Insecticide-treated nets in Tanzania mainland:
challenges in reaching the most vulnerable, most exposed
and poorest groups

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1. Abstract

**Objective:** Analyse the National Programme for Insecticide-Treated Nets (ITNs) in Tanzania during the period 1995–2008, focusing on implementation issues in relation to the social determinants of health, and assess how the poorest, most exposed and most vulnerable groups in society have benefited from the programme.

**Methods:** Programme publications, external monitoring and evaluation reports, progress reports, as well as internal working documents of projects were analysed and, where necessary, available data were analysed.

**Results:** Between 1995 and 2007, Tanzania’s ITN programme concentrated on social marketing; a component of vouchers (offering nets for less than US$ 1.00) for pregnant mothers was added in 2004 and for infants in 2006. Through collaboration with the commercial sector and nongovernmental organizations (NGOs), the Ministry of Health and Social Welfare created an effective and efficient system of producing and distributing mosquito nets and insecticide re-treatment kits to reach the whole country. Tanzania achieved steady growth in net ownership through this programme, and covered 65% of households with any net in 2008. However, the lowest socioeconomic groups and the rural population lagged behind in uptake and utilization.
of ITNs. Furthermore, the gap between net ownership and sleeping under the nets remained high. The ITN programme stepped up information campaigns and introduced rural promotion campaigns to spread malaria messages. In 2008, Tanzania changed to a “catch-up and keep-up” strategy, combining free distribution of ITNs with voucher schemes and social marketing. The combination of strategies should lead to better coverage of ITNs for the rural poor and attainment of the Abuja targets. The new approach costs 20 times more than social marketing, equal to 15% of the government health budget; massive donor support for malaria control made this possible.

**Conclusion:** The ITN programme in Tanzania was successful in expansion, but did not focus enough on the poor and rural population. Free net distribution and rural promotion campaigns can correct this, but are dependent on unprecedentedly high donor inputs.
2. Background

Malaria is one of the priority diseases in developing countries. It is the most serious public health problem in Tanzania, with more than 16 million cases and at least 100,000 child deaths per year (Magesa et al., 2005) caused by the malaria parasite *Plasmodium falciparum*, which is transmitted by the *Anopheles* mosquito. In most regions of Tanzania, malaria is an endemic disease (see map below). Malaria is characterized as a disease of poverty by Gollin and Zimmerman (2007) and Barat et al. (2004). The underlying determinants of vector spread (e.g. poor housing conditions, stagnant water, bad sewerage) are predominant in poorer households (Geissbühler et al., 2007; Worrall et al., 2005; Wagstaff et al.; 2004).

Tanzania is a low-income country and poverty is highest in rural areas. Poverty in rural areas is rooted in inequitable access to productive assets, including land, financial services and livestock. Rural households have less access to safe drinking water, primary education and health services compared with urban households. According to Leonard and Masatu (2007), the quality of health services in rural areas is below par compared with urban areas. Khan et al. (2003) found pockets of poverty and ill-health in remote areas in Tanzania. Households living in high poverty concentration areas were found to have poor health outcomes and low service utilization rates.

In endemic areas, adults tend to suffer from regular attacks of malaria. In epidemic areas, where transmission is unstable, there is low immunity and all people are vulnerable to malaria (Carter and Mendis, 2002). Pregnant women and small children are more vulnerable to malaria and suffer from the more serious effects of the disease. People living with HIV or suffering from full-blown AIDS are also more vulnerable to malaria (WHO, 2004).
At the macro level, malaria has a negative impact on economic activities. Gallup and Sachs (2001) found that countries with “intensive” malaria experience a reduction in per capita income growth of 1.3% annually. Malaria costs Tanzania 3.4% of its GDP, which is more than US$ 11.00 per person. At the micro level, malaria may cause serious economic adversity due to loss of productivity and high expenditure on treatment (McIntyre and Gilson, 2005). Mortality among children below 5 years of age in rural areas of Tanzania is much higher than in urban areas: 138 vs 108 (National Bureau of Statistics, 2005). In rural Tanzania, mortality rates in children below 5 years of age following acute fever was 39% higher among the poorest compared with the least poor (Mwageni E, unpublished data, cited in Barat et al., 2004).

According to Worrall et al. (2005), the poorest suffer most from malaria because of limited access to prevention and treatment. This is called the malaria trap: poor people suffer more from malaria, and are less capable of affording treatment and prevention, further increasing the malaria burden.
Human contact with the *Anopheles* mosquito carrying the malaria parasite is the critical condition for infection. Vector control is therefore one of the ways to reduce the burden of this disease.

In the Abuja Declaration of 2000, African heads of state committed themselves to halving malaria mortality in Africa by 2010 through better prevention and adequate treatment of the disease (WHO, 2000). Tanzania has embarked on a malaria programme with a focus on prevention (insecticide-treated nets [ITNs] and indoor residual spraying), better diagnosis (clinical and laboratory) and improved treatment (artemisinin combination therapy). Expenditure on health in Tanzania is low and largely dependent on international donor support. Therefore, acquiring consistent and reliable funding for malaria interventions constitutes a problem.

### 3. Methods

This chapter studies measures to prevent malaria through ITNs in Tanzania since 1995. The focus is on implementation issues in relation to the social determinants of health. What efforts were undertaken to reach the poorest, most exposed and most vulnerable groups in society? What lessons can we learn from the ITN programme in Tanzania? The study analyses the development and implementation of strategies for distribution of ITNs, based on the international and local literature, on programme publications, external monitoring and evaluation reports, as well as internal working documents of projects.

The system for monitoring malaria programme activities in Tanzania is very elaborate and several research projects are implemented in the country, leading to a wealth of information. For this case study, some available data were re-analysed to answer specific questions. No new data were collected. Verification of findings took place through individual contacts with members of the National Insecticide Treated Nets programme (NATNETS) Steering Committee and through brainstorming meetings with stakeholders.

As a reference for the analysis of the ITN projects in Tanzania, the Conceptual Framework for Action on the Social Determinants of Health is used (CSDH, 2007). The five basic factors, introduced by the Commission on Social Determinants of
Health (CSDH) are discussions on the socioeconomic and political contexts, the sociocultural and economic position of the people, the exposure to diseases, the vulnerability (or capacity to cope with diseases) and consequences of diseases for affected persons and their families. Interventions addressing these factors are clustered under availability, accessibility and acceptability of interventions, and assessed against context and position, exposure and vulnerability. Table 2 shows the three types of interventions and five types of factors in a matrix.

In response to the call by the WHO Priority Public Health Concerns Knowledge Network for Social Determinants of Health, this chapter describes lessons learned with regard to scaling up the programme, managing policy processes, managing intersectoral processes, adjusting design and ensuring sustainability.

4. Findings

Strategies

After the International ITN Conference in Dar es Salaam in 1999, the Tanzanian Ministry of Health and Social Welfare (MOHSW) formed a Task Force that formulated a national ITN policy and strategy. In 2001, a comprehensive Malaria Medium Term Strategic Plan 2002–2007 was formulated, which put ITN activities into the wider context of malaria control (MOHSW, 2002).

The NATNETS programme started in 2002 as a large integrated programme, comprising three main components: (1) a national coordination unit (ITN cell) within the national malaria control programme (NMCP); (2) strategic social marketing – SMARTNET; and (3) vouchers delivered to pregnant women and mothers of infants, the Tanzanian National Voucher Scheme (TNVS). This mechanism was designed to ensure good coordination and complementarity of all activities (MOHSW, 2002; Magesa et al., 2005; Kramer, 2005).

In 2007, a new Malaria Strategic Plan was formulated for the period 2008–2013 and a fourth component added: free distribution of ITNs to children between one and five years and possibly to other household members, if funds become available (MOHSW, 2007). This introduced in Tanzania the “catch up – keep up” policy, with mass distribution for attaining high coverage and routine distribution to ensure that
vulnerable groups were sufficiently covered in between campaigns (Grabowsky et al., 2007). The reasons for this change will be discussed later in this chapter in the section on “Adjusting design”.

**Availability of ITNs in Tanzania**

Between 1985 and 2000, a series of studies and small-scale interventions were implemented in Tanzania to study the impact of ITNs on health, and to test distribution systems, e.g. the Kilombero Net Project (KINET) (Erlanger et al., 2004). Between 1998 and 2007, Tanzania used social marketing as the main instrument for production and distribution of untreated nets, insecticide retreatment kits (IRKs), ITNs and later long-lasting insecticidal nets (LLIN) first in the SMITN project and later in the SMARTNET project1. Bilateral donors financed the projects (Koot et al., 2006).

Stimulating local production had a special place in the social marketing project. The malaria programme (through SMARTNET) actively approached companies to stimulate local production. Increased local capacity reduced production costs and thus retail costs. Tanzanian factories have realized a position in the world market of nets, making Tanzania a country that now exports nets. Most nets produced in Tanzania were not treated with insecticide until 2007. IRKs were distributed separately. Since 2002, new nets were bundled with IRKs. LLINs are now produced in Tanzania, and are the main source for in-country distribution. The technology for these nets was developed by Sumitomo Chemical in Japan. Technology transfer and production was initiated through collaboration in a consortium, with financial contributions and loans from several partners (Tami et al., 2004; Carpenter et al., 2006).

The Tanzanian malaria programme made a deliberate choice of using the commercial sector for distribution in order to reduce (hidden) transaction costs in the health sector and enhance sustainability. The project built up a network of wholesalers and retailers to distribute and sell the nets. It addressed distribution bottlenecks through incentive schemes to encourage suppliers, wholesalers and distributors to achieve greater rural reach. The project also invested in creating new sales points, such as shifting markets.

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1 In literature it is sometimes called the total market approach, as no specific brand of net was used. Companies continue to use their own brands, while the project provides incentives for production and distribution and implements generic marketing.
In all wards in Tanzania (smallest administrative unit above village level), nets are for sale in shops, kiosks or other retail units (Mponda et al., 2008). Of all the nets owned by people, 71% were purchased from a shop or pharmacy, 18% from a health facility and 11% from elsewhere (PSI, 2007). Nets have an estimated longevity of two to three years (Whiting, 2005).

**Accessibility of ITNs**

Initially, Tanzania concentrated on social marketing of nets, but when subsidies from the Global Fund to Fight AIDS TB and Malaria (Global Fund) became available, the TNVS was introduced by the end of 2004, and vouchers were issued to women during their first antenatal visit to a health clinic. The TNVS aims to bring the nets within reach of the poorest and most vulnerable groups in the country. With the voucher, women can purchase standard nets at a greatly reduced price (less than US$ 1.00, instead of US$ 5.00) from accredited retailers. If women are ready to pay more, they can obtain a bigger net. In 2008, the amount of subsidy was increased, reducing the client contribution to purchase of a standard LLIN to US$ 0.40.

The redemption rate of issued vouchers (percentage of women who buy a net with the voucher) was around 80% in 2007. Having no money was the main reason for non-redemption (which equals to 7% of all the women who received a voucher or around one third of those women who received a voucher but never went to buy a net). Other reasons for non-utilization of vouchers were losing the voucher, stock-outs in the shop, or not understanding the need for the use of a net (waiting for the wet season) (Nathan et al., 2008).

By the end of 2006, an infant voucher was launched, financed by the President’s Malaria Initiative (PMI). Mothers of children who receive their measles vaccination (at 9 months of age) receive an ITN voucher. The redemption rate in 2008 was slightly lower than for pregnancy vouchers. Not having money was mentioned as the most important cause for non-redemption, next to already having a net (Jones and Sedekia, 2008).

Through the voucher system, more than three million nets were purchased between January 2005 and December 2007. As could be expected, voucher sales have reduced
unsubsidized sales; but non-subsidized sales still add up to around 50% of the total sales.

In 2005, there was free distribution of nets in Tanzania mainland for children in the regions of Lindi (162 000 nets) and Mtwara (93 000 nets) (financed by UNICEF) in a campaign, combined with vaccination, and distribution of vitamin A and mebendazole. This free distribution was not in line with the formulated ITN policy, but the result of donors offering funds for such distribution (Heierli and Lengeler, 2008). Skarbinski et al. (2007) reported that nearly 86% of eligible children below 5 years of age attended the campaign in Lindi. Of those, nearly 80% received a net. The most frequent reason for not receiving a net was that the campaign post was out of stock. Mboera et al. (2008) found an ITN coverage rate of 42.8% in Lindi Urban district, much lower than expected on the basis of the free distribution, and concluded that the nets distributed were not re-treated.

In Tanzania, NGOs and relief organizations also issue nets to specific target groups, such as refugees, orphans and vulnerable children. From the evaluations of these initiatives, it appeared that distribution problems were prominent. The logistics proved to be more demanding than envisaged. Leakages of nets to commercial markets, thefts, etc. were reported (Reed and Stephen, 2005; Koot et al., 2006).
In 2008, Tanzania started a pilot for nationwide distribution of 5.2 million free nets to all children below the age of 5 years, with funding of US$ 53 million from the Global Fund, World Bank and PMI. The main “catch-up” campaign has started in 2009. The Global Fund Round 8 has granted Tanzania US$ 113 million for 14.6 million additional nets for a universal coverage campaign, which could bring by 2010 the average number of nets to 2.5 nets per household. In the meantime, the voucher schemes continue to ensure that at all times pregnant women and infants have access to nets.

Between 2005 and 2007, the ownership of any net increased from 43.9% to 64.6% for all households in Tanzania, according to the TNVS household survey (Marchant et al., 2008). The mean number of nets per household increased from 0.8 to 1.3. There were marked differences in ownership among rural and urban households. Nearly 20% of children below the age of 5 years in rural areas and 8% of children in urban areas tested positive for malaria in the Tanzania HIV–Malaria Integrated Survey, 2007–2008 (NBS, 2008).
Figure 3. Ownership of any net in rural, semi-urban and urban households, 2005–2007

The TNVS monitoring survey also looked at ownership per socioeconomic strata (SES) quintile (applying World Bank asset measurement). In 2007, 87.9% of the least poor households owned any net, while of the poorest households only 39.3% owned any net. The ratio of ownership among the poorest to the least poor was 0.45. (Marchant et al., 2008).

Acceptability of ITNs

Various surveys (Marchant et al., 2008; Mboera et al., 2008) have analysed factors that contribute to net ownership and net use. People with a higher SES are more likely to own and use nets than people with the lowest SES. In urban areas net ownership and use is much higher than in rural areas. In regions with a lesser mosquito nuisance, fewer people use nets. Seasonal variation is less pronounced in these areas.

There is a discrepancy between ownership of any net and sleeping under ITNs, as shown in the table below. Apparently, many people (who still have the old nets) do not re-treat their nets with insecticide or do not sleep under an ITN even if they have one.
Table 1. Ownership, insecticide-treated net and use of nets in Tanzania

<table>
<thead>
<tr>
<th>Any net in household</th>
<th>ITN in household</th>
<th>ITN used last night by all household members</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.6%</td>
<td>36.0%</td>
<td>20.5%</td>
</tr>
</tbody>
</table>

Source: Marchant et al., TNVS survey, 2008

Understanding malaria transmission and the effects of ITNs is a precondition for increase in utilization of nets (Nganda et al., 2004). The ITN programme in Tanzania incorporates behaviour change communication (BCC) activities. Demand creation was a crucial part of the social marketing approach. Before 2004, mainly the mass media (radio, TV, newspapers), posters and billboards were used for spreading messages related to malaria. When an evaluation in 2003 showed that the poor people in rural areas were not sufficiently reached by mass media messages, a rural promotion campaign started in 2004, mainly targeting malaria-endemic areas. Through rural communication teams, all the high malaria-endemic districts were visited over a period of three years. The rural promotion teams travelled from ward to ward, conducting meetings with local government and religious leaders to advocate for malaria prevention activities. The teams screened videos (infotainment) and performed road shows (dance, songs, music) in villages, trading centres and marketplaces. The programme distributed printed materials, e.g. child health card covers, branded soccer balls and jerseys, coffee mugs and branded T-shirts, all of them carrying malaria messages. The programme adapted the rural promotion methods of soft drink and mobile phone companies. By the end of 2006, the rural promotion campaign had covered all malaria-endemic areas in Tanzania. From January 2007 onwards, the rural promotion campaign targeted districts with a low TNVS voucher uptake to enhance voucher redemption and effective use of nets in those districts.

The programme achieved higher leverage when political leaders, spearheaded by the President of the United Republic of Tanzania, joined the “Malaria… haikubaliki” (Malaria … is unacceptable) campaign, insisting that malaria is a disease to be cured and prevented. The slogan has become the national slogan for malaria campaigns.
In April 2007, the nationwide TRaC survey (monitoring tool designed by Population Services International [PSI]) reported a high level of message recall among community members as a result of the BCC activities carried out: 89% had heard of treated nets, 83% had seen or heard advertising for IRK, 26% had seen an Mobile Video Unit (MVU) show and 35% had seen a road show. Exposure to messages is positively correlated with net ownership, net use and net treatment: 84% of those reported to own at least one net had seen an MVU show, so had 77% of caretakers of children below the age of 5 years who slept under a net the previous night, and 86% of those who had ever treated nets (PSI, 2007). Mboera et al. (2008) found that 95% of the population knew that mosquitoes are a source of malaria infection and, of these, 95% knew that nets were effective in preventing malaria.

**Figure 4.** Increase in ITN use among households, pregnant women and children below the age of 5 years between 2005 and 2007

![Use of ITN Households, children <5, pregnant women](image)

*Source: Marchant et al., TNVS survey, 2008*

A comparison of figures over the years shows a steady increase in the use of ITNs. However, the differences in usage between various SES remain significant.

5. **Discussion**

**CSDH framework**

The table below puts the findings in the analytical framework of the CSDH. Although reaching the poor was an important target from the onset of the ITN programme, in
practice, it was very difficult. It is important to note the urban–rural divide, with a higher malaria burden and lower net ownership in rural areas. The poorest live in rural areas and are difficult to reach for ITN distribution activities and awareness-raising campaigns.

**Table 2.** Lessons learned from the Tanzania ITN programme according to the CSDH framework

<table>
<thead>
<tr>
<th>Context and position</th>
<th>Level of social determinants/pathway</th>
<th>Availability of interventions</th>
<th>Accessibility of interventions</th>
<th>Acceptability of interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Root causes of malaria</strong></td>
<td><strong>ITNs available in the country</strong></td>
<td><strong>ITNs within reach of the poor</strong></td>
<td><strong>Make people use ITNs</strong></td>
<td></td>
</tr>
<tr>
<td>Poverty in Tanzania is widespread, but people in remote rural areas are the most disadvantaged.</td>
<td>The commercial sector was crucial in increasing the availability of ITNs, assisted by incentives for production and distribution.</td>
<td>Social marketing and TNVS are general programmes and not specifically for the poorest and most disadvantaged.</td>
<td>Initially, BCC was not aimed at the rural population and did not reach the poorest, who were later targeted through rural promotion teams.</td>
<td></td>
</tr>
<tr>
<td><strong>Exposure</strong></td>
<td>Mosquito nuisance and frequent suffering from malaria plays a role in increasing the awareness of people.</td>
<td>Sale of nets is dependent on the geographical area.</td>
<td>In the initial stages TNVS roll-out was more in the urban and rich population, and did not reach those most exposed.</td>
<td>Political commitment to break through a fatalistic approach towards exposure to malaria.</td>
</tr>
<tr>
<td><strong>Vulnerability</strong></td>
<td>The poor, especially in rural areas, are more vulnerable.</td>
<td>Social marketing is not the most effective instrument to benefit the most vulnerable.</td>
<td>Voucher scheme is a necessary complementary intervention to reach the most vulnerable groups. Free distribution will remove financial barriers.</td>
<td>BCC targeted at vulnerable groups would increase uptake by those groups.</td>
</tr>
</tbody>
</table>
Sharing experiences

These are discussed under the topics of going to scale, managing policy change, managing intersectoral cooperation, adjusting design and ensuring sustainability.

**Going to scale**

Tanzania has one national ITN programme that combines different approaches to distribution (social marketing, voucher schemes and free distribution). Conceptualizing the national programme was a process that took several years, starting with small research projects, expanding to districts and regions, and finally country level. Innovative approaches were used to firmly establish a competitive local industry of nets to establish a vibrant commercial distribution and retail network, and to put in place effective methods of promoting commercial rural sales. The combination of social marketing and voucher schemes resulted in nearly 65% of households owning a net by 2007.

In scaling up, pragmatic decisions prevailed: first, easy-to-reach urban areas were covered and later, remote rural areas. This increased urban–rural inequity and ignored the people most in need of malaria protection. Only at a later stage – through intensive monitoring – was this shortcoming detected and corrected.

Availability of external funding was a critical factor for scaling up and adding components. These components were gradually added when more funding became available. Over time, funding from the Global Fund and PMI replaced (and exceeded) funding from bilateral donors who stopped specific funding for malaria programs and moved to basket funding and general budget support. Evidence from Zanzibar and other countries (and also from Lindi) shows that free mass distribution can achieve high ITN coverage in a short period of time. The poorest are more easily reached by mass distribution than by social marketing or voucher schemes. However, as in vaccination campaigns, it remains a challenge to reach the poor in very remote areas.

**Managing the policy process**

Developing the national ITN programme in Tanzania was a process that took years. Close consultation between policy-makers, research institutes, NGOs and donors was
crucial for its success. All donors were willing to follow the national ITN policy, even if their head offices advocated other approaches, e.g. UNICEF.

The creation of an ITN cell and a NATNETS steering committee was essential for the management of the national programme. All stakeholders participated in this. NGOs working in the malaria programme were able to link to the commercial sector, which had problems in dealing directly with government organizations. Donor funding and technical assistance for the ITN cell within the NMCP made it possible to gain and maintain the momentum. This helped, for example, in mobilizing funds from the Global Fund and PMI.

The national ITN strategy and the Malaria Strategic Plans 2002–2007 and 2008–2013 guided the activities. Tanzania is now moving to the distribution of free nets, and the government works through permanent dialogues with stakeholders to keep them committed to one national programme. Partners in social marketing are also collaborating in free distribution campaigns.

Fighting malaria has become a global undertaking. The Roll Back Malaria Global Malaria Action Plan (RBM, 2008a), backed by the 2008 MDG Malaria Summit, will guide further ITN policies in Tanzania.

Adjusting design

Until 2007, Tanzania followed a strategy for ITN distribution which combined social marketing and voucher schemes. Increasingly, questions were raised as to whether the Abuja target could be achieved in this manner, and whether the poorest in society benefited sufficiently from this strategy. International pressure was building up to incorporate free distribution into the ITN programme (Sachs, 2005; Teklehaimanot et al., 2007), fuelled by the availability of huge amounts of money through the Global Fund, PMI and World Bank. In 2007, a catch-up strategy was proposed, planning for mass distribution of 5.2 million LLINs to children below 5 years of age in Tanzania and, in 2008, the Universal Coverage Strategy, adding another 14.6 million nets for free distribution. The total budget for these distribution campaigns in 2009 and 2010 is US$ 170 million, which is equal to around 15% of the available health budget (MOHSW, 2009) and around 20 times as much as previously available for social marketing.
During the implementation of the ITN programme, it became clear that the discrepancy between net ownership and net use had to be addressed seriously to make an impact on malaria morbidity and mortality. The BCC component has evolved over the past five years. Initially, attention was given mainly to mass media campaigns, later rural outreach strategies were included, and finally distinct geographical areas were targeted where coverage of ITNs lagged behind. This fine-tuning was possible because of close monitoring of the programme, through the TNVS surveys, through PSI’s TRaC surveys, and specific research activities. In the coming years, BCC will be stepped up as an important contribution to better use of ITNs.

Managing intersectoral processes
The ITN strategy document clearly indicated tasks that had to be implemented for policy development, coordination and implementation. The management mechanisms invited participation from various stakeholders, providing them guidance on the roles to play in the program.

The development of the ITN programme coincided with the Tanzanian government reforms, making local government authorities responsible for service provision and planning for decentralized health services. This gave the ITN programme easy entry into the local government system, especially in the rural promotion campaign.

NGOs proved to be a suitable interface between the government and the commercial sector. SMARTNET could get confidential figures from factories, and could channel subsidies to distributors. In a direct government–private sector relation, this would have been more difficult.

In the new mass distribution campaign, one of the commercial partners that became strong during the social marketing period won the contract for production and distribution of nets, proving that capacities have been built over the years.

Sustainability
Social marketing has created a demand in Tanzania, resulting in unsubsidized annual sales of around 1.5 million nets in recent years. The mass distribution of 20 million free nets in the coming two years will reduce the commercial sales of nets by 70%, according to PSI’s expectations. It may push retailers out of the market, and undermine commercial net sales. Free net distribution may also reduce the willingness
of people to purchase ITNs. Whether the carefully built up infrastructure of wholesale, distribution and retail will survive in the coming years is an open question. Promoting ITNs requires continuous sensitization, repeating the same messages over and over again. One may compare BCC for ITNs with BCC for healthy diets. The Lindi experience shows us it cannot be a one-off campaign; it should be a continuing effort. An important lesson from the Tanzania programme is the need for specific rural promotion campaigns, which are more demanding and expensive. Probably, when the incidence of malaria in the population reduces as result of vector control and appropriate treatment, the motivation to buy and use nets will lessen. People have to continue using nets until malaria eradication is a fact, and have to be reminded to do so time and again.

The world has adopted a high-risk approach towards malaria control. The required budget for the strategy of universal coverage of ITNs is far beyond the financial means of developing countries. During the 2008 MGD Malaria Summit, US$ 3 billion new money was committed (RBM, 2008b). The world has had bad experiences with previous commitments: during the Gleneagles meeting in 2005, G8 countries committed US$ 21.8 billion towards additional development aid, but by 2008 they had spent only 14% (DATA, 2008). With the ongoing economic crisis, western countries may have other priorities.

Not doing the job correctly has its risks: by reducing exposure and malaria transmission in developing countries, we are undermining people’s natural development of immunity. The lesson from Madagascar (Carter and Mendis, 2002) and elsewhere (Rugemalila, 2006) is that failed malaria control programmes lead to higher mortality when malaria comes back, because (partial) immunity in the population has disappeared. This should not be allowed to happen again. Leaders of the western world, and especially those who claim that malaria eradication is feasible, now have the moral obligation to sustain the high level of funding.

6. Conclusion

Tanzania has achieved remarkable successes with its ITN programme by combining social marketing and voucher schemes. However, the focus on the poorest and on people in remote areas was not sufficient. The purchasing power of the poorest was
overestimated and even the small amount of US$ 1.00 for a subsidized ITN was too high for them. Social mobilization was not appropriate for the rural population. The new catch-up and keep-up strategy of mass distribution and new vouchers with even smaller contributions by the people, combined with intensive BCC, should achieve a break-through in net utilization and reduction of malaria. The ambitious programme has become even more dependent on donor funding as the required budgets are far beyond the Government’s possibilities.

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