

Interdisciplinary Approach to Global Health

Summary

6 – 7 December 2011

Sandbjerg gods



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Introduction

Background : Global health is an interdisciplinary field of research, often based within faculties of health. The ENRECA health research network has embraced wider research fields, and this may also be the outcome of the Building Stronger Universities initiative. The main objective of the workshop “Interdisciplinary approach to Global Health” held at Sandbjerg Gods, was to bring experts within the major disciplines of research together to interact and create synergy. Another aim was to promote collaboration between health researchers and researchers from other faculties who are working on global health from another perspective. Finally, the workshop aimed to create synergies with the existing platforms under the initiative “Building Stronger Universities” and explore the demand for initiating new work groups.

Participants

The workshop was attended by the following participants:

- **Jørn Attermann**, Section of Epidemiology, Department of Public Health, Health, Aarhus University (ja@soci.au.dk)
- **Henrik Balslev**, Department of Bioscience - Ecoinformatics and Biodiversity, Science and Technology, Aarhus University (henrik.balslev@biology.au.dk)
- **Eva Bonfeld-Jørgensen**, Centre for Arctic Environmental Medicine, Department of Public Health, Health, Aarhus University (ebj@mil.au.dk)
- **Christina Marie Braüner**, Department of Public Health, Health, Aarhus University (christinabrauner@gmail.com)
- **Ethel Mary Brinda**, Section of Health Services Research, Department of Public Health, Health, Aarhus University (dr.brandz84@yahoo.com)
- **Tania Dræbel**, Department of International Health, Immunology and Microbiology, Faculty of Health Sciences, University of Copenhagen (tdr@sund.ku.dk)
- **Ulrika Enemark**, Section of Health Services Research, Department of Public Health, Health, Aarhus University (ue@soci.au.dk)

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- **Peter Furu**, DBL-Centre for Health Research and Development, Department of Veterinary Disease Biology, Faculty of Life Sciences, University of Copenhagen (pfu@life.ku.dk)
- **Dorte Haubek**, Department of Dentistry, Health, Aarhus University (dorte.haubek@odontologi.au.dk)
- **Erik Jørs**, Occupational and Environmental Medicine, Odense University Hospital, University of Southern Denmark (Erik.Joers@ouh.regionsyddanmark.dk)
- **Per Kallestrup**, GloHAU, Department of Public Health, Health, Aarhus University (kallestrup@dadlnet.dk)
- **Søren K. Kjærgaard**, Department of Public Health, Faculty of Health Sciences, Aarhus University (sk@folkesundhed.au.dk)
- **Dinesh Neupane**, Master of Science in Public Health, Esbjerg Campus, University of Southern Denmark (neupane.dinesh@gmail.com)
- **Jørgen Eskild Petersen**, Department of Infectious Diseases, Aarhus University Hospital (eskildp@dadlnet.dk)
- **Lise Rosendal Østergaard**, Department of International Health, Immunology and Microbiology, Faculty of Health Sciences, University of Copenhagen (liro@sund.ku.dk)
- **Jens Seeberg**, Section for Anthropology and Ethnography, Department of Culture and Society, Arts, Aarhus University (jseeberg@hum.au.dk)
- **Vivi Schlünssen**, Department of Public Health, Health, Aarhus University (vs@mil.au.dk)
- **Christian Wejse**, GloHAU, Department of Public Health, Health, Aarhus University (wejse@dadlnet.dk)
- **Jonas Havelund** (referent), Department of Public Health, Health, Aarhus University (jhavelund@sport.au.dk)

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Final programme

Tuesday 06.12.2011

- 10.30-11.00 *Arrival – check in*
- 11.00-11.15 Welcome, introduction to workshop (Christian Wejse)
- 11.15-11.30 Presentation of participants
- 11.30-12.30 *Lunch*
- 12.30-15.00 **Presentations of research areas: Description of own area of research with particular focus on Global Health aspects and an outline of possibilities for interdisciplinary collaboration with other groups. 15 min + 5 min questions**
- Henrik Balslev: *“Ecoinformatics & Biodiversity”*
 - Peter Furu: *“Ecosystems health” and “One Health” as cross-cutting approaches to human and animal health – what are the opportunities for joint projects?*
 - Jens Seeberg: *“Migration and health” by Jens Seeberg*
 - Lise Rosendal Østergaard: *“Fragile Futures: Rural Lives in Times of Conflicts*
 - Tania Dræbel: *“Resilience and Reproductive Health – presentation of two project ideas”*
 - Ulrika Enemark: *“Health systems and financing”*
 - Ethel Brinda: *“Quest to understand out of pocket health expenditure in LMIC”*
 -
- 15.00-16.00 *Coffee and “walk and talk”*
- 16.00-19.00 **Presentations of research areas (continued)**
- Christian Wejse: *“Population based epidemiological research and trials”*
 - Per Kallestrup: *“Primary health care and global health”*
 - Dinesh Neupane: *“Community-based approach in primary health care to address non-communicable diseases in Nepal (CAPCAN)”*
 - Dorte Haubek: *“Oral and dental health in adolescents in African countries”*
 - Erik Jørs & Vivi Schlünssen: *“Global occupational and environmental health and safety”*
 - Christina Marie Braüner: *“Maternal mortality in developing countries”*
- 19.00-21.00 *Dinner*
- 21.00-23.00 Summary of inputs

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Wednesday 07.12.2011

07.00-08.00 *Morning run*

08.00-09.00 *Breakfast, check-out*

09.00-09.20 **Presentations of research areas (continued)**
- Eva Bonefeld-Jørgensen: *“Centre for Arctic Environmental Medicine”*

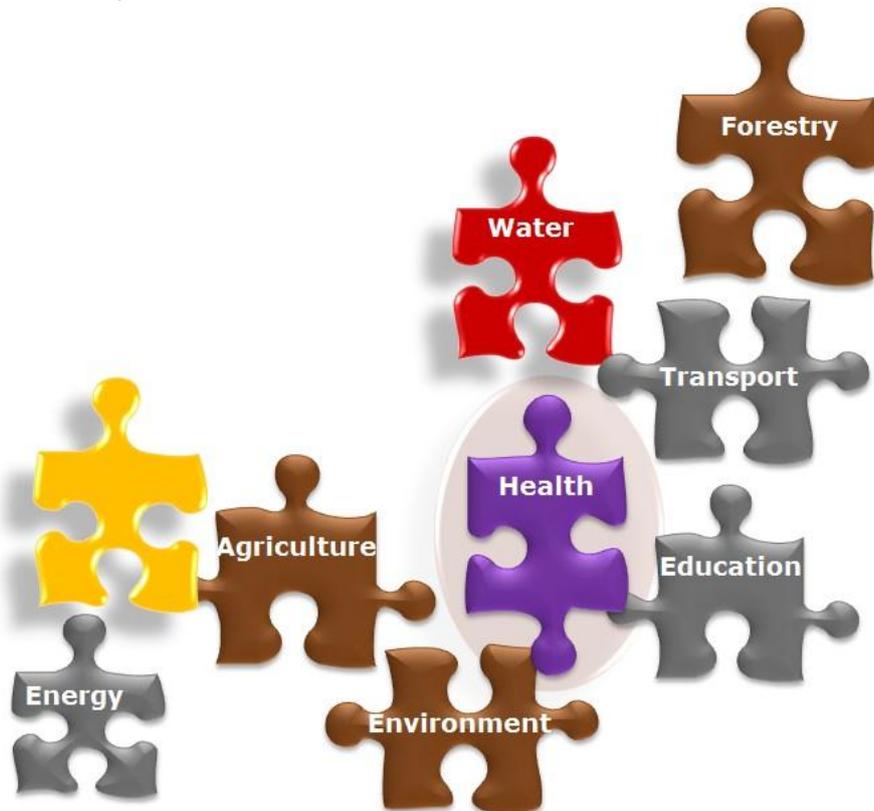
09.20-10.30 **Global Health as interdisciplinary research field (moderator H. Balslev)**
Definition of common research questions

10.30-10.45 *Coffee*

10.45-12.00 **Formation of Working Groups**
Thematic focus, small groups
BSU Platform WG's and creation of new groups

12.00-12.30 Plenary discussion, summary, future plans

12.30-13.00 *Lunch, departure*



Presentations

“Ecoinformatics & Biodiversity” by Henrik Balslev

Henrik Balslev’s presentation focused on global climate changes and their impact on biodiversity. A strong negative pressure on biodiversity and ecosystems has been observed. The risk of a decline in biodiversity and loss of ecosystem services is clear. These changes in biodiversity and ecosystems have implications for the use of medical plants as a cultural-bound alternative to western medicine. Balslev called for more research on traditional knowledge of medicinal plants.

“Ecosystems health” and “One Health” as cross-cutting approaches to human and animal health – what are the opportunities for joint projects? by Peter Furu

Peter Furu’s presentation focused on “ecosystem health” and “one health” as cross-disciplinary approaches to health. “Ecosystem health” is a systematic approach to the preventive, diagnostic, and prognostic aspects of ecosystem management, and to the understanding of relationships between ecosystem health and human health. Whereas the “one health” approach represents the collaborative effort of multiple disciplines to attain optimal health for people, animals and our environment. In a global health context, Furu stressed the importance of taking a broad and holistic research approach to the determinants of health in relation to climate and environmental change.

“Migration and health” by Jens Seeberg

Jens Seeberg’s presentation focused on the migration and its impact on health. Migration is a challenge to health systems and health in general. It generates issues of access to health systems services, as well as the issue of citizenship. Seeberg illustrated this with examples from his own research on the stigmatisation of African HIV patients in Denmark. Seeberg also stressed the importance of research on migration and conflict. This work can be linked to the ongoing activities of “Platform for Stability, Democracy and Rights” initiated under the project “Building Stronger Universities”.

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“Fragile Futures: Rural Lives in Times of Conflicts” by Lise Rosendal Østergaard

Lise Rosendal Østergaard presented the FFU funded project “Fragile Futures” (headed by Helle Samuelson, Department of Anthropology, University of Copenhagen). The project will use anthropological and sociological research methods in two contrasting villages in Burkina Faso to explore the relationship between civil society and the state (rural perspective), exemplified by how villagers perceive and make use of key state deliveries such as health systems, conflict resolution and water resource management. The project is initiated in collaboration with University of Ouagadougou, Burkina Faso.

“Resilience and Reproductive Health – presentation of two project ideas” by Tania Dræbel

Tania Dræbel presented two project ideas and invited interested partners to collaborate on the development of the projects. The first project idea involved resilience; the idea being to look at resilience rather than vulnerability and to strengthen the research on a resilience index, an index based on the ways in which people cope with crises. The other project proposal involved the area of reproductive health, and more specifically a study on the impact of change (whether new technology or crises) on health systems at both macro and micro(sociological) levels.

“Health systems and financing” by Ulrika Enemark

Ulrika Enemark introduced the methodology for research on health systems and financing. One of the objectives is to provide reliable methods for the economic evaluation of specific interventions e.g. vaccination strategies (cost-effectiveness). Another is to perform health systems analyses e.g. effects of changes in financing, organisation, management; effects of changes in population structure.

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“Quest to understand out of pocket health expenditure in LMIC” by Ethel Mary Brinda

Ethel Mary Brinda presented the results from projects on “Nature and correlates of out of pocket health expenditures and catastrophic health expenditures” in low and middle-income countries (LMIC). The main findings were: socioeconomic factors, e.g. inequalities in health and gender influenced the health expenditure in LMIC. Brinda pleaded the need for global interdisciplinary initiatives that go beyond the medical policies, to curtail the financial burden in these countries.

“Population based epidemiological research and trials” by Christian Wejse

Christian Wejse presented the results from epidemiological research on HIV and tuberculosis in Bandim, Guinea-Bissau. Wejse ended his presentation by identifying a range of possibilities for future interdisciplinary research projects with biostatisticians, anthropologists, health system researchers etc. , thereby underpinning the purpose of the seminar.

“Primary health care and global health” by Per Kallestrup, AU

Per Kallestrup gave a presentation on the role of primary health care in Global Health. He pleaded for the importance of an integrated community-centred primary care approach and exemplified the ‘diagonal approach’ complementing vertical programming with horizontal components to capacity build general primary health care delivery. Kallestrup furthermore described the objectives and goals for GloHAU (Center for Global Health, Aarhus University). The contribution of primary health care is one of the main focal points of GloHAU.

“Community-based approach in primary health care to address non-communicable diseases in Nepal (CAPCAN)” by Dinesh Neupane

Dinesh Neupane addressed the importance of a community-based approach to non-communicable diseases. He presented a concept project for Nepal, where female community health volunteers may improve early identification, management and prevention of major non-communicable diseases. Neupane sees interdisciplinary research as a mean to establish evidence and strengthening policy analysis and advocacy.

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“Oral health in African countries” by Dorte Haubek

Dorte Haubek introduced research projects on diseases conducted in African countries. A number of oral health problems are evident in the African region, and Haubek presented the findings from various studies, e.g., conducted with partners from Ghana, Sweden, and Morocco. She specifically presented the results from the colonisation of a particularly virulent clone of the bacterial species, *Aggregatibacter actinomycetemcomitans* and their association with aggressive forms of periodontitis in adolescents. She also mentioned an interest in the natural ingredients of chewing sticks, and the oral hygiene tools used, e.g., in Ghana. Haubek called for collaboration and identified opportunities for joint interdisciplinary projects.

“Global occupational and environmental health and safety” by Erik Jørs & Vivi Schlünssen

In their presentation, Erik Jørs and Vivi Schlünssen focused on the consequences of the globalisation of production in respect to occupational and environmental health (OHS) and safety. The presentation illustrated that there are a wide range of serious OHS issues (lack of protective measures, uncontrolled and unsafe use of pesticides and heavy metals, accidents, child labour, no right to organisation and lack of control and enforcement of laws). Their main aim is to transfer Danish knowledge on OHS issues to developing countries and initiate intervention studies. They are collaborating on projects involving pesticides, health and environment in Bolivia and Uganda, and mercury-free gold extraction in the Philippines. A collaboration with Tanzania and Ghana on OHS-issues and teaching have been initiated

“Maternal mortality in developing countries” by Christina Marie Braüner

Christina Nielsen presented her research ideas for a PhD project on maternal mortality in developing countries. Her ideas centred on the issues of teaching and training health personnel in order to improve the standards of the staff and health facilities. The research ideas were discussed and Nielsen was encouraged to pursue funding opportunities for her enrolment.

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"Centre for Arctic Environmental Medicine" by Eva Cecilie Bonefeld-Jørgensen

Eva Cecilie Bonefeld-Jørgensen gave a presentation of Centre for Arctic Environmental Medicine. The arctic is vulnerable to environmental contaminants that have been transported via the atmosphere and ocean currents from the industrialised countries. These chemicals are being biomagnified up through the marine food chain that is of high nutritional and cultural value for the Arctic population. Factors that further affect arctic health are the climate changes. The transitions in climate on the traditional Inuit diet have major implications on human health in the arctic area. Bonefeld-Jørgensen presented the recent and ongoing projects at the centre.

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Formation of working groups

The workshop aimed to create synergies with the existing platforms under the initiative “Building Stronger Universities” and explore the demand for initiating new work group. As the presentations have revealed, the participants have a wide scope of research interests. Although it would have been more rational to concentrate on a thematic focus after the presentations, the group on the whole acknowledged a strong sense of coherence and the importance of cross disciplinary research and collaboration with other faculties and universities.

To form the work group, we brainstormed on research questions (see appendix). The following work groups were formed after the brainstorm:

- (1) Migration and conflicts
- (2) Health systems

The groups were formed with the existing BSU working groups in mind:

- (3) Climate change
- (4) Reproductive health
- (5) Infectious diseases
- (6) Guinea-Bissau
- (7) Occupational and environmental health
- (8) Communication and development

Besides the listed work groups, the workshop observed a demand for a work group on non-communicable diseases (9).

The participants created three small thematic groups in order to discuss common interests and potential future activities. The three groups included: (2) Health systems, (4) Reproductive health and (5) Infectious diseases.

Initiatives from the three groups

(2) Health systems

The participants identified a list of common key words for the new group:

- Intercultural medicine (traditional knowledge vs. western medicine)
- Health promotion
- Integrated health services
- Primary health care
- Qualitative of care,
- Accessibility and equity of care
- Health economics
- Dental health services
- Non health sectors influence on health
- Food security

The next step towards the formal establishment of the group is to set up a homepage on the ENRECA website with the purpose of initiating joint research projects. Per Kallestrup agreed to be responsible for the creation of the group and to elaborate on working plans for the future establishment of the group.

(4) Reproductive health

Since an active work group geographically centred in Copenhagen already exists, the group agreed to link to the members of the existing work group.

(5) Infectious diseases

The group decided to plan a network meeting in May in Odense. The group will apply for funding to include potential partners from developing countries.

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Final remarks

The workshop illustrated the importance of – and openness towards – interdisciplinary research. The workshop aimed at bringing together researchers from the major disciplines to interact and create synergy. Another aim was to promote collaboration between researchers at health faculties with researchers working on global health from another perspective within other faculties. Finally, the workshop aimed at creating synergies with the existing platforms of the initiative “Building Stronger Universities”, and explore the demand for initiating new working group.

The workshop succeeded in establishing two new work groups as well as the addition of new members to existing work groups. The most important outcomes of the workshop are however, the interest in and support for an international approach to global health.



Behind from left: Jens Seeberg, Christian Wejse, Jørn Attermann, Per Kallstrup, Erik Jørs, Jørgen Eskild Petersen.
Front from left: Jonas Havelund, Peter Furu, Tania Dræbel, Lise Rosendal Østergaard, Vivi Schlünssen, Henrik Balslev, Danish Neupane, Dorte Haubek, Ethel Mary Brinda, Christina Marie Bräuner, Ulrika Enemark
Absent on photo: Eva Bonefeld-Jørgensen, Søren K. Kjærgaard

Appendix: Research questions

The brainstorm resulted in the questions below. The numbers in parenthesis indicate the working group that the participants find is the relevant for the question. Questions marked with a # indicate that the question is generic.

Working groups

- (1) Migration and conflicts
 - (2) Health systems
-
- (3) Climate change
 - (4) Reproductive health
 - (5) Infectious diseases
 - (6) Guinea-Bissau
 - (7) Occupational and environmental health
 - (8) Communication and development

Research questions

- What determines good health (2, #)
- Is climate change a determinant of health (3)
- How does environment connect to global health (7)
- What can reduce/describe maternal death (4)
- Can health training courses promote health in strained health systems/slum areas (2)
- Which factors affect health systems and do they interact (2)
- What happens when we implement interventions in real life (effectiveness) (2, #)
- Can the group be used to do geographically more widespread cross-country studies (#)
- How can we collaborate to increase knowledge-transfer and build capacity? (#)
- What is the impact of environmental factors on infectious diseases (5,7)
- Can occupational medicine become a gate-facilitator for the health system (2,7)
- How can we promote integrated/diagonal approaches to global health (2)
- Can botanical research contribute to global dental health (2,5)
- What are the barriers for succeeding in developing a cross-sectorial approach to primary health – it is an old well-known concept (2)
- How does extreme environmental factors/climate change affect vulnerable populations, e.g. Arctic area (2,3,7)
- Can birth cohorts deliver answers to population effects of determinants affecting global health (6, #)
- Can the ENRECA network facilitate work groups delivering global health research (#)
- Can increased public health delivery impact rural life (2)

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- How can we continue to network within global health and disseminate activities (#)
- NCDs as a global health issue (2, 9)
- How can the diagonal/integrative approach be put to use? (2)
- How can we succeed in developing a translational research output with impact (#)
- What is the prevalence of antibiotic resistance in developing countries (5)
- How can we deliver capacity in partner countries to detect emerging health problems like antibiotic resistance? (#)
- How can we best combat communicable disease and thus promote global health (5)
- What are the needs/demands from south partners in global health research (#)
- Can we deliver a list of “global health essentials” (like the WHO essential drug list), e.g. package of intervention tools? (2)

