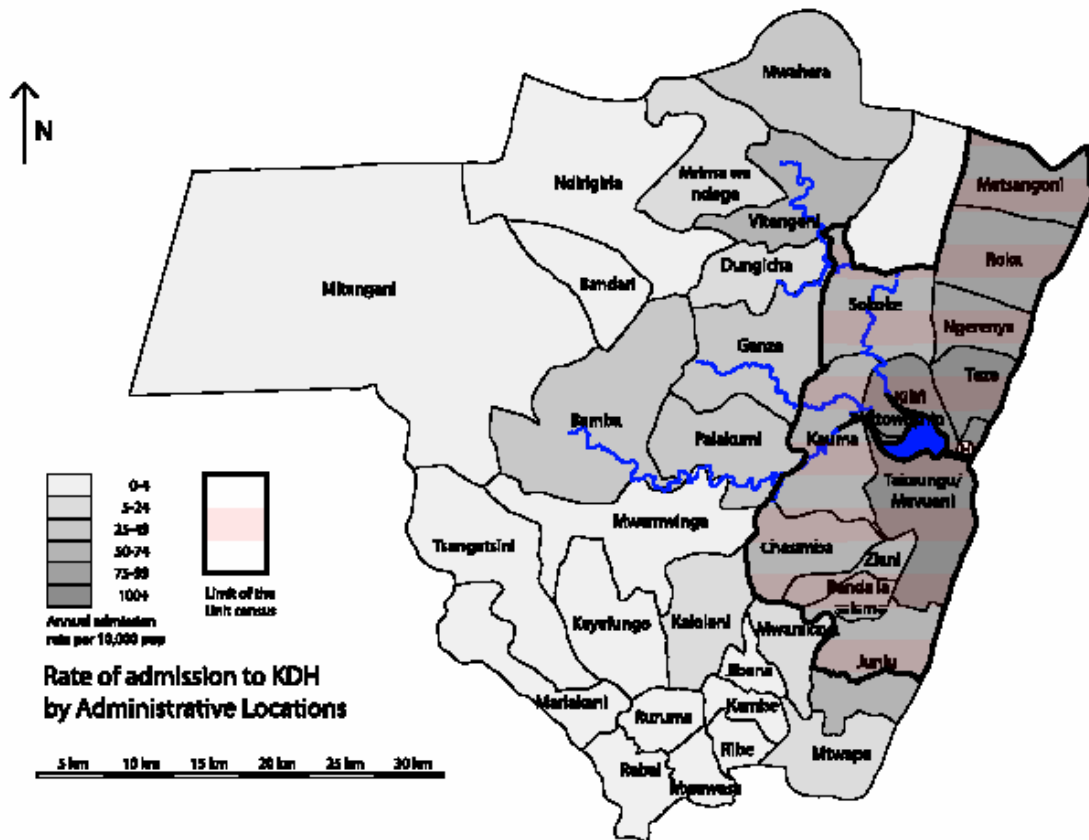


**KEMRI CGMRC Kilifi
KENYA**

Site Map



Brief Introduction to KILIFI DSS

Kilifi District is situated 60km to the north of Mombasa on the Kenyan coast. It has an area of approximately 2500 square kilometres and a population of 650000. A flat coastal strip extends approximately 10km inland to low hills rising to an altitude of 250 metres. There are two urban centres, Mtwapa in the south almost joined to the northern edge of Mombasa has a population of 70,000. Kilifi town is the district administrative centre and has a population of 30,000. Most of the district is rural with subsistence farming. The main crops are maize and tree crops such as coconuts and cashew. Soil fertility is low and variable rainfall means that in some years crops fail. Kilifi District is the second poorest district in Kenya and has high levels of malnutrition. Average day time temperatures vary between 28 and 34 and average annual rainfall is 118cm, though there is considerable year to year variation. There are two rainy seasons, the long rains from April to July and the short rains in November and December. The Mijikenda form the predominant ethnic group, though in the urban centres and coastal strip there is a substantial Swahili population and also a number of people from different ethnic groups from other areas of Kenya. Malaria transmission is year round but with two main seasons following the rains. Transmission varies in different parts of the district, generally being lower to the north end of the district typically around 10 infected bites per year, rising to up to a hundred infected bites per year in the southern part of the district

The KEMRI Wellcome Trust Research Programme, a collaboration between the Kenya Medical Research Institute and the University of Oxford UK, was first established in 1989. The programme has two offices: one in Kilifi, and a second in Nairobi, in the grounds of the Kenyatta National Hospital. The Kilifi unit is a major centre for clinical, epidemiological and laboratory science with a focus on malaria and other infectious diseases. The Kilifi DSS, which was established in 2001 with

funds awarded by the Wellcome Trust UK, monitors a mainly rural population of 220,000 people living in an area of 700km² surrounding the District Hospital in Kilifi.

Objectives

The Kilifi DSS supports a wide range of epidemiological research at the KEMRI Wellcome Programme. It provides: (a) accurate denominator data that is used in estimating the incidence of a range of diseases and outcomes; (b) a sampling frame for control selection in case-control studies; (c) a framework for establishing intervention studies; (d) a system for monitoring prospectively the impact of epidemics (such as HIV) and policy changes (such as the roll out of free bed nets in the community).

Priority Research

Host genetic susceptibility to infectious diseases
 Epidemiology and immunology of pneumococcal disease
 Epidemiology of RSV
 Epidemiology and Immunology of Malaria
 HIV trial site preparation
 Malaria vaccine trials
 Pneumococcal vaccine trials

Completed Key Projects

Project Name	Funder	Grant Period
Estimating the burden of invasive bacterial disease in Kilifi District	Wellcome Trust	1997-2000

Ongoing Key Projects

Project Name	Funder	Grant Period
Population studies of pneumococcal carriage in children living in Kilifi District	Wellcome Trust	2005-
Epilepsy studies Wellcome Trust 2003-2008	Wellcome Trust	2003-
Estimating the burden of malaria in a rural community	Wellcome Trust	2002-
Estimating survival in children discharged from a rural district hospital following admission with specific diseases	Wellcome Trust	2005-
Investigating the impact of host genetic factors through a birth cohort study	Wellcome Trust	2005-
The impact of rotavirus in children <5years old	Wellcome Trust	2002-
The impact of respiratory syncytial virus in children <5years old	Wellcome Trust	2001-
Neurological sequelae following admission to hospital with neonatal jaundice	Wellcome Trust	2003-
Neurological sequelae following admission to hospital with severe and complicated malaria	Wellcome Trust	2000-

Planned Projects

Phase II study of the malaria vaccine candidate RTSSTM
 A phase III trial of pneumococcal vaccine

Human Resource at the site

CATEGORIES	NUMBER
Research Scientists	3
Clinical Officers	10
Nurses	21
Drug dispensing clerks	3
IT Analyst	1
Database and ICT	6
Lab technicians	5
EEG technician	1
Assistant Research coordinators	2
Educational Assessors	3
Play Therapist	2
Ward and OPD aids	22
Field Workers	25
Statisticians / Bio-Statisticians	1
Field Supervisors	4
Social Scientists	1

Funders: Wellcome Trust UK

Collaborators

KEMRI, MMV, University of Oxford, Warwick University, London School of Hygiene and Tropical Medicine, INDEPTH Network.

KEY PUBLICATIONS

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3. Brent, A.J., **Ahmed, I., Ndiritu, M. Lewa, P. Ngetsa, C. Lowe, B. Bauni, E. English, M. Berkley, J.A. Scott, J.A.** (2006). "Incidence of clinically significant bacteraemia in children who present to hospital in Kenya: community-based observational study." Lancet **367**(9509): 482-8.
4. **Wambua, S., Mwangi, T.W., Kortok, M., Uyoga, S.M., Macharia, A.W., Mwacharo, J.K.,** Weatherall, D.J., **Snow, R.W., Marsh, K., Williams, T.N.** (2006) "The Effect of alpha(+)-Thalassaemia on the Incidence of Malaria and Other Diseases in Children Living on the Coast of Kenya." PLoS Medicine **3**: e158.
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 8. **Williams, T.N., Wambua, S., Uyoga, S., Macharia, A., Mwacharo, J.K., Newton, C.R.J.C., Maitland, K.** (2005). "Both heterozygous and homozygous {alpha}⁺ thalassemias protect against severe and fatal Plasmodium falciparum malaria on the coast of Kenya." Blood **106**(1): 368-371.
 9. **Williams, T.N., Mwangi, T.W., Wambua, S., Alexander, N.D., Kortok, M., Snow, R.W., Marsh, K.** (2005). "Sickle Cell Trait and the Risk of Plasmodium falciparum Malaria and Other Childhood Diseases." Journal of Infectious Diseases **192**(1): 178-186.
 10. **Nokes, J.A., Okiro, E.A., Ngama, M., White, L.J., Ochola R., Scott P.D., Cane P.A. Medley G.F.**, (2004) "Respiratory Syncytial Virus epidemiology in a birth cohort in Kilifi District, Kenya: Infection during the first year of life." Journal of Infectious Disease **190**: 1828-1832.

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