More reading

Epidemics: Science, Governance and Social Justice, edited by Sarah Dry and Melissa Leach. Earthscan (2010).
ISBN 9781849711029

Avian Influenza: Science, Policy and Politics, edited by Ian Scoones. Earthscan (2010).
ISBN 9781849710961

"Ebola": Haemorrhagic Fevers in Africa: Narratives, Politics and Pathways of Disease and Response. STEPS Working Paper 14 by Melissa Leach (2009).
ISBN 979 185 64 558 1

"Avian Flu": The International Response to Highly Pathogenic Avian Influenza: Science, Policy and Politics. STEPS Working Paper 10 by Ian Scoones and Paul Forster (2009).
ISBN 978 1 85864 544 1

"Epidemics": Epidemics for All? Governing Health in a Global Age. STEPS Working Paper 9 by Sarah Dry.
ISBN ISBN 978 1 85864 543 3

All these resources are available at www.steps-centre.org/publications

Credits

This briefing was written by Melissa Leach and edited by Nathan Oxley.

About the STEPS Centre

The STEPS Centre (Social, Technological and Environmental Pathways to Sustainability) is an interdisciplinary global research and policy engagement hub uniting development studies with science and technology studies. We aim to develop a new approach to understanding, action and communication on sustainability and development in an era of unprecedented dynamic change. The STEPS Centre is based at the Institute of Development Studies and SPRU Science and Technology Policy Research at the University of Sussex with a network of partners in Asia, Africa and Latin America and is funded by the Economic and Social Research Council. Find out more: www.steps-centre.org

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Epidemics: Policy, justice and future challenges

From the STEPS Centre project:
Epidemics: Pathways of disease and response

STEPS project briefing

The spectre of a devastating global pandemic has been raised more than once in recent years. Recent disease events such as SARS, H1N1, avian influenza and haemorrhagic fevers (Ebola, dengue, etc) have focussed attention as never before on the need to understand and prepare for these unpredictable events. A series of new infectious diseases have also emerged (many of them zoonoses, with their origins in animal species), linked to changing patterns of land use, interactions between humans, livestock and wildlife and new patterns of social behaviour. These new diseases threaten to reverse the progress made since 1945 towards improved global public health. How can we work towards effective responses to the fast-changing and diverse conditions from which outbreaks and infectious diseases emerge or re-emerge, while also ensuring social justice for the most vulnerable?

Worshippers pray for health in the Catedral Metropolitana, Mexico City. Photo: eneas on Flickr (creative commons)

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Responses to epidemic outbreaks and threats are shaped by implicit assumptions about who or what is to blame. When policies intended to forestall epidemics are too rigid or too universal in their application, they may fail—and may even further threaten health, livelihoods and human rights with negative unintended consequences.

Understanding epidemics

An epidemic can be defined as an increase in cases of disease within a community or region, over and above what would normally be expected during a particular period of time. Epidemics involve complex dynamics and uncertainties at play in interactions of people, animals and microbes at various scales. All this takes place in the context of wider social, economic and environmental drivers.

Yet epidemics are open to multiple forms of understanding and representation that construct their causes, dynamics and why they matter in very different ways. This extends to the very notion of an epidemic: whether disease incidence is 'unusual' or 'expected' clearly depends on the place, timescale and vantage point from which it is looked at. Such selective 'framings' of epidemics, whether by particular scientists, international agencies, governments or people living with disease, call upon particular forms of knowledge: global or local, biomedical or 'traditional', epidemiological or clinical. People and populations are also labelled in contrasting ways – as heroes or victims, disease-spreaders or controllers, or as those whose livelihoods and lifestyles influence disease transmission, for good or ill.

As different policy-makers, scientists, and local populations construct alternative narratives—accounts of the causes and appropriate responses to outbreaks— about epidemics at the global, national and local level, so these in turn justify and drive different pathways of response.

Policy narratives

Our case studies—of avian influenza, SARS, obesity, H1N1 influenza, HIV/AIDS, tuberculosis, and haemorrhagic fevers— show the dominance of a 'global outbreak narrative' that encourages emergency-oriented, top-down responses, often driven by biomedical interventions such as vaccination and antiviral medications. This narrative has become embedded in much health policy at international and national levels.

> "Emergency-oriented, top-down responses can lead to injustice, sometimes provoking resistance"

Alternative narratives that emphasize longer-term dynamics and social, ecological and political conditions on the ground tend to be sidelined. Examples of these alternatives are:

- **Context-specific intervention:** one alternative narrative focuses on active local intervention in a particular setting to reduce disease risk and exposure. This focuses on the structural causes of inequity and disease vulnerability amongst particular populations, and addresses long-term changes and uncertainties in human-animal-environment interactions as a focus for development and adaptation.
- **Local knowledge:** a second contrasting narrative sees infectious diseases as long-present amongst local populations who have developed culturally-embedded ways to live and deal with them. Local knowledge and cultural logics can inform and be integrated into participatory surveillance and response strategies, helping to make these more context-specific, locally appropriate and acceptable.

Social (in) justice and unintended consequences

Caught up in these differing accounts of the causes and appropriate responses to epidemics are the most vulnerable members of a population—the poor, the socially excluded and the already ill—who are most likely to suffer from epidemic diseases. Our case studies show how emergency-oriented, top-down responses can lead to injustice, sometimes provoking resistance so that control measures fail.

Narrow, universalistic responses can omit crucial factors that are essential to effective and sustainable responses in particular settings. They can also interact with social, ecological and disease dynamics to provoke unintended effects, which can 'kick back' to create new threats and problems.

Future challenges

Developing more effective, sustainable and socially just approaches to dealing with epidemics, in all their complexity and uncertainty, is a key challenge for the future. This will require:

- **Inclusive responses:** building on and deliberating amongst multiple understandings and priorities, including local cultural logics.
- **Linking the epidemic and the endemic:** complementing emergency/crisis responses with the building of health and social systems, and identifying and supporting particularly vulnerable people and places.
- **Rethinking surveillance:** complementing the tracking of disease events with 'systemic surveillance' focused on disease dynamics, including through participatory approaches.
- **Adaptive programming:** moving beyond a reliance on risk assessment and rapid response to a more strategic adaptive, learning approach which can deal with uncertainty and surprise.

- **Flexible organisational architectures,** enabling agility in responding to surprise, and networked co-ordination amongst actors with diverse expertise and priorities.
- **New disciplinary and professional mixes,** linking the work of technical specialists (medical doctors, epidemiologists, veterinary and public health professionals) with the perspectives of social and political scientists, ecologists and environmental specialists, 'frontline' practitioners, and people who live with disease on a day-to-day basis.
- **Health governance arrangements** which pay more attention to social justice, for example asking "Whose health?" and "Whose security?" when new initiatives are being shaped, along with greater openness to the perspectives of those living with disease around what might constitute success.

Case study **'Scape-pigging' in Egypt (from Tadros, 2010)**
The outbreak of H1N1 influenza in Mexico in 2009 spread fears of a major global pandemic around the world, provoking a massive international response. In Egypt, politicians jumped on the World Health Organization's early labelling of the disease as 'swine flu' to call for a mass culling of Cairo's pig population – a tactic that also fulfilled long-standing political interests in suppressing minority Coptic Christian, pig-keeping 'Zabaleen' groups. Yet the Zabaleen did not just rely on pigs for their livelihoods; they also used them in their vital roles as Cairo's rubbish collectors. As pigs died, so waste piled up in the city's streets, attracting rats and threatening a new and devastating local public health crisis.