in order to decide on policy issues, adopt plans, mobilize resources, monitor preparations and decide on disbursement of funds.

**Mobilization of resources**

The IFRC procured 730 000 ITNs, while the NMCP (with funding from the Global Fund) and Plan Togo (an NGO) purchased 165 000 and 9500 ITNs, respectively. The bednets were transported from the Lome port to the districts by the IFRC and from the districts to immunization posts by the NMCP.

**Implementation**

The campaign took place from 13 to 19 December 2004 in all the 35 health districts of the country. Overall, 565 teams at fixed posts, 628 teams in outreach posts and 148 mobile teams were mobilized for the campaign. Each team was composed of community health workers, volunteers and focal points. A total of 142 supervisory teams, each composed of two health professionals, supervised staff and volunteers at field level.

**Evaluation**

Several types of evaluation were used for this campaign, namely compilation and analysis of administrative data, rapid cluster sampling survey to measure coverage and transversal survey to determine ITN coverage. Technical support came from the Centers for Disease Control and Prevention (CDC/Atlanta), London School of Hygiene and Tropical Medicine, and Liverpool School of Medicine.

**Costs**

The campaign cost a total of CFAF 2 846 240 (US$ 6 000 000). While input costs amounted to CFAF 2 526 290 720, (US$ 5 329 727), the total operational cost was CFAF 314 467 164 , i.e. (US$ 663 433).

Each child received a package of services comprising one dose of measles vaccine, one dose of poliomyelitis vaccine, one tablet of mebendazole and one ITN. The unit cost of the package was US$6.92.

**Results and discussion**

According to administrative data, the campaign which was initially intended for 866 725 children aged 9 to 59 months actually reached out to over 875 000 children for the four interventions: measles vaccine, OPV, mebendazole and ITNs. A total of 878 600 ITNs were distributed. Data on administrative coverage varied from 99% for ITNs to 100% for measles vaccine and OPV (Figure 3). These coverage figures are confirmed by a cluster survey which showed 96% for ITNs, 97% for mebendazole and 98% for measles vaccines (Figure 4).

As regards the malaria component, the integrated campaign helped achieve various results (Figures 1 and 2). The proportion of children below five years of age sleeping under ITNs increased from 3.6% in 2003 to 90%. The proportion of pregnant women sleeping under ITNs rose from 3.5% in 2003 to 36%. The proportion of households having at least one ITN increased from 5% in 2003 to 62.5%.

The rate of use is lower than the administrative coverage. This may be due to the fact that the evaluation took place in the dry season, a period when the mosquito nuisance is low. Moreover, some households had difficulty installing their bednets. Overall, the evaluation showed an improvement in ITN coverage for pregnant women even though the campaign was targeted specifically at children under five years of age.

In order to assess the impact of the integrated campaign and other interventions on malaria morbidity and mortality, baseline data were collected in the community and in about 50 referral hospitals. This first evaluation prompted the establishment of a malaria surveillance mechanism and its integration into the existing system.
Lessons learnt

This successful pilot implementation experiment shows that:

- defining and quantifying the targets (child, mother, household) are important;
- the available tools and structures, if well utilized, are sufficient;
- the motivation of community health workers and focal points is crucial for success;
- the expansion of partnerships through integration has strengthened collaboration between partners and the MOH and enhanced the mobilization of resources;
- the integrated campaign plan was the main tool for advocacy, resource mobilization and management;
- the campaign coordination steering committee facilitated work in each area;
- the implication of all stakeholders and partners at all levels of the planning process made it possible to keep the same strategic orientations for the integrated campaign.

Conclusion

The integrated delivery of interventions is an efficient and cost-effective strategy that can translate into higher levels of intervention in many developing countries. The Togo experience indicates that inputs required for a regular campaign are sufficient for successful implementation of an integrated campaign. The Roll Back Malaria objectives and Millennium Development Goal targets can be achieved rapidly and at minimum cost only if integrated approaches to disease control are adopted. Togo has just demonstrated that integration is possible even on a large scale.

Perspectives

Thanks to the funding obtained under Round 3 of the Global Fund, Togo is now accelerating interventions to promote the use of ITNs and provision of IPT among pregnant women with the hope of achieving the Abuja objectives. A campaign of mass treatment of materials (bednets, curtains, etc.) was organized from 1 to 12 August 2005 in order to increase ITN use. An evaluation of the strategic plan is scheduled for the end of 2005 to pave the way for a new programming.

References

Campagne Nationale Intégrée de vaccination contre la rougeole, distribution de moustiquaires imprégnées d’insecticide, administration de mebendazole et vaccin polio oral, Rapport technique, MSP, Togo.

- Community-based Cross-sectional Coverage Survey, One Month Post Campaign (MOH, Togo, CDC/Atlanta, March 2005).
- Partnerships in Action, An integrated approach to combining a measles campaign with a bednet, vitamin A and mebendazole campaign in Zambia, the CORE Group, American Red Cross, July 2004.
- Plan global de la campagne intégrée (MSP Togo Juillet 2004).
- WHO AFRO Polio and Measles SIA field guide.

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Figure 3: Child coverage with measles vaccination, OPV, ITN, Mebendazole by region. (Administrative data, Integrated Campaign, December 2004, Togo)

Figure 4: Child coverage with measles vaccination, OPV, ITN, Mebendazole by region. (Data from rapid evaluation based on a cluster survey, Integrated Campaign, December 2004, Togo)