# Screening-homes to prevent malaria

Submission date	<b>Recruitment status</b> No longer recruiting	Prospectively registered		
27/06/2006		☐ Protocol		
Registration date	Overall study status	Statistical analysis plan		
31/08/2006	Completed	[X] Results		
<b>Last Edited</b> 25/09/2009	Condition category	[] Individual participant data		

## Plain English summary of protocol

Not provided at time of registration

# Contact information

## Type(s)

Scientific

#### Contact name

**Prof S Lindsay** 

#### Contact details

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# Additional identifiers

# Protocol serial number

G0400031

# Study information

Scientific Title

## Study objectives

A randomised-controlled trial will be conducted in Farafenni town in The Gambia to assess whether screening windows, doors and eaves or installing netting ceilings to local houses can

substantially reduce exposure to malaria vectors compared to homes with no screening. Risk of malaria transmission will be assessed in each house by routine collections of mosquitoes using light traps and identifying which of the vectors are carrying malaria parasites. The acceptability of the interventions will be assessed through focus groups and questionnaires. Experimental huts will be used to determine whether any additional benefit can be achieved by impregnating torn screens with insecticide.

Therefore, the aims of this study are to:

- 1. Determine whether house screening will reduce house-entry by malaria mosquitoes by 50% in Gambian homes
- 2. Assess whether the protection differs in the two types of screening by more than 17%
- 3. Determine whether house screening will reduce severe anaemia by 50% in children sleeping in these homes
- 4. Find out whether these interventions are comfortable, durable and acceptable to local communities
- 5. Assess whether insecticide-treatment of the screens prolong protection if the screens are torn

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

House screening intervention reviewed and approved by Gambian Government and Medical Research Council Laboratories Joint Ethics Committee (30/10/2004) and Durham University Ethics Advisory Committee (18/05/2005).

The anaemia prevalence study was reviewed and approved by the same committees on 10/02/2006 and 27/03/2006 respectively.

### Study design

Randomised controlled trial

### Primary study design

Interventional

## Study type(s)

Prevention

# Health condition(s) or problem(s) studied

Malaria

#### **Interventions**

This is a three-armed trial comprising of two screening interventions (full screening of 200 homes and netting ceilings of 200 homes) and a control group without screening of 100 homes.

### Intervention Type

Other

#### Phase

**Not Specified** 

### Primary outcome(s)

- 1. Number of female mosquitoes (Anopheles gambiae) s.l./light trap/night
- 2. Haemoglobin density (g/dl)

#### Key secondary outcome(s))

Added as of 22/02/2007:

- 1. Prevalence of severe anaemia (defined as haemoglobin less than or equal to 8 g/dL)
- 2. Proportion of children with maleria parasites (Plasmodium falciparum prevalence)
- 3. Prevalence of high parasitemia (defined as equal to or greater than 5000 parasites/ul
- 4. Sporozoite rate estimations in trapped mosquitoes
- 5. Estimated entomological inoculation rate (EIR) i.e. mean number of sporozoite infective mosquitoes/house/season
- 6. Acceptability
- 7. Average indoor nightly temprature
- 8. Average rate of evaportaion indoors at night
- 9. Qualitative data from focus group discussions with household members
- 10. Proportion of residents willing to continue use of intervention
- 11. Proportion of residents willing to invest in intervention installation
- 12. Durability
- 13. Number of screens showing damage at 6 and 12 months after installation
- 14. Other
- 15. Number of Culex quinquefasciatus /light trap/night

#### Completion date

31/10/2008

# **Eligibility**

#### Key inclusion criteria

Homes in Farafenni town and surrounding peri-urban villages in which at least one child sleeps.

### Participant type(s)

Patient

### Healthy volunteers allowed

No

#### Age group

**Not Specified** 

#### Sex

All

#### Key exclusion criteria

Houses that are:

- 1. More than a single storey
- 2. More than four rooms or that have a ceiling, screening or closed eaves

#### Date of first enrolment

01/05/2005

#### Date of final enrolment

31/10/2008

# Locations

#### Countries of recruitment

**United Kingdom** 

England

Gambia

Study participating centre School of Biological and Biomedical Sciences Durham United Kingdom DH1 3LE

# Sponsor information

### Organisation

Medical Research Council Laboratories (The Gambia)

#### **ROR**

https://ror.org/025wfj672

# Funder(s)

## Funder type

Research council

#### Funder Name

Medical Research Council (MRC) (UK)

#### Alternative Name(s)

Medical Research Council (United Kingdom), UK Medical Research Council, MRC

### **Funding Body Type**

Government organisation

## **Funding Body Subtype**

National government

## Location

United Kingdom

# **Results and Publications**

Individual participant data (IPD) sharing plan

# IPD sharing plan summary

Not provided at time of registration

## **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	19/09/2009		Yes	No