



Workshop on health systems research in low and middle income countries: the role of global health research funders in the UK



Report of the DFID, ESRC, MRC, the Wellcome Trust and UKCDS workshop:
13th and 14th December 2011, The Wellcome Trust, Gibbs Building, London

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i. ACRONYMS AND ABBREVIATIONS

AHPSR	Alliance for Health Policy and Systems Research
CHER	Children with HIV Early anti-Retroviral therapy
DART	Development of Anti-Retroviral Therapy in Africa
DFID	Department for International Development
ESRC	Economic and Social Research Council
FEAST	Fluid Expansion As Supportive Therapy
HPSR	Health Policy and Systems Research
LMIC	Low and Middle Income Country
LSTM	Liverpool School of Tropical Medicine
LSHTM	London School of Hygiene and Tropical Medicine
MRC	Medical Research Council
NGO	Non-Governmental Organisation
RPC	Research Programme Consortia
SHHEP	Sexual Health and HIV Evidence into Practice initiative
SRH	Sexual and Reproductive Health
UKCDS	UK Collaborative on Development Sciences
WHO	World Health Organisation



1 EXECUTIVE SUMMARY

Background to the report

The workshop on *Health systems research in low and middle income countries: the role of global health research funders in the UK*, was co-hosted by the Department for International Development (DFID), the Economic and Social Research Council (ESRC), the Medical Research Council (MRC), the Wellcome Trust and the UK Collaborative for Development Sciences (UKCDS), on 13 and 14 December 2011 in London and involved over 70 participants from across the globe. This report summarises the main points and discussions from the workshop and should be read in conjunction with the [background paper](#).

Workshop purpose

The UK funders who fund health related research in developing countries – DFID, ESRC, MRC and the Wellcome Trust – convened the workshop to consider how they might improve their contribution to producing research that can be used to strengthen and improve health systems in low and middle income countries (LMICs). The workshop took a broad understanding of health systems research, with a focus on research that can have a positive impact on health systems: there was a particular interest from some funders on operational and implementation research.

Workshop objectives

1. To consider how the UK might best focus its resources to make a difference to the global health systems research field.
2. To inform possible future funding strategies through discussion of best practice in interdisciplinary health systems research, including methodological approaches and links with policy and practice.

Workshop structure

The workshop format was a mixture of presentations and panel discussion sessions which showcased the diversity of research and some of the current best practices in health systems research. The workshop was organised into five sessions:

- Lessons learnt from examples of health systems research work.
- Global priorities in health systems research: where might the UK best focus its resources?
- Methodologies in health systems research: what components are needed for robust and effective research?
- What factors enable relevant research evidence to influence policy and practice? How might research funders best support this process?
- Summary and recommendations.

Throughout the two day workshop, the participants offered a variety of comments, suggestions and thoughts that reflected their perspectives in the diverse field of Health Policy and Systems Research (HPSR).

Emerging themes and recommendations

Health systems are complex, dynamic systems existing in a world characterised by limited resources and changing demands¹. The presence of robust health systems is a prerequisite for progress in global health.

Health policy and systems research

By its nature, health policy and systems research is both an interdisciplinary and a multidisciplinary field². The range of disciplines involved in health policy and systems research may include: health economics, sociology, anthropology, political sciences, geography, management sciences, business studies, epidemiology, public health and clinical sciences^{2,3,4}. Reflecting the diverse disciplinary backgrounds, health policy and systems research can utilise a variety of research approaches and methodologies. The prime focus of health policy and systems research is not on a specific disease or service, but rather on the components which contribute to a stronger more robust health system as a whole^{4,5}. A reoccurring message from the workshop discussions was the need to foster genuine interdisciplinary and multidisciplinary work on health systems.

Capacity building

Health systems are essentially collections of people¹. Emerging from the workshop discussions was a call for funding to build capacity in health systems research in low and middle income countries at an individual, institutional and systems level.

Methodologies

As a multidisciplinary and interdisciplinary field, defined by the topics and questions it considers, HPSR funding needs to ensure that there is active engagement and methodological understanding across the disciplinary boundaries. Furthermore, the delegates identified the need to develop new tools and models to understand the complex, multivariate nature of health interventions and systems data.

Context specificity

Health policies and systems are a consequence of the complex political and social structures which surround them: they are constructed by human actors⁶. The need to develop research questions and design studies which are sensitive to context, to ensure that recommendations take account of the circumstances in which they will be implemented, was reiterated throughout the workshop sessions. Context sensitive research facilitates the translation of evidence into policy and provides data for the identification of properties that aid or preclude the scaling up of interventions.

Target audience for research outputs

What outcomes does HPSR want to achieve? How will it engage with policy-makers and work within health systems to improve health outcomes? A key message to emerge from the discussions was the need for researchers to develop effective relationships and communications skills with policy and decision makers within health systems. Engagement with policy-makers throughout the research process, from the inception of

the research question, through the research programme and beyond, was highlighted as a vital link to ensure the relevance and uptake of the research conducted.

Continuity

The importance of continuity was a key recommendation to emerge from the case studies presented. Long-term relationships and long tenure positions within the research locale were viewed as essential in order to build local credibility, to develop relationships with local decision makers, and to encourage the translation of health interventions into policy and practice.

Promote evidence-informed policy-making

The discussion sessions recognised the importance of resources being committed to the promotion of the utility of health policy and systems research data in policy and decision making. Furthermore, the recommendation was that HPSR should be embedded as a routine component of programme design and decision making.

Future challenges

In an increasingly globalised and industrialised world environment, health systems will have to be flexible and adapt to face the new challenges which arise. The meeting attendees were mindful that health systems need to develop the capacity to face the challenges that urbanisation, climate change and technological changes may bring.

Caveats and qualifications

This report summarises the workshop presentations and attempts to bring together some of the most commonly reiterated suggestions emerging from the discussion sessions. While there has been some editing of the workshop's presentations and discussions, the emphasis of this report has been on summarising the detail of what was discussed. The workshop discussions will feed into and inform the scope and direction of future funding strategies.



2 SETTING THE SCENE: WORKSHOP CONTENT

Professor Sir Andrew Haines, Chair of Medical Research Council (MRC) Global Health Group/ London School of Hygiene and Tropical Medicine (LSHTM), UK

The workshop commenced with a presentation by Professor Andrew Haines. He introduced the background to the workshop, summarised the key points raised in the [background paper](#) and gave an overview of the field of Health Policy and Systems Research, including:

- The terrain and utility of health policy and systems research.
- The common barriers to improving health care provision in low and middle income countries.
- The importance of taking a systems thinking approach to connect health interventions and evaluate their impact on the health system. Figure 1 illustrates how health interventions can have system-wide effects.
- Future opportunities and challenges facing global health systems.

Professor Haines' slides can be found [here](#).

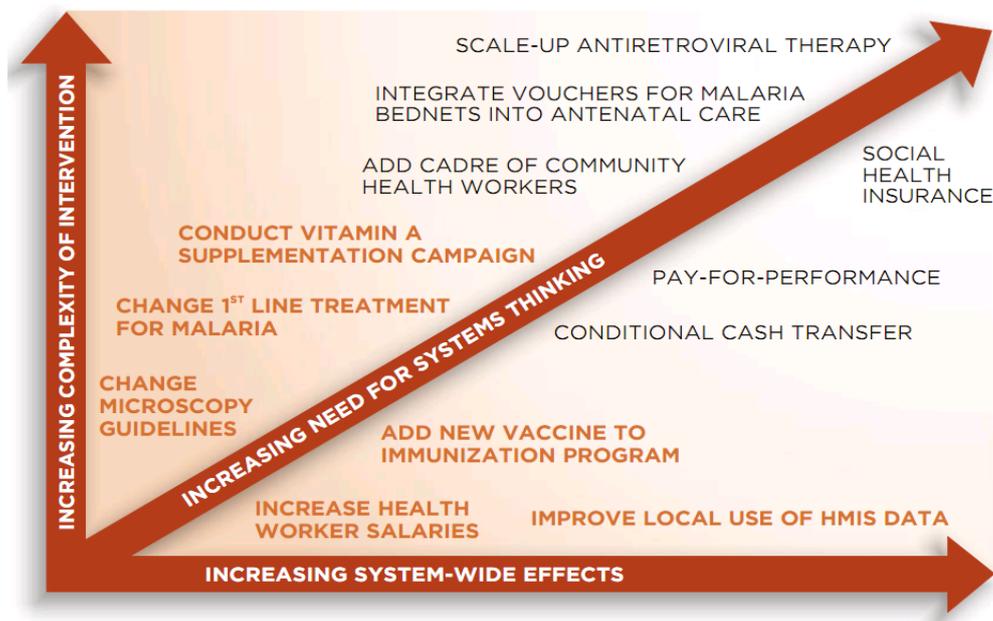


Figure 1. A spectrum of health interventions and their potential for system-wide effects (Taken from de Savigny D and Adams T. Systems thinking for health systems strengthening. Alliance for Health Policy and Systems Research, WHO 2009⁷)

3 LESSONS LEARNT FROM EXAMPLES OF HEALTH SYSTEMS RESEARCH

Session 1 Chair: Professor Srinath Reddy, Public Health Foundation of India, India

The first workshop session showcased four health systems research case studies from a variety of countries and contexts. The aim was to highlight the lessons learnt from the projects and to stimulate debate amongst the workshop attendees about the nature of health systems research.

Case study 1: Professor Mike English, Kenya Medical Research Institute (KEMRI), Kenya

Health systems research – product, process and impact

Overview: Professor Mike English discussed a large, multidisciplinary implementation study within the Kenyan health system which improved the health outcome of paediatric patients through the management training of primary health care workers⁸. The impact resulting from this research data exemplified a successful resolution to a key challenge in improving healthcare provision in low and middle income countries: overcoming the gap between evidence and practice. Professor English's slides can be found [here](#).

Details of the study: Through a randomised controlled study, collecting data from eight Kenyan hospitals between September 2006 and April 2008, Professor English and co-workers demonstrated a statistically significant improvement in the process of care for paediatric patients in hospitals using a new management regime⁸. The study tested the efficacy of a management regime directed at health professionals involved in initial patient treatment. The multidirectional programme involved the provision of evidence-based guidelines, training, job aids, local facilitation, supervision and face-to-face feedback for primary care staff.

Impact of study: The staff management regime has been incorporated into the Kenyan Ministry of Health guidelines, *Paediatric protocols for district hospitals*, with 22,000 copies distributed throughout Kenya. The guidelines have also been adopted and printed in the neighbouring country of Rwanda and are in development for distribution in Uganda.

Lessons learnt: Professor English identified a number of features of the study that he perceived were important in successfully translating the research evidence into policy and practice:

- Embedding policy-makers in the research process from the beginning.
- Long tenure in country was essential for researchers to develop and maintain collaborations with local scientists, clinicians and policy-makers, and to ensure context specificity of the research conducted.
- Establishment of long-term relationships with decision makers in health administration and government. Such relationships provided the communication channels and the necessary level of trust to scale up the health benefits indicated by the research.
- To promote this extended continuity of relationships, long-term funding was seen as essential.

Discussion points: The workshop delegates identified the following features of the case study as aspects of a well-constructed health systems research project:

- It was a locally generated health question with the clearly identifiable outcome of improvement in the process of care.
- The study design combined contextual specificity with the potential for broad applicability of the protocol.
- The study exemplified the necessity of effective training and adequate guidelines for treatment from the onset of the interaction between the patient and the health system.

Furthermore, the workshop participants identified these features as enhancing the likelihood of the research being translated into policy.

Case study 2: Dr Hayley MacGregor, STEPS Centre, Institute of Development Studies, UK

Situating responsibility for the control of infectious diseases: the work of lay HIV counsellors in South Africa

Overview: Dr MacGregor's presentation focused on explaining the value of qualitative methodology for understanding and evaluating the contribution to the health system of the work carried out by lay HIV counsellors in HIV clinics in Khayelitsha, Cape Town in South Africa. Dr MacGregor's presentation can be found [here](#).

Details of the study: South Africa has one of the highest co-infection rates of tuberculosis and HIV (three quarters of people with incident tuberculosis also test positive for HIV). In response, the South African government formulated the National Strategic Plan, which integrated the care management of the two diseases, in order to maximise the use of limited resources and facilitate the testing and treatment of the two conditions. The effect of this policy for nurses and lay councillors was an increase in the quantity of their work as well as in its complexity. In the context of this changing policy, Dr MacGregor studied the role of lay counsellors in HIV clinics through detailed observational studies, interviews with facility-based lay counsellors and interviews with their supervisors in the contracting non-governmental organisations (NGOs).

Impact of study: The data revealed that lay counsellors provided a valuable intermediary role for clients visiting the HIV clinics and assisted the clients in negotiating the health system. Arising from this work there is a policy proposal to extend the use of lay counsellors throughout the South Africa health service.



Lessons learnt: Dr MacGregor summarised the following key points:

- The perspectives of all the actors within a health system, including the marginalised, provide a valuable insight into the dynamics of the patient-health system interface.
- The often overlooked lay component of a health system may supply valuable information about potential impediments in the implementation of health system practice.
- The importance of context specificity.
- The value of using a multidisciplinary approach in health systems research.

Discussion points: The follow up discussion focused on the importance of integrating the social and behavioural components of a health system with the medical interventions used in order to achieve optimal system design.

Case study 3: Professor Di Gibb, MRC Clinical Trials Unit, UK

Influences on the pathway from evidence to implementation; examples from recent trials in Africa

Overview: Professor Di Gibb described three large multicentre individual patient health intervention trials in East and South Africa and compared and contrasted each trial's impact on health guidelines, uptake into national policies and the implementation of the research into practice. Professor Gibb's presentation can be found [here](#).



Details of studies:

- **CHER** (Children with HIV Early anti-Retroviral therapy)⁹: assessed the issue of when to start anti-retroviral treatment in infants. Treatment was provided to asymptomatic HIV-infected infants beginning at less than three months of age until their first or second birthday. The control group was given no treatment.
- **DART** (Development of Anti-Retroviral Therapy in Africa)¹⁰: evaluated the strategy of replacing the current laboratory/clinic driven treatment monitoring system for HIV, with a less expensive treatment strategy that was determined by clinical assessment alone. DART gathered data from more than 3,000 previously untreated HIV-infected adults over a five year period. Comparison of the mortality and health data collected from the patients treated according to the experimental versus the current monitoring system showed little difference¹⁰.
- **FEAST** (Fluid Expansion As Supportive Therapy)¹¹: the FEAST study tested the efficacy of the adoption of a mandatory fluid resuscitation treatment for all children with shock and life-threatening infections, a procedure routinely used in hospitals in well-resourced counties, into hospital practice in sub-Saharan Africa (Uganda, Kenya and Tanzania).

Impact of studies:

- **CHER⁹**: At an early stage of the trial, the Independent Data Monitoring Committee determined that the survival and health benefits from early anti-retroviral treatment were so significant that it was ethically indefensible to refrain from providing it to the control group. On the strength of the preliminary data, policy-makers examined the possibility of introducing the intervention into practice. Within a year, both global and African-based policy-makers included early anti-retroviral treatment into paediatric care guidelines⁹.
- **DART¹⁰**: Despite providing clear evidence for a viable, cheaper, treatment strategy the DART strategy continues to have little effect on policy. Professor Gibb suggested this lack of impact on policy may have stemmed from the difficulty in conveying the message that more monitoring does not always lead to better health outcomes. The health system benefit of the DART strategy was fundamentally an economic one: population health benefits would be maximised by increased access to anti-retroviral treatment and a less expensive treatment protocol allowed for greater coverage for the same cost. To strengthen that message a detailed understanding of the interconnections between the DART strategy and the economic environment was needed. A subsequent research programme, Lab-lite is underway to address the data gaps from the DART study in terms of economics, communication and context.
- **FEAST¹¹**: stopped mid-trial as the evidence from the mid-trial evaluation demonstrated that the intervention was detrimental to the health of the participants. FEAST prompted a great deal of international discussion examining explanations for the opposite health outcome from the same procedure provided in a low income setting versus in a resource rich health system.

Lessons learnt: Professor Gibb summarised the presentation with some thoughts relating to the experience she has gained from all three trials:

- Context specificity: question the social and physical setting of intervention studies when assessing applicability.
- Measuring the uptake/coverage of a health intervention and thus the impact of research.
- The necessity of health economics data.
- The increase in health equity through decentralisation of treatment.
- Targeting communication to the perspective of the decision makers is an important factor in facilitating the research to policy transition.

Discussion points: The follow up discussion focused on the elements of the research process that impact on the development of national guidelines: engagement with local policy-makers; early evaluation of the applicability of an intervention; the significance of context specificity in determining an appropriate research approach; and the need for situational analysis prior to the onset of intervention research.

Case study 4: Dr Abdul Ghaffar, World Health Organization (WHO), Alliance for Health Policy and Systems Research, Geneva, Switzerland

Influencing policy-making: results of a multi-country study

Overview: Dr Ghaffar presented a review of six studies funded through the Alliance for Health Policy and Systems Research (AHPSR) call for proposals to strengthen policy links in LMICs. Dr Ghaffar's slides can be found [here](#).

Details of studies: The AHPSR call was devised to promote and build capacity in the skills required for evidence-based health policy decisions. In total, six projects were funded. Through experience in developing policy briefs, creating knowledge platforms linking evidence to policy, and disseminating evidence through policy dialogues, the teams developed the skills needed for productive interactions with policy-makers and other health system stakeholders.



Impact of studies: The outcome of the funded programmes was a clear impact on policies made as well as a significant amount of capacity building:

- Health policy influenced by policy briefs in Nigeria, Cameroon and Zambia.
- 250 health system decision-makers trained in using evidence for policy-making.
- Increased demand for research evidence from Ministries of Health on their priority programmes.

Lessons learnt: Dr Ghaffar's analysis of the six case studies highlighted common traits that correlated with success in translating research evidence into policy:

- Institutional factors: research teams with established links to policy institutes were most effective in influencing policy.
- Factors influencing the uptake of research evidence included:
 - Acceptability of the research institution within 'power circles'.
 - Prior experience of engagement with policy-makers.
 - Focusing on the priorities of the policy-makers.
- Factors inhibiting the uptake of research evidence included:
 - Frequent turnover of ministry staff.
 - Weak organisational capacity for evidence-based policy.
 - Absence of a culture of using evidence-based policy.
- Policy environment e.g. willingness of the Ministry of Health to participate; strong political support.

Dr Ghaffar pointed out that key decision makers act at all levels of health systems and therefore the central importance of establishing the appropriate level for implementation and its associated policy-maker.

Discussion points: The workshop delegates discussed the importance of the quality of the relationship between the research team and the relevant decision makers, concluding that a strong commitment to effective translation of research evidence into policy was needed from both the researcher and the policy-maker.

Summary of lessons learnt session

The four presented case studies illustrated the diversity of questions that can be tackled through a health systems research approach and the variety of methodologies that can be applied. The workshop participants reiterated the following points:

- Health systems research is question driven, rather than discipline driven field, combining research approaches and using whichever approach is the most appropriate to answer the question.
- A multidisciplinary approach is essential to understand the combination of activities necessary to provide the most effective health intervention.
- The importance of context specificity.
- Integration of social and behavioural components with medical interventions.
- Engagement with policy-makers.
- Integrated multidisciplinary programmes which included social science, economics, health policy as well as biomedical interventions were perceived as having the greatest potential impact for improving health.

The themes emerging this session fed into the subsequent sessions on methodology and bringing evidence into practice.

4 GLOBAL PRIORITIES IN HEALTH SYSTEMS RESEARCH: WHERE MIGHT THE UK BEST FOCUS ITS RESOURCES?

Session 2 Chair: Professor Sir Andrew Haines, Chair of MRC Global Health Group/London School of Hygiene and Tropical Medicine, UK

In this session a panel of experts were each asked to consider and give their view on, *where the UK might best focus its resources to make a difference to the health systems research field globally?* The panel discussion was chaired by Professor Andrew Haines and comprised the following members:

- Professor Irene Akua Agyepong, Ghana Health Service, Ghana

- Dr Abdul Ghaffar, WHO Alliance for Health Policy and Systems Research, Switzerland
- Professor Rifat Atun, Global Fund to Fight AIDS, Tuberculosis and Malaria
- Professor Paul Garner, Liverpool School of Tropical Medicine (LSTM), UK

Each panel member was invited to answer the session question and gave a short presentation highlighting where they perceived the priority areas for health systems research funding were. This was followed by a plenary discussion session in which the session question was opened out to the workshop attendees. The workshop attendees were also invited to write their funding ideas on whiteboards displayed throughout the meeting room, the responses can be found in [Annex IV](#).

Plenary discussion session summary

Three major themes emerged from the discussion session as global priorities for the UK to focus its funding resources; the following considers each of these themes in turn.

Implementation research

A gap in knowledge and funding was identified in terms of assessing the implementation of interventions within a social, environmental and economic context. Specifically, the participants felt that the following topics were necessary, and yet understudied questions in HPSR, with insufficient data examining:



- The causes of poor uptake of potentially valuable lessons from research.
- The elements that make an implementation effective.
- The economic drivers and constraints on implementation.
- The motivational incentives for health care users, providers or decision makers.

The attendees suggested that this knowledge gap could be bridged through the creation of database resources generated from interdisciplinary research data, thus enabling a system-wide analysis of health systems.

Build health policy and systems research capacity

To continue to build and develop the field of health policy and systems research, the workshop attendees perceived that there was an urgent need to build significant health systems research capacity. Acknowledging that successful programmes such as African Regional Capacity Development for Health systems and Services Research [ARCADE](#) and Consortium for Health Policy and Systems Analysis in Africa ([CHEPSAA](#)), are increasing

scientific and academic capacity in LMIC, the delegates suggested that funding streams needed to be widened out.

The workshop delegates discussed how capacity building in LMICs can be approached at all levels from individual competencies through to systems levels (Figure 2), and suggested the following priorities for funding:

Individual competencies:

- Building individual capacity through the development of degree courses, supportive career paths, and instilling interdisciplinary competencies to develop a cadre of health policy and systems researchers. The objective would be to increase the pool of locally based actors at all levels of the health system with the skills to improve national health and the associated research.
- Specific skills could be targeted by funding meetings, seminars and training programmes, for example:
 - Communication skills between policy-makers, health care professional and health researchers focused on the exchange of concerns and perceptions.
 - Analytical aptitude in researchers to analyse the complex data generated through health systems research.
 - Motivation for health care workers to acquire and apply training.
- There was a call at the workshop from policy-makers for programmes to increase the body of civil servants trained to call for and to use data-based research to create policy.

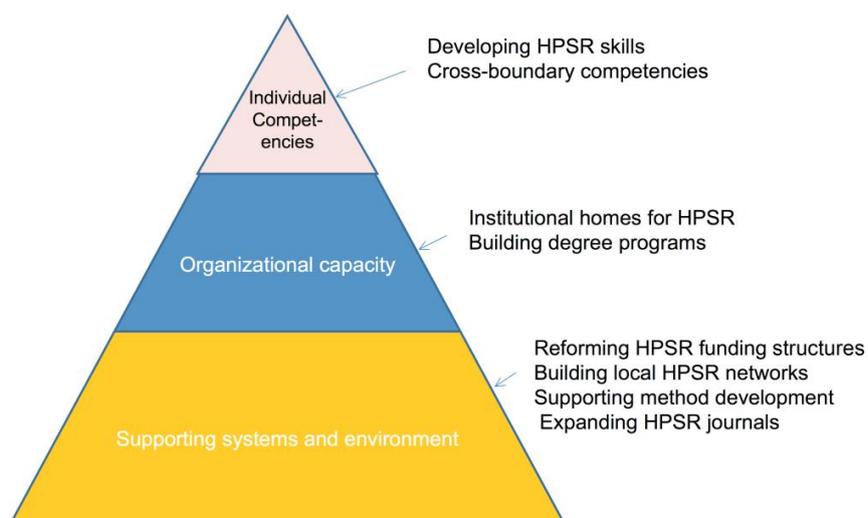


Figure 2. Dimensions of capacity in the HPSR field: funding initiatives needed to promote the development of HPSR
(Taken from [Bennett et al. 2011](#) doi:10.1371/journal.pmed.1001081.g001¹²)

Organisational capacity

- At an organisational level, health policy and systems research is often housed in different departments within universities. To develop the field there is a need to identify and build sustainable HPSR institutes in universities and other research institutions.
- To address the issues surrounding HPSR methodology, core curricula for training should be standardised and used across the field to teach sound theoretical frameworks and research methodologies.
- Support of multidisciplinary and interdisciplinary research and discussion through workshops and brainstorming sessions.

Systems and environmental capacity

- The generation of predictable and sustainable core funding for institutes conducting health systems research: many institutions in LMICs do not receive core funding support and rely heavily on small short-term grants.
- Funding support towards networking, twinning institutions from different countries and peer review, to strengthen national research networks, with a focus on national priorities.
- A distinct element of capacity building, the need for the development of new methodologies to analyse the complex datasets generated by HPSR, was identified by a number of participants.

Promotion of evidence-informed policy-making

The workshop attendees recognised that in addition to the generation and synthesis of data, it is important that resources are directed towards the promotion of the utility of health policy and systems research in policy and decision making. The following specific areas of funding were put forward to promote HPSR as an academic discipline:

- Encouraging cross discipline studies, for example, between schools of public health and business schools, to generate a cadre of both researchers and policy-makers who understand the interconnected nature of health care and have the modelling and analytical tools to develop effective health systems.
- Funding HPSR institutions directly to support multidisciplinary and interdisciplinary working, and the provision of funding support for workshops and brainstorming sessions.
- The creation of think tanks both within academic and government institutions.

Additional suggestions put forward by the workshop attendees included:

- Analysis of current funding mechanisms for health systems in low and middle income countries.
- Longitudinal studies to look at the shape and characteristics of health care systems over time.
- Funding for the harmonisation of existing datasets which describe changing health systems.
- The need for forward facing research: eg the impact of urbanisation on health systems, the emergence of non-communicable diseases, the effect of climate change.

5 METHODOLOGIES IN HEALTH SYSTEMS RESEARCH: WHAT COMPONENTS ARE NEEDED FOR ROBUST AND EFFECTIVE RESEARCH?

Session 3 Chair: Professor Anne Mills, London School of Hygiene and Tropical Medicine, UK

This session included a presentation by Professor Lucy Gilson and was followed by an expert panel discussion addressing the session question.

Presentation: Professor Lucy Gilson, University of Cape Town, South Africa

Recognising the range of questions and methodological approaches in health policy and systems research

Overview: Professor Lucy Gilson defined the terrain of health policy and systems research, the diversity of disciplines involved, and the range of questions and methodological approaches used in HPSR. Professor Gilson's slides can be found [here](#).

The terrain of health policy and systems research:

- Health policy and systems research seeks to understand:
 - What health systems are and how they function.
 - What needs to be done to strengthen them.
 - How to influence policy agendas on health system development.
 - How to develop and implement policies in ways that strengthen health systems.
- It goes beyond assessing and strengthening dedicated disease/ condition specific programmes.
- Policy focus is important: through policies it is possible to take deliberate actions to strengthen health systems.
- People and relationships are essential: health systems are dynamic and interconnected systems at whose heart are people (Figure 3).



Figure 3. Health systems are dynamic and interconnected systems

Diversity of perspectives:

- Health policy and systems research lies at the interface between the disciplines of social science, policy and practice, and epidemiology and clinical sciences (Figure 4) with a common goal of understanding and strengthening a health system.
- Two example questions analysing health users fees were used to illustrate the distinct approaches to HPSR: 'what is the impact of out of pocket payments on household poverty levels across countries?' and 'how do out of pocket payments combine with other influences over health seeking behaviour to impact on the dynamics of household poverty?'. Both the 'what' and 'how' perspectives are indispensable to understand and thereby derive cross-system guidelines for robust health systems.

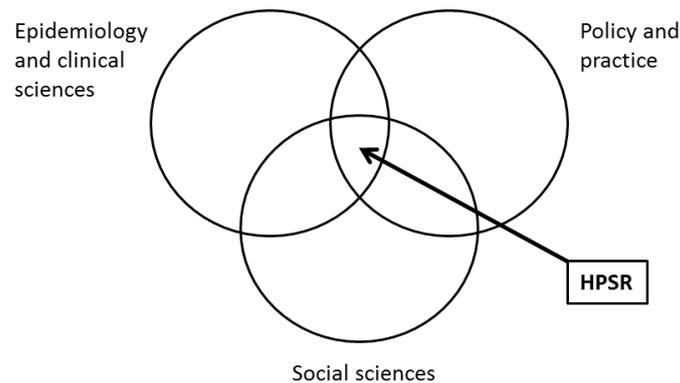


Figure 4. Health policy and systems research lies at the interface between different disciplines

Methodologies for robust and effective research:

- Methodologies from each of the three broad fields of academic study (biomedical, social sciences and policy) have the capacity to produce the necessary rigour for HPSR.
- Randomised controlled trials are the gold standard in epidemiology and clinical studies, providing evidence for outcomes supported by statistical analysis.
- Both policy studies and social sciences use a combination of quantitative and qualitative techniques including, but not limited to, statistical analysis and surveys. The social science qualitative methodologies provide the necessary rigor through triangulation, negative case analysis, peer debriefing and support, respondent validation and compiling a clear data audit trail.

Funding the development of robust and effective HPSR:

- Long-term, large-scale funding for question-driven health research



programmes, focused on particular contexts/systems and combining a broad range of methodologies.

- Post-policy intervention implementation analysis.
- Empirical, methodological and conceptual work linked to educational programmes.
- Multidisciplinary research teams working collaboratively.
- Opportunities for cross-national work and learning.

Panel discussion session

What components are needed for robust and effective research?

The panel discussion was chaired by Professor Anne Mills and comprised the following members:

- Professor Maureen Mackintosh, Open University, UK (slides can be found [here](#)).
- Professor David Laloo, Liverpool School of Tropical Medicine, UK
- Dr Fadi El-Jardali, American University of Beirut, Lebanon
- Dr Alex Ezeh, African Population and Health Research Centre, Kenya

The following paragraphs summarise the contributions from the panel members and workshop participants on what elements would constitute quality and rigour in health system research methodologies.

A multidisciplinary and interdisciplinary approach:

- The evidence of restricted take up of valuable interventions (for example in HIV management interventions to prevent mother-to-child transmission of HIV, the benefits of circumcision etc.) illustrates the limitations of single discipline research.
- Integrated input from the social sciences together with policy perspectives and biomedical sciences data provides insight into the multivariate environment in which health systems function.
- Integration requires cooperation between academic disciplines which communicate in different languages, use different tools, address issues from a different conceptual framework and have different research objectives. Mutual respect between researchers is an essential first step to integration.
- As a multidisciplinary and interdisciplinary field defined by the topics and questions it considers, there needs to be active engagement and methodological understanding across disciplines to develop research programmes to strengthen health systems.



Context specificity:

- Health policies and systems are a consequence of the complex political and social structures which surround them; they are constructed by human actors within an economic and physical environment. A contextually accurate understanding of the health system is therefore a necessary part of rigorous health policy and systems research.
- A detailed stakeholder analysis within the true economic environment of a health system is important to determine the cost of implementation strategies and their implications at different levels of the health system.
- Application of industrial economics may help identify the drivers of changing market structure in the health product and service sectors.
- The parameters of the physical environment are often hidden regulators of health system function. The impending impact of climate change on health systems would need to be integrated into modelling constructs developed to inform progress towards a robust health system.



New methodologies:

- An identified obstacle to health policy and systems research is the need for tools to analyse and understand the multivariate nature of health interventions and systems.
- Advances must be to develop of new methodologies.
- The modelling techniques and methodologies from the study of climate change, market analysis or management systems analysis may be applicable to HPSR. Investigation into the adaptation of existing models or analytical matrices from other disciplines could lead to the creation of new analytical tools for HPSR.
- Fostering collaborations between, for example, Schools of Public Health and Business Schools may encourage the development of new analytical tools.

6 WHAT FACTORS ENABLE RELEVANT RESEARCH EVIDENCE TO INFLUENCE POLICY AND PRACTICE? HOW MIGHT RESEARCH FUNDERS BEST SUPPORT THIS PROCESS?

Session 4 Chair: Professor Maureen Mackintosh, Open University, UK

The format of this session included a presentation by Dr Sally Theobald, Liverpool of Tropical Medicine, followed by a panel discussion session addressing the questions in this session's title.

Presentation: Dr Sally Theobald, Liverpool School of Tropical Medicine, UK

What factors enable relevant research evidence to influence policy and practice?

Overview: Dr Sally Theobald spoke about the analysis of a large body of work carried out by researchers and communication specialists from four Research Programme Consortia (RPC) funded by DFID, which focused on sexual and reproductive health (SRH) and HIV/AIDS. The study demonstrated that by analysing the strategies used by research organisations working on sexual and reproductive health and HIV/AIDS it was possible to strengthen the research to policy interface¹³. Dr Theobald's slides can be found [here](#).

Details of the study: The study was carried out as part of the Sexual Health and HIV Evidence into Practice (SHHEP) initiative; a collaboration across four RPC active in Sub-Saharan Africa (South Africa, Malawi, Uganda, Zambia, Tanzania, Kenya, Ghana) Asia (Bangladesh and India) and the UK. The study critically analysed the communication and engagement strategies used across the spectrum of SRH and HIV/AIDS research, through reflective application and testing of different models for the research to policy interface¹³.

Impact of the study: Guidelines that can facilitate the evidence into policy translation for widely different health interventions¹³, for example:

- Make the paradigm shift away from researchers disseminating 'the way forward' into an ongoing partnership between researchers and policy-makers throughout and beyond the research programme.
- Frame communications carefully to ensure they are helpful, relevant, timely and appropriate to the recipient.
- Maintain an awareness of the broad range of research impacts.
- Carry out strategic scoping of opportunities and levers for influence through analysis of the policy context, actors and processes including the political or cultural acceptability of the research approaches and findings within context.



Lessons learnt: Dr Theobald emphasised that investing in communication was key to both implementation friendly research and influencing policy.

- A deep understanding of context is critical in research engagement, as is local credibility and trust.
- Assess the nature of the research evidence and consult with other key actors on how to frame it to increase local decision makers' receptivity.

- Communications strategies should be flexible, innovative, jargon free and relevant to research institutions' objectives to keep them effective.
- Equity, efficiency and empowerment should be goals for interactions; focusing on equity enhances the opportunities for interdisciplinary collaboration.
- Consideration should be given to the role of civil society in the health system including: the local community, clients, private companies, social entrepreneurs, civil society organisations, and faith-based organisations.
- Strategic communications skills and well positioned alliances are fundamental tools for influencing policy.

Discussion points: the workshop delegates reinforced Dr Theobald's strategies for successful policy influence.

Panel discussion session

What factors enable relevant research evidence to influence policy and practice? How might research funders best support this process?

Panel members and members of the audience were invited to answer the questions posed in the session title.

The panel members were:

- Ms Sujatha Rao, Former Principal Secretary of Health and Welfare, India
- Dr Pierre Ongolo-Zogo, Yaounde Central Hospital, Cameroon
- Dr Somsak Chunharas, National Health Foundation, Thailand
- Professor Alan Whiteside, University of KwaZulu-Natal, South Africa

The following summarises the main comments from the panel members and workshop participants:

- Research studies with implementation objectives are likely to be more successful if potential policy decisions are considered from the outset.

This was strongly supported by policy-makers present at the workshop.

- The quality of communication was a theme that was addressed; in general, an emphasis on the need for listening as part of communication was stressed, and specifically, the participants provided examples of the successful exploitation of video and other social media.
- Many participants voiced the opinion that research questions are more translatable



when they arise from the community or the policy-maker.

- The quality of the relationship between the health advocate and the policy-maker was viewed as essential to ensure that health interventions are implemented into policy and practice.

7 SUMMARY AND RECOMMENDATIONS: REVIEW OF WORKSHOP OBJECTIVES AND ATTENDEES'

RECOMMENDATIONS

Session 5 Chair: Professor Peter Piot, London School of Hygiene and Tropical Medicine, UK

The final session was a review of the workshop's objectives and attendees' recommendations to UK funders. Each panel member was asked to provide three statements to summarise their views on the priorities for funding in the field.

Professor Maureen Mackintosh, Open University, UK

Professor Mackintosh framed her summary comments as three research questions that should be funded, all of which would require working out of new methodologies.

1. How is the market for health systems and health business supply evolving? Focus on business strategy and competitiveness.
2. What would a bottom up system evaluation look like? What is the impact of the major restructuring of a health system on the people at the bottom (both practitioners and patients)?
3. When assessing a major intervention, what methodologies would need to be developed to assess the effects throughout the system?

Professor Andrew Haines, Chair of MRC Global Health Group/London School of Hygiene and Tropical Medicine, UK

1. Integrating evaluative research into large-scale programmes looking at the quality of improvement of health care with equity, to reveal how we can make this happen.
2. How can research funders support mixed methods research? By funding preparatory work in preparation for bigger projects? Guidelines for research funders to assess what is important in evaluating health systems research proposals, eg contextual factors.
3. Building capacity, aiming for long-term maintenance of health gains – possibly through consortia or construction of national and regional centres of excellence.

Professor Fred Binka, University of Ghana, Ghana

1. Improve decision making by funding health policy research-supply-side of research.
2. Embed health systems research in major programmes within the country's own health policy environment.
3. Strengthen the systems and institutions within the LMIC long term: think tanks, institutes, etc.

Professor Peter Mugenyi, Director, Joint Clinical Research Centre Uganda, Uganda

1. We are currently trying to do more with less therefore funding needs to increase.
2. Bring together players, with their different techniques, who have no history of working together.
3. How are the questions formulated? Who sets them? Incorporating as large a group of those who are involved as possible.
4. Build capacity in low and middle income countries through think tanks, academic institutions, etc.
5. Fund long-term research.

Professor Anne Mills, London School of Hygiene and Tropical Medicine, UK

1. A mix of many types of research is needed: research embedded within a country context; cross country research; academic research into issues in the future; policy orientated approach into immediate policy demands.
2. Analysis on implementation issues, challenges, blocks, good practice, etc.
3. How a funding stream might work: structure calls for multidisciplinary research which encourages the researchers and universities to support this diversity.
4. Establish health systems research units in country.

8 CONCLUDING REMARKS

The information presented in this document provides an overview of some of the issues and priorities discussed at the health systems research workshop. In moving forwards, the discussions at the workshop and the issues highlighted in the background paper will be used to help inform the possible future funding strategies of four UK global health funders.



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ANNEX I: WORKSHOP AGENDA



wellcome trust



Workshop on health systems research in low and middle income countries: the role of global health research funders in the UK

13 and 14 December 2011

Venue: The Wellcome Trust, Gibbs Building, 215 Euston Road, London

Purpose

The workshop aims to build on recent debates and discussions to help inform possible future funding strategies of four UK global health funders. Participants received a background paper before the meeting to outline the global context and recent debates so that this workshop can focus on the UK's role in global health systems research.

UK funders are convening this workshop to help consider how they might improve their contribution to producing research that can be used effectively to strengthen and improve health systems in low and middle income countries. The workshop will initially take a broad understanding of health systems research but has a focus on research that can have a positive impact on health systems – there is a particular interest from some funders on operational and implementation research.

Objectives

1. To consider how the UK might best focus its resources to make a difference to the global health systems research field
2. To inform possible future funding strategies through discussion of best practice in interdisciplinary health systems research; including methodological approaches and links with policy and practice.

Draft Agenda

DAY ONE

Tuesday 13th December 2011

Registration, tea and coffee from 10:15

11:00 – 11:30 Setting the scene: workshop context

11:00-11:30
Presentation

Setting the scene: including summary of issues covered in workshop background paper

Professor Sir Andy Haines, Chair of MRC Global Health Group & London School of Hygiene and Tropical Medicine

Session 1 – Lessons learnt from examples of health systems research work 11:30 – 15:00

Each case study is allocated 15 minutes for a presentation and 15 minutes for Q&A

Chair: Professor Srinath Reddy, Public Health Foundation of India

11:40 – 12:10
Professor Mike English, Kenya Medical Research Institute

Health Systems Research – Product, Process & Impact

12:10 – 12:40
Dr Hayley MacGregor, STEPS Centre, IDS

Situating responsibility for the control of infectious disease: the work of lay HIV counsellors in South Africa

12:40 – 13:30 Lunch

13:30 – 14:00
Professor Di Gibb, MRC Clinical Trials Unit

Influences on the pathway from evidence to implementation; examples from recent trials in Africa

14:00 – 14:30
Dr Abdul Ghaffar, WHO Alliance for Health Policy and Systems Research

Influencing policy-making: Results of a multi-country study

14:30 – 15:00

Discussion of themes emerging throughout session 2

Themes emerging from Session 2 will aid discussion in the sessions on methodology and bringing evidence into practice

15:00 – 15:20 Coffee break

Session 2: Global priorities in health systems research: where might the UK best focus its resources?

15:20 – 17:15

Chair: Professor Sir Andy Haines, Chair of MRC Global Health Group

15:20 – 16:15 Panel discussion

Each panel member will give their own view on where UK might best focus its resources to make a difference to the health systems research field globally

Professor Irene Akua Agyepong, Ghana Health Service

Dr Abdul Ghaffar, WHO Alliance for Health Policy and Systems Research

Dr Rifat Atun, Global Fund to Fight AIDS, Tuberculosis and Malaria

Professor Paul Garner, Liverpool School of Tropical Medicine

16:15 – 17:15 Discussion

The plenary discussion will continue the theme of where the gaps are and to which ones the UK can realistically contribute.

Recommendations from this session will be revisited in Session 5 (Day 2) in the light of discussions and recommendations from other session

17.15 – 18.30

Refreshments and networking at venue or return to hotel

19:00 – 21:00

Workshop dinner

DAY TWO

Wednesday 14th December 2011

Tea and coffee from 08:30

09:00 – 11:00

Session 3: Methodologies in health systems research: what components are needed for robust and effective research?

Chair: Professor Anne Mills, London School of Hygiene and Tropical Medicine

09:00-09:30

Recognising the range of question and methodological approaches in HPSR

Professor Lucy Gilson, University of Cape Town

09:30 – 10:15

Panel comments and discussion

Panel members to give a response to the question posed in the session title amongst others

Professor Maureen Mackintosh, Open University

Professor David Lalloo, Liverpool School of Tropical Medicine

Dr Fadi El-Jardali, American University of Beirut

Dr Alex Ezeh, African Population and Health Research Center

10:15-11:00

Discussion

11:00-11:20

Coffee break

11:20-13:15

Session 4: What factors enable relevant research evidence to influence policy and practice? How might research funders best support this process?

Chair: Professor Maureen Mackintosh, Open University

11:20 – 11:50

What factors enable relevant research evidence to influence policy and practice?

Dr Sally Theobald, Liverpool School of Tropical Medicine

11:50 – 12:30

Panel comments and discussion

Panel members to give a response to the questions posed in the session title amongst others

Professor Wendy Graham, University of Aberdeen

Ms Sujatha Rao, Former Principal Secretary of Health and Welfare, India

Dr Pierre Ongolo – Zogo, Yaounde Central Hospital, Cameroon

Dr Somsak Chunharas, National Health Foundation, Thailand

12:30 – 13:15

Discussion

13:15 – 13:50

Lunch

13:50 – 14:45

Session 5: Summary and recommendations: Review of workshop objectives and attendees' recommendations.

Chair: Professor Peter Piot, London School of Hygiene and Tropical Medicine

Chairs and participants give their views on the key points emerging from the workshop.

15:00

Refreshments and networking

ANNEX II: BIOGRAPHIES OF CHAIRS, SPEAKERS AND PANELLISTS

<p>Chair (Session 1)</p>	<p>Professor K Srinath Reddy President Public Health Foundation of India</p> <p>Prof K Srinath Reddy, as President of the Public Health Foundation of India, is playing a major role in strengthening training, research and policy development in the area of Public Health in India. Formerly head of the Department of Cardiology at the All India Institute of Medical Sciences, Professor Reddy is a global leader in preventive cardiology, who has worked to promote cardiovascular health, tobacco control, chronic disease prevention and healthy living across the lifespan. He has served on many WHO expert panels and chairs the Science and Policy Initiatives Committee of the World Heart Federation. He is presently chairing the High Level Expert Group constituted by the Government of India for developing a framework for Universal Health Coverage in India. Professor Reddy chairs the Core Advisory Group on Health and Human Rights for the National Human Rights Commission of India and is also a member of the National Science and Engineering Research Board of Government of India. Appointed in 2009 as the first Bernard Lown Visiting Professor of Cardiovascular Health at the Harvard School of Public Health, he is also an adjunct professor of the Rollins School of Public Health, Emory University and Honorary Professor at the Sydney Medical School. He is a Foreign Associate Member of the Institute of Medicine (US National Academies).</p>
<p>Chair (Session 2)</p>	<p>Professor Sir Andrew Haines MBBS MD FRCGP FFPHM FRCP FMedSci Professor of Public Health & Primary Care London School of Hygiene and Tropical Medicine</p> <p>Andrew is Professor of Public Health and Primary Care with a joint appointment in the Department of Social and Environmental Health Research and in the Department of Nutrition and Public Health Intervention Research. He was previously Director (originally Dean) of LSHTM for almost 10 years to October 2010, having previously been Professor of Primary Health Care at UCL between 1987 and 2000. He has also worked part-time as a general practitioner in North London for many years and has worked internationally in Nepal, Jamaica, Canada and the USA.</p>

Chair (Session 3)



Professor Anne Mills CBE MA DHSA PhD FMedSci
Vice Director & Professor of Health Economics and Policy
London School of Hygiene and Tropical Medicine

Professor Mills became interested in health economics immediately after her first degree, in history and economics at Oxford, when she was offered the position of economist in the Ministry of Health in Malawi. After 2 years there, Anne returned to the UK to do a postgraduate qualification in health economics, and then spent 3 years researching the planning system of the UK NHS. A post of lecturer in the LSHTM turned up just at the right time, and she has been there ever since including doing a PhD on malaria in Nepal, 4 years in a joint post with LSE, and from 1990-2010, Director of the Health Economics and Financing Programme, which was supported by a variety of research grants from funders such as DFID, the Wellcome Trust, EU and WHO. In 2006 Anne became Head of the Faculty of Public Health and Policy, and in 2011 she took up the position of Vice Director for Academic Affairs.

Chair (Session 4)



Professor Maureen Mackintosh
Professor of Economics, Faculty of Social Sciences
The Open University

Maureen Mackintosh is Professor of Economics at the Open University in Milton Keynes, UK. She is a development economist with a particular interest in the functioning of markets in health and social care, mainly in African contexts but also in the UK, including the interconnections between industrial production and health systems. Her publications include journal articles, and also two edited books on commercialisation of health care, and on the policy gap between policies for innovation and industrial development and policies for poverty reduction. Recent and current research projects include an international collaborative ESRC-funded project on Non-governmental public action to improve access by the poor to good quality low cost medicines, part of the ESRC Non-governmental Public Action (NGPA) research programme, with Professor Sudip Chaudhuri, Dr Phares Mujinja and Dr Meri Koivusalo: a project for UNITAID, Geneva, with Dr Mujinja, on Interactions between global policy and local health markets and production of medicines; and a collaborative Wellcome-funded project led by Dr Paula Tibandebage on Ethics, payments and maternal survival in Tanzania.

Chair (Session 5)	
	<p>Professor Peter Piot CMG MD PhD DTM FRCP FMedSci Director & Professor of Global Health London School of Hygiene and Tropical Medicine</p> <p>Peter is the Director of the School and a Professor of Global Health. In 2009-2010 he was the Director of the Institute for Global Health at Imperial College for Science, Technology and Medicine, London. He was the founding Executive Director of UNAIDS and Under Secretary-General of the United Nations from 1995 until 2008, and was an Associate Director of the Global Programme on AIDS of WHO. Under his leadership UNAIDS became the chief advocate for worldwide action against AIDS, also spear heading UN reform by bringing together 10 UN system organisations. Besides English, he is fluent in French and Dutch (mother tongue).</p>
Case study presenters	
	<p>Professor Mike English Professor, International Child Health, KEMRI-Wellcome Trust Research, Programme & Department of Paediatrics University of Oxford</p> <p>Mike is based permanently in Kenya at the Wellcome Trust's Major Overseas Programme there and is an honorary lecturer at the University of Nairobi. He provides advice to the Kenyan government and works with WHO on a range of issues related to child and newborn survival. In 2008 he won the Royal Society of Tropical Medicine's Chalmers Medal for his contribution to international health. His team work on child and newborn health and recently completed a large multidisciplinary implementation research project examining how to improve hospital service delivery. Areas of interest span economic evaluation to evidence synthesis (www.idoc-africa.org) as well as broader health systems issues such as human resources for health (such as task-shifting around non-physician clinicians) and the benefits and social value of research.</p> <p>Mike worked in Kilifi from 1992-1996 on malaria, completed specialist training as a General Paediatrician in the UK from 1996-1998 and has been in Kenya since 1999.</p>
	<p>Dr Hayley MacGregor Research Fellow Institute of Development Studies</p> <p>Originally trained as a medical doctor in South Africa, Hayley MacGregor pursued further studies in Social Anthropology, completing a PhD at the University of Cambridge in 2003. This doctoral research pursued an interest in medical anthropology, in particular mental illness and mental health service provisioning in post conflict and low income settings. A subsequent period at the Human Sciences Research Council of South Africa broadened</p>

	<p>her work to address changes in social security provisioning in the event of illness, and the politics of 'disability'. Current research interests include the dynamics of poverty and illness/disability, human rights discourses and citizen mobilisation in the context of health provisioning, and the ethnography of biomedical research and health technologies. Her research to date has been situated in Africa. Parallel to these anthropological concerns, she retains an interest in clinical psychiatric practice.</p>
	<p>Professor Diana Gibb Professor in Epidemiology & Honorary Consultant Paediatrician Medical Research Council Clinical Trials Unit</p> <p>Diana is professor of Epidemiology and Programme Leader of the Paediatric Programme of trials and cohorts at the MRC Clinical trials unit, London. Over the last 20 years she set up and coordinated a network of clinical trials and cohorts within the PENTA group, across Europe, Thailand and South America mainly addressing questions in paediatric HIV infection. Since 1999 her focus has expanded to Africa where she runs large trials, addressing strategy questions in adult and paediatric HIV infection and more recently the acutely sick child, collaborating widely with clinical and research centres in 6 countries in East and Southern Africa. Wide inter-disciplinary collaboration with health economists, pharmacologists, social and basic scientists and innovators of medicines for children are incorporated into trial programmes. Capacity development is an important feature of the overseas collaborations, including interactive courses in paediatric HIV, on-the-ground training in clinical trials and PhD mentorship. She serves on a number of WHO advisory and guideline committees and continues a clinical commitment at the HIV Family clinic at the Great Ormond Street Hospital for Children in London, which she started in 1991.</p>
	<p>Dr Abdul Ghaffar, MD, PhD Executive Director Alliance Health Policy and Systems Research, WHO</p> <p>Dr Abdul Ghaffar has worked for over 25 years in low- and middle-income countries managing research for health; planning, designing and evaluating national health systems; and teaching health policy and management. He is a physician by training with a PhD in International Health (concentration in health systems) from Johns Hopkins University. Before joining the Alliance, Dr Ghaffar served as Regional Advisor for Research, in the Eastern Mediterranean Office of the World Health Organization. Earlier, he worked as a Health Policy and Systems Specialist at the Global Forum for Health Research in Geneva. In his country (Pakistan) he started his career as a public health physician, and later worked at different leadership positions as Assistant Director-General of Policy and Planning; Deputy Director-General of International Health; and Director of the Health Services Academy, a national school of public health. He has played a leading role in establishing and managing policy and research for a involving civil society, policy-makers</p>

	<p>and development partners, both at the national and international levels. His desire and interest is to trigger a global movement to generate and use research evidence for improved policy and management decisions at the country level.</p>
<p>Panellists – Session 2</p>	
	<p>Dr Irene Akua Agyepong Regional Director Health Services Ghana Health Service</p> <p>Regional Director of Health Services in the Ghana Health Service and Professor at the School of Public Health of the University of Ghana. Irene Akua Agyepong is a public health physician from Ghana. She has an MBChB (1986) from the University of Ghana Medical School; an MCommH (1991) from the University of Liverpool School of Tropical Medicine, and a DRPH (2000) from the University of North Carolina at Chapel Hill, School of Public Health. She is a Foundation Fellow of the Ghana College of Physicians and Surgeons. She was Professor to the Prince Claus Chair in Development and Equity for the period 2008 - 2010 in the University of Utrecht in the Netherlands. She is a member of the Scientific and Technical Advisory Committee (STAC) of the Alliance for Health Policy and Systems Research. Her research and publications are in the area of Health Policy and Systems research.</p>
	<p>Professor Rifat Atun Director of Strategy, Performance and Evaluation Cluster The Global Fund to Fight AIDS, Tuberculosis and Malaria</p> <p>Professor Rifat Atun is Director of Strategy, Performance and Evaluation Cluster and a member of the Executive Management Team at the Global Fund to Fight AIDS, Tuberculosis and Malaria in Switzerland. He is on extended leave from Imperial College London where he is a Professor of International Health Management. He is the Chair of Stop TB Partnership Coordinating Board. Before joining the Global Fund, he worked globally with the UK Department for International Development, the DFID Resource Centre for Health Systems, the World Bank, World Health Organisation, and a range of international health agencies on the design, implementation and evaluation health sector reform programmes and introduction of communicable and non-communicable disease programmes and complex health innovations in health systems. He has consulted widely and undertaken studies for private and public sector health organisations in strategy development, use of mHealth, analysis of cancer plans in Europe, including the NHS in England, Ata Securities, Boots Plc., Hoffman-La Roche, Koc-Amerikan Hospital, Tata Consulting Group, The Royal Brompton Hospital Trust, Merck & Co, Pfizer, PA Consulting, and Vodafone.</p> <p>Professor Atun was member of the Strategic Technical Advisory Group of the World Health Organisation for Tuberculosis, and the Advisory Committee for WHO Research Centre for Health Development in Japan. He is a member of</p>

	<p>the Scientific Advisory Board for PEPFAR, the Global Health Group at the UK Medical Research Council, Global Advisory Group on Maternal Mortality and the Global Task Force for Expanding Cancer care and Control in Developing Countries. He has published extensively on health systems, communicable disease control, and innovation in health and biopharmaceutical sectors. Professor Atun studied medicine at University of London as a Commonwealth Scholar and completed his postgraduate medical studies and MBA at University of London and Imperial College London.</p>
	<p>Professor Paul Garner, MBBS, DRCOG, MD, FFPHM Head of the International Health Group at the Liverpool School of Tropical Medicine Co-ordinating Editor of the Cochrane Infectious Diseases Group Director of the Effective Health Care Research Consortium.</p> <p>Paul has led a programme of research, coordinating a network of over 300 people synthesising research to inform global, regional and national policies in tropical infections and conditions relevant to middle and low income countries, This has had substantive effect on global and national policies, particularly in diarrhoea, malaria and tuberculosis. Paul’s work experience includes with the UK NHS, in Papua New Guinea as a District Medical Officer, then epidemiologist at the PNG Institute of Medical Research and then researcher at the London School of Hygiene and Tropical Medicine from 1988 to 1994 when he moved to Liverpool.</p>
<p>Panellists – Session 3</p>	
<p>Presenter</p>	
	<p>Professor Lucy Gilson Professor, Health Policy and Systems University of Cape Town / London School of Hygiene and Tropical Medicine</p> <p>Lucy Gilson is Professor of Health Policy and Systems at both the London School of Hygiene and Tropical Medicine and the University of Cape Town. She has nearly thirty years of experience working in the field of health systems and policy research, and has worked primarily in Southern and Eastern Africa. Her areas of expertise include equity and health systems as well as governance and decision-making within health systems; she has particular interest in understanding policy implementation and health system development using policy analysis theory and perspectives. She teaches on the Masters in Public Health courses in South Africa and London (distance learning), convenes the University of Cape Town’s Postgraduate Diploma in Health Management (targeting South African senior public health managers) and is involved in PhD supervision. She has published articles relating to health policy and health systems in a wide range of journals.</p>



Fadi El-Jardali, MPH, PhD

Associate Professor, Department of Health Management and Policy
American University of Beirut

Fadi El-Jardali is an Associate Professor of Health Policy at the Faculty of Health Science of the American University of Beirut, a research program director of the Research, Advocacy and Public Policy (RAPP) programme in the Arab World at Issam Fares Institute for Public Policy and International Affairs and a Part-Time Professor at the Programme in Policy and Decision Making at McMaster University, Canada. He is an evidence-to-policy fellow with the Alliance for Health Policy and Systems Research. His principal research interests include health policy-making and knowledge translation, quality of care, patient safety and accreditation, health human resources, and performance reporting. Currently, he is a visiting leader at the McMaster Health Forum at McMaster University. He is the founder and president of IMPROVE, a nationwide implementation of Balanced ScoreCard and standardised health system and performance indicators. He has worked and held senior positions with policy analysis related organisations such as the Ontario Ministry of Health and Long-Term Care, Federal department of health/ Health Canada and the Health Council of Canada. He was also an executive director in a community hospital.

His current work is focused on finding new ways to enhance evidence informed policymaking and management and mobilise action in the Middle East Region. These include the use of evidence briefs and stakeholder dialogues. As part of his global health leadership award grant, he is currently supporting the development of knowledge translation platforms at the country level in East Mediterranean region. He is also part of an international research team working on monitoring and evaluation of knowledge-translation platforms in low- and middle-income countries. Fadi is the founding member of the Middle East and North Africa Health Policy Forum and a member of its Board of trustees. He is also a member of several committees and research groups including the WHO expert group on health workforce retention, Evidence Informed Policy Network (EVIPNet), and Accreditation Canada international advisory committee. He is a health system and policy technical expert to WHO and other international organisations. Fadi holds a PhD in Public Policy from Carleton University in Canada and an MPH from the American University of Beirut.



Dr Alex C Ezeh

Executive Director
African Population and Health Research Center (APHRC)

Dr Ezeh joined APHRC in 1998 (then a programme of the Population Council in Nairobi) as a Senior Research Fellow. In 2000, he was appointed APHRC's Interim Director and charged with the responsibility of leading its transition into an autonomous institution. Having successfully led this transition, he was appointed APHRC's Executive Director in 2001, and has steered the young institution to phenomenal growth to date. Prior to joining APHRC, he worked at ORC/ Macro International where he provided technical assistance to governmental and non-governmental institutions in several African countries in the design and conduct of demographic and health surveys.

Dr Ezeh has more than 20 years of experience working in public health and has authored numerous scientific publications covering the issues of population, demographics, health and health metrics.



Dr David Lalloo MB BS MD FRCP FRCM RCPS (Glasg)

Professor of Tropical Medicine
Liverpool School of Tropical Medicine

Having undergone initial training in Newcastle upon Tyne, David Lalloo trained in General (Internal) Medicine, Infectious Diseases and Tropical Medicine, spending three years in Papua New Guinea. He undertook clinical and laboratory research in Oxford before moving as Senior Lecturer to the Liverpool School of Tropical Medicine in 1999. Since then he has focused on clinical trials in the tropics, particularly in HIV related infections, malaria and envenoming. He currently has collaborations and studies in a number of countries including Uganda, Malawi, Sri Lanka and Vietnam. He holds an appointment as Honorary Consultant at the Royal Liverpool University Hospital and is Clinical Director of the Tropical Medicine Directorate

Panellists – Session 4

Presenter



Dr Sally Theobald, BA, MA, PhD

Senior Lecturer in Social Science and International Health
International Health Research Group
Liverpool School of Tropical Medicine

Sally has a disciplinary background of geography and development studies and a PhD in Gender, Health and Development. She has been based in Liverpool School of Tropical Medicine since 1999 with a two year secondment to act as technical advisor for REACH Trust, Malawi. Her research interests are in gender equity, health systems, SRH, HIV and TB, with ongoing collaborative research projects in Kenya, Malawi, Ethiopia, Sierra Leone, Uganda, Zimbabwe, Tanzania, Ghana and Yemen. She is also interested in the processes through which research informs policy and practice in different contexts.



Dr Pierre Ongolo-Zogo, MD, MSc

Centre for Development of Best Practices in Health Medical Imaging Unit
Yaounde Central Hospital

Pierre Ongolo-Zogo is a leading health advocate in the African nation of Cameroon, and has extensive involvement at the international level with promoting better healthcare. As the inaugural Director of Health Operations Research in Cameroon's Ministry of Public Health from 2003 to 2008, he conceived and implemented a national commission on health research. He has served in advisory and consulting positions with various initiatives of the WHO, and has represented Cameroon at numerous international health fora. His main research interest is in knowledge translation. He is also interested in the areas of healthcare delivery and multidisciplinary research in health and population studies.



Ms K Sujatha Rao

Former Union Secretary Ministry of Health
Government of India

Ms Rao joined India's Civil Service in 1974. During her long career till December 2010, she held several senior positions in the government at the state and federal level. For close to 20 years she was engaged with the health sector, 4 years as the Secretary of Health in the state of Andhra Pradesh and for 15 years at the Federal level. Among the key appointments held by her during this time was that of Director General, National Aids Control Organisation (2006-2009) and member Secretary of the National Commission on Macroeconomics and Health that was co-chaired by the Union Ministers of Finance and Health.

Sujatha has a MPA from Harvard University, and was also a Takemi Fellow at the Harvard School of Public Health. She was a member of the Global Advisory Panel on Health of the Bill and Melinda Gates Foundation, Chair of the Portfolio Committee of the Global Fund, represented India on the boards of WHO, UNAIDS, and the Global Fund; founding Board member of the Public Health Foundation of India 2005, Board Member of the Population Council International, New York, 2011, Co-chair of the WHO's Advisory Panel on Developing a Global Health Systems Research Strategy, Geneva, 2011, and Member of the Advisory Board of the Ministerial Leadership Programme of the Harvard School of Public Health, USA.



Dr Somsak Chunharas
Secretary General,
National Health Foundation, Thailand

Dr Somsak Chunharas graduated from the Faculty of Medicine, Ramathibodi Hospital, Mahidol University in 1997. He also holds a Masters Degree in Public Health in Development and Planning from the Royal Tropical Institute, Amsterdam (1983), and a Certificate in Financing Health Care in Developing Countries from Boston University (1988).

He is currently senior advisor to the department of health in Thailand. His field of interest includes knowledge-based health policy and system development/ reform, national health research system, complex health system, knowledge management and learning organisation, information system development, and human resources development.



Professor Wendy Graham
Professor of Obstetric Epidemiology
University of Aberdeen

Wendy J Graham is Professor of Obstetric Epidemiology in the School of Medicine and Dentistry at the University of Aberdeen. She has specialist interests in the reduction and the measurement of maternal mortality, and has undertaken collaborative research in many developing countries. Since 2002, Wendy has been the Lead Scientist for Impact, an international research group focused on strengthening the evidence-base to reduce maternal and newborn mortality (www.impact-international.org). Two focus topics of her current work are the quality of obstetric services, and the translation of research evidence into policy & practice. She serves on expert panels and committees for several global partnerships and initiatives, and also holds a seconded position with the UK Department for International Development as an evidence advisor.

Panellist – Session 5



Professor Peter Mugenyi, MB ChB, DCH, FRCPI, FRCP Edin, ScD
Director
Uganda's Joint Clinical Research Centre (JCRC)

Peter Mugenyi is the Director of the Uganda's Joint Clinical Research Centre (JCRC), a centre of excellence that has provided leadership in AIDS research, care, treatment, and prevention. Mugenyi is also the Professor of Medicine, and the Chancellor of Mbarara University of Science and Technology in Uganda. He is a Fellow of the Royal Colleges of Physicians of Ireland and Edinburgh UK and also a Fellow of the Academy of Sciences of Uganda and Africa, and a Fellow of the Academy of the developing World (FTWAS)

He previously chaired the Uganda Sciences and Technology Health Sciences committee and leads the Africa Dialogue on AIDS (ADAC) and AIDS Care and Research in Africa (ACRiA), which are both African-led initiatives for

	<p>promotion of best practices in HIV/AIDS and AIDS care research appropriate to Africa. He is also the Director of Clinical Operational and health Service (COHRE) Training Programme, which is a multi-institutional training project supporting training programmes ranging from short courses to Masters and up to PhD level involving HIV and TB research.</p> <p>Internationally, Mugenyi served as a Board Member of the Institute of Medicine of the National Academies (USA). He is also a Board member HIV Vaccine Trials Network; Bethesda, USA, a member of International Advisory board of Massachusetts General Hospital, Boston USA, and a board member of other national and international organisations including the Wellcome Trust, Medical Research Council and Africa Centre of the University of Natal, South Africa.</p>
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ANNEX III: WORKSHOP DELEGATES

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ANNEX IV: WORKSHOP DELEGATES' WHITEBOARD SUGGESTIONS FOR THE FOCUS OF UK FUNDING

Whiteboards were displayed throughout the workshop and the delegates were asked to share their thoughts on three questions. The responses are listed below.

Question 1: Where should the UK focus its funding resources for health policy and systems research?

- Technologies for affordable health
- Models for urban primary health
- Embedding evaluation unit within Ministry of Health
- Long-term capacity development: 'don't go to lost causes'
- Integration of Non-Communicable Diseases into health services
- District level health systems
- Figure out how fund for longer i.e. 10 years rather than 5 years support for research into policy
- Support health systems in urban settings and engagement with the private sector
- Invest towards long-term institutional arrangements: innovation funding model that is not on a programme/ project frame
- Support models that lead to interactive learning of lay actors in health research systems, not just knowledge translation for specific groups of decision makers
- Financial protection mechanisms (reduction of out of pocket expenditure)
- Support research on methods and tools for health systems particularly to diagnose and frame health system problems
- Support health policy analysis and health technology assessment units in LMICs
- Equity quotient and vulnerability indices; prioritization of health programmes
- Team function in primary health care (enhancing the role of non-physician health care providers)
- Support evaluation of health system reforms as it happens (invaluable data for other countries)
- Be strategic, long term and promote real partnerships

Question 2: Methodologies in health systems research: what components are needed for robust and effective research?

- Core funding for 5+ years for low income countries and UMIC country-partners

Question 3: What factors enable relevant research evidence to influence policy and practice? How might research funders best support this process?

- Assess 'success' in countries' support by looking at the 'strength' of Health System Strengthening such as equity, efficiency, accountability, empowerment, participation and not just disease reduction, problem reduction
- Connecting health programme funders and research funders for priority setting and alignment of topics/themes especially around equity, governance, accountability
- Support research on methods and tools for health systems particularly to diagnose and frame health system problems
- Supporting health policy analysis and health technology assessment units in LMICs
- Science then communicate!
- Support policy dialogues and other mechanisms to facilitate researcher – policymaker interactions

ANNEX V: REFERENCES

1. Balabanova D, McKee M and Mills (Eds) (2011). 'Good health at low cost' 25 years on. What makes a successful health system? London: London School of Hygiene & Tropical Medicine, 2011.
2. Alliance for Health Policy and Systems Research (2004). Strengthening health systems: the role and promise of policy and systems research. Geneva: Global forum for health research, 2004
3. Sheik K, Gilson L, Agyepong IA, Hanson K, Ssengooba F, Bennett S (2011). Building the field of Health Policy and Systems Research: framing the questions. PLoS 8(8): e1001073.
doi:10.1371/journal.pmed.1001073
4. Bennett S (2007). Alliance for Health Policy and Systems Research Briefing Note 1. What is Health Policy and Systems Research and why does it matter? Geneva: WHO, 2007
5. Remme JHF, Adam T, Becerra-Posada F, Arcangues C, Devlin M, Gardner C, Ghaffar A, Hombach J, Kengeya JFK, Mbewu A, Mbizuo MT, Pang T, Ridley RG, Zicker F and Terry RF (2010). Defining research to improve health systems. PLoS Med 7(11): e1001000. doi:10.1371/journal.pmed.1001000
6. Gilson L, Hanson K, Sheikh K, Agyepong IA, Ssengooba F, Bennett S (2011). Building the field of Health Policy and Systems Research: social science matters. PLoS 8(8): e1001079.
doi:10.1371/journal.pmed.1001079
7. de Savigny D and Adams T (Eds) (2009), Systems thinking for health systems strengthening. Geneva: Alliance for Health Policy and Systems Research WHO, 2009.
8. Ayieko P, Ntoburi S, Wagai J, Opondo C, Opiyp N, Migiro S, Wamae A, Mogo W, Were F, Wasunna A, Fegan G, Irimu G, English M. (2011). A multifaceted intervention to implement guidelines and improve admission paediatric care in Kenyan district hospitals: A cluster randomised trial. PLoS Medicine 8(4).
9. Violari A, Cotton MF, Gibb DN, Babiker AG, Steyn J, Madhi SA, Jean-Philippe P, McIntyre JA; CHER Trial Group (2008). Early antiretroviral therapy and mortality among HIV-infected infants. New England Journal of Medicine 359:2233-44.
10. DART Trial Team (2010). Routine versus clinically driven laboratory monitoring of HIV antiretroviral therapy in Africa (DART): a randomised non-inferiority trial. Lancet 375:123-31. www.ctu.mrc.ac.uk/dart.
11. Maitland K, Kiguli S, Opoka RO, Engoru C, Olupot-Olupot P, Akech SO, Nyeko R, Mtove G, Reyburn H, Lang T, Brent B, Evans JA, Tibenderana JK, Crawley J, Russell EC, Levin M, Babiker AG, Gibb DM; FEAST Trial Group (2011). Mortality after fluid bolus in African children with severe infection. New England Journal of Medicine 364:2483-95.

12. Bennett S, Agyepong IA, Sheikh K, Hanson K, Ssenkooba F and Gilson L (2011). Building the field of health policy and systems research: an agenda for action. PLoS Medicine 8(8): e1001081.
13. Theobald S, Tulloch O, Crichton J, Hawkins K, Zulu E, Mayaud P, Parkhurst J, Whiteside A and Standing H (2011). Strengthening the research to policy and practice interface: exploring strategies used by research organisations working on sexual and reproductive health and HIV/AIDS. Health Research Policy and Systems 9(Suppl 1): 52<http://www.biomedcentral.com/1478-4505/9/S1/S2>