THE ADVISORS’ DILEMMA: INFORMED DECISION MAKING IN TIMES OF LIMITED EVIDENCE?

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Summary: The COVID-19 pandemic is a complex, multifaceted and rapidly changing challenge. In times of crisis, when scientific evidence is limited, fragmented or even missing, the application of the concept of evidence-based policy making is challenged and advisors face difficult times when providing guidance for policy makers. We argue that these dilemmas can be tackled by transparency, trust and open communication. This is not only between advisors and policy makers but also with the general public as handling the pandemic is a socio-political challenge that goes beyond the mere concept of emergency preparedness and rather impacts all areas of life and civil society.

Keywords: COVID-19, Crisis Response, Advisors, Politics, Knowledge Brokering

The problem of flying blind

In December 2020, with most of Europe facing the second wave of the COVID-19 pandemic, the long-term challenge of dealing with the greatest public health crisis of the 21st century so far continues. Public health measures adopted for containing the pandemic are similar to those used during the 1918 flu pandemic, including limiting/forbidding gatherings (e.g. restaurants, bars, theatres, funerals), closing public institutions and services such as schools, quarantining and isolating infected patients, wearing face masks and encouraging hygienic measures like washing hands. More than 100 years later, emergency preparedness and national responses are still built on similar tools to cope with new public health threats.

Like the flu pandemic of 1918, the emergence of the COVID-19 pandemic has been surrounded by a high level of uncertainty, for instance with regard to virology, epidemiology, public health and evidence-based policy making. Regarding the relation between advisors and policy makers, this raises essential questions as to how scientists or knowledge brokers can effectively advise policy makers when evidence is lacking. How can policy makers make decisions to protect public health and contain the spread of the virus without violating civil liberties? What degree of transparency of public relations is appropriate and who should actively communicate with the public in the age of social media?

The COVID-19 pandemic is characterised by new and often seemingly impossible dilemmas for experts and knowledge brokers when it comes to informing policy. During a fast-moving pandemic, when the risk of the public health threat cannot be accurately assessed, delaying interventions may cost lives. At the same time, the
evidence base regarding the impact and long-term effects of individual strategies can be scarce to non-existent.

**Shift of challenges**

What becomes immediately apparent is that crisis management is a multidisciplinary task and clinicians, scientists, knowledge brokers and policy makers depend on each other to effectively respond to the crisis, despite diverging interests.

From the very beginning of the COVID-19 pandemic, clinicians and scientists around the globe focused intensively on studying the new Coronavirus, accelerating clinical and non-clinical research. Medical disciplines like virology and infectious diseases, epidemiological data and health system capacity, specifically hospital capacity and the protection of vulnerable groups, were of primary interest.

Meanwhile, the scientific community is being supported by additional funding and the European Commission has already assigned €459 million to 103 research projects (September 2020) and funding will reach €1 billion by December 2020. Established mechanisms like peer-review processes and access to scientific results on COVID-19 have been adapted to make research results quickly available and publicly accessible.

Country comparisons, cross-country data and information exchange between European Union (EU) countries rapidly gained in importance. However, many challenges occurred when collecting cross-country data due to different health care systems, methods of data collection and reporting. Health data on COVID-19 is still fragmented and, when no alternatives are available, it is legitimate to use what is available. However, these limitations should be communicated transparently.

Besides collecting and merging data, compliance with statutory data protection regulations and accurate interpretation of the data are crucial. For example, do countries with a higher reported mortality rate have a greater number of severe cases, did the capacities of their health care system already reach their limits or was testing limited to specific patient groups? The need to answer such questions emphasises that a structured exchange of health data and information at EU level to promote surveillance and emergency preparedness is necessary to prepare for and deal with current and future disease outbreaks. Current European projects, i.e. the Joint Action on Health Information or-to-reach: Transferring Innovation in Health Systems, are already working on creating an EU Health Information Research Infrastructure and setting up a joint European research programme on health systems and services.

As the pandemic progresses, the focus has shifted from medical specialties to public health in its broadest sense. Aspects came to the fore regarding the mitigation of the wider effects of the COVID-19 pandemic on health and health care, e.g. mental health and medical care for stroke or cancer patients as well as economic, legal and political aspects. The effects of public health measures introduced during the COVID-19 pandemic on health systems, society and economy are leading to another challenge that has to be dealt with after the pandemic.
The art of advising

Although existing research is available and accessible, the results are still fragmented and judgements on the effectiveness of different interventions are problematic. Appropriate multidisciplinary skills are necessary to assess the immense quantity of clinical and non-clinical research on COVID-19 and the quality of research results has to be ensured despite accelerated peer-review and publication processes. Ultimately, the analyses and combination of results can differ between protagonists. Different interpretations informed by cognitive biases, knowledge and access to information by scientists, knowledge brokers, advisors, policy makers or the general public can lead to different conclusions.

In the face of scarce or conflicting scientific evidence, experts and knowledge brokers face difficult times advising policy makers. Advice is often based on expert opinion, it has to be provided in extremely short time frames and aspects have to be considered that are beyond the scope of an advisor’s expertise, as a public health expert may not be an expert on water hygiene or public transportation. Despite the need for further expertise, additional research results do not necessarily make experts’ and advisors’ lives easier. What if there are conflicting research results or still no research results on specific topics?

‘Precisely in crises, where decisions must be made quickly, openness about scientific knowledge – and knowledge gaps – is crucial.’ – Camilla Stoltenberg, Director General, Norwegian Institute of Public Health

Advisors have to be clear whether their advice is based on science or expert opinions and this has to be communicated transparently. Irrespective of the basis for given advice, policy makers can still value or interpret science differently. Moreover, policy makers tend to act on advice that fits with their pre-existing views and narrative. Regardless of the evidence base, policy makers still have to make decisions, revising them constantly when dealing with uncertainty. If doubts occur about science, trust issues could arise between advisors and policy makers. These issues could lead to policy makers’ decisions not taking the relevant science base into account and reflecting rather on personal beliefs.

‘Don’t be afraid to say what you know, but equally important don’t be afraid to say what you don’t know.’ – Chris Fearne, Deputy Prime Minister and Minister of Health, Malta

Advisors need to be aware of the responsibilities that come along with advising policy makers. Their level of expertise and skills need to be decisive to meet policy makers’ demands and to cope with potential dilemmas. Policy makers’ differing agendas need to be addressed but advisors still have to be objective and independent. Public health experts serving as advisors might be advantaged compared to other disciplines as they may already be closer to politics in their field of activities. Overall, more public health expertise is needed and providing advice on health policy should be a discipline in itself. Specific training for advisors, be they scientists or public health experts, could help to address policy makers’ needs better and avoid advisors’ dilemmas.

The COVID-19 pandemic has highlighted that it is impossible to disentangle science from policy and that the relation between advisors and policy makers has to rest on trust, openness and transparency.

Does speed trump certainty?

Before the pandemic, health policy makers looking to make evidence-based policies would take research into account as soon as a certain level of evidence was available, i.e. in meta-analyses. During the pandemic, policy makers have had to make decisions based on limited evidence or no evidence was available. This raises the question as to how much evidence is needed to inform policy and whether it is needed at all. Is it legitimate to act without a sound evidence base when speed is of the essence?

The pandemic has illustrated that the basic concept of evidence-based policy making is not appropriate in emergency situations. According to the precautionary principle, policy makers can take action in the absence of a sound evidence base. Existing knowledge gaps and dependence on expert opinion lead to policy makers making decisions that are based on assumptions rather than scientific evidence. In times of crisis, the public health community supports decision making based on the available information that is not fully evidence-based. Hence, being pragmatic is perceived as an adequate approach given the circumstances. But how transparently should policy makers communicate information on the virus or how they made their decisions to the public? Who should be in charge of managing that communication?

Emerging from the session, decision makers should be as transparent as possible in times of a crisis and disclose everything that is known about the pandemic to the public. Neither PR specialists nor scientists alone should...
be responsible for the communication but politicians should also be involved, as they are responsible for decision making. A transparent, timely and open communication policy towards the public is also perceived as an appropriate strategy to counter misinformation, prevent the stigmatisation of specific groups and react to the networked contemporary society (see the article by Rajan and Koch in this issue).

**Pandemic crisis management: a socio-political challenge**

Alongside interacting with society through transparent communication, society’s willingness to comply with public health measures to tackle the spread of COVID-19 is crucial. Restrictions implemented in most countries of the European Union and beyond affect civil liberties. Even the impact of the pandemic and restrictions in the first lockdown influencing socio-economic inequities cannot be estimated as yet. During the second wave, more is known about the virus and its consequences, e.g. with regard to disease progression and mortality in various age groups. As a matter of fact, citizens respond to restrictions in their civil liberties. If strict restrictions are re-imposed in the course of the second wave that citizens’ feel limits to their fundamental rights, e.g. occupational freedom, specific actions are paramount to reduce their impact on socio-economic inequities. For policy makers, it is therefore indispensable to find the right balance between implementing measures, protecting civil rights and communicating public engagement as one contribution to reducing the number of infections in times of exponential increases. This clearly indicates a shift from academic to societal responsibility.

**Policy lessons**

Overall, the progression of the COVID-19 pandemic and measures taken to address it show that it is a socio-political challenge. Having the big picture in mind, we experience what ‘health in all policies’ implies. What we have learned is that in times of crisis, the pyramid of evidence-based medicine does not apply and research has to adapt to promote at least informed decision making. Fighting a pandemic is not a quick win but a complex and long-term challenge without clear limits and will require ongoing momentum to address the fallout for health systems, economies and society. A variety of aspects have to be accounted for to deal with the situation, including clinical, scientific, public health, ethical, legal, cultural, social, economic and political issues. Professional expertise and skills across all disciplines are therefore key to managing a public health crisis, provided that everyone sticks to their field of expertise. Moreover, advisors and policy makers should follow rules of honesty and transparency and promote public engagement as part of the key to success while respecting fundamental rights.

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