Global health – from chaos to coherence

The balance of power between international health actors has changed considerably during the last 20 years. An increase in the number of actors has complicated the coordination of global health efforts. In this article, we argue that using principles from complexity theory, preferably made mandatory through a global health convention, can help reform global health.

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In the 1990s, health aid was regulated by the UN system and bilateral development assistance organisations in the donor countries (1). Today, the emergence of a number of new actors has diminished the influence of the UN system. Reich & Takemi says the following: «Policy making in global health has become a multi-stakeholder process, but without an explicit institutional process and with competition and confusion both globally and nationally» (2). All initiatives that seek to coordinate actors in the field of global health must therefore relate to a tightly knit and complex system (3).

A complex, adaptive system is defined as a collection of mutually dependent actors who are free to interact in unpredictable ways. Seen as a whole, their actions are of a nature that produce recognisable patterns (4). Often the interaction allows the various components of the system to adapt to changing circumstances or to learn by trial and error (5).

This article describes principles for dynamism in complex systems and what they can contribute to the creation of better coherence in the global health arena. Assuming that global health is a complex, adaptive system, we will discuss a procedure for reform of this arena. Complexity theory has

previously not been applied in this manner, and even though the WHO has pointed out the possible benefits of such principles in global health (6), considerable challenges remain with regard to the establishment of strategies that will work in practice. Particular challenges are found in the open and comprehensive nature of healthcare systems and the influence of all adjacent sectors, such as trade, education, foreign policy, social services and legal systems.

Uncertainty can be a good thing

The concept of «global health» presumes a common global responsibility for turning health into a public good (7). To fulfil this responsibility, global health initiatives must exploit the energy inherent in the actions of all health workers at the grass-roots level. To achieve this goal, it might be useful to consider global health as a single whole in which the actors are interdependent, and where isolated demonstrations of power will have little effect on conditions prevailing worldwide (8). Complexity theory implies that uncertainty and apparent paradoxes are parts of the whole. Therefore, it might be worthwhile to try out several

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approaches so that development can pursue the most promising avenues (9). However, our accustomed ways of thinking, often characterised by the reductionist method – isolating causes and understanding the constituent parts – in reality involves breaking the system down and micro-managing it in order to obtain apparent certainty. History has shown us that developments are difficult to control, and that many of the great inventions in medicine have in fact been produced as a result of trial and error, or even as unexpected side effects.

Regulation of global health at a crossroads

Current ideas of how difficult health challenges should be handled cover a wide spectrum. On the one hand, some would argue in favour of unilateral and sector-specific instruments of governance, particularly using the architecture metaphor (10). This kind of metaphor belongs in a controllable, linear universe, where reductionist analysis can provide the answers. Others, in contrast, perceive the global health arena as an inherently ungovernable system. Some claim that dominating actors will fail to respect regulatory mechanisms that restrict their freedom of action, and have therefore little faith in regulatory instruments (11).

Gostin has proposed a solution that possibly will be located between those outlined above. He claims that a global health convention could constitute a method of mobilising civil society and enacting principles of good governance, including rules for coordination and collective action, and a common definition of what constitutes basic survival needs (12). The convention approach presupposes endorsement of specific case-oriented protocols over time, and thereby links into a process of legislation in which the governments can commit themselves in a stepwise manner as political consensus emerges.

Even though the idea of a convention is not based on complexity theory, it represents a method for establishing coherence in the complex interaction at grass-roots level and all the way up to the unpredictable field of international relations. Gostin's proposal for a global health convention is discussed in another article in this series (13). We will now explore this idea from another angle; in order to be used in accordance with complexity theory, Gostin's idea of a convention can be reformulated with regard to two of its aspects:

– Governments are not the only actors participating in processes of global governance (11, 14). A convention which is based on complexity theory should therefore perhaps aim to commit influential NGOs and civil societies in the same manner as governments. This represents an extension of Gostin's point of departure,
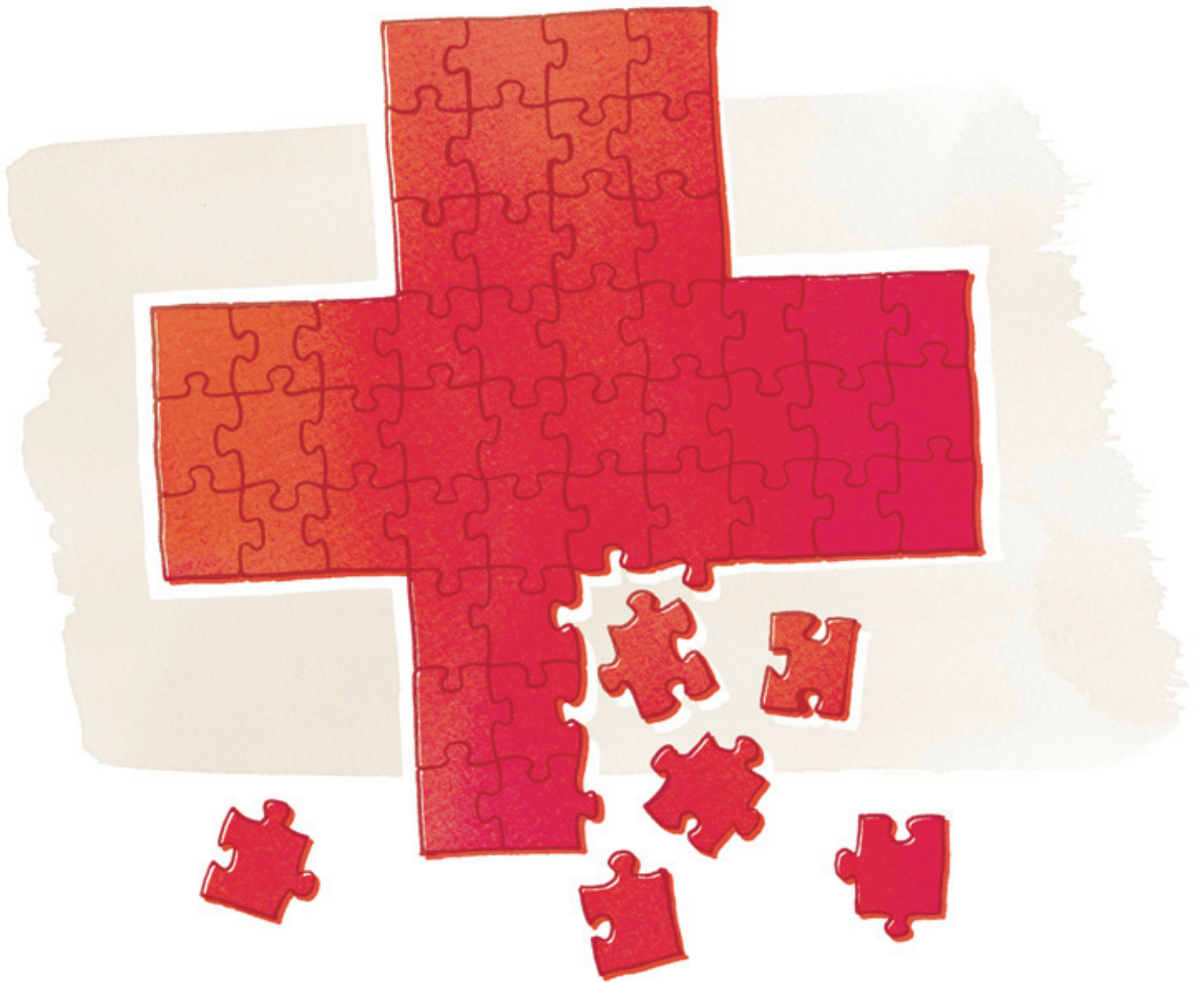
where he presumes that governments will be the only formal parties to a convention.
– A binding framework ought to be facilitating, rather than authoritarian. A facilitating form of government has retained some degree of central leadership, but permits initiatives and mobilisation of resources to alternate among various actors, depending on the matter at hand.

Integrating these aspects in Gostin's idea of a global health convention could thereby help identify, consolidate and refine fragmented and widely dispersed informal procedures and regulations that are used by not only by governments, but by all global actors (11).

We claim that a facilitating global health convention has the potential to promote principles of good governance through participation, fair procedures and consensus-based minimum specifications. Such principles of governance must reflect the goals and total budgets of the entire system, for example by having the international community endorse formulations of strategy

and a global fund for health (15). In total, these principles of governance could encourage creative solutions to complex problems (9), and they could help convert political debate into concrete action (16).

Complexity theory in a convention on global health

The following seven elements have been proposed as tools to integrate complexity theory in political processes (17):
– Integrated and forward-looking analysis
– Deliberations that include a wide range of stakeholders
– Adjustment of policies at regular intervals
– Mobilisation of social networks and self-organisation
– Decentralisation of decision-making powers
– Promotion of diversity
– Formal political assessments and continuous learning

Such elements could be useful in shaping a future global health policy. Against the

background of the most relevant global health challenges, the elements can be recast as the following principles of governance:
– Participation: all relevant parties are invited into decision-making processes. This will ensure the democratic basis for new policies.
– Principles of good governance: accountability, openness, cooperation and distribution of resources. These are mainly facilitating rules that provide space for self-organisation and innovation.
– A mentality of trial and error: selection of interventions that are effective. This facilitates creative energies and capacity-building through innovation.
– Policy adjustments at regular intervals: establishes coherence between central and local initiatives.
– Definition of minimum standards for health: establishes consensus as to what should be done first, or what will have the best effect.

The dynamic and inclusive form of these principles can help bring about the rapid and rea-

listic changes that will be required to keep pace with global health development. With their aid, prevailing regulations can be updated in a manner that will help national governments, global institutions and civil society stay abreast of development trends. Trust and good relations must be facilitated, since this is essential for making these relations conducive to development and sustainability. They must contribute to achieving a rapid and coordinated response to common challenges. Furthermore, with these principles as a basis, frequent and timely ex-change of relevant new activities must be facilitated, thereby providing an opportunity to change the direction of policies in accordance with changing conditions. In addition, they will help create a platform for the provision of necessary technical assistance and professional exchange to and from actors in countries in need of developing their health care.

However, implementing these principles in international politics could be a challenging task. There are few established meeting-points for representatives of civil society and governments, and this hinders achievement of broad participation in political processes. All international initiatives for improvement of the health situation of poor people in rich countries are likely to be met with scepticism, and possible international conventions might be contrary to the principle of national sovereignty. Without endorsement by national governments, any initiatives that question established strategies for development assistance will be impossible to implement in practice. International consensus on a common, general effort to improve health is therefore a precondition, and there must be a willingness to concede a certain amount of sovereignty (18).

In principle, however, there are good reasons why a facilitating approach might succeed. It is a suitable procedure for coordinating and developing scattered, normative elements that are upheld by various global health actors (11). Minimum specifications provide space for innovation and encourage joint action, and are conducive to good relations (16). Reform of the global health system from the bottom-up, coordinated and guided by a common set of rules, will be a driving force for success.

Recognition, self-empowerment and reform

Inclusive processes may lead to increased recognition of other people's needs, interests and rights. Participation in key processes that highlight the fate of our fellow men will provide each individual with an opportunity to set ethically correct priorities (19). Recognition will come as a result of the parties' ability to feel and express some degree of joint understanding and care for each other, in spite of any disagreements. Selfempowerment will arise when the parties are enabled to define problems and goals on their own

premises, thereby validating the importance of these goals and problems in their own lives and in those of others. Such co-determination could help the parties to mobilise their own resources to solve problems and achieve goals, and to obtain a better sense of self-respect and self-confidence. In total, these mechanisms could lead to innovative and spontaneous behaviour with a view to reforming society (19). The information that individuals receive about the consequences of their own and others' actions and their combined effect on society as a whole will form the basis for such reforms (20). The result could well be a health system that self-organises to achieve common objectives, adapts to local conditions and continuously reviews its own achievements. However, it should be borne in mind that charging the grass-roots level with an exaggerated responsibility for setting appropriate and ethically correct priorities could lead to unforeseen consequences. Structuring and organising global health in accordance with complexity theory entails a major challenge in ensuring scientifically-based knowledge, in the premises for interventions as well as in measurement of results.

Conclusion

There is a limited motivation for using complexity theory in an active manner, in global health as well as in other contexts. This could be because the field is little known, or because researchers and decision-makers have few incentives to go beyond the reductionist perspective. We believe that a set of rules tailored to channel the energy at grass-roots level has the potential to reform global health. This also applies to the discussions on the role of the WHO as a hub for global health development, the millennium goals, the WHO commission on social determinants and the campaign to include access to basic health services as a fundamental human right.

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