CAHRD
COLLABORATION FOR APPLIED HEALTH RESEARCH AND DELIVERY

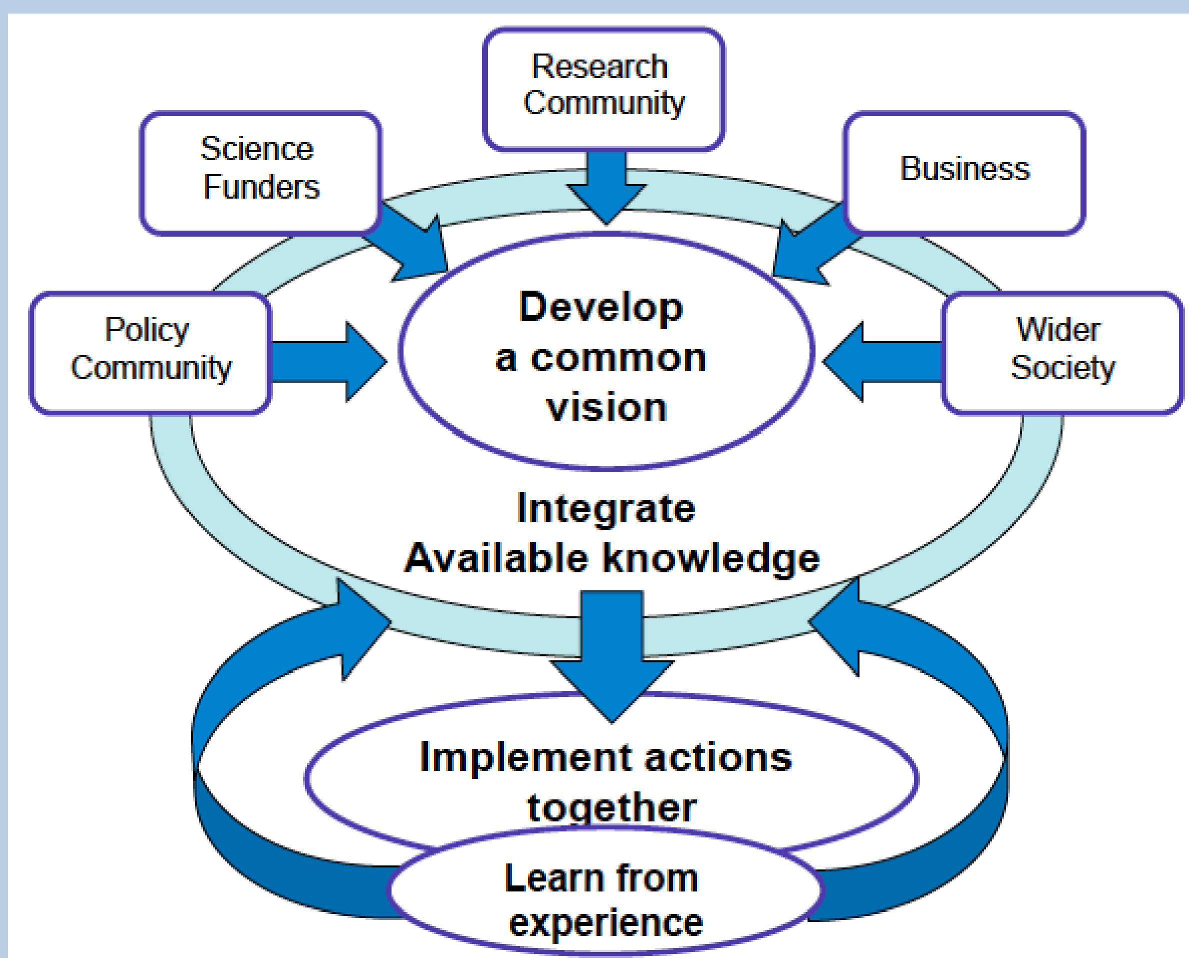
# CAHRD CONSULTATION DISCUSSION PAPERS – SUMMARY DOCUMENT

## CAHRD Consultation 2014: The 10-20 year Horizon
## Introduction and Overview (CAHRD Introductory Paper)


**Summary**

The overall aim of the 2014 Consultation is to bring together internal and external partners to help shape the strategic direction for CAHRD over the 10 to 20 year horizon. Our strategic thinking will be guided by our vision of a healthy future for low and middle income populations and our mission to transform health systems to improve the health of these populations. Partnership between northern and southern institutions is integral to this work and critical in the consultation process. The Consultation considers four selected areas of the current work of CAHRD: Lung Health, Maternal & Newborn Health, Neglected Tropical Diseases, and Health Systems. We aim to foster dialogue and learning between these and across contexts and disciplines. The major challenges that will need to be addressed over the next 10 to 20 years will be scoped and pathways to possible solutions proposed. The overall vision is a process of co-production of knowledge (see Figure 1 below)


**Figure 1. Co-production of knowledge** (source: FutureEarth Research for Global Sustainability http://www.futureearth.info/who-we-are)



## Respiratory Risks from Household Air Pollution in Lower and Middle Income Countries (LH Biomass)

**Summary**

Household air pollution (HAP) is the term applied to air pollution arising from domestic activities of cooking, heating and lighting. Two billion people world-wide are exposed to toxic levels of HAP daily as they use biomass fuels, defined as solid fuels derived from plant sources for these purposes, with combustion methods that frequently result in inefficient combustion of the fuels. Further, biomass fuel use is often found in homes with poor domestic ventilation of the smoke. HAP is associated with a wide range of adverse health effects, both acute and chronic conditions, pulmonary and systemic (especially cardiovascular). Poverty and the use of biomass fuel are inextricably linked; as poverty is a risk factor for respiratory disease in all communities, the attribution of disease burden to HAP exposure is far from straightforward. A major challenge over the 10 to 20 year horizon will be to ensure the 'bottom billion' benefit in an equitable way from innovations and developments in the energy sector that offer opportunities to substantially improve household air quality and improve health among these vulnerable populations.

## Improving access to effective care for people with chronic respiratory symptoms in low and middle income countries (LH Cough)

**Summary**

Chronic respiratory symptoms are amongst the most common complaints among low and middle-income country (LMICs) populations and they are expected to remain common over the 10 to 20 year horizon. The underlying diseases (predominantly chronic obstructive pulmonary disease, asthma and tuberculosis) cause, and threaten to increasingly cause, substantial morbidity and mortality. Effective treatment is available for these conditions but LMICs health systems are not well set up to provide accessible clinical diagnostic pathways that lead to sustainable and affordable management plans especially for the chronic non communicable respiratory diseases. There is a need for clinical and academic capacity building together with well-conducted health systems research to underpin health service strengthening, policy and decision-making. There is an opportunity to integrate solutions for improving access to effective care for people with chronic respiratory symptoms with approaches to tackle other major population health issues that depend on well functioning health services such as chronic communicable (e.g. HIV) and non-communicable (e.g. cardiovascular and metabolic) diseases.

## Catastrophic care-seeking costs as an indicator for lung health (LH Costs)

**Summary**

Costs incurred during care-seeking for chronic respiratory disease are a major problem with severe consequences for socio-economic status and health outcomes. Most of the published evidence to date relates to tuberculosis (TB) and there is a lack of information for the major non-communicable chronic respiratory diseases: asthma and chronic obstructive pulmonary disease (COPD). International policy is recognising the need to address this problem and measure progress towards eliminating catastrophic care-seeking costs (see the post-2015 TB strategy). Current tools for measuring, defining, and understanding the full consequences of catastrophic care-seeking costs are inadequate. We propose two areas of work which are urgently needed to prepare health systems and countries for the burden of chronic lung disease that will fall on poor populations in the coming 10-20 years:

a) Rapid scale up of the number and scope of studies of patient costs associated with chronic non-communicable respiratory disease.

b) Work towards deeper understanding and effective measurement of catastrophic care-seeking costs.

This will produce a range of indicators, such as dissaving, which can more effectively inform health policy decision-making for lung health. These will also be useful for other health problems. We argue that reduction in care-seeking costs will be a key monitoring indicator for improvements in lung health in particular, and health in general, in the coming 10 to 20 years.

## Universal Health Coverage and Maternal and Newborn Health (MNH UHC)

**Summary**

Women and children are important and vulnerable groups that are prone to inequity with regard to access to health care and health outcomes. They could potentially benefit significantly if UHC is implemented well. Innovative new pathways may need to be developed to ensure equitable access. As the burden of disease varies between and within countries it is unlikely that 'one size fits all' and countries should be supported to develop and clear needs assessment and choices based on identified need.

Maternal and newborn health have long served as the 'litmus test' of a functioning health system. They could similarly become a litmus test for universal health coverage. Essential packages of care such as the continuum of care already defined may need to be expanded with a refocus on the life time approach. UHC can serve as an umbrella to pursue goals in MNH over the next decades with international agreement developing around newly set target for indicators such as a reduction by 2030 of the maternal mortality ratio to below 40 per 100 000 births and child mortality below 20 per 1000 births.

## Improving the Quality of Maternal and Newborn Health Services (MNH Quality)

**Summary**

Poor quality of care contributes to maternal and newborn mortality and morbidity.

Several countries have made maternity services free of charge and/or provided financial incentives to women leading to very significant increases in the number of women seeking care at health facility level. In an often already overstretched health system this has, however, led to a poorer quality of care being provided in many cases.

In maternal and newborn health there is a variety of audit methodology that can be used to identify which aspects of care are substandard and require change and how this change can be effected.

The three main types of audit that are currently practiced include maternal and perinatal death audit, 'near miss' audit and standards-based audit.

All types of audit help health care providers evaluate care provided by asking the questions: what was done well, what was not done well and how can care be improved in future?

Audit needs to be carried out in a 'no shame, no blame' manner with the purpose of finding pertinent solutions to areas of care that are sub-standard.

When developing standards against which care can be 'benchmarked', it is important that both the users and providers of care are included.

Currently in many countries maternal death audit is accepted practice but not yet scaled up. This is a missed opportunity.

Perinatal audit is less frequently conducted and requires more effort for wider implementation to take place.

A recently developed cause classification for maternal deaths (ICD-MM) allows for better analysis and aggregation of data and needs to be introduced and implemented more widely.

For stillbirths, there is no agreed classification system to identify cause and contributing factors and this is urgently needed.

Standards-based or clinical audit is a low cost non-threatening method that can be used by quality improvement teams in low and middle income settings. Initial work suggests this is easily introduced and an effective method to help improve quality of maternity services at all levels.

## Operational Research in Maternal and Newborn Health (MNH OR)

**Summary**

Operations research is widely used in commercial settings but application in health programming is less well developed. Both the case studies and experiences of operational research in health relate mainly to infectious disease research (especially TB, HIV and malaria). These studies show that operational research is highly relevant to monitoring and evaluation of implementation programmes and can contribute to an improvement in performance, policy and practice. Operational research should be able to provide information on how to improve health care delivery and such studies are crucial in the assessment of how new technologies or methods can be integrated into routine health systems.

We believe that it is important that operational research is increasingly embedded into health interventions programmes and that it can additionally be added as a demand-driven problem solving tool. Operational research is about ensuring evidence based interventions are put into practice - a move from efficacy to effectiveness. This is particularly relevant to the post 2015 agenda for maternal and newborn health.

## Fit for purpose: do we have the right tools to sustain NTD elimination? (NTD Tools)

**Summary**

Priorities for NTD control programmes will shift over the next 10-20 years as the elimination phase reaches the 'end game' for some NTDs, and the recognition that the control of other NTDs is much more problematic. The current goal of scaling up programmes based on preventive chemotherapy (PCT) will alter to sustaining NTD prevention, through sensitive surveillance and rapid response to resurgence. A **new suite of tools and approaches** will be required for both PCT and Intensive Disease Management (IDM) diseases in this timeframe to enable disease endemic countries to:

**1. Sensitively and sustainably survey** NTD transmission and prevalence in order to identify and respond quickly to resurgence.

2. Set relevant control targets based not only on epidemiological indicators but also entomological and ecological metrics and use **decision support** technology to help meet those targets.

3. Implement **verified and cost-effective tools** to prevent transmission throughout the elimination phase.

LSTM and partners propose to evaluate and implement existing tools from other disease systems as well as new tools in the pipeline in order to support endemic country ownership in NTD decision-making during the elimination phase and beyond.

## Infectious disease and health systems modelling for local decision making to control neglected tropical diseases (NTD Models)

**Summary**

Most neglected tropical diseases (NTDs) have complex life cycles and are challenging to control. The "2020 goals" of control and elimination as a public health programme for a number of NTDs are the subject of significant international efforts and investments. Beyond 2020 there will be a drive to maintain these gains and to push for elimination of transmission so that programmes do not have to be kept in place indefinitely. These diseases are highly heterogeneous in nature and spatial distribution and so are affected by variation in variations in vectors, human demography, access to water and sanitation, access to interventions and local health systems. We argue that there will be a need to develop local quantitative expertise to support elimination efforts. If available now, quantitative analyses would provide updated estimates of the burden of disease, assist in the design of locally appropriate control programmes, estimate the effectiveness of current interventions and support 'real-time' updates to local operations. Such quantitative tools are increasingly available at an international scale for NTDs, but are rarely tailored to local scenarios. Localised expertise not only provides an opportunity for more relevant analyses, but also has a greater chance of developing a virtuous circle between data collection and analysis by demonstrating the value of data. It is also likely that if such infrastructure is provided for NTDs there will be an additional impact on the health system more broadly. Locally tailored quantitative analyses can help achieve sustainable and effective control of NTDs, but also underpin the development of local health care systems. The partnership between Liverpool School of Tropical Medicine and the University of Warwick is ideally placed to provide the scientific and programmatic training and implementation support to allow these programmes.

## Mass Drug Administration and beyond: how can we strengthen health systems to deliver complex interventions to eliminate neglected tropical diseases? (NTD Delivery)

**Summary**

Achieving the 2020 goals for Neglected Tropical Diseases (NTDs) requires scale-up of Mass Drug Administration (MDA) which will require long-term commitment of national and global financing partners, strengthening national capacity and, at the community level, systems to monitor and evaluate activities and impact.

For some settings and diseases, MDA is not appropriate and alternative interventions are required. Operational research is necessary to identify how existing MDA networks can deliver this more complex range of interventions equitably.

The final stages of the different global programmes to eliminate NTDs require eliminating foci of transmission which are likely to persist in complex and remote rural settings. Operational research is required to identify how current tools and practices might be adapted to locate and eliminate these hard-to-reach foci.

Chronic disabilities caused by NTDs will persist after transmission of pathogens ceases. Development and delivery of sustainable services to reduce the NTD-related disability is an urgent public health priority.

LSTM and its partners are world leaders in developing and delivering interventions to control vector-borne NTDs and malaria, particularly in hard-to-reach settings in Africa. Our experience, partnerships and research capacity allows us to serve as a hub for developing, supporting, monitoring and evaluating global programmes to eliminate NTDs.

## Close to community health providers post 2015: Realising their role in responsive health systems and addressing gendered social determinants of health (HS CTC)

**Summary**

Universal health coverage is gaining momentum and is likely to form a core part of the post MDG agenda and be linked to social determinants of health, including gender;

Close to community health providers are arguably key players in meeting the goal of universal health coverage through extending and delivering health services to poor and marginalised groups;

Close to community health providers are embedded in communities and may therefore be strategically placed to understand intra household gender and power dynamics and how social determinants shape health and well-being. However, the opportunities to develop critical awareness and to translate this knowledge into health system and multi-sectoral action are poorly understood;

Enabling close to community health providers to realise their potential requires health systems support and human resource management at multiple levels.

## The Challenges and Opportunities of Building Pro-poor Gender Equitable Health Systems in Fragile and Conflict-affected Contexts: Human Resources for Health (HS HR FCAS)

**Summary**

Fragile and conflict-affected states (FACS) have been neglected to date in health systems research and are important contexts in which to better understand and build strong and equitable health systems.

Human resources for health (HRH) is a critical health systems lens through which to analyse opportunities and challenges in FCAS; here we assess the literature and experiences in FCAS under 3 key areas: human resource management systems; staff supply; and staff performance.

Our maternal health case study from Sierra Leone highlights the importance of attracting, retaining and supporting health workers to provide quality services for women and children; building skills and confidence; and task shifting.

The emerging HRH issues from our NTD case study from different FCAS African contexts include leadership in establishing NTD programmes, attracting, retaining and training appropriate staff, the HR repercussions of withdrawal of NGOs following cessation of conflict and the importance of understanding work and care for morbidity management at the household and community level.

## Measuring and learning about health research capacity strengthening for development (HS Capacity)

**Summary**

Strengthening capacity in poorer countries to generate multi-disciplinary health research and to utilise research findings, is one of the most effective ways of advancing the countries' health and development. This paper explores current knowledge about how to design health research capacity strengthening (RCS) programmes and how to measure their progress and impact. It describes a systematic, evidence-based approach for designing such programmes and highlights some of the key challenges that will be faced in the next 10 years. These include designing and implementing common frameworks to facilitate comparisons among capacity strengthening projects, and developing monitoring indicators that can capture their interactions with knowledge users and their impact on changes in health systems.