

## Health Systems Strengthening: Rethinking the Role of Innovation

*The achievement of universal health coverage necessitates strong health systems that are capable of delivering essential health services for the purpose of improved health. Health in this context should be seen not only as the absence of disease and infirmity alone but also as an integrated element, of and contributing factor, to economic and social development built on equity and inclusion. Health innovation is increasingly recognised as a key factor in health systems strengthening. Although the term is most commonly associated with technological (product) innovation, it is in fact in the realm of social (process, organisational and institutional) innovation that most health systems strengthening takes place.*

*Although health innovation plays an important role in health systems strengthening, innovation systems thinking is not frequently applied in the field of health systems thinking. By bringing together concepts from both fields, a new lens has been devised to analyse where and how health innovation can be put in the service of systems strengthening. **The '4F' lens is based on four interlinked elements of function, form, field and flows. It provides those working in the field of health and development with a useful policy analysis tool.***

The achievement of universal health coverage is considered one of the main challenges of our time. Achievement of this ambitious goal is contingent upon the strength of the health systems that are expected to deliver it. Within the field of health systems strengthening health innovation plays an important role. Yet, discussions on health systems strengthening rarely incorporate ideas from the world of innovation systems thinking. By integrating these two approaches, we can begin to look at health innovation in new ways.

In 2015 the Globelics Secretariat issued a thematic review based on analysis of 127 research papers and a broad range of academic literature on health innovation from both the

global health field and the innovation studies field. The review presents an alternative way of thinking about health systems strengthening through an innovation lens.

### How we define 'health' and why it matters

In its most basic form 'health' can be defined as the absence of disease or infirmity. However, it has long been recognised that this narrow definition – which centres on an individual's physical state – does not encapsulate essential aspects of mental and social wellbeing. It also ignores the relation between health and economic and social development and the need for a more integrative approach that explicitly considers dimensions of equity and inclusion.

*Table 1 Health policy discussions & development*

Health as a means to economic growth	Health as a means to achieve social development and reduction of inequality	Health as an integrated element of and contributing factor to economic and social development built on equity and inclusion
Health as absence of disease	Health as absence of disease	Health as wellbeing
Firms and private sectors as drivers	Role of other actors especially state	Complex network of actors
Demand driven	Supply driven	Problem driven
Knowledge as Science Technology and Innovation (STI)	Knowledge as doing using and interacting (DUI)	Multiple flows of knowledge and power (STI & DUI)
Health innovation as new products	Social innovation is key	Multiple types of innovation and combinations of innovation required



Viewing health as an integrated element of, and contributing factor to, economic and social development moves discussions on innovation and health systems strengthening away from the notion of ‘healthcare systems’ and towards ‘innovative health and wellbeing systems’. The assumption here is that it is the purpose of health innovation to contribute not only to better health, but also to improved equity and equality. Table 1 shows how different ways of thinking about health and health policy can be integrated.

### Health innovation for improved wellbeing

Health innovation has been recognised as crucial for better healthcare solutions and improved health outcomes. Whilst much health innovation has happened in high-income countries, it has also received increasing attention by governments of emerging economies. However, although many countries have developed national policies to promote the use of Science, Technology and Innovation (STI), innovations focused on health and development - and in particular social innovations - are still frequently neglected. Hence there is a need to ensure a better connection between health policy, health systems and innovation systems and to do away with the silos and disconnects that exist. It is also important to note that whether health innovation can flourish and thrive in a national context depends on the quality of and flows within the available systems.

Although radical innovations have received most attention, more and more it is acknowledged that it is not always necessary, affordable or even feasible to create entirely new solutions. Rather, innovation can also be about use of existing products and processes in ‘new’ contexts or settings.

Health innovation can be defined as products or processes, organisational and institutional arrangements that are new to a context or new to the world, which create public health value or reduce disease burden leading to improved livelihoods and wellbeing.

### Health innovation as a means to health systems strengthening

In the health and development community there has long been a tendency to turn towards biomedical and technological innovations to prevent, promote or restore health rather than try to address systemic weaknesses in the underlying systems for health care delivery. However, strengthening of health systems has as much,

if not more, potential for achieving improvements in health and wellbeing. For instance, improved delivery of services by training of health workers can lead to better health outcomes and greater quality of care. Similarly, introduction of health insurance schemes provides financial protection against catastrophic health expenditure, and thus allows those otherwise too poor to pay to receive essential health care.

Discussions on health innovations should thus focus not only on the better understood ‘hard’ technological product innovation, but also incorporate ‘soft’ social innovations. The latter includes improvements in the processes of production or delivery of hard technologies, as well as new or improved institutional arrangements in the healthcare delivery system. It can, for instance, encompass new ways of delivering health services within an organisation, or it can refer to redistribution of tasks between different organisations within a healthcare delivery system (e.g. shifting of tasks from nurses to community health workers). Likewise, new ways of collaboration between different types of institutions (e.g. public-private partnerships) can fall into this category.

It is in fact in the realm of social innovation, either as a determinant to the success of technological innovation or as a stand-alone activity, that most health systems strengthening takes place.

Social innovations have here been defined to include improvements in the process of production or delivery of a hard technology, as well as new or improved organisational or institutional arrangements. The inclusion of process innovations is based on the recognition of the underlying importance of learning and knowledge on process development activities within health systems.

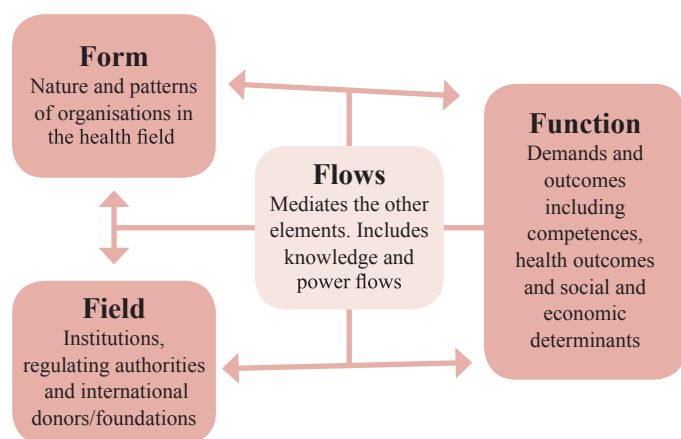
### The 4F policy lens

The world of innovation systems thinking offers useful concepts to analyse health systems in order to find appropriate solutions for strengthening the latter. The ‘4F policy lens’ is based on the elements of Function, Form, Field and Flows.

The underpinning premise is that **function** is the guiding principle for any health innovation. It assumes that the end goal of any health innovation in low and middle income countries should be to contribute towards inclusive development. Analysis of the function thus asks questions on user needs and competencies.

Function should be followed by **form**. This refers to

the problem-solving organisations that are involved in different aspects of the health and well-being system and the interactions between them. In particular user-producer relations are emphasised: how do the producers of innovations address user needs?



Both form and function in turn are impacted by the **field**. This equates to institutions when defined in terms of the rules, laws, norms and culture involved. Understanding the field requires insight into the role of the state, including its policies and regulations, and other institutions.

Last, the three elements of function, form and field are all bound together by the fourth, crucial element of **flows**. Flows of knowledge and power facilitate the ability of form and field to work towards the function of a health and wellbeing system. Knowledge flows are what enable the creation, and implementation of knowledge and learning and what allows systems to adapt, provided the system has sufficient absorptive capacity for knowledge. Flows are the ‘cement’ that keeps the other elements together as it enables actors to perform their respective roles more effectively.

Using the 4F policy lens to analyse existing health and innovation systems allows one to better understand what types of technological and social innovations are needed to achieve strengthening of the system, better health outcomes and inclusive development.

## Incorporating innovation systems thinking into health policy

If systems thinking and, more specifically, relevant elements of innovation systems thinking are to be effectively incorporated into health policy discussions there are three main areas of deliberation. The first is whether to invest in technological or social innovation. Without sufficient emphasis on social innovations, a lot of the investments made in the development of technological health innovations may very well be a waste of time and resources.

Second, should investments be made in building local capabilities and, if so, how should this be promoted? After all, effective delivery and utilisation of innovations requires local knowledge and skills. Investments in building local capacity for development of context appropriate innovations are similarly important.

Last, one should ask how policy and practice can become less entrenched in silos. This will require a multi-sectoral approach and appropriate investments in capacity and competence development. Health should be viewed as an integrated element of, and contributing factor to, economic and social development.

While there is no ready answer to the above questions, they serve as a good starting point for further discussion on how health innovation can be put in the service of improving health and wellbeing in low and middle income countries.

*Table 2 The 4F lens for health innovation & systems thinking*

Element	Description
Function	Focus on inclusive development as a starting point and on how that relates to health (and vice versa).
Form	Multiple actors determine system functioning; and, more importantly, how do they interact and collaborate.
Field	Actors’ interactions are determined by the market, the state and other institutions. It is important for the state and regulators to provide a positive enabling environment for effective and efficient flows to occur.
Flows	The most important element, without which the system will not function effectively. The promotion of learning and knowledge flows are central throughout the system. Power and politics that flow (through form and field) determine the success of learning and knowledge flows.

## Further reading

Cassiolato, J.E. and Soares, M.C.C. (eds.) (2015). *Health Innovation Systems, Equity and Development*. Rio de Janeiro: E-papers Servicos Editoriais Ltda

Chataway, J., Wield, D., Hanlin, R., Mugwagwa J., Smith, J. and Chaturvedi, K. (2009). *Building the Case for Systems of Health Innovation in Africa*. In: Kalua, F.A., Awotedu, A., Kamwanja, L.A. and J.D.K. Saka (eds.) (2009). *Science, Technology and Innovation for Public Health in Africa*. Pretoria: NEPAD Office of Science and Technology

Mackintosh, M., Banda, G., Tibandebage, P. and Wamae, W. (eds.), (2016). *Making Medicines in Africa: The Political Economy of Industrializing for Local Health*. Basingstoke: Palgrave Macmillan.

Srinivas, S. (2012). *Market menagerie: health and development in late industrial states*. Stanford: Stanford University Press

## Policy recommendations on the role of innovation in health systems strengthening

### Utilise the ‘4F’ analytical lens to investigate the current status of health systems:

Avenues for combining health systems and innovation thinking can and should be identified by using the 4F analytical lens to investigate the current status and challenges of health systems.

### Promote the importance of social innovation in health systems strengthening

The importance of social innovation in health systems strengthening should be highlighted and widely promoted, as it can play a central role in strengthening health and wellbeing systems. It also helps to ensure the successful implementation of technological innovations.

### Foster collaboration between health and innovation researchers

There is a need to for funding opportunities to bring together health and innovation researchers to conduct joint research that specifically focuses on building health and wellbeing systems through technological and social innovations.

### Break down the silos!

Findings from joint health and innovation research must subsequently be used in teaching and education to break down silos in ways of thinking in academia and among practitioners and policy makers alike. In addition, there is a need to increase and identify new ways of getting academics, policy makers and practitioners to interact and debate on the role of innovation in health systems strengthening.

## Credits

The Globelics Policy Briefing is an introduction to policy makers on important research findings made by the Globelics community and analysed in The Globelics Thematic Review Series. The series is edited by the Globelics Secretariat and available as open access e-books on [www.globelics.org](http://www.globelics.org). Printed versions can be requested in limited numbers by contacting the Globelics Secretariat: [secretariat@globelics.org](mailto:secretariat@globelics.org).

This Globelics Policy Briefing was written by Theresa Madubuko and Thyra de Jongh, technopolis[group] and produced by the Globelics Secretariat. Readers are encouraged to quote and reproduce material from the Globelics Policy Briefing in their own publications with due acknowledgement. For online use, we ask readers to link to the original resource on the Globelics website.

