

# Flu City—Smart City: applying health promotion principles to a pandemic threat

## CHANGING THE MINDSET: FROM THREAT TO INGENUITY

When we hear about a potential flu pandemic most of the images that come to mind are of the great influenza in 1918. Little is said about the major differences between then and now. We know there is a high probability of a new flu pandemic within the next 10 years but discussions frequently neglect that we are in a historically new situation: we can be prepared. In a global world the barriers of time and place that hampered earlier emergency responses are rapidly breaking down—and preparing for a flu pandemic can make us better at harnessing the positive potential of an interdependent world. Many national public health systems are making use of this opportunity, as are businesses. As health promoters we need to be active to ensure a social response model, high public participation, a commitment to multi-stakeholder action and a discussion on values and social justice.

Recently, the ENSP (National School of Public Health) in Lisbon has embarked on a project to explore an innovative approach to address a potential influenza pandemic (Cenarios, 2006). It recognizes that the way we frame events is a critical determinant of how we respond to these events—and in consequence this project has framed a potential flu pandemic as an opportunity to embark on a new approach to address the challenges faced by cities in the 21st century. The Portuguese term chosen translates as ‘city of ingenuity’—or as we have translated it at this point ‘*smart city*’. The project is a partnership of the ENSP with the Directorate General of Health, The Institute of Public Health, and is funded by the Gulbenkian Foundation.

The approach outlined in the detailed project documents juxtaposes two types of cities: *flu city* and *smart city*. It shows how a narrow

focus on the medical condition and the medical response only (*flu city*) might close the mind to innovation that would be of value to the city and its citizens far beyond a public health emergency (*smart city*). It starts from the premise that *while the virus is smart, human beings have all the potential to be smarter*—if they respond with all the technological and social ingenuity that communities are capable of. The critical triangle consists of a unique and dynamic interface between three components: knowledge, values and innovation. If we want to be prepared for a major flu epidemic we must understand not only the virus and how it spreads but also cities and how they function, organizations and how they operate, communities and how they relate, and individuals and how they make choices.

## GIVING A STRONG FOCUS TO THE SOCIAL DIMENSIONS

There is an increasing agreement that the social response, i.e. non-medical activities, will be the most important measures in pandemic control, indeed that the human factor is critical. This is very much based both on the competence of individual citizens and the social cohesion of the communities involved. In the smart city *interactive intelligence* replaces the command control model, and the barriers between medical and social interventions that hampered earlier emergency response outbreaks need to be reduced. Recently interesting comparisons have been made between the response to Hurricane Katarina in New Orleans and to SARS in Toronto—putting the success of the Toronto response down to ‘social cohesion’ (Matthews, 2006).

Citizens' ingenuity needs to be tapped; aware and competent citizens are the best protection against uncoordinated efforts to avoid becoming infected. They need to understand the role of the many different stakeholders, have trust in government and public health officials and be able to make sound health decisions in the face of an emergency. But many of our social systems have become 'brittle' and therefore highly vulnerable in times of crisis. In the smart city citizens are considered as partners and they develop a sense of control which replaces feelings of fear, helplessness and uncertainty. This will form the firm basis of any successful emergency response and in so doing citizens' quality of life will also be improved through an increased sense of mastery.

### **BUILD ON LOOSELY COUPLED SYSTEMS**

All sectors of government and society need to be involved in preparing for a global flu pandemic: at its best 21st century public health is a pro-active and well-managed community effort that brings many actors to the table. Of course the preparedness of the Ministry of Health and the public health sector are critical. In many countries the latter has suffered from significant underinvestment in the past decades and needs to be invigorated in order to ensure health security. But other sectors of government and society, such as the business community and civil society organizations, will be as significant. In the *smart city* the barriers between departments and agencies are reduced in favour of synergistic collaboration, and the need for cooperation between the public and the private sector in health emergencies is well recognized.

In particular it must be realized that the economic efficiency imperative driving most modern systems can also make them more vulnerable and more easily disrupted because they depend on 'chokepoints' and 'tight coupling' (Homer Dixon, 2005). The involvement of many decentralized points of society—working to a common purpose and working from a common knowledge base—will be vital and needs to be encouraged from the very first stages of planning. Civil society organizations must be involved in this debate as early as possible.

As the Toronto example shows (Matthews, 2005) the balance of governance—the relationship between the many players and between the state and the citizens—is altered during an emergency: loosely coupled systems must move closer together. Trusted relationships need to be ensured in times of crisis between businesses, public service such as the post office and public transport, supermarkets, law and order—and of course the health services. The *smart city* builds these long before a crisis occurs—but also because they will support many other crucial functions of city management and development.

### **INCLUDE THE VALUES**

In preparing for a potential pandemic values need to be discussed broadly, but not only with regard to the distribution of scarce resources—for example, medicines or vaccines—under conditions of emergency. The Department of Health and Human Services in the United States undertook a most interesting and valuable exercise called *The Public Engagement Pilot Project on Pandemic Influenza (PEPPPI)*. It was initiated in July 2005 to discuss and rank goals for a pandemic influenza vaccination programme and to pilot test a new model for engaging citizens on vaccine-related policy decisions. It was sponsored by a network of 14 public and private organizations throughout the United States listed on the cover of the report (Citizens Voices, 2005).

The *smart city* sees preparations for a pandemic as an element of improving the quality of life in the city today: what and how we plan must build on the values important to the community and enhance citizens' competence, participation and involvement. In view of the fact that any successful containment of a pandemic in democratic countries will rest on a social consensus on all the major actions that need to be taken, citizens will need to be involved as much as possible in the debate about values, goals and approaches. Through such involvement a feeling of 'mastery' can begin to replace the feeling of fear and uncertainty. A 'learning' community with high social cohesion and low social inequality will be best prepared to respond.

The debate on response will also be heavily influenced by other existing values in health

and health care—as was shown, for example, in how different countries responded to SARS or earlier HIV/AIDS. Would the voluntary approach to quarantine and isolation practiced in Canada during the SARS crisis work in other countries, particularly countries that do not have universal access to health care? This will surely also influence the approach to the two models of utility (the social and the medical utility) that are used as a basis for decisions as well as the response to individual versus communal responsibility. The PEPPPI project, for example, highlighted the following set of broader fundamental socio-cultural values: freedom, equality, compassion, national security, nationalism, independence and social justice.

### THE ROLE OF HEALTH PROMOTION

The Bangkok Conference on Health Promotion in 2005 made a very strong argument that health promotion must not be seen only as a strategy that addresses non-communicable and chronic disease challenges. Health promotion has essential contributions to make for the ‘new public health’ approach needed to address a global pandemic threat in modern societies. Empowering citizens at the local level to deal with the threat—and in a worst case scenario with the reality—of a

global pandemic is indeed a task that calls for ingenuity.

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