



## Big Data in an Urban Context

The 6<sup>th</sup> World Social Science Fellow Seminar was hosted by IUE, CAS, Xiamen, China from Nov 30 . Dec 4, 2015. The seminar was convened by ICSU-CODATA, International Social Science Council (ISSC) and the Urban Health and Wellbeing: a Systems Approach programme. The aim of the seminar was to elaborate on how cities can make use of big data and which challenges and opportunities the use of big data in the urban context poses. One of three working groups focused on **big data and urban health**. [Read more](#)

## Co-design for Urbanization in China

On Oct 20-23 the international symposium was organized by the Chinese Academy of Sciences (CAS) and its partners in consultation with Future Earth and co-sponsored by the new global interdisciplinary science programme on Urban Health and Wellbeing. [Read more](#)

## Events

The programme took part or contributed to important events in Berlin, Paris, Philadelphia, Hangzhou, Shanghai, Beijing, Xiamen and Pune. [Read more](#).

### Contact

ICSU-UNU-IAMP Programme on Health and Wellbeing in the Changing Urban Environment: a Systems Approach

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## Funding opportunities

Funding opportunities for topics related to urban health and wellbeing. [Read more](#).

## News from the scientific committee

Information on the 7<sup>th</sup> SC meeting in Xiamen and activities of SC members. [Read more](#)

## The Xiamen Statement on Systems Thinking for Urban Health and Wellbeing

Statement adopted by the scientific committee at its 6<sup>th</sup> meeting in Paris May 11-13. [Read the Xiamen Statement](#)

# WSS seminar on „Big data in an Urban Context“



Participants of the World Social Science (WSS) Fellow Seminar: Elijah Bisung, Kerry Bobbins, Hossein Estiri, Carole Glynn, Natasha Howard, Olle Järv, John Karlsrud, Ali Kharazzi, Frank Müller, Hénock Blaise Nguendo-Yongsi, Milinda P. N. Mudiyansele, Ales Završnik, Bijaya K. Padhi, Norma Padron, Frank Pega, Hua Qin, Maximiliano Vila Seoane, Nicholas Weber, Wen-jie Wu (not all on picture).

Nov 30 – Dec 4, Xiamen, China

The WSS seminar on “Big Data in an Urban Context” brought together an excellent group of social scientists who discussed the challenges and opportunities of big data for urban health and other urban issues. A field trip to the Xiamen Informatization Center in Haicang district gave insights into how traffic and health related big data can be used in urban control centres for monitoring and process management. The group visited Yuan Qian village which is being economically revived by young entrepreneurs returning to their village and engaging in agri-business activities, such as agri-tourism and a village pineapple cake factory and home-made noodle production.



# WSS seminar on „Big data in an Urban Context“

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## Feedback



In past ten years I have attended many conferences and seminars around the use of information and communication technology in urban contexts. During the ISSC-WSS Fellows seminar on “Big Data in an Urban Context” at IUE I especially appreciated that both strands of research in this field were tackled by young scientists from around the world: addressing methodological challenges in leveraging the potential of various digital (spatial) data sources, including mobile and social media generated information, to tackle urban societal problems; as well as engaging with theoretical and socio-political challenges embedded in the governance of cities through these data and technologies. Fellows approached the topic of big data from various domain angles grounded in their diverse expertise, including health and environmental sciences, land administration and urban studies. I found the research and writing plans, that were developed based on intensive discussions, impressive, especially given the variety in disciplinary and cultural backgrounds of the participating scientists; and holding the promise to further our understanding of current urban processes that cross the digital/non-digital boundaries of society. IUE has been a wonderful host in providing space(s), in more than one sense of the word, for these discussions to take place.



It is a big challenge to go “From big data to collective intelligence and how urban systems function” – which was the title of the kick-off presentation I gave for this seminar. What became very clear during this seminar is that data scientists, modelers and decision-makers from relevant stakeholder groups need to be working together in order to make cities work for urban health and wellbeing. Access to big, open data is one important precondition. Analysing them, recognizing critical associations and patterns in the data, simulating and making predictions requires concerted effort among scientists and society. There is much excitement around big data being a real opportunity for better understanding how we behave, especially in crowds. But we also need to avoid falling into the positivist trap by being explicit about our assumptions, values and intentions. Choosing how to look at, analyse and listen to big data, within which mental models and rationalities, involves value judgements. That is essentially why science and society are inseparable and why communicating better between both makes us more intelligible. The WSS seminar was a real eye-opener and inspiration this year and an delivered an important input to the work of the Urban Health and Wellbeing programme.



Fellows’ presentations during the 2015 WESS Seminar in Xiamen highlighted the multiple dimensions of big data in the social sciences, and the intricate linkages behind the availability, production, access, management, and use of big data in an urban context. Their discussions during the seminar further emphasized the many implications of these issues for policy decision-making (at the national, regional and local levels) but also for people’s everyday life in urban environments all over the world. By fully embracing this complexity in their Seminar’s outcome projects, the Fellows’ interdisciplinary teams are contributing to this emerging field and pointing to its relevance in navigating our urban realities.



# Co-design for Urbanization in China



Oct 20-23, Xiamen, China

The international symposium has been planned by the Chinese Academy of Sciences (CAS) and its partners in consultation with Future Earth and co-sponsored by the new global interdisciplinary science programme on Urban Health and Wellbeing, which has its international programme office in Xiamen at the Institute of Urban Environment, CAS. The aim of the symposium was to establish international collaboration with Asian-Pacific countries to address the scientific challenges of co-design for urbanization and its related health challenges. The symposium participants produced an outcome statement with proposed follow-up actions such as the establishment of the Urban Knowledge Action Network. The [outcome statement](#) will be posted on the [Future Earth webpage](#).



# Events



Sep 3, Berlin, Germany

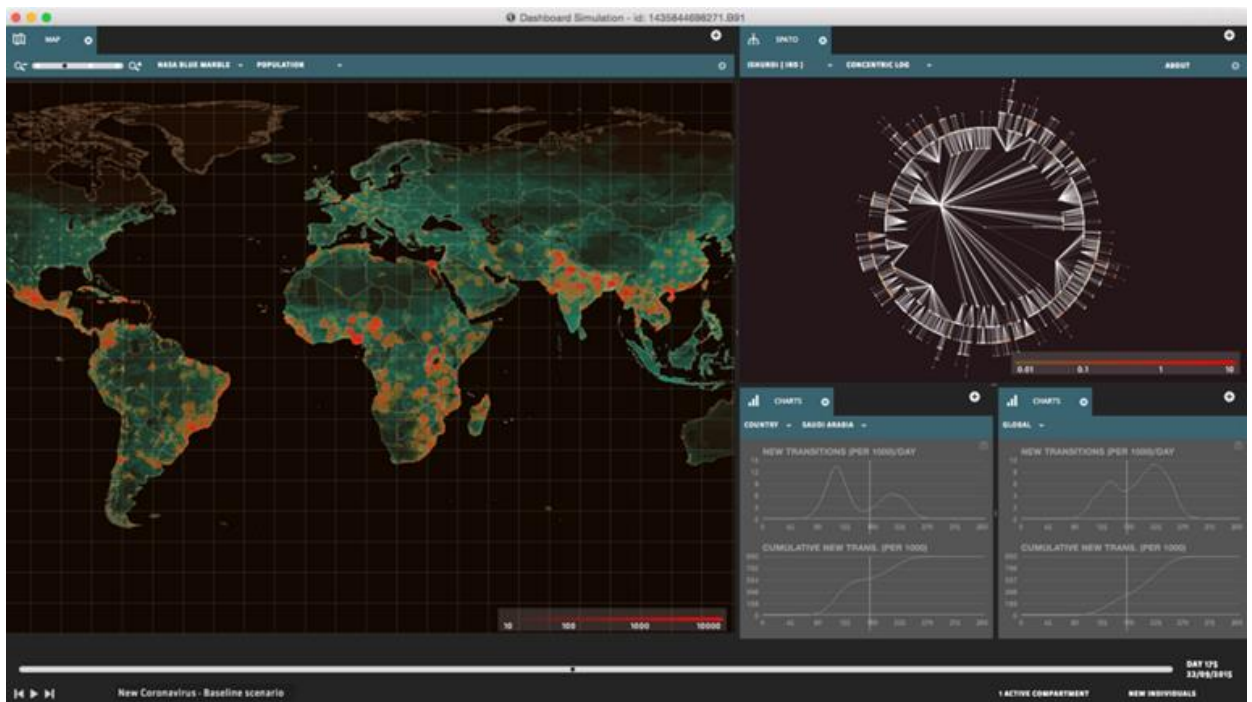
[Solve for X](#), part of Google X - a lab whose mandate is to come up with groundbreaking innovations – is an action orientated community of scientists, inventors, engineers, thinkers and doers, the young, the wise, men and women from every background across every geography connected by a shared optimism that science



and technology can cause radically positive things to happen in the world. Franz Gatzweiler was invited to be part of the first European Solve for X event in Berlin on 3 September 2015. Participants formed working groups which sought solutions for the challenges put forward by the scientists and innovators.



Vittoria Collizza, from the French health and medical research institute Inserm, presented the GLEaMviz simulator and discussed potential applications to city-level analysis with Dr. Gatzweiler. The Global Epidemic And Mobility (GLEAM) modeler integrates socio-demographic and population mobility data in spatially structured stochastic disease models to simulate the spread of epidemics at the worldwide scale. GLEaMviz is the interface and visualization platform of the simulation results produced by GLEaM, which can be downloaded [here](#). Vittoria Collizza will present the GLEAM at the Science-Policy Dialogue in Xiamen APR. 28-29, 2016 and discuss with decision-makers how communicating the power of models with societal stakeholders can improve urban health and wellbeing.



# Events



## THE LANCET



### HEALTHY LIVES ON A HEALTHY PLANET What is next for research and policy?

#ClimateHealth #HealthCOP21

Dec 11, Paris, France



From 30th of November to December 11th the 21st United Nations Conference on Climate Change was held in Paris, France. The Public Health community aimed at raising awareness of the challenges climate change poses to health and the opportunities to improve health through policies to reduce greenhouse gas emissions. On **December 11th, 2015** public health actors assessed the implications of the agreement in Paris for global health and discussed the post-COP21 agenda for climate and health. Jose Siri, Fellow researcher, Institute for Global Health, United Nations University, Kuala Lumpur, Malaysia gave a presentation on “Sustainable Healthy Cities”. He also chaired a session on “The role of foundations”, with David Rockefeller, Jr., Chairman of the Board, Rockefeller Foundation, USA and Sarah Molton from the Wellcome Trust, UK. “The Challenge of Communication about Environmental Change and Health” was also discussed on a session chaired by Anneliese Depoux and Rainer Sauerborn. [Read more and download programme](#)



### REIMAGINING HEALTH IN CITIES: NEW DIRECTIONS IN URBAN HEALTH RESEARCH

Sep 10-11, Philadelphia, USA

The health challenges of cities are growing and have expanded beyond traditional urban health concerns -- infectious diseases and toxic environmental exposures -- to encompass chronic diseases associated with poor diets, sedentary life styles, and physical and mental health issues that are linked to violence, poverty, unemployment, income insecurity and poor working conditions. This first Drexel School of Public Health Symposium brought together researchers, practitioners, policy makers and community members to discuss how to address these health inequalities. [Visit the symposium webpage.](#)



# Events



Nov 27-29, Zhejiang University, Hangzhou, China

The Land Academy for National Development (LAND) of Zhejiang University, Hangzhou, established the C-WINS between Nov 27-29. C-WINS is committed to promote the cooperation and communication of Chinese and international scholars with common interests in analysing the institutions and governance issues of the relationship between social and ecological systems. 90 scholars attended the two-day workshop and the inauguration ceremony. Franz Gatzweiler gave a presentation about „Institutions of Sustainability for Urban Health and Wellbeing“ and suggested a collaboration between Chinese and German researchers. He explained that urban growth, a key driver of development, has been achieved at the expense of environmental pollution, social and health inequality and it has not improved the systemic response capacity required to react to the health challenges urban systems are facing today: epidemiological, demographic, climate and ecological changes. He explained that response capacities can be enabled by having an interlinked systems of integrative institutions in place which adjust the functioning of urban systems and the behavior of actors so as to internalize costs of growth. Those sets of institutions are referred to as “institutions of systemic sustainability”.



# Events



Nov 4-6, Pune India

R.B. Singh, vice president of the International Geographical Union (IGU) spoke at the 8<sup>th</sup> conference of the Union on Landuse, Water, Climate and Urban Health in Changing Urban Environments. The conference aimed to prepare a research strategy for South Asia in order to contribute towards ICSU initiatives on Urban Health and Wellbeing for future Earth. [See the programme here.](#)



上海大学  
Shanghai University

Dec 14-17

[ComplexCity Lab](#) is an interdisciplinary sino-french joint research laboratory at Shanghai University. It aims to study urban systems. The Lab is taking an innovative approach which combines the analytical and computational capabilities of engineering sciences with the openness and creativeness of humanities and social sciences. The city is considered as a complex system composed of a very large number of heterogeneous, dynamic, constantly mutative entities in non-linear interaction with each other at various scales. Exploring and analyzing these systems can lead to technological, organizational and social innovations to enhance today's cities and help design the cities of tomorrow. Fabien Pfänder from ComplexCity met with Franz Gatzweiler and Yi Zhang to introduce their programmes and discuss collaboration opportunities. On Dec. 15 Franz Gatzweiler gave a presentation followed by a roundtable discussion at the institute of smart city, Shanghai University.



# Events – Funding Opportunities

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Oct. 28, Beijing, China

On October 28th, 2015, about 70 experts from China and Europe met in the Sino-German Center for Research Promotion in Beijing, China, to talk over future trends in Sustainable Urbanisation and to discuss efficient ways of collaboration between China and Europe with respect to the current fast urbanisation developments in China. Possibilities of future joint calls and systematic exchange of experiences and learning from the past were also discussed. Future joint aspects in Sustainable Urbanisation between China and Europe will be addressed by the [Belmont Forum](#) and [JPI Urba Europe](#). Franz Gatzweiler gave a presentation on cities as complex systems and how they can be managed for the health and wellbeing of urban inhabitants. [Go to the conference webpage and download presentations](#). Go to the H2020 call: [ENG-GLOBALLY-08-2016/2017](#)

**wellcome**trust

Wellcome Trust announces “Our Planet, Our Health” call for ambitious, transdisciplinary programmes that research the ways complex changes in our environment affect our health and develop potential solutions to enhance resilience. Two themes under the call include “urbanization and health” and “the global food system and health”. The call and application information can be accessed [here](#).

 **Urban Studies**  
FOUNDATION

The Urban studies Foundation (USF), Glasgow, UK is dedicated to funding urban research and is committed to extending its support internationally with our International Fellowship, postdoctoral research fellowships and the Seminar Series competition. [For eligibility criteria and more information go here](#).



# Outlook

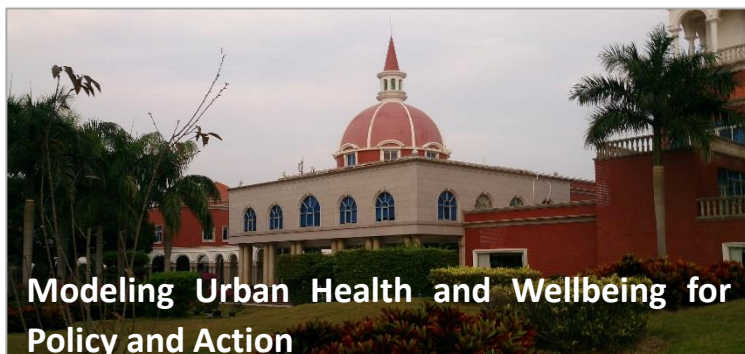


Jan 25-27, 2016 – Kuching, Malaysia

The Programme on Urban Health and Wellbeing: a Systems Approach has committed to be a partner of the Urban Thinkers Campuses (UTCs). The UTCs are an initiative of UN-Habitat. They provide open space for critical exchange between urban actors who will come together and work towards positive urban transformations. A 3-day event including local authorities, civil society organizations, parliamentarians, professionals, trade unions, researchers and academics, foundations, businesses and industries, slum dwellers, women’s groups, children and youth and indigenous people. The topic of the UTC in Georgetown will be “Urban Health and Wellbeing”. It will discuss issues through the lenses of green and healthy urban environments, inclusion and urban health equity, culture, heritage and urban wellbeing. In addition there will be two cross cutting themes on systems thinking and co-production of knowledge and urban governance for health. [Go here for more information](#)



Apr 28-29, 2016 – Gulangyu Island, Xiamen, China



**Modeling Urban Health and Wellbeing for Policy and Action**

Models for urban health and wellbeing can be theoretical, conceptual, statistical, mathematical, agent-based, system-dynamic or collaborative and participatory. They differ in terms of their epistemological tradition and their capacity to capture complexity. The science-policy dialogue aims at facilitating communication between science and societal stakeholders. Scientists will present different approaches to modeling aspects of health and wellbeing and discuss with urban decision-makers from different stakeholder groups which types of models are useful for policy and action. [Contact for more information.](#)



Oct 17-20, 2016

[Habitat III](#) is the United Nations Conference on Housing and Sustainable Urban Development, to take place in Quito, Ecuador, from 17 – 20 October, 2016

# Outlook

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The second World Conference of the Society for Urban Ecology will take place 2016 in Shanghai under the title of „Challenges for Urban Ecology by Rapid Urbanization and Global Environmental Change“. Venue is East China Normal University. [Read more.](#)



April 1-4, 2016

The **13th International Conference on Urban Health** will be held from April 1-4, 2016 at the Hotel Nikko in San Francisco, CA. It will be jointly organized by the International Society for Urban Health and the Association of American Geographers in two parts. The first part will address health geographers and highlight national and international cross-disciplinary approaches for advancing global urban health. The overarching theme of the second part, the 2016 International Conference on Urban Health, is “Place and Health”. [Read more and register.](#)



June 1-3, 2016

The Conference aims to bring together practitioners of a variety of disciplines interested in developing and discussing new approaches for resolving complex issues that cannot be formulated using conventional mathematical or software models. The conference is organized by the Wessex Institute, The Open University, UK. [Read more.](#)



Sep 5-9, 2016, Shanghai, China

Urban Transitions Global Summit 2016: Towards a better urban future in an interconnected age. The conference will address urban transition towards more economically competitive urban futures, sustainable and resilient urban futures, equitable and inclusive urban societies, digitally supported urban futures. Contributions are welcome to each of these themes. The deadline for submission of abstracts is 3 March 2016. [Read more here.](#)

# From the scientific committee

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Nov 11-13, Xiamen, China

The 7th scientific committee meeting of the Urban Health and Wellbeing programme took place at IUE, CAS in Xiamen. Members of the committee reviewed progress made and future tasks. The next meeting will take place mid 2016 at ICSU in Paris. The [Xiamen Statement](#) had been adopted by the committee members after it's 6th meeting in Paris May 11-13.



Dec 11, Delhi, India

Indira Nath, chair of the scientific committee of the interdisciplinary global Urban Health and wellbeing: a Systems Approach programme, gave a talk as a guest of honor, on 11th at the International Mountain Day Symposium in the Indian Parliament. The event was organized by R.B. Singh.



Aug 4, Colombo, Sri Lanka

Saroj Jayasinghe submitted a proposal to the National Science Foundation of Sri Lanka and organized a symposium on 'THE URBAN ENVIRONMENT: ISSUES IN HEALTH & WELLBEING' at the National Science Foundation. The event was attended by about 40 scientists from different fields who shared their knowledge on issues relating to Urban Health and Wellbeing.

Dec 11, Colombo, Sri Lanka

Saroj Jayasinghe delivered a key note address at the 8th Annual Research Conference of the University of Moratuwa's Faculty of Architecture Research Unit. The topic was: MAKING URBANIZATION RESPONSIVE TO HEALTH: Exploring multi-disciplinary attributes for a more holistic approach. [Read more.](#)

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## **XIAMEN STATEMENT ON SYSTEMS THINKING FOR URBAN HEALTH AND WELLBEING**

The ICSU global interdisciplinary programme, *Health and Wellbeing in the Changing Urban Environment: a Systems Analysis Approach*, recognizes that:

Cities and other urban settlements are expanding rapidly, and are both the predominant human habitat and the future of humanity;

Cities and the processes of urbanization offer great opportunities for health and wellbeing but also present challenges to health, including the emergence of broad social and geographic inequities;

Health and wellbeing in cities and other urban settlements are affected by an array of dynamic factors and changing relationships, which are in turn influenced by decisions at all levels, from formal policies to individual actions;

To realize the potential benefits cities have for health and wellbeing, we must understand them as interrelated systems that provide functions and generate health outcomes. Novel conceptualizations, methodologies, and ways of producing knowledge are needed that explicitly account for complexity. Systems approaches are necessary to capture the dynamic relations between policies, environments and people that change patterns of health and wellbeing in cities;

The knowledge produced using systems approaches is most often useful and effective when it is co-produced by scientists from multiple disciplines, policy makers, planners, managers, and civil society;

Given rapid urban growth, and complex health problems in cities and other urban settlements, systems approaches are vital to assure and improve human health and wellbeing and secure a sustainable future for all people and our shared planet.

Improved knowledge generated by real partnerships will allow us to act to maximize health and wellbeing in cities. We call upon the scientific community, policymakers, planners, investors, civil society groups, interested individuals and other stakeholders to work together in a spirit of partnership to adopt systems approaches and generate new knowledge that will maximize the health benefits and improve wellbeing associated with urbanization.

Adopted by the Scientific Committee for the global interdisciplinary science programme on  
*Health and Wellbeing in the Changing Urban Environment: a Systems Analysis Approach*.