



Rapid assessment: Perceptions of malaria and neglected tropical diseases services in Bandarban, Bangladesh

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A malaria-free Bangladesh: Strategies to eliminate malaria

National Strategic Plan 2015-2020 aims to achieve malaria elimination by 2020:

The Government is committed to establish a people oriented and responsive health care service, addressing the needs of women, children, adolescents, the elderly, the poor and the marginalized, through developing an effective, efficient and sustainable health care delivery system managed by skilled and efficient human resources.

Malaria Consortium

- A UK based non-governmental organisation commenced as an academic organisation working with the London and Liverpool Schools of Tropical Medicine and later as a resource centre on malaria for the UK Department for International Development
- In 2003, it became registered with the Charity commission as a NGO
- In 2015, Malaria Consortium works in:
 - seven African countries and through partners in four other countries,
 - in four Asian countries
 - regional offices in Uganda Nigeria and Thailand

Malaria Consortium's vision

To improve lives in Africa and Asia through sustainable, evidence-based programmes that combat targeted diseases and promote child and maternal health

Malaria consortium Asia has focused on:

- Improving surveillance through:
 - improving routine data collection systems and using mhealth interventions to ensure real time data reporting to support elimination of malaria and management of dengue
 - national surveys in Cambodia, Thailand and Myanmar
 - iCCM(community level management of pneumonia, diarrhoea, malaria and malnutrition)
- Innovative vector control and behaviour change communication interventions

Areas of expertise

What diseases?

Malaria

NTDs

Dengue

Pneumonia

Diarrhoea

Malnutrition

Integration around acute febrile illness

What areas?

Vector control

Chemoprevention

Diagnostics

Case management

Clinical quality improvement

Resistance management

Elimination

Health system strengthening/child & maternal health

What approaches tools and techniques?

Community delivery

Public health communications

Research uptake

Data management

M&E & Surveillance

mHealth

Capacity building

Quantitative & qualitative research

Costing and economic impact evaluation

Private sector engagement

Advocacy

Malaria Consortium in Bangladesh

- Following a visit to Bangladesh by MCs Asia Regional and Technical Director in December, a rapid assessment was conducted:
 - To explore the knowledge attitudes and practices among health workers, policymakers and communities on **malaria control and elimination and neglected tropical diseases (NTDs)**
- With support from USAID, MC has also conducted rapid assessments of **malaria in pregnancy** in Cambodia Myanmar, Laos and Thailand:
 - To make recommendations on this neglected aspect of malaria control and elimination

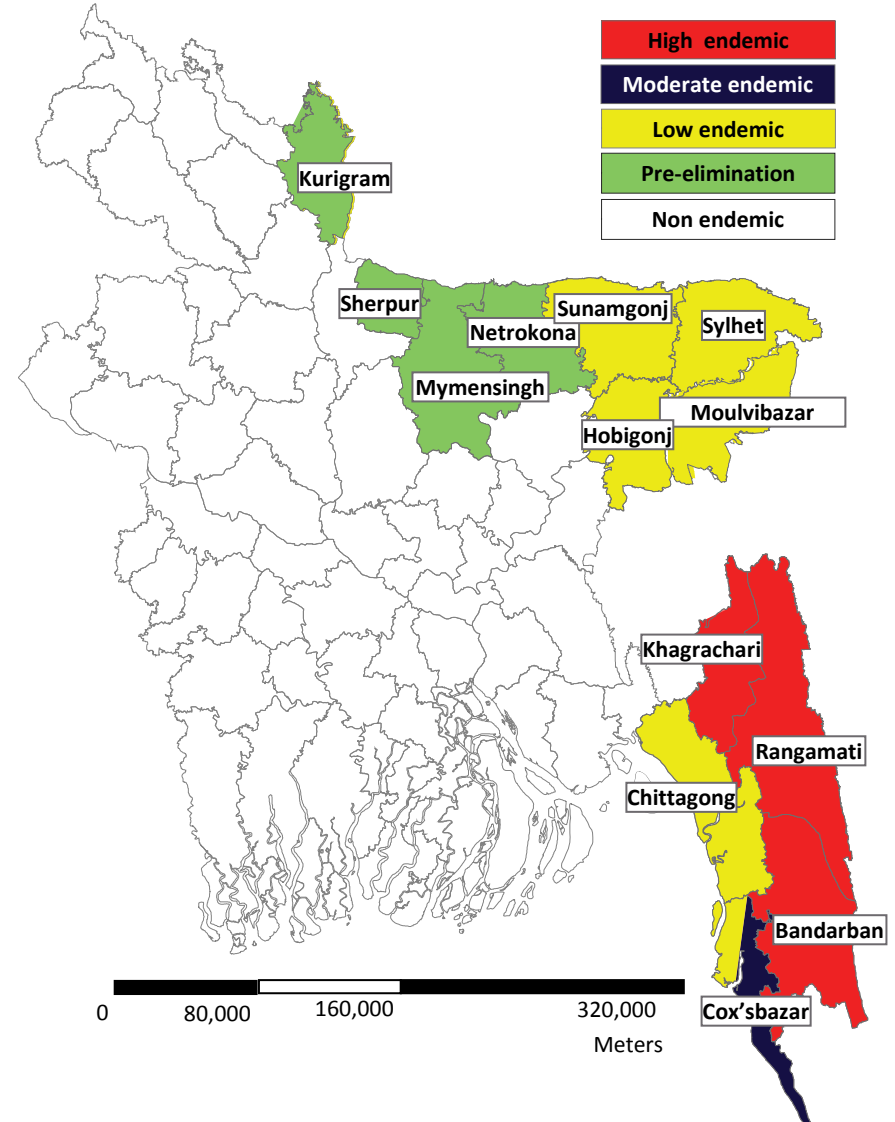
Malaria in Bangladesh

National

- Population at risk: 13.25m
- Malaria endemic districts: 13
- Highly endemic Districts: 3 – all in the CHTs area
- In 2015 total of 39,719 cases of malaria and 9 deaths

CHT

- Population at risk: 1.66M
- In 2015 35,968 cases of malaria and 3 deaths



Study background – malaria and NTDs

Malaria

- The Chittagong Hill Tracts: highest malaria prevalence
- Bandarban district has recorded rates of up to 36%
- Majority of cases are *P. falciparum*

Study background – malaria and NTDs

NTDs

- Prevalent NTDs in Bangladesh: lymphatic filariasis, kala-azar and soil transmitted helminthiasis (STH)
- Government is making good progress but still prevalent in Bandarban
- Primarily seen among children and women of childbearing age
 - **Associated with low socio-economic status and due to insufficient sanitation facilities**, unsafe human waste disposal systems, inadequate safe water supply
 - Can lead to malnourishment, impairment of physical growth and mental/cognitive development and increased anaemia in pregnancy

Study objectives

To explore:

Local health provider and community perceptions regarding the quality and effectiveness of malaria and NTD services

Local knowledge, attitudes, practices and behaviours (KAPB) related to malaria and NTDs

Use of national guidelines and policy for malaria and NTD prevention and treatment

Recommendations for behaviour change communications (BCC) strategies

Differences and similarities in perceptions between icddr,b's surveillance intervention sites and a non-intervention site

Methodology

Type of study: Qualitative Study

Duration: January- March 2016

Study area: Rajbila and Kuhlalong Unions in Bandarban District and Noapotong Union in Rowangchari District

Number of participants: 169

Key informant interviews (KIIs)

18 one-to-one semi-structured interactions lasting between 1-2 hours

Focus group discussions (FGDs)

20 guided discussions lasting 2-2.5 hours with a total of 151 participants

Analysis and findings



Analysis

Based on framework approach

Respondents divided into 4 categories and major themes

Service users/community residents

- Common illnesses
- Knowledge of malaria and worms
- Health-seeking behaviour and rational decision-making
- Role of community health workers (CHWs)
- Behaviour change communication (BCC)
- Challenges

Formal health staff

- Common illnesses
- Knowledge of malaria and worms
- Training and supervision
- Referrals
- Role of CHWs
- BCC
- Challenges

Community health workers (HA, SS, SK)

- Common illnesses
- Roles and responsibilities
- Knowledge of malaria and worms
- Training and supervision
- Referrals
- BCC
- Challenges

Private providers (VD, VP, TH)

- Common illnesses
- Knowledge of malaria and worms
- Training and supervision
- Collaboration and referrals
- BCC
- Challenges

Main findings relevant to malaria and NTDs

- All groups described malaria, fever and worms as major cases of ill health among the community
- Pneumonia, chronic cough, diarrhoea and malnutrition also featured among the problems mentioned by all groups

Community members

Knowledge of the community

- Causes, symptoms and prevention of malaria and worms seems fairly well known, but some misconceptions such as eating sweets can cause worms and not washing hands can cause malaria
- Most people own and use nets, prioritising women and children
- Strong belief in malaria rapid diagnostic tests (mRDTs) but access may be limited
- Good understanding of dangers of malaria in pregnancy
- Main source of information are health workers, NGO staff and headman but are very interested in seeing dramas
- Suggestion that mobile phones could be used to send messages and videos that could be shared



Health-seeking behaviour

- Majority go to service provider that is closest – seem to use VD, CC, icddr,b and BRAC interchangeably
- Some preference for village doctors/pharmacy – due to faster service and ability to buy medicines in one place; are members of the community so known to them and speak same language
- Visit traditional healers for non-malaria fevers and non-specific illnesses
- If there is fever, they generally wait a few days to see if fever will go away
- Once health is improving, less importance placed on completing treatment
- View that government hospital is over-crowded, slow, and expensive as there is a need to purchase some drugs and supplies outside
- View that staff at local facilities are inexperienced or underqualified

Decision making

- Where to seek healthcare: senior male member of the household decides
- Place of delivery: mother- in- law decides

Community health workers

- CHWs are appreciated and their advice taken
- Community members would like to see more CHW services within the community

Challenges

- Referrals are costly – need to find transport and money for medicine
- Doctors in hospital are unknown to them, some shyness among female respondents (or their mother-in-law, particularly in terms of place to deliver)
- Language is a challenge when going to doctors outside of para

Formal health staff

Knowledge of health staff

- Good knowledge of malaria and worms symptoms and worm treatment
- Mixed knowledge of malaria treatment
- Some confusion over cause of malaria e.g. suggesting to maintain personal hygiene for prevention (FP SACMO)
- Limited understanding of need for rapid diagnosis of cause of fever often give paracetamol for a few days and observe before referring for testing
- Limited knowledge of how to use mRDTs
- Fevers routinely treated with antibiotics, oral saline or glucose and then referred if don't recover



Training

Limited training on current malaria treatment and diagnostic guidelines: most received training several years ago

- Limited knowledge of mRDTs e.g. think only for *Pl. f* etc
- No training for SACMOs on severe malaria
- Not all H&FW centres provided with mRDTs or malaria treatment – rely on CCs to treat and refer to district if necessary (provide in Noapotong but not R&K)

Supervision

- Limited supervision

Management of severe cases

- Pregnant women and severe cases are referred, but no standard system to ensure referral is carried out or follow up
- No pre-referral treatments available

Health staff views on CHWs

- Have a good relationship but more formal supervision is required
- Divided opinion on whether or not CHWs can handle more responsibilities – some think it's needed other think dangerous to provide antibiotics etc. at that level

Possible strategies to improve BCC

- Deliver messages via mosques, madrassa, temple, and radio messages
- Increase training on malaria and NTDs to religious leaders and headmen
- SMS messages in areas with phone coverage

Challenges

- Not all HCs able to test for cause of fever – need to refer
- Referrals are challenging due to long distances and expense to patients' family
- Adequate supply of drugs not always available . Patients get angry if there are stock outs
- Language is a barrier with patients
- Limited electricity and clean water supply in remote areas
- Limited phone coverage make communication difficult
- H&FW asked to carry out normal deliveries but not provided with necessary facilities or equipment
- Traditional healers still used in remote areas

Community health workers

Roles and responsibilities

- **SK:** keep info on net use, advise people to use nets, do RDT on suspected malaria patients, provide treatment when test is positive (Primaquine and Avloquin)*, refer patients, collect sputum for TB testing
- **SS:** visit malaria patients and pregnant women, help to hang mosquito nets, advise people to keep homes clean, refer to SK for RDT, collect sputum for TB testing, advise on family planning, make sure patients are taking medicine correctly
- **HA:** childhood vaccinations (from birth to 18 months), provide iron and Vit A. Maintain birth and death registration. Collect sputum for TB testing, collect slides for malaria testing. Provide treatment for malaria positive patients (coartem and primaquine). Carry out health education in schools.



Knowledge among CHWs

- Good knowledge of malaria signs, cause and prevention
- Good understanding of mRDTs
- Good knowledge of worm symptoms and prevention among SSs
- No knowledge of worms by SK

Role in patient care

- Severe patients, pregnant women and children with malaria referred to Bandarban hospital
- Patient referral details recorded in register book
- Help to arrange transport when possible and accompany patient if no relative available
- Follow up with patient to see if recovered

Role in SBCC

- Dramas at markets
- Projectors to show films/dramas from laptops in local language

Would like

- Training on how to treat more illnesses: diarrhea, cough, cold, fever
- More regular refresher training
- Majority of SSs and HAs would like to be trained to do mRDT
- HAs would like TA and DA

Challenges

- Some people don't want to use nets; some pregnant women afraid of giving birth in hospital
- Do not receive any monthly salary (SSs)
- Some patients are far away (3-4 hrs walk); travel long distances with heavy bags to carry with equipment
- Heavy work load (HAs)
- Do not have all necessary equipment (HAs); weighing scales, BP, stethoscope etc
- Pressure from family members (mother-in-law) for working without pay
- Do not receive any support from CCs but good support from health inspector

Private providers

Training

- Many 'doctors' have limited formal education, majority learn on the job and many are not trained in national guidelines and protocols. Majority not trained in current treatment and diagnosis for malaria
- Refer but only if unable to diagnose by observation
- Refer patients to BRAC for malaria testing
- Don't treat critical cases, refer to hospital directly



BCC

- Use teachers and health workers to target mothers for BCC
- Use female health workers do daily talks and house to house visits (2x week)

Challenges for delivery of good quality health care

- Poor access to clean water in communities
- High level of illiteracy in communities
- Poor nutrition

Recommendations from the report



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disease control, better health

Recommendations from the report

Prevention

- Study acceptance of treated clothing for Joom cultivation and dengue prevention

Case management

- Increase awareness on importance of early testing/ treatment and presence of asymptomatic cases among health workers, CHW and the community
- Increase use of mRDTs on community level and among private providers
- Integrate health and FP in rural areas, rather than vertical programmes e.g. All staff trained in pre-referral management of severe malaria, mRDT testing and correct treatment
- Pilot increased scope of work of trained CHWs to cover major causes of fever among children under 5 (ICCM) and include the diagnosis and management of dengue and malnutrition
- Pilot pre-referral management of severe malaria (rectal artesunate) at community and lower level health facilities including private providers

SBCC

- Increase awareness on importance of continuous use of treated nets by reinforcing messages from health facility staff and CHWs
- Increase focused messages on the importance of drug adherence
- Separate health education activities for diarrhea and malaria - to avoid mixed messaging
- Actively engage male heads of household and mother-in-laws to increase timely decision making and safe delivery
- Organise mobile video shows in local language at community level etc.
- Pilot positive deviance (Lusai indigenous group)
- Increase awareness on importance of early testing/ treatment and presence of asymptomatic cases
- Separate health education activities for diarrhea and malaria - to avoid mixed messaging

Other interventions

- **Encourage and pilot community funds for emergency referral costs**
- Train health facility staff on how to make use of routine data collected
- In order to improve motivation and retention of CHWs:
 - standardise compensation across districts/organisations
 - maintain motivation through use of non-monetary incentives such as training, regular acknowledgement, fast and free treatment for family members etc
- Increase training for volunteers and health staff on interpersonal communication

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Thank you

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