

Meeting Statement

Complex Systems Analysis: Advancing Health Systems Policy Design and Planning

Rockefeller Foundation's Bellagio Centre, Italy, September 24 - 28

An international group of scientists, health care providers, and health policy makers from high-, middle-, and low-income countries participated in a Rockefeller Foundation-sponsored Bellagio Conference on "Complex Systems Analysis: Advancing Health Systems Policy Design and Planning" from September 24-28, 2012. The meeting participants agreed to the following consensus statements:

- Health systems are complex systems, which are amenable to a new scientific paradigm of analytical approaches based on complex systems science (CSS).
- CSS-based analyses may yield deep practical insights into the current function and future capabilities of health systems.
- The prevention and management of a wide range of health conditions may benefit from the multi-dimensional modeling framework provided by CSS, but fundamental work remains to be done to demonstrate its application to health system challenges.

Both health systems and complex systems experts unanimously agreed on the necessity of developing an interface between these two fields to:

- 1) Support the initiation of an international trans-disciplinary network of expert groups and institutions working towards the application of complex systems analysis in health systems policy and planning.
- 2) Explain the relevance of fundamental concepts and methodologies in complex systems science to the development, analysis, and improvement of health systems.
- 3) Promote the generation and use of scientific knowledge at the intersection of complex systems analysis and health systems research.
- 4) Develop pilot projects to validate the capability of novel complex systems approaches to assess, predict, and explain health systems outcomes.
- 5) Advance the development of a shared language and taxonomy of priority research areas to support effective trans-disciplinary dialogue and collaboration.

6) Establish a web-based repository/clearinghouse of tools, methods, best practices, case studies and links to research groups and relevant professional associations.

7) Establish an international collaborative center with associated training programs at this interface.

The above consensus statements and proposed interface support the guiding principles and values of international policy documents on research for health, and contribute to the achievement of the goals stated in these policy documents as approved by Member States of the World Health Organization: The WHO Strategy on Research for Health approved in 2010,¹ and PAHO's Policy on Research for Health, approved by Member States in 2009.²

¹ World Health Organization. The WHO Strategy on Research for Health. ISBN 978-924-150-325-9. Print 2012 available from http://www.who.int/rpc/research_strategy/en/

² Pan American Health Organization, 49th Directing Council, 61st Session of the Regional Committee of WHO for the Americas. Policy on research for health: document CD49/10. Washington, DC: PAHO, 2009.
http://new.paho.org/hq/index.php?option=com_content&task=view&id=1640&Itemid=1425&lang=en