

**Media release from the Kenya Medical Research Institute, Wellcome Trust (UK)
and Oxford University**

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School-age Children found to be least protected from Malaria

Insecticide treated mosquito nets (ITN) reduce the chances of developing life-threatening malaria in Africa. However, recent research shows that older children, between the age of 5-19 years are the least well protected by nets. The research, funded by the Wellcome Trust (UK) and published in the open access journal *BMC Public Health*, has found that parents and their young children under the age of five were much more likely to have access to protection from nets than older children in the same house.

Malaria transmitted by mosquitoes kills nearly a million people in Africa every year. Control measures such as the use of ITNs have been targeted towards those most vulnerable: pregnant women and children under the age of five. The findings of the recent study show that school-age children are those most vulnerable to infection as they are now the least well protected by ITN compared to their mothers and younger siblings. Data computed from eighteen African countries from 2005-2009 found that the trend was generally the same across countries

"5-19 year olds are a particularly important group for two reasons", said lead researcher Dr Abdisalan M Noor, from the Kenyan Medical Research Institute-Wellcome Trust Research Programme and the University of Oxford, "Firstly, they represent a large fraction of the population in most developing African communities. Secondly, while they may have developed immunity against clinical disease, they will not have developed immunity to the Malaria parasite and will therefore continue to contribute transmission in the community'

Noor and his colleagues report, that as an unintended consequence of attempting to achieve the targets of the Abuja declaration and Millennium Development Goals children and adolescents over five are being put at risk. "An estimated 80% of human-mosquito transmission comes from over-fives, with young adolescents and older children the peak age group therefore measures to ensure this group is protected from malaria should be viewed as important".

Noor concludes, "Where school attendance is high, the delivery of nets through schools should be considered as a quick and cost-effective approach to reach universal coverage and improve the likelihood of impacting upon parasite transmission"

'Halting and reversing the incidence of malaria and other major diseases by the year 2015' is part of the millennium development goal number 6. This study stresses the need to make sure that school-aged children aren't neglected in promotion of interventions that aim to reduce malaria transmission.

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Images available for reproduction from Dr A Noor: anoor@nairobi.kemri-wellcome.org

Notes for editors

1. Noor AM, Kirui VC, Brooker SJ, and Snow RW. (2009). The use of insecticide treated net by age: implications for universal coverage Africa. BMC Public Health, **xx**: xx-xx

2. **The Kenya Medical Research Institute (KEMRI)-Wellcome Trust Research Programme** formally established in 1989, is a partnership between KEMRI, Oxford University and the Wellcome Trust. It conducts basic, epidemiological and clinical research in parallel, with results feeding directly into local and international health policy, and aims to expand the country's capacity to conduct multidisciplinary research that is strong, sustainable and internationally competitive. www.kemri-wellcome.org

3. **Oxford University's** Medical Sciences Division is one of the largest biomedical research centres in Europe. It represents almost one-third of Oxford University's income and expenditure, and two-thirds of its external research income. Oxford's world-renowned global health programme is a leader in the fight against infectious diseases (such as malaria, HIV/AIDS, tuberculosis and avian flu). Key to its success is a long-standing network of dedicated Wellcome Trust-funded research units Kenya, The Gambia, Thailand, Laos and Vietnam. Long-term studies of patients around the world are supported by basic science at Oxford and have led to many exciting developments, including potential vaccines for TB, malaria and HIV, which are in clinical trials. <http://www.ox.ac.uk>

4. The Wellcome Trust is the largest charity in the UK. It funds innovative biomedical research, in the UK and internationally, spending over £600 million each year to support the brightest scientists with the best ideas. The Wellcome Trust supports public debate about biomedical research and its impact on health and wellbeing. <http://www.wellcome.ac.uk>

5. The Malaria Atlas Project (MAP) is funded by The Wellcome Trust (UK) to assemble medical intelligence and survey data to provide informed statistical maps on the distribution of malaria risk, human population, disease burdens, mosquito vectors, financing and control worldwide. Evidence-based malaria risk maps generated by MAP are the first of their kind since 1968 and the results of collaboration between malaria scientists in Kenya, UK, Vietnam, Indonesia and Ecuador. For further information visit <http://www.map.ox.ac.uk>