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Lessons from the response to A H1N1 influenza, 2009, India: ethics in pandemic planning

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Abstract

After the Severe Acute Respiratory Syndrome (SARS) experience in 2003, ethics has found a place in discourses on pandemic planning and public health. It is no longer enough to merely have action strategies in a pandemic plan; both research literature and the World Health Organization recommend that one has to further ensure that the outcome of such action is fair to all concerned, and is in conformity with relevant ethical values and considerations. India's pandemic plan suffers from a glaring omission in this aspect. Taking strategies and responses during the 2009 A H1N1 outbreak in India as instances, this paper identifies the lessons to be learnt from this experience and argues that these raise ethical issues ingrained in pandemic planning which must be addressed. It ends with the suggestion that the Indian health authorities should add an ethical dimension to the national pandemic plan, as has been recommended by the World Health Organization and by post-SARS studies.

A pandemic is supposed to be an outbreak larger than an epidemic in terms of the area and size of the population affected. The World Health Organization (WHO) (1) has a six-phase approach to gauge the seriousness of the outbreak and for issuing a pandemic alert, of which phase 6 is the highest level. In 2009 a new subtype of the A H1N1 influenza spread, declared by the WHO to be a level 6 pandemic, arrived in India. When it peaked in July-August 2009, for a while it came to be regarded by many as a matter of public health emergency. From May 2009 to the third week of August 2010, 2,024 laboratory-confirmed deaths from A H1N1 were reported in India; 1,335 laboratory confirmed new A H1N1 cases were reported between August 16 and 22, 2010 (2). And over 18,449 laboratory-confirmed deaths were reported in more than 214 countries, as of August 1, 2010 (3). Though each death is a tragic loss, the numbers seem to pale in comparison to the mortality figures of the three earlier recorded (4) influenza A virus pandemics, the "Spanish flu" (A H1N1) of 1918-1919, the "Asian flu" of 1957-1958 (A H2N2) and the "Hong Kong flu" of 1968-1969 (A H3N2), which are estimated to have killed millions of people.

For our purpose, however, the relatively low mortality of A H1N1 influenza is not a key concern. The central questions that this paper focuses on are: What are the lessons to be learnt from a public health emergency, such as this pandemic, that could help us in the future? Taking lessons from the A H1N1 experience, what revisions, if any, could be recommended in India's pandemic plan and action strategies in future for better pandemic management?

Accordingly, the paper discusses the lessons to be learnt from what others have called failures for important revisions. It also elucidates the ethical issues ingrained in pandemic management, currently missing from India's pandemic plan, and recommends that these should be acknowledged, anticipated and addressed, sufficiently ahead of time as part of the emergency decision-making process in pandemic preparedness. However, it first points out why India should still be concerned about what is described as a relatively mild pandemic (5).

Why India should still be concerned with A H1N1

Some have alleged that the disease threat and burden from the new 2009 subtype of A H1N1 is no more significant than seasonal influenza, and that the pandemic alert by WHO was hype driven by vested interest groups such as pharmaceutical companies. Indeed, the head of health, Council of Europe, has accused WHO of being improperly influenced by the pharmaceutical industry (6). WHO has denied these charges. Following similar lines of thought, one might argue that India need not concern itself about a highly transmissible but low virulence virus such as the new subtype of A H1N1. To avoid undue complacency, we may begin by citing at least three reasons why, though there may not be any imminent threat, India should remain vigilant about A H1N1 influenza and its like:

1. It is certainly not over yet for India: India features prominently among the regions of the world identified by the WHO where A H1N1 remains most active and where cases of fresh A H1N1 cases have been found recently (3). As earlier mentioned, available national data also confirm this (2). The official position also claims (7) that the National Crisis Management Committee (NCMC) along with the National Disaster Management Authority (NDMA) and the ministry of health and family welfare (MoHFW) are monitoring the situation.
2. Influenza viruses mutate constantly, and new viruses are bound to develop. India's diverse and enormous population makes it a real possibility that the virus may mutate again and present itself in a worse, more virulent form.
3. Certain existing factors, such as dense population, weak public health infrastructures, poor health status and poor medical facilities, make pandemic preparedness in a developing country such as India particularly challenging (8).

It is therefore important to look back at the 2009 A H1N1 outbreak in India as a non-typical learning opportunity

to find out what we could have done differently, what revisions we could recommend for India's pandemic plan and action strategies. WHO (1) too recommends a review as a desirable post-pandemic action.

India: gaps, failures and plans

As soon as the pandemic alert was received, the health ministry initiated several actions, such as stockpiling and retail sales of the antiviral agent *oseltamivir* (9), and screening at the airport, to contain the spread. In fact, India is one of the developing countries which actually had a pandemic plan even before the 2009 A H1N1 spread: *Influenza pandemic preparedness and response plan* (10) for all the six phases of pandemic response as indicated by WHO. With the advent of the 2009 A H1N1, a new and more detailed plan was drafted by the directorate general of health services, MoHFW, entitled *Action plan pandemic preparedness and response for managing novel influenza (A H1N1)* (11), in which the NDMA and the NCMC are designated as the responsible organisations for periodic review and issuance of fresh directives. This new plan is intended only for the pandemic alert phases 5 and 6, which before 2009 were defined by WHO as stages of widespread human transmission when "actions shift from preparedness to response" (1:11). In 2009 the definitions and groupings of the alert phases were revised by WHO. Level 5 and 6 currently refer to phases of human to human transmission in at least two to three countries in different WHO regions (12).

In spite of these two plans, after the 2009 A H1N1 outbreak, some experts have stated that India's pandemic response needs to improve considerably. They have pointed out that the outbreak exposed certain noteworthy gaps (13,14) and failures (15) which could have had serious repercussions had the mortality and morbidity rates been higher. For example, one writer has referred to the "lack of intensive care competence and equipment" (14: 29) in certain selected public hospitals designated with the task of quarantine, diagnosis and antiviral treatment, where, after the hospitalisation of the severely ill, the healthcare available was found to be woefully inadequate. An important lesson to learn, therefore, is to properly assess the capacities of our public health system, particularly at the state level and take urgent corrective measures. This involves political will as well; for, to ensure a consistent standard of competence and infrastructure for critical care throughout the country, one of the foremost requirements is proper and proportionate budgetary allocation for the health sector.

There is also a dire necessity for an expanded countrywide network of diagnostic laboratories in India. According to the WHO (16: 13), building countrywide and local diagnostic capacity is necessary to be able to quickly confirm suspected human cases. However, it has been pointed out (13, 14) that during the A H1N1 outbreak, virological tests were initially conducted in just two national laboratories; only later, when the number of suspected cases increased rapidly, was the number of labs expanded to one per state. The absence of an expanded network of diagnostic laboratories must be acknowledged as a logistical obstacle for a prompt pandemic response. The same problem had surfaced earlier on several occasions. It was felt particularly in 2008 when India's worst ever outbreak of avian

influenza (A H5N1) struck part of the country (17). Rectification of this problem should be seen as an obligation related to public health security.

Another lesson from the A H1N1 spread relates to the need for public discussion on certain issues. One such issue is the pros and cons of a public-private partnership during a pandemic situation. The inadequacy of our public health system is well known. At a later stage of the A H1N1 pandemic, some private hospitals in certain states in India had to be authorised to conduct tests and also to treat patients (18, 19). Though it was a welcome emergency measure to alleviate the burdens on government hospitals, this public-private partnership for emergency healthcare delivery, its nature and modalities, and social ramifications, deserve detailed discussion among all stakeholders in a post-pandemic period. We need to remember that while pandemic influenza is a threat to every population, records from past influenza pandemics show that it represents a disproportionate threat to disadvantaged groups (20, 21). With the burgeoning private healthcare industry and associated insurance businesses in India, concerns about equity and social justice demand that public-private partnerships in healthcare do not further exacerbate existing socio-economic inequities and create an entitlement divide among the affected, during a crisis.

There are important lessons also to be learnt about information management and delivery during an outbreak. The health authorities and the government of India did run awareness campaigns informing the public that routine personal hygiene measures such as proper hand washing, covering mouth and nose while sneezing, avoiding crowded places, staying at home if "influenza-like-illness" symptoms appear, are also effective protection measures against the pandemic flu. Unfortunately, this was not done during the early stage of the outbreak, when this message could have made a greater impact in sensitising the public and in curbing the public panic about "swine flu". There could have been better efforts early on to make crucial information public – about groups that are at higher risk such as pregnant women and children younger than two years (22), about educating parents of school-going children about symptoms that may need urgent attention, and so on. The timely dissemination of information is one of the basic tenets of public health (23:4).

Experts have also stated that the government of India and the health authorities did not have any direct channel of communication with medical personnel (14), that there was a conspicuous silence from professional medical organisations such as the Medical Council of India and the Indian Medical Association, and that there was "no flow of reliable information" from the health authorities (15). These gaps in timely availability of reliable expert information were filled mostly by the overly eager, scantily informed mass media and the dubious "experts" that they enlisted. As a result, the spread of unnecessary panic among people could not be contained effectively and in time. This raises an ethical issue about the role and the responsibility of the mass media in an emergency such as a pandemic. It also shows that our public health authorities should have shared information promptly, but they did not.

Thus, in spite of having a relatively detailed pandemic preparedness plan, there were several regrettable acts and omissions. In hindsight, these errors could have been anticipated and avoided. Undoubtedly, proper decision-making during a pandemic situation is extremely challenging, but that is precisely why planning the pandemic response requires early development of appropriate positions on foreseeable challenges.

These gaps, failures, acts of omission and commission raise various ethical questions as follows. For instance, who gets to make the key decisions in a national public health emergency? On what basis should decisions in public health provisioning and planning be made, and with what kind of expertise? Who should have a say? Through which mechanism can we ensure that the interests of all the stakeholder groups have been given a fair representation in the decision-making? Were inputs from specialist groups such as healthcare workers, bioethicists, public policy advisors, given any consideration? If so, was any effort made to inform the public about this process? Has any "fair" policy been discussed and evolved, such as the triage system (24), for priority setting in providing critical care, or for allocation of resources, or for vaccination programmes during a pandemic? If not, can we reasonably expect a healthcare provider or an administrator to prioritise fairly in case of conflict of competing claims during the chaotic hours of a pandemic? We must learn to address such questions; otherwise, the public health response during a pandemic runs the risk of becoming myopic, knee-jerk efforts, and the potential implications for the population, especially for the disadvantaged, are grim.

India: pandemic plan and ethics

Current research on pandemic influenza plans helps to show that emergency strategic responses to a full-blown public health crisis such as a pandemic cannot be a matter of medical and logistical expertise alone; only these cannot prepare us for proper decision-making (25, 26). Taking lessons from the SARS experience, several research groups argue that pandemic planning and policies are rife with ethical challenges, and the need for ethical decision making must also be acknowledged as part of governance of pandemic preparedness (23, 26, 27).

For example, research publications have mentioned the high transmissibility to nurses and frontline physicians in southeast Asia during the SARS outbreak (28), and the higher than expected mortality for healthcare workers (29). About 50% of who died from SARS were healthcare workers who had come in contact with infected patients in hospitals (29). Studies (30) have also recorded the fear and anxiety-induced psychiatric morbidity among healthcare workers involved in SARS treatment. Others have claimed that a pandemic influenza imposes similar foreseeable risks to physicians and other healthcare workers with the probable consequence of mortality (31). This raises an ethical dilemma about the extent of the professional duty of caregivers during a pandemic versus the limits to health risk to themselves and to their families that a healthcare worker is supposed to accept. It also highlights the duty of healthcare administrators to implement procedures maximising the safety of frontline physicians and nurses before assigning them duties to treat patients during a pandemic.

It also challenges us to deal ethically with the question of whether, considering the high personal risk involved, it is ethically and professionally acceptable for a healthcare worker to refuse frontline duties that involve direct exposure to the pandemic. For example, is a doctor or nurse with a child under the age of two years morally entitled to refuse such a duty?

There are also well-known ethical challenges on how to decide priority access to medications, vaccines and critical care. Medical resources are limited, even in the most developed countries. Literature on healthcare discusses, for example, Daniels's (32, 33) proposed *accountability for reasonableness* procedure, the issue of a fair and efficient process of allocation of scarce medical resources, and that of ensuring accountability of policy makers for making fair decisions. Situations and their ethical solutions need to be anticipated. For instance, if the facility has only four doctors, should all four be involved in saving one critical case and raise the chance of survival only slightly higher, or should each of them attend 10 more cases, but less severe ones with good chances of recovery? Similarly, if multiple infections are raging in the population, and access to treatment and to hospital beds has to be rationed, how is unfairness in such decisions to be avoided? Should other critically ill patients be told to wait until the number of A H1N1 cases subsides? Similarly, preventive efforts such as quarantine may curtail individual liberties, and it requires ethical decision making skills to do this, while abiding by human rights. Of course, invoking the law, such as the Epidemic Diseases Act (India) 1897, is the legal resort, but the forcible imposition of the law does not always ensure wide acceptance. Taking lessons from the adverse public response to drastic quarantine methods adopted in some southeast Asian countries during the SARS outbreak, Gostin et al concluded in 2003 that "adoption of ethical considerations will be a necessary concomitant of epidemic control in democratic societies" (34: 3231)

Thus, there are many ethical challenges ingrained in various components of the pandemic plan and response. Policies must be crafted with careful deliberation in order to balance rights and 'duties' in an ethical manner. They require time to develop and this cannot be done during an emergency. As Thomas puts it, "The time to consider the foreseeable ethical challenges is well before the pandemic." (35: 526)

In the post-SARS period, the concept of ethical planning found a place in discourses on public health and pandemic planning (36). In their analysis of more than 200 SARS cases Singer et al (37) identified the five most important ethical issues in this context - the ethics of quarantine and individual rights; privacy of personal information versus the public need to know; the limits of professional duty; balancing emergency care with essential services in a hospital; and cooperation among countries on international travel restrictions - and recommended 10 key ethical values to guide us in dealing with these issues. A similar exercise could be undertaken in India to analyse and identify the pertinent ethical issues in our collective A H1N1 experience. WHO (1: 15) recommends that policymakers draw on ethical principles such as equity, utility, liberty, in addition to local and cultural values, to ensure that pandemic preparedness and response is ethical. WHO also has a document (38) on the ethical considerations that must guide our public health response to pandemic influenza. There is a

growing recognition of what Kotalik describes as the 'moral dimension' of discourses in healthcare. He writes:

Every discourse about health care has not only a scientific but also a moral dimension, [pandemic influenza] plans also presuppose certain ethical values, principles, norms, interests and preferences (23).

The Indian health authorities must acknowledge this moral dimension with regard to pandemic planning and response. Though important, a mere action plan for pandemic response is not enough; one has to further ensure that the outcome of such action is fair to all, and is in conformity with ethical values and considerations. Measures adopted towards inclusion of ethical considerations in the pandemic plan will remain valuable far beyond A H1N1.

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