

CONSORTIUM FOR RESEARCH ON EQUITABLE HEALTH SYSTEMS

SPOTLIGHT ON MALARIA

The Consortium for Research on Equitable Health Systems (CREHS) is a five year programme funded by the Department for International Development (DFID), UK. CREHS aims to generate knowledge about how to strengthen health system policies and interventions in ways that preferentially benefit the poorest.

With partners in Tanzania, Kenya and Nigeria, where malaria is a major cause of illness and mortality, malaria is an important topic for CREHS. Much of the research focuses on scaling-up the delivery of malaria-related interventions, and its impact on the poorest and most vulnerable populations. Below are some examples of CREHS-related research on Malaria.

KENYA

Availability of malaria drugs in government facilities

A key benchmark of successful implementation is that recommended drugs are available at the point of care. Two years after artemether-lumefantrine (AL) was introduced for the management of uncomplicated malaria in Kenya, a cross-sectional survey was carried out to investigate AL availability in government facilities. Research from 7 districts found that a quarter of facilities had no AL treatment packs in stock and three quarters were out of stock of at least one of four weight-specific AL packs. This led health workers to prescribe a range of inappropriate alternatives. The shortage was in large part caused by a delayed procurement process. Other countries should learn from this problem and ensure that procurement processes begin promptly and are administered efficiently.¹

TANZANIA

Extent and causes of inequalities in bednet ownership and utilisation

Although effective malaria control measures such as insecticide-treated nets (ITNs) have been promoted, relatively little is known about their equity dimension. Research measured inequalities in the use of nets across socioeconomic age groups in Tanga District. It finds that inequalities in ownership of ITNs were significantly pro-rich and were more pronounced in rural areas. Lack of money was a key factor preventing ITN use. The results highlight the need for mass distribution of free ITNs and a community-wide programme to treat all untreated nets.²

Impact of subsidised Artemisinin-Based Combination Therapies through private drug shops

Research evaluated a pilot program for the Global ACT subsidy in rural Tanzania. It found that when ACTs were sold at 90% subsidy to district drug shops, the proportion of consumers purchasing ACTs rose from 1% to 44% in one year, and was significantly higher among consumers purchasing for children under 5 than for adults. Despite this success, additional interventions may be needed to ensure access to ACTs in remote areas and for poorer people who seek treatment at drug shops less frequently.³

NIGERIA

Quality of drugs used for the treatment of malaria by public and private health providers

Knowledge of the quality of drugs provided by different health providers is important for improving malaria treatment. Research undertaken in 6 towns in southeast Nigeria assessed the quality of anti-malarials including artesunate, dihydroartemisinin, sulphadoxine-pyrimethamine (SP), quinine, and chloroquine, which were either purchased or collected from randomly selected providers.

Laboratory analysis found that over one third of the anti-malarials tested did not meet the United States Pharmacopoeia (USP) specifications for the amount of active ingredients required. Most of these drugs were purchased from low-level private providers, such as patent medicine dealers. Given the high prevalence of poor quality drugs, enforced checks and regulation of drug supply management are necessary, as are stiffer penalties for health providers stocking substandard and counterfeit drugs.⁴

case study

TOWARDS EQUITABLE COVERAGE OF INSECTICIDE TREATED NETS IN TANZANIA

In 2004, the Government of Tanzania introduced a National Voucher Scheme (TNVS) to increase the coverage of mosquito nets among pregnant women and children under five. The intervention, which reached national scale in 2006, consisted of a voucher worth \$2.45, given to pregnant women attending antenatal services to be used as part payment for the purchase of a net from a local shop. As part of an evaluation into the impact of this scheme, researchers have investigated how coverage of nets could be equitably improved.

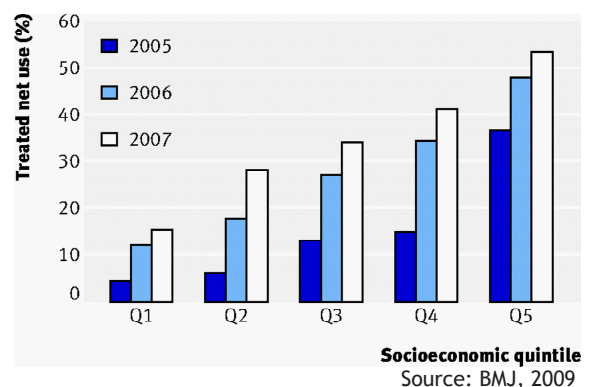
Successful scale-up of the TNVS and delivery of malaria nets to pregnant women and infants

The research found that following the introduction of the TNVS, household ownership of at least one net increased from 44% to 65%, and ownership of at least one ITN doubled from 18% to 36%. Among infants under 1 year of age, use of any net increased from 33% to 56% and use of an ITN increased from 16% to 34%.

Barriers to uptake of the TNVS for poorer women

Although use of treated nets increased in all socioeconomic quintiles, there are large differences between the poorest (Q1) and least poor (Q5) quintiles. In 2007, infants in the least poor quintile were over three times more likely to use an ITN compared with those in the poorest group, and women in the least poor quintile were twice as likely to use a net. There are several reasons that explain why poorer women were less likely to obtain nets, for instance they were less likely to use antenatal care at a facility, or to be able to afford the top-up amount of money required for a net.

Insecticide treated net use by children under 1 year old according to socioeconomic status



Policy implications and current developments

A “catch up” campaign is urgently required to raise coverage of ITNs in all socioeconomic groups. Since 2008, the Ministry of Health and Social Welfare, with funding from the Global Fund Rolling Continuation Channel, has initiated the mass distribution of free nets, treated with long lasting insecticide, to all children under 5 years. It is hoped that by 2010 coverage levels will be over 80% among children under five years and 50-60% for the population as a whole.⁵

FEATURED PUBLICATIONS

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2. Matovu F, Goodman C, Wiseman V and Mwengee W. How equitable is bed net ownership and utilisation in Tanzania? A practical application of the principles of horizontal and vertical equity. *Malaria Journal*, 2009, 8:109
3. Sabot OJ, Mwita A, Cohen JM, et al. Piloting the global subsidy: the impact of subsidized Artemisinin-Based Combination Therapies distributed through private drug shops in rural Tanzania, *PLoS ONE* 4(9)
4. Onwujekwe O, Kaur H, Dike N, et al. Quality of anti-malarial drugs provided by public and private healthcare providers in south-east Nigeria *Malaria Journal*, 2009; 8: 22.
5. Hanson K, Marchant T, Nathan R, et al. Household ownership and use of insecticide treated nets among target groups after implementation of a national voucher programme in the United Republic of Tanzania: plausibility study using three annual cross sectional household surveys. *British Medical Journal* 2009; 338:B2434

Photos: (Left) Courtesy of TARGETS Consortium,
(Right) 2007 Bonnie Gillespie, Courtesy of Photoshare