Advancing Planetary Health – *linking health and environment data*

Participant List

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Advancing Planetary Health – Meeting Follow-up

Summary

The Rockefeller-Lancet Commission on Planetary Health demonstrated how global environmental pressures threaten the health of current and future populations. In order to better understand these trends, we must link together human health and environmental research, and enable action to build more resilient health futures for all populations. Future Earth is a ten-year global platform for sustainability research, that seeks to bring together research communities and research end-users (governments, industry, society). It is a community which promotes solutions-driven research that overcomes disciplinary silos, intended to enable integrated understanding and leverage science to action (policy, practice). Health has been identified as one of eight focal challenges for research activities, and a Knowledge Action Network (KAN) has been proposed as a mechanism for global and open engagement, coordination across stakeholders from within and outside the health community, and wide translation of research findings into policy and practice. The main focus of this Bellagio conference was to gather input to inform the strategic development of the Health KAN, in order to meaningfully and with concrete activities integrate health into the Future Earth community.

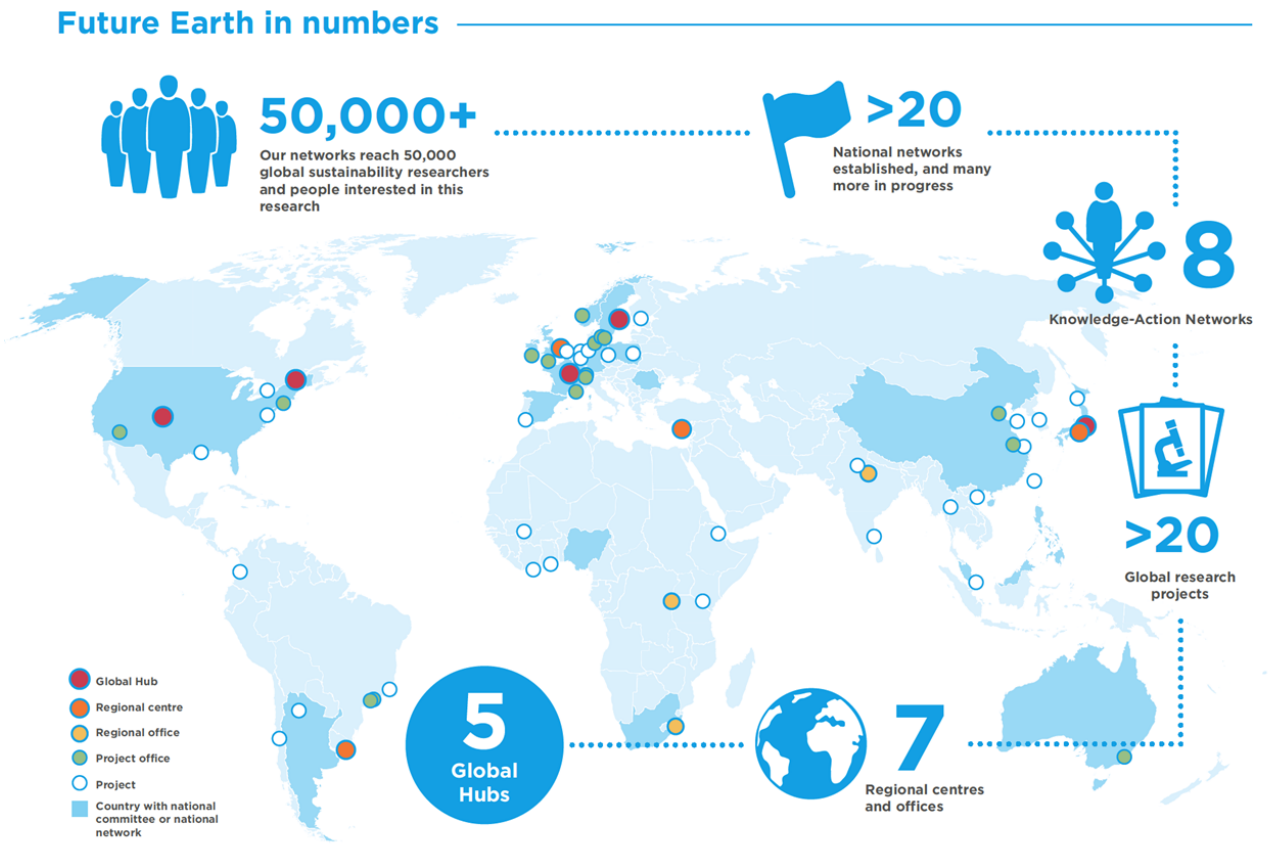

Figure 1. A map of Future Earth's global network as of April 2016. Countries highlighted in darker blue have a national committee or national network established or pending. Source: Future Earth Booklet (http://www.futureearth.org/media/future-earth-booklet-what-future-earth).

Bellagio Center, Rockefeller Foundation, 4-7 July 2016

The 3-day meeting brought together representatives from UN organizations, academia, development agencies and non-profit organizations, and the Future Earth Secretariat with expertise in fields including public health, international development, demography, disaster risk reduction, environmental conservation, biodiversity, nutrition, agriculture, urbanization, and climate change. Participants presented their existing work, and together discussed potential priority areas (Disasters, Food Systems and Cities) and three proposed activities for the KAN (Setting Research Priorities, Capacity Building and Systematic Reviews). Methods including systems dynamics modeling and scenario building were also reviewed as useful integrated tools and approaches to assess health threats and outcomes from environmental change proactively.

Strategic Objectives for the Health KAN were developed and implementation items for the next year were drafted and agreed upon, noting where there was existing capacity as well as where additional resources would likely be needed. Ideas for initial stakeholders and outreach opportunities (e.g. editorials, conference participation, social media) were also considered. There was strong agreement that work on health was crucial and would benefit from collective contributions of the Future Earth community. The need to cut across the eight proposed Future Earth Knowledge Action Networks to achieve coordinated action was also strongly articulated.

As the meeting brought together Planetary Health, One Health, Eco-Health and Urban Health perspectives, there was agreement that the communities and their external stakeholders would benefit from a unified front, given their shared focus and goals. The next step is to form the Health KAN Development Team and Advisory Board, which will begin implementing the action plan, setting a strong foundation for the Health KAN when it is officially launched next year.

Strategic Objectives of the Health KAN

1. *Enable and promote transdisciplinary research*
    - 1.1 Synthesize the evidence base and identify research gaps
    - 1.2 Identify relevant data sets, limitations and gaps, and make them more accessible.
    - 1.3 Build transdisciplinary research capacity
    - 1.4 Improve methods for transdisciplinary research
2. *Engage with stakeholders, to allow for knowledge and perception of priorities around transdisciplinary research.*
    - 2.1 Build platform for engagement (FE open network)
    - 2.2 Identify and engage possible stakeholders
3. *Strengthen capacity for communication and implementation of research findings, and encourage co-design of research with key stakeholders*
    - 3.1 Increase capacity of health research community to communicate research findings in a timely and effective manner

3.2 Ensure engagement of stakeholders in research design and increase capacity for using research evidence.

4. Integrate health into existing initiatives.

4.1 Global initiatives; Sustainable Development Goals, Convention on Biological Diversity, Intergovernmental Panel on Climate Change, Shared Socioeconomic Pathways, Sendai Framework for Disaster Risk Reduction (etc)

4.2 Regional/National/Cities; Regional Development Banks, Climate Funds, city plans, making cities resilient campaigns (etc)

Strategic enablers: Funding; Communication and engagement with stakeholders; Effective governance; Diversity in the community.

N.B. Strategic framework under development.

Implementations items for the Next Year

Key Activities that require additional resources

1. Establish the Health KAN development community, and scope out existing relevant networks to integrate within the community. (FE Secretariat, Health KAN Development Team)
2. Set research priorities for linking environment and health, that build on existing reports, and start a series of transdisciplinary briefs, framed within the FE Strategic Research Agenda 2014 (Josh Tewkesbury, Peter Daszak, Chandra Bhushan, Sarah Molton, Tony Capon, Fumiko Kasuga, David Cooper, Bruno Sobral, Chadia Wannous, FE Sec, Montira Pongsiri, Fanny Demassieux, Health KAN DT)
3. Start to build a list of relevant data sets for health and environment, and analysis of opportunities and limitations for linking and filling gaps (Chris Golden, Francesca Harris, Cristina Romanelli, Qiyong Liu, Bruno Sobral, Chadia Wannous)
4. Start to build a repository of systematic reviews related to issues around environmental and health research, and make available through the FE website (Andy Haines, Tony Capon, Kari Raivio, Peter Daszak, Sarah Molton, Bruno Sobral)
5. Assess options for constructing system maps and pathways for key areas regarding health, such as food systems and cities, using case examples (Montira Pongsiri, Bruno Sobral, Josh Tewkesbury, Andrea Bassi, IIASA, Fanny Demassieux, Charles Ebikeme)
6. Integrate health into global change models and scenarios (Tony Capon, Josh Tewkesbury, Fumiko Kasuga, Kari Raivio, Kris Ebi, Peter Daszak, Judy Omumbo, Charles Ebikeme, Chadia Wannous)

Activities that can be achieved with current resources

7. Be inclusive in a complex system approach, by writing a short, concept piece to encourage systems thinking around health, articulating the vision of transdisciplinary research. (Elisabet Lindgren, Tony Capon, Andy Haines, Montira Pongsiri, Bruno Sobral, Fanny Demassieux)
8. Develop a communication strategy for the Health KAN:
    a) Engage with Core Projects and KANs (Fumiko Kasuga, Catherine Machalaba, Francesca Harris, and FE Sec)
    b) Use journals (EcoHealth, Lancet, Down to Earth, Science, Huff Post..), social and regional media to disseminate work of the KANs and encourage wider interest (Chandra Bhushan, Catherine Machalaba, Francesca Harris, Bruno Sobral, Chadia Wannous)
    c) Establish a platform for the Health KAN to communicate / open network (Josh Tewkesbury)
    d) Submit a wide-scale consultation survey, for activities related to the Health KAN (TBC)
    e) Hold a series of webinars, from different institutions, which have an integrated theme while incorporating different viewpoints on transdisciplinary research and outputs (Tony Capon, Catherine Machalaba, Kris Ebi, Charles Ebikeme, Bruno Sobral)
9. Provide technical input on health indicators and gaps for the inter-governmental working group on terminology and indicators on disaster risk reduction (by September 2016) (Chadia Wannous, Bruno Sobral, others TBC)
10. Utilize opportunities to contribute at various events (everyone).
11. Develop a plan for governance (FE Sec, Francesca Harris, Catherine Machalaba, Health KAN DT)

N.B. People in brackets have either volunteered support or play a key role in the activity, but others may also want to join, and specific subgroups will be set up.

Priority Areas Identified

These topical and action areas were selected for breakout group discussion, with the intention of focusing some initial areas of work for the KAN (though additional areas may certainly be relevant and added going forward).

Disasters and Extreme Events

Potential event data and prevention/preparedness/response needs were discussed in three phases: after the event (data on mortality (suicide) and other health impacts are lacking/under-estimated especially for small-scale emergencies or disasters; systematic approach needed for nodal regional centers cross the world for disaster relief and stockpiles, to be activated whenever support is requested), during (safety nets), and before (Need a global database on vulnerability and exposure (e.g. using census and DHS); meteorological

events – early warning system; detection, preparedness and response for slow-onset events; More integrated health/environmental/social impact assessment). Financial data should also be considered to guide more standard calculation of economic losses, help shape equitable insurance schemes, and be used for cost-benefit analysis of ecosystem services. The UNISDR is supporting countries to develop indicators to monitor progress of achieving the seven global targets of the Sendai Framework for disaster risk reduction, and input on health indicators is invited (e.g. identifying public data sources, methods, ensuring quality of data). The utility of assembling lessons from countries and national/local data sets and policies in place was also noted.

Food Systems

There are multiple entry points for intervention; consumer behaviour, food security (access, availability and affordability) and linking agricultural production and environmental impacts. Therefore, multi-scale approach needed. It was decided a country-level case study could be useful to frame around subpopulations and equity. However, improvements in data are needed, particularly good quality national consumption surveys.

In terms of what the Health KAN can do, the discussion orientated around data availability. Specifically, a single portal that would allow access of the wide range of data that is needed: food consumption, nutritional values, environmental impacts, hence considering the full cycle of the food system.

Urban Environment

Detailed discussion on the difficulties of data, e.g. access, quality, individual integrity and confidentiality. There is a serious lack of data in urban planning capacity. Need to consider what indicators are relevant in an urban context for health (e.g. walkability, psycho-social wellbeing, public safety, reduced heat island effect, flood risk), however indicators will also depend on the city/problem.

Health KAN could use case studies of “model cities”, to demonstrate different sustainability aspects and identify pathways of change. This can be achieved through existing networks/data bases e.g. Cities KAN, ICSU Urban Health programme, Wellcome Trust project. It could assist in capacity building for sustainable cities (e.g. mayors), involving partners e.g. ICLEI, C40, 100 Resilient Cities etc.

Capacity Building

Capacity building for transdisciplinary research can take a systems approach, involving all relevant stakeholders through the research -> policy cycle. Transdisciplinary researchers need to engage with wider networks, but to take things forward you need stakeholders in the co-design. Knowledge uptake (esp. media) can feed back into the research cycle. Setting a research agenda can enable capacity. Capacity building can be a demand-driven process, that builds collective intelligence through mentoring. Future Earth can enable partnerships between researchers and end users such as policy- and decision-makers, facilitating the inclusion of decision-making complements to research projects in their design and execution to promote research to action objectives of the community.

Health KAN could improve research communications through online platforms, exploiting existing networks, and increasing knowledge sharing (e.g. webinars). Case studies can help set the research agenda. Future Earth could help identify priority needs for from the policy-maker community (e.g. SDG data collection or developing sustainable city plans), and use the

network to develop process capacity building exercise. Future Earth could play an important role in sharing policy-makers' specific needs for science, and in sharing lessons learned on implementation science and best practices on science policy engagement.

Research Priorities

The discussion was separated around topics, and what data/groups can contribute to setting priorities.

- Food and Health - National level case studies
- Climate and Health - WHO and European Center for Env. and Policy already been working on these
- Risk and Health - Global and National level economic analysis of health impacts of disaster risk reduction/mitigation strategies, cost benefit ratios. Epidemics/outbreaks have given some examples, but data is lacking, particularly making the case for business.
- Cities and Health - Cities KAN, Wellcome Trust proposals for urbanization and health, Modelling for decision-support (National, local level e.g. OneHealth), that define health goals.
- Detailed case studies are important to understand causal dynamics/mechanisms which can help inform policy.

Systematic Review Initiative

The KAN could facilitate development of standard guidelines for health and environment reviews (based on the model of the Cochrane Collaboration). Would likely need a host institution to coordinate this process and the associated meetings. Could produce some reviews through the KAN (likely requiring resources) as well as source externally (with an editorial to advertise the need and issue a collective call to action). The findings of the reviews could be disseminated through sector-relevant policy briefs and other mechanisms through the Future Earth Media Lab.

Strategies for Stakeholder Engagement

A key message of the workshop is it is vital to engage stakeholders through the whole process. Andrea highlighted the success of his system modelling approach relies on engaging an inclusive set of stakeholders, including decision-makers as end users of the research/modeling outputs early in the project design process. We discussed various groups that should be involved as the KAN develops. Furthermore, the KAN should have a presence at many events, so we started to set up a calendar, which will be available for editing on the open network. Once set up, the Health KAN should have a specific subgroup dedicated to engagement who will develop a strategy.

Governance

A Health KAN Development Team will be formed in the near future to establish the KAN, supported by the Advisory Group. The Development Team will be in place until the KAN is formally launched next year, when a Steering Committee will begin. A specific terms of reference will be developed for each role by the Future Earth Secretariat, but basic guiding principles were established: The Steering Committee Chair and coordination centre should be separate, and there should be a transparent and clear Steering Committee and Advisory Board selection and rotation process.

Unresolved Issues

There remained some questions by participants about the overall wider goals of Future Earth and its key focus. Membership of the KAN Development Team and the process for transitioning to the KAN Steering group also needs to be decided.

Terminology

The meeting brought together experts from Planetary Health, One Health, Urban Health and Eco-Health communities on a common vision and goal. Some institutions already have mandates aligned to specific terms; we hope to avoid confusion on terms by policy makers as they are all working toward more integrated health-environment synergies. Thus, the KAN will emphasize the commonalities between them in its messaging (e.g. web pages, editorials, etc.) to promote a collective impact by the Planetary Health/One Health/Urban Health/Eco-Health communities.