PANEL DISCUSSION – GOING VIRAL: THE CORONAVIRUS AND ITS REGIONAL AND GLOBAL IMPLICATIONS

FEBRUARY 28 @ 12:00 PM - 2:00 PM

Speakers:

Barry Bloom, Joan L. and Julius H. Jacobson Research Professor of Public Health, Harvard Chan School of Public Health

Howard Markel, George E. Wantz Distinguished Professor of the History of Medicine; Director, Center for the History of Medicine, University of Michigan

Elanah Uretsky, Assistant Professor, International and Global Studies, Brandeis University

Winnie Chi-Man Yip, Professor of the Practice of International Health Policy and Economics, Harvard Chan School of Public Health

Moderator: Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology; Professor of Medical Anthropology in Global Health and Social Medicine; Professor of Psychiatry, Harvard Medical School

Asia Beyond the Headlines Seminar Series, Harvard University Asia Center. Co-sponsored by the Fairbank Center for Chinese Studies and the China Health Partnership, Harvard Chan School of Public Health

EVENT TRANSCRIPT

James Robson:

Thank you all for coming this afternoon. My name is James Robson. I'm the James C. Kralik and Yunli Lou Professor of East Asian Languages and Civilizations, and also the Victor and William Fung Director of the Asia Center. And I'd like to welcome everyone to this important Asia Beyond the Headlines seminar series panel entitled Going Viral, The Coronavirus and its Regional and Global Implications that's sponsored by the Harvard University Asia Center, and co-sponsored with the Fairbank Center for Chinese Studies, the China Health Partnership, the Harvard Chan School of Public Health and the Ash Center for Democratic Governance and Innovation. I'd also like to begin just by thanking all of the staff of the Asia Center and also the Fairbank Center, and particularly Holly Angell and Tenzin Ngodup for all they did. And also for Dan Murphy for everything he did to make this also happen today.

James Robson:

So, now the Coronavirus now called COVID-19 emerged in late December, a pneumonia of unknown cause that was first detected in Wuhan China on December 27th, thereabouts. The outbreak was declared a public health emergency of international concern by the WHO on 30th of January 2020. And as of now in China, the virus has infected more than 77,000 people and killed about 2700 or so. Since the outbreak began there have been medical, cultural, political, both local and global as well as economic implications to the crisis. Cases have been confirmed and more than 47 countries or so. Again, it changes hour by hour with thousands of cases reported in South Korea, Italy, Japan, Iran, France, Germany, Thailand, Africa, and the United

States among other places. And there has been spread, primarily, by travelers, secretive churches, unprotected health workers, and in some cases there's no obvious source.

James Robson:

Yes, this is a medical and scientific issue. And scientists and medical specialists around the world have been scrambling to deal with the new Coronavirus. There have been regional impacts in Asia felt in countries that are now taking precautions canceling large mass gatherings, I suppose like here. Japan has closed its schools, and the global economic impact has been profound as supply chains are cut off, tourism has come to a halt, etcetera. And markets around the world continue to slide. Institutions of higher education like Harvard University have also been impacted in a multitude of ways to our students visiting scholars, their families and also summer programs that have been canceled and funding for research abroad that still is coming for the summer that will have to be monitored.

James Robson:

There are also troubling and social and cultural implications of this outbreak. Given that COVID-19 is a new disease, it's understandable that it's emergence and spread has caused confusion, anxiety and fear among the general public. These factors can give rise to harmful stereotypes and cultural fears. And I would just like to emphasize at the outset that we need to all be vigilant in preventing and addressing any kinds of social stigma that might be associated with the disease. Stigma occurs when people negatively associate an infectious disease with a specific population. This means that people are being labeled, stereotyped, and separated and or experience loss of status and discrimination because of potential negative affiliation with COVID-19. To be quite frank, when we first began to discuss putting together this panel back in mid January, everything was in tremendous flux and we had the gut feeling though that it was time to still forge ahead.

James Robson:

It was actually unclear if this event in late February would merely result in us reflecting back on a situation or assessing an ongoing crisis. Little did we know that at that time that it would reach the global scale it has today, and that today's discussion would be more relevant than ever with things ramping up even the last few days. We can't possibly address all of the intractable questions and issues surrounding COVID-19 out of the outbreak in a single symposium. But what we can do is bring together some of the best minds working on this issue today to reflect on where things stand and to discuss what they feel are the most important things to add to our ongoing attempts to understand this virus. I should also note that this is just one event in a series of important upcoming events.

James Robson:

There will be at least two related events next Monday, March 2nd, one sponsored by the China Health Partnership, jointly with PRX and WGBH and the world. And that forum is entitled the Coronavirus Outbreak Tracking COVID-19. That's from noon until 1:00 PM. And then there will be in the evening on March 2nd from 6:00 to 8:00 PM in Kresge G2 at the Harvard Chan School at 677 Huntington Avenue in Boston. And that's a dinner meeting entitled the COVID-19 Outbreak Local and Global Decisions During Uncertainty, which will be a dinner seminar featuring a panel of speakers from Hong Kong, China and Harvard sponsored by the Harvard health partnership, the Chan School of Public Health. And that will feature Gabriel Leon, the Dean of the faculty of medicine at the university of Hong Kong, and a member of the world

health organization expert team on COVID-19, and also a Harvard alumnus, Barry Bloom, who I'll introduce shortly.

James Robson:

William Hsiao, will also be on that. Professor of economics at Harvard, Marc Lipsitch. And that will be moderated by Professor Winnie Yip on Monday evening. I will now provide a very brief introductions to our speakers. All of them are distinguished scholars with notable accomplishments, many seminal publications, and have been the recipients of many national international awards. In the interest of time, however, I'll be keeping the introductions very short. I'd like to note, that Professor Howard Markel, the George Wantz distinguished professor of history of medicine at the university of Michigan is unable to join us due to a death in the family. As a testament to the collegiality of our colleagues here at Harvard.

James Robson:

However, we're extremely grateful that professor David Jones, the A. Bernard Akerman professor of the culture of medicine who was a specialist of global health, public health, the history of medicine and the medical humanities agreed to join us at the very last minute. It's this type of interdisciplinary perspective on the Coronavirus situation that we aim to include in this discussion. And we're delighted that Professor Jones agreed to come and share his ideas and perspectives. The first speaker today will be Professor Barry Bloom, who is the Joan L. and Julius H. Jacobson Research Professor of public health at the Harvard Chan School of Public Health. He's widely recognized as a pioneer in the field of global health and we're very lucky to have him. He's been extremely busy and will also be a part of the Monday talks as well.

James Robson:

Professor Winnie, Chi-Man Yip is professor of practice of international health policy and economics at the Harvard Chan School of Public Health, and the director of the school-wide China health partnership. In addition to China, Professor Yip has studied and advised healthcare reforms in the wider Asia region, including Hong Kong, Taiwan, India, Thailand, Malaysia and Vietnam. And she was the founding director of the Asian network for health system strengthening. Next will be a professor Yanzhong Huang, a senior fellow of global health on the council of foreign relations and a professor at Seton Hall University School of Diplomacy and International Relations where he directs the school center for global health studies, which examines global health issues from a foreign policy and security perspective.

James Robson:

Finally, Elanah Uretsky, assistant professor of international and global studies and anthropology at Brandeis University and her research and teaching take a critical anthropological approach to examining global health responses to disease with a specific focus on China. Finally, our moderator for the discussion following the presentations will be professor Arthur Kleinman, the Esther and Sidney Rab, professor of anthropology, a professor of medical anthropology and global health and social medicine, a professor of psychiatry in the Harvard medical school. And he was also my predecessor as the Victor and William Fung Director of the Asia Center from ‘08 to 2016 and I'm particularly grateful for him agreeing to moderate today's discussion.

James Robson:

As you can imagine, all of these professors and experts have been incredibly busy and have had huge demands on their time in order for them to share their expertise concerning the Coronavirus since its outbreak and its more recent evolution. We would therefore particularly

like to thank them for making the time to come here today for this important symposium. I will now turn it over to professor Bloom offer the first presentation.

Barry Bloom:

Great. It's a very special privilege for me to be here today for very personal reasons. Some of you know, my wife was a China scholar and actually taught here of course in human rights in China when I first came, and China was on the dinner table every night for a very long time in our lives. And one of the first things I did when I became dean of the Harvard School of Public Health with help from colleagues is set up a US China health initiative. And among the players or actors in that program on both sides was something that emphasizes the importance of international academic and collegial collaborations.

Barry Bloom:

We have a program called the Takemi Program, which brings people primarily from governments, young government people who their governments recognize as promising with potential for leadership that can come spend a year at the Harvard School of Public Health, do research on whatever areas are of interest and interact with the faculty and take any courses they want. During 2003, one of those fellows Yuan Lee, sorry, [Ing Lee 00:10:32] was called from Beijing to write a white paper when it was clear that China had failed to control the 2003 SARS outbreak. And as the mayor of Beijing was fired. The minister of health was fired, and because Ing Lee had been brought back early and had been in conversations with Yuan Lee Lou, who is now dean of the Peking Union School of Public Health, but was a colleague.

Barry Bloom:

We were both invited to the ministry of health to advise on what China did wrong in 2003, and what they needed to do better. There were three things that were crucial in 2003 that remain crucial that China failed it. The first is the science was poor. They did not know what was going on. Multiple false identifications were made of the cost of agent that costs a lot of concern and panic. And the CDC in China was embryonic and not terribly functional. Second communication within the government of how to deal with a crisis and what the nature of an epidemic was essentially hopeless. While we thought when we came that they were obfuscating, they were hiding information and that's why it was chaotic. The people in the ministry said they couldn't get the information from the hospitals and the public health departments that they had very little idea of what was going on.

Barry Bloom:

I can't evaluate which of those explanation is true, but it is clear it is essential there be a tight communication in every aspect of the hospital in public health system in any epidemic. And the third, they had no idea how to give risk communication to the public and the public was terribly frightened and nobody within the ministry had any experience at communicating risks. It's a very treacherous area of how to alert people for a crisis but not cause panic. So, with that I can reflect back on those days in the context of what's currently going on to give you a quick summary of my analysis. And the most dramatic and astonishing change has been in the science in China. Within 10 days of the announcement of a big outbreak at that time in Wuhan, which is as you know had not been communicated to the public or to anybody else as far as I could tell for a long time.

Barry Bloom:

The RNA virus was studied, its genetic sequence genome was identified in 10 days and put up publicly so that every scientist in the world would have access to that. That is astonishing. Within two weeks there were papers in two of the most important journals, The Lancet, The New England Journal of Medicine, by colleagues in China describing the case definition of what this disease looked like, so if it walks into your hospital or office you could recognize it. And at the same time what the epidemiology was, how transmissible it was for which I have to say, it has been brought to my attention, not by the people involved, that they were criticized for not publishing in Chinese and publishing in English and not getting permission to publish this absolutely vital information. But what I do want to say is the science has been the bulwark of understanding globally what's going on in China and we'll go on and many other countries.

Barry Bloom:

The second phase they instituted after 2003, a fantastic communication internet system all across the public health system. So, there could be lightening fast communication of problems, solutions, discussions, and that failed in this crisis. And the third is how to communicate to the public. And the first lesson there is one, you have to talk to them. And that didn't happen for 30 days. And second you have to tell them the truth, and that also didn't happen. And so, there were lessons learned that have profoundly helped everybody in the world at the scientific level. And we still have lessons as you may have gathered from the president's press conference. We have problems here in getting our public health system up in communicating with each other and with the public. So, I know I was invited to talk about the science, but I'll only say one general thing about science and hope that I can answer your questions.

Barry Bloom:

A couple of characteristics of epidemics. Number one, they go away. They sometimes come back, but they often and most often go away. So, panicking that this will wipe out the entire planet are a little premature at this point. The second point is that if you look at the classic paper, and I am in a way replacing Howard Markel whose slide you'll see in a moment. But this is the picture of Marc Lipsitch of our place of what happens when you intervene, reducing social contacts in the course of an epidemic. And what you see here is influenza in Philadelphia versus St. Louis. There was a huge peak panic, big problem. They didn't know what to do. By the time one saw what Philadelphia New York couldn't do, by the time St. Louis and Denver saw it they were able to plan for it, to restrict transit, to restrict schools, closed schools, closed public gatherings, and provide information of how people can protect themselves.

Barry Bloom:

And as you can see the epidemic was attenuated by the time it got across to St. Louis. So, that's the first point. The draconian measures introduced in China will not stop this epidemic from traveling around the world or China, but it does give everybody time, get hospitals to prepare. And the second is, as you can see here, when you look at what happens when you prematurely stop the social interventions, which don't necessarily have to be draconian, but they have to be very thoughtful, you get a second peak. So, we may have a second peak after Wuhan as it is now allowing more and more commerce to occur. We might expect a second peak. And with that, I would say that there were nine countries in 24 hours reporting new cases. So, this is a serious outbreak and epidemic and I look forward to your questions.

David S. Jones:

Well, I'd like to thank everyone for coming to this discussion at this important time. You might wonder, given the clear and present danger that COVID-19 represents to a world's population,

what it is that a historian has to offer to this discussion. There was a time in the 1970s when many people in medicine and public health thought that medical science had conquered infectious disease, and that epidemics would only be of interest to historians because they would no longer burden the world's populations. Events since that time have shown this hope to be optimistic, at a best premature, now the whole world, not just historians, is interested in epidemics, but despite that, historians do have much to offer this conversation. The basic claim that historians make and you, you saw this in professor Bloom's talk, is that if you want to understand what's going on with past events, you have to localize them in their specific contexts.

David S. Jones:

The situation was different in Philadelphia and in St. Louis, you must pay attention to local circumstance and contingency. And while this is certainly true, if you want to understand an epidemic, there is something about epidemics has made it impossible for historians to raise, resist the temptation to try to draw out universal truths. There's something about epidemics that that provoke consistent responses in human populations across time and place. And I'll try to describe some of that now. Now, historians as many of you know have long been interested in epidemics. One of the best early accounts comes from three Thucydides considered by many to be the very first historian, at least in the Western tradition, who provided a detailed account of the plague of Athens in 430 BC. And since that time, historians have produced countless analysis of epidemics in different times and places.

David S. Jones:

Ironically, many historians consider the best account of a plague. Actually not to be a work of history, but a work of fiction produced by French philosopher and author Albert Camus who provided a wonderful account of the social impact of an epidemic of bubonic plague on a fictional community in North Africa. One of my colleagues here at Charles Rosenberg, fellow historian of medicine, used Camus account and his own on the history of epidemics to describe the classic dramatic structure that epidemic outbreaks seem to take in the United States or any place else. As he described, epidemic started at a moment in time. They proceed on a limited stage in space and duration. They follow a plot-line of increasing regulatory tension, moved to a crisis of individual and collective character, and then drift towards closure.

David S. Jones:

And as he described it, this plays out in a drama of three acts with initial recognition, attempted explanation, and then eventually intervention. And it's very easy to see how this basic narrative structure has played out in China over the past two months and now in roughly 50 countries worldwide. Different countries are at different stages of this drama. And so, why is it the historians have been so interested in these epidemics, and part it's because epidemics are often tragic human dramas of the sort that draw people who are interested in these kinds of questions, but they're also very useful for historical analysis. As Rosenberg explained, epidemics often put stress on the societies that they strike and this strain then makes visible latent fractures that existed in these societies that might not have been obvious in the absence of this strain. Epidemics as a result provide a useful sampling device.

David S. Jones:

They reveal what really matters to a population, what is at stake and especially whom and what these societies value. One of the most dramatic aspects of epidemic responses are these questions of blame and responsibility. Societies work to determine who is responsible for what

happened and someone always gets blamed. This discourse of blame generally follows existing social divisions, whether it's by race or religion or class, ethnicity, gender identity or anything else. There will be different factors influenced or identified in different epidemics, but someone always gets blamed always along these preexisting axes of social distinction. Another dramatic aspect as we have seen playing out is that governments often respond to the challenge of an epidemic by deploying the instruments of their power most famously quarantine and compulsory vaccination.

David S. Jones:

These almost always involve people with privilege and power imposing their interventions on people without power and privilege and this fuel social conflict of the sort that historians are fascinated to analyze. And the historians often trying to push back against the triumphalist narratives that come out of medicine and public health often like to point out the interventions don't always live up to their promise at least at first. The technology needed to eradicate smallpox existed in 1796 but it took about 180 years for that promise to be achieved. Syphilis, a scorch of the early 20th century could have been ended in the earliest 20th century by fastidious observance of abstinence and monogamy, but as one US army medical official pointed out, it is difficult to make the sex act unpopular.

David S. Jones:

When penicillin became available in the 1940s some physicians even encouraged against its use fearing that easy medical treatment would remove the penalty of promiscuity. By a parallel argument has my colleague who's here, Allan Brandt has shown and argued a similar logic could have contained HIV in the 1980s through public health campaigns. We had the knowledge we needed in 1983 to stop this epidemic. That's not how it happened. The advent of antiretroviral therapy in the 1990s has had a dramatic impact on the global course of this epidemic. The mortality could be stopped but it has not yet been stopped. And of course there are dramatic disparities in mortality rates again by populations based on race, by class, by geographic locality. As Allan Brandt famously wrote, there is no magic bullet. There will be no easy solutions to the problem of epidemics.

David S. Jones:

Now, given the value of historical analysis to an epidemic it is reassuring to see that there have been many cases in which historians have put their expertise to good use. Brant was finishing a book on the history of syphilis just as AIDS struck the United States and he was able to write and lecture widely about how syphilis history could inform AIDS policy. As Professor Bloom mentioned, as the Bush administration was updating his pandemic response in the aftermath of SARS and fearing a pandemic of flu historian Howard Markel led a team that did a comprehensive analysis city by city of what had happened with flu in 1918 and he demonstrated the value of non-pharmaceutical interventions, especially social distancing. And that was worked into the federal pandemic response plan. And that kind of knowledge is of great value now. And historians are already hard at work trying to write about the lessons of COVID-19.

David S. Jones:

One of my colleagues in the history of medicine in Hong Kong has written about his experiences within the outbreak there, Hannah Marcus on the faculty here has recently had an op ed excepted by the New York times. It should be published today talking about the long history of Italy and its efforts to quarantine or not epidemics, whether in the 14th century or today. So, look for that. It should be coming out soon. Well, given all of this you might wonder, what would a

historian say about the current epidemic? Historians are often criticized for being too blasé about these things saying, “We've seen it all before.” But this is a case where you can say that in many respects we have a new epidemic that has emerged in China. That's where many epidemics have emerged historically, whether it's plague or strains of flu or SARS, possibly even smallpox.

David S. Jones:

The recognition of this outbreak was slow, which is exactly what Camus had described writing in the 1940s and 1950s. Government officials tried to cover up news of the early outbreak. And again, this is something that we have seen time and time again. There was a dramatic authoritarian response. Yes, that is exactly what governments do. Although, clearly the scope and scale of what China has done I think is unprecedented in human history. And then this dramatic response fails to completely contain the epidemic. It may have bought the world time for which we should all be grateful. But again, this will not be the first time in history that an effort to contain an epidemic has failed. There are several sad recurring features that deserve comment. As was mentioned in the introduction, there has been substantial stigmatization of Chinese populations even those living very far removed from the epidemic itself, and there have been episodes here in the United States.

David S. Jones:

And again, this is something that we have seen time and time again with outbreaks of diseases, especially with a bubonic plague in Honolulu in 1899 or in San Francisco from 1900 to 1906 terrible reactions by the white populations, to both the China Towns in these two cities without prior epidemic of bubonic plague. So this is something we are tragically familiar with. Another sad feature has been the death of healthcare providers. Again, this is wholly unsurprising. Physicians died in the outbreaks of bubonic plague in the 14th century. Physicians died in the outbreaks of yellow fever in the 1790s in Philadelphia. Physicians died in the response to Ebola in 2014. Well, not all doctors are saints. Many of them are willing to put themselves at risk to care for their fellow humans. Now, it's important not to write this off as noble, heroic self-sacrifice by the medical profession.

David S. Jones:

My boss and colleague Paul Farmer has often pointed out that you could really blame governments for this often by forcing physicians to work in situations where they do not have, what Paul will say is the adequate space, stuff and systems required to provide healthcare properly. And so, to the extent that physicians are dying because they are forced to work and unacceptable conditions, governments need to be held accountable for that. Now well, history is very good at describing that has drama of epidemics. It is less good with prediction. There are many examples of catastrophic epidemics in the past. HIV, flu in 1918, plague in the 1340s. But there are also many examples of epidemic panics that went nowhere as seen with flu most recently in 2009. Which will this one be? I think it's too early to tell. Marc Lipsitch has now famously predicted that 40 to 70% of the world's population will be infected by year's end.

David S. Jones:

If you believe that 2% case fatality rate, that would get us to 70 million deaths, that is a lot of dying. I don't think Marc believes that is what's going to happen. The reasons to be suspicious of that 2% rate in medical technology is much better than it was in 1918. We do have more immediate numbers, 2,800 deaths so far. Should that be a cause of panic? Should that number of deaths have done what it has done to the stock market in this country wiping out $5 trillion of

value? As many have pointed out, influenza kills many times that each year without provoking much drama in populations. And in China there are 5,000 … Sorry. 5,000 deaths a day from ischemic heart disease. So 2,800 deaths total from COVID, 5,000 deaths a day from heart disease in China. Why are they busily shutting down in the economy because of COVID-19 while allowing people to continue to smoke heavily?

David S. Jones:

That's a very interesting question, clearly shows that we are not good at recognizing and studying health priorities. I know there's one last issue of immediate interest to local politics. Does our government understand its history? As some of you may remember, there was a swine flu scare in the United States in 1976 in the midst of a presidential election, Gerald Ford was seen as bungling that response and it contributed to his defeat by Jimmy Carter. AIDS struck five years later in this country. Ronald Reagan was silent on the epidemic for the first four years, not mentioned it until 1985. He was widely criticized at that time and since then though, it's not clear to me that he paid a political price for his silence at that time. Is Trump aware of the political risks that he faces if he bungles this response?

David S. Jones:

He certainly has been tweeting a lot about this, mostly about the impact on the stock market, but it's hard to have faith in his historical judgment in light of his decision to put Vice President Pence in charge of this response. As some of you know, when HIV struck Scott County, Indiana, then Governor Pence delayed an implementation of a needle exchange program and should be held partially responsible for the infection of 200 citizens of his state through government in action in that case. History is very relevant for how we respond to epidemics, but only if people are aware of the lessons of history and if they respond with wisdom. Thank you.

Arthur Kleinman:

Winnie?

Yanzhong Huang:

I think I don't need a PowerPoint. [crosstalk 00:32:21].

Arthur Kleinman:

There you go. Winnie.

Winnie Chi-Man Yip:

So, thank you for the two wonderful presentations. What I want to do in the next five, 10 minutes is to reflect with you on two major points with the purpose of really trying to stimulate and provoke you to ask questions so that we can discuss. My first set of comments related to, is China's healthcare system ready to respond to an outbreak like COVID-19? Many of you know that in the last 10 years China has embarked on a major healthcare reform that the Chinese government has increased the spending in healthcare by four times. So, on reflection is, has the system been better prepared to respond to COVID-19 compared to the time when SARS invaded China? In fact, part of China's healthcare reform was actually motivated by SARS. When SARS broke out, the Chinese leaders realize that its healthcare system was so broken and that gave some of the impetus for reform.

Winnie Chi-Man Yip:

On reflection, my view is that part of what we are seeing in the last month or so reflect China has a very weak primary healthcare system. And if China had a stronger primary healthcare system, and I emphasize the term, if it had. That is, it doesn't. If it has a stronger primary care system in a sense of, when I say strong in a sense of both competency and also people's trust in it, I think you would not have seen the large number of people who flock to the hospitals in January. And I'm sure many of them get infected when they were going there and the system would not crash so badly that the doctors can pay more attention to the people who actually need the help rather than diverting their effort and energy to those people who don't actually need the attention. And at that time it was also flu season, but everybody just go to the hospital.

Winnie Chi-Man Yip:

If China had a stronger primary healthcare system it really could have diverted a lot of the volume and not creating that scare, that panic and also the stress on the hospital system. The primary care system would also have been better in engaging people and do public education. I'm sure we can tell that in the first few weeks public education was very limited, and if there is any public education is the old way of just announcing things, rather than working with the community to engage them in the knowledge of the virus. What are some of the practices of isolation, hygiene? The latest habitual report actually shows that in Wuhan about 80% of the cases were in fact through family. So, what could have been done? Simple things that could have been done, communicate it in a simple way that could have prevented that so we do not see the peak as we have seen.

Winnie Chi-Man Yip:

The primary healthcare system could have played the role of the public health preparedness clinic role. Now, right now they're doing that. I understand that there are lots of village doctor, community health center doctors that have been sent into the community in the neighborhood to do test temperature, but that could have been done and should have been done much earlier. But that was also not done. I remember when I first returned from Hong Kong and China in late January, a lot of the media inquiry asked me, “Is China's strategy to build two new hospitals, 2,500 beds? Is that the right strategy?” I said, “Yes. When you have already reached that crisis, of course that's the right strategy.” The question is, what should have been done and could have been done that prevent China to have reached that stage of having to build 2,500 beds in 10 days, which of course get a lot of attention and now building even more shelters, that whole 4000, 5000 people.

Winnie Chi-Man Yip:

So, in June last June we actually held a conference with the state councils development and research center to reflect and review on China's 10 year of health reform. One of the most provocative presentation is actually from CDC, basically criticizing that the tenure of health reform is about medical care reform. It has neglected public health. And I think it's time for us to reflect a little bit. And in fact, in China, when you talk about public health system, it is a little bit unclear. Some people equate public health system to CDC. But meanwhile, China's health reform strategy is that the primary healthcare system is supposed to be playing a major role of public health. But if you get to the ground level, CDC actually, even though they're supposed to be supervising and inspecting primary healthcare providers on public health, they have no power. They have no money power, they have no appointment promotion power.

Winnie Chi-Man Yip:

So, why would the primary health worker be listening to CDC? In a sense CDC over the last 10 years, I think Barry would agree that, have advanced significantly in science. But in terms of implementation on the ground, in fact it has been weakened. That's my view. So the question I have for you is, which is happening in China in the last few weeks, in fact, this CDC's experts presentation last June has been circulated widely again because he's basically promoting that the government should put more money in the CDC system and strengthen CDC. The opposing view is that that won't work. Vertical system in this would not work anymore. The CDC system needs to be much more closely integrated with the rest of the healthcare system. So, a classic challenge that we have faced in many parts of the world. Vertical system, horizontal system still happening in China.

Winnie Chi-Man Yip:

I have to say that the last 10 years or so, a lot of the attention in primary healthcare has also been driven to pay attention to noncommunicable diseases. And infectious disease was taken a much smaller row. I think that people were taken by surprise this time. They're not prepared. And if I would say that again from surveys that exist previously, if you survey primary healthcare providers knowledge about preparedness for infectious disease, very limited. So, that's my first point. But I also want to provide some positive anecdote, more than anecdote, during this time when the hospital the capacity is fully used and over capacity where do people seek care? In fact, many hospitals, all hospitals in the entire China have to send teams to go to Wuhan and Hubei, to help Wuhan and Hubei. Most of the medical universities, hospitals they have shut down the outpatient clinic. They have completely stopped elective services.

Winnie Chi-Man Yip:

So, where do people seek care? It is a negative externality on the people who are not having COVID-19. Many of you know that China is actually having a very vibrant and growing internet base online consultation system. In the last year on these platforms, the larger platforms the online consultation has increased by about 10 times and a good analysis of, what are those consultations? They definitely are not consultations to allow them to diagnose whether they have COVID-19. Many of them are actually for hypertension and diabetes disease management. So, this is saying to you that, what is the externality, what is the negative spool for effect to people who doesn't have that health problems? And also on one platform on WeDoctor platform they did a little analysis, about 40% of the consultation ask about stress and depressive symptoms. And I can imagine that if you live in Wuhan it is quite stressful and depressive.

Winnie Chi-Man Yip:

The second point I want to talk about is, I want you to do a little bit of an investigation together with me because I'm still in a bit puzzled, is this, what could China have done differently in the first two, three weeks, the critical window perhaps that might have prevented the outbreak like this. So, many people ask the question, “Have China learned from SARS?” I don't have the full answer. I think the Barry would have an answer. You can ask him later. But this is a diagram that just came out from a JAMA article two days ago comparing SARS and COVID-19. And if you look at the left hand side, which is tracking the timeline for SARS from first case to when it was reported to WHO to when the new virus was identify. Yes, if you look at COVID-19, major improvement in terms of shortening of time. But still what could have done better that would have prevented what we are seeing.

Winnie Chi-Man Yip:

I think that's … Let me go to this one first. This is again the bottom part is again, it's a timeline. The bottom part is provider, it's just a copy from the JAMA article. But I have added some of the critical points on the top. On December 30th WHO, December 31st both the National Health Commission and WHO already knew there is that virus. And December 30th or 31st around that is of course the whistle-blowing by Dr. Li Wenliang and his colleagues. And I think unfortunately they were silenced and reprimanded. And if China had taken that opportunity to address their concern in public, I think it would have relieved the anger later on. So, very early on you see that at the top and the National Health Commission has already sent people to Wuhan during the end of December to investigate. And again, very early on Wuhan's virology lab has already identified the genome sequence.

Winnie Chi-Man Yip:

But between here and January 20th, which is the critical point is when Dr. Joanne Chan came out and say it and confirmed that it is human to human transmission. So what happened during this period of that time lost is the leader waiting for the confirmation of whether it is human to human before it made an announcement. Now, I noticed that in the last few weeks, in the last few days, there are a lot of discussion about when the government actually know about the human to human. Maybe it is not the same point when Dr. Joanne Chan announced it. And if so, when? And some of my colleagues in China will say that, “You will never know. Only 40 years later historian can analyze that.” And we even said there is a reason for historians. So, is it because they were waiting because of the uncertainty? Or, as many hypothesized this period of the zero cases, that's when Wuhan and Hubei was having their Annual People's Congress of which presentation of economic growth is much more important.

Winnie Chi-Man Yip:

And again, if you trace back to history, China does have a practice of not announcing things that is embarrassing in light of an important event. Is it because of that, or is it because of a very complicated fragmented system of reporting that actually have slowed down decision making? So, this is a critical period. And from this point on January 20th then that's a whole wave of draconian policy shutting down Wuhan, building new hospitals and so on and so forth leading to eventually replacing Wuhan and Hubei's health director and also the provincial leader. And to note is that the person who is actually sent from the National Health Commission is one of their vice minister who is actually in charge of health reform portfolio. He's not the vice minister who is in charge of disease control portfolio.

Winnie Chi-Man Yip:

And that's for us to reflect on, what is the COVID's position in the leader's mind? What it is? It is not simply disease control. And so, this is where the investigation … And I would just go back to China's complicated system. Basically, it is set up in such a way after SARS China build a very, very efficient internet based reporting system for reporting disease. So, if you are any of the healthcare provider and if you see cases that belong to a list of mandatory reported disease … Now, the contention is because COVID is new, and is actually not on that list. In the beginning the data would have been in real time be submitted to the system of CDC and even the health bureaus and health ministry. But that's submitting the data, reporting. That's done very fast, I believe. But after reporting is done, then they do the analysis.

Winnie Chi-Man Yip:

And I also think that if you look at the timeline, I'm let Barry decide to speak to it. I also think it's happening quite fast. Then it comes to decision. The decision has to be made by the health

bureaus and the ministry of health. But their decision is not purely their own decision. They actually have to get permission by the government. Now, on paper is permission by the government of the same level. But of course each lower level government is waiting for the upper level governments permission. I would just lay out, this is how China works and ask you to help me investigate what might have happened in that period where we have this flat new cases and could something been done differently? Could decisions be made differently during that period of time that we could learn and should learn for future? Thank you.

Yanzhong Huang:

Thank you. Can you hear me? Well, since my research interest is mainly just sort of bifurcated, I'm interested in the politics of healthcare and public health in China, and also have an interesting global health governance. So I'm going to talk about these both aspects. What happened in terms of the political dimension of the crisis. And then also, what does that tell about the WHO's role in coordinating the national response to the outbreak. So, let's got to the politics. I think Professor Yip already gave us this big picture of the way it is. You guys probably have an idea of what actually happened there. I think, certainly there are loopholes in the public health system in the healthcare system, but I think the root cause remains political and institutional. It is very clear.

Yanzhong Huang:

And when I said it very clear actually was not that clear in late January when I was I just published that piece in New York Times pointing out the strong parallel between SARS and the Coronavirus outbreak. At that time I had very limited information, but I had this hunch seems to be that something going on that creating this perfect storm. And it turned out to be actually more evidence now supporting what I argued in that essay. So, it is now clear there was cover up in initial stage of the outbreak. The Taixing and many other Chinese are relatively more independent Chinese media outlets or talk about this. Professor Bloom talk about this like the one of the few shining spots is this progress in the signs, that they were able to sequence the genome of the coronavirus in a very short period of time, and then shared with international community.

Yanzhong Huang:

That was indeed a big achievement. I think they also made progress in investing, in the infrastructural of the public health capacities. I visit many of the prevention CDCs, they are proud to tell me, there's this new building constructed after SARS outbreak. But it was very clear that you have the hardware in place, but you'd still need the people, the institutions, the system to make it work. It's precisely at that institutional aspect that the system failure that caused this unprecedented crisis. And just to follow up what Professor Yip said, now there's now a several stories coming out. We talk about certainly Li Wenliang, and the other seven healthcare workers who shared the information about disease and quickly asked to shut up. There was actual, so this sequencing thing.

Yanzhong Huang:

That now seems to, according to the Taixing reporters, they they were able to complete a sequence in the first 10 days in early January, but then they were just a told, “Don't share that information.” And actually you're not supposed to publicize that day anyway. And then you have those healthcare workers being infected in also early January. But according to the members of China's CDC investigation team, they were not told about that when they were sent to Wuhan to do the investigation. So, there was a lot of this, not just a cover up, but also lack of coordination.

And certainly, the whole thing seems to be politicized in the beginning. Professor Yip mentioned this. The lianghui the two sessions by the People's Congress and people's political consultative conference at both the Wuhan and the Hubei provincial level.

Yanzhong Huang:

You see, this is how interesting that is. It can't be a coincidence when exactly during this two sessions, there were no reporting about the diseases. Apparently they didn't want to ruin the atmosphere, the meetings. But more interestingly, I found that the after now we saw this is a big problem. It seems that every policy actor involved say, “It's not my fault.” There's the finger-pointing, I found it is very interesting. I would call this period of time I think basically a buck-passing polity was at work. Like everybody seems to be shaking that responsibilities. But then if you look at this polity after January 20s, instead of seeing a buck-passing polity, we are seeing a bandwagon polity. When president Xi and central leaders now say, “Well, this is the top priority. We have to now take decisive measures.”

Yanzhong Huang:

You've seen that everybody jumped onto the bandwagon of this containment measures by the shield of apartment complex, shield of villages, lockdown the cities. Very efficient. And when I was asked by reporters how this could be copied by other countries. I think, no way. This can only be done in China. And those containment measures, draconian as it may sound I do think that helped stabilizing the situation, not just in other parts of China, but also in Wuhan and Hubei province. When we were discussing that I agree that I think many of the experts here agree that they buy us time here to prepare for the outbreak. And so, this is a positive. But in the meantime, I think we should not overlook this impact on the economy, the supply chain, as well as those second order problems, for example, the impact on conventional healthcare.

Yanzhong Huang:

I've heard cases actually this is quickly removed online when, I think, China Newsweek, Zhongguo Xinwen Zhoukan, reported that the hospital there are terminal cancer patients who are evicted from the hospital to leave beds for Coronavirus patients. That raises all those ethical questions, “Whose life value is more? The Coronavirus patient or cancer patient?” There was also one of my friends father-in-law was very ill because of that lack of healthcare. And then his mother-in-law after taking care of him also got sick then died. There are lots of all those anecdotes but the very tragic stories associated with those draconian containment measures. We have to also keep that in mind. The next question also from a political scientist perspective many people ask is, to what extent this Coronavirus crisis is going to open up political window for change in China. In my humble opinion, I think that political window has already been closed.

Yanzhong Huang:

I think that was probably closed paradoxically around February 4th after the day that Dr. Li Wenliang died. On the night, it was at midnight when that news came out, it was like 800 million comments on the Chinese social media. So that was unprecedented. Even those ordinary people who dare not speak out now got very upset because they feel like this could happen to him. Dr. Li Wenliang could also happen to them. So, there was very strong level of dissatisfaction, unhappiness. But I think that also raised a flag. The political leaders feel like it is time to tighten the social control. So, after that you're seeing the post being critical of the government removed. And then I was told that even the reporters are not allowed to talk about the economic impact of the crisis. There was another sort of like this information flow is just to like a tap water and not being turned off.

Yanzhong Huang:

And certainly that has implications for our political legitimacy. When I was asked that question, I think very likely, the government leaders are going to model through their crisis because not only are they now pointed to how effective those containment measures are, they could also point the cases now internationally, including the United States. They say by that because that they will see how inefficient they are in our testing the cases. I already actually saw those posts now saying that how the shows the comparative advantages of the China model. But when we say that certain borders at advantages as Professor Yip said. When you reach a crisis situation like that indeed it shows advantages of a system. But we should also ask the question, “How did we get here?” So, it is interesting that now you have all this articles, even books now already been published appraising how good the system is in responding to the crisis.

Yanzhong Huang:

And we are likely going to see probably like the business back to usual in a way in that crisis is over. So, I'm sorry to give you that sort of … How many minutes do I have? Just a few minutes. I'm going to talk about the governance aspects. Global health governance. When we talk about global health governance certainly right that the guarding of the global health is the World Health Organization. That people turn to the WHO for data information and also for guidelines on tackling the crisis. But people, some of the global health experts were very critical what WHO was doing, including that, Dr. [Tejeras 01:02:07] remarks in Beijing, as well as the recent, the visit of WHO expert team to China. Some commented that the way they saw the hate of the expert team doing the presentation was just like there was a Chinese state broadcaster was doing the praise.

Yanzhong Huang:

They have good the system words in responding to the outbreak. I think that these criticisms were not fair enough in terms of that they fail to recognize that WHO is a member state driven process in terms of decision making. You could certainly point to what WHO did during the 2003 SARS outbreak. We have, Dr. [Lonteline 01:03:09] show strong leadership, issuing travel advisories since 55 years history, publicly criticizing Beijing for not being cooperative in allowing WHO team in China, and also played a very constructive role in accelerating the revising of the international health regulations. But it was precisely because that WHO was too successful during the SARS outbreak that allowed this to play a less active role in this current outbreak. Because during the revision of the IHR the member states fear like WHO was given too much freedom.

Yanzhong Huang:

So, the newly revised IHR actually allow the states to regain the sovereignty. Basically, the states could do essentially whatever they want based at their national law, and they could even do things forgetting about the WHO recommendations, as long as you believe that it fits its own domestic situation. So, I'm sympathetic are Dr. Tejeras as well as the WHO, the investigation team in China, because they really, they didn't have much, autonomy in making the decisions. But I also want to point it out that the WHO was indeed given the some autonomy through the international health regulations that could allow a leader to demonstrate more leadership in this current outbreak. For example, WHO was allowed to declare public health emergency of international concern. But this time, obviously, they didn't declare it in a timely manner.

Yanzhong Huang:

Who was allowed to … Actually, authorize to use non-governmental source of information in decision making. They choose not to use that. WHO was allowed to name and shame, basically, if countries failed to be cooperative, to refuse WHO help, the WHO could share that information with other countries. This naming shaming process certainly was not pursued. So, there's lot of this room that WHO could maneuver, but it failed to do so. So, I think I will stop there.

Arthur Kleinman:

Thank you.

Elanah Uretsky:

Last but not least, for a little bit more social commentary, I think. I'll just preface it with, I can remember getting ready to go out and do my fieldwork for my dissertation and SARS hit. And just like today, universities were prohibiting, anyone from going to China on university business. And I was thankful that SARS ended just before I was supposed to go out to the field. And when I came back there was a conference over the Kennedy School about SARS, which resulted in a book that I'll, I'll mention a little bit today. But if we go back to 2014, our eyes were on Western Africa, and the world was bracing for pandemic of Ebola. With memories of SARS as perhaps the most recent global pandemic before that in mind, people including myself started to question why Guinea, Liberia, and Sierra Leone couldn't just quarantine people and just have it all done and over with.

Elanah Uretsky:

After all China had imposed mass quarantines like that in 2003. They canceled a major national holiday, prevent millions of people from traveling just like what we're seeing today after they finally admitted to what was happening inside their borders. And it worked. SARS was brought under control in a matter of weeks and declared over in a matter of months in China one praises for its effective quarantine measures even in the wake of all the blundering and coverups that had gone on in the beginning of the SARS epidemic. The first pandemic of the 21st century. It worked so well that it seemed like a good solution for West Africa. But it didn't work well there because they didn't have an authoritarian system to enforce quarantine measures like China did. And the government didn't have nearly the level of control over people's daily actions and movement.

Elanah Uretsky:

Where an authoritarian government was able to prove to threaten people with punishment for violating quarantine orders or passing along false rumors, the governments in West Africa were powerless and faced riots in response to quarantine efforts. Chinese government went even further with fever check stations. Anyone who walked into an airport or train station, a hotel, anywhere wherever they were public gatherings during the time and up until today still when you walk through the airport in China there are fever check stations. But the fact that that epidemic was able to spread so far without check was not surprising. I think as Winnie has told us, and as we've heard today, China didn't have a very strong health system back then.

Elanah Uretsky:

But they learned their lesson and they renewed their commitment to health and strengthen their health system after SARS, partially aided by the influence of the WHO, through the international health regulations that Yanzhong was just telling us about that were modified so that new emerging pathogens that are now able to threaten global health can be brought under control.

And brought in-check to prevent a pandemic or to hopefully protect a pandemic outbreak. And that's what the IHR are meant for. Whether they work or not that's another discussion for another day. But China did its part. And as my colleague Kate Mason has told us in her book, Infectious Change, they professionalized their public health system after SARS.

Elanah Uretsky:

They replaced experts, people who were supposedly public health experts with people who are actually professionally trained who came with degrees in epidemiology and other scientific fields from prestigious universities, both in China, Hong Kong, Europe, and the United States. And I think we can feel safe now that China's public health response to the current epidemic is really actually in good hands. If we look at the central level, if we look at the central CDC it's in the hands of people like the chief epidemiologists for the Chinese CDC Wu Zunyou. Well, I've known well through my work on HIV, he ran the HIV response for China for many years. He was trained under Roger Detels. The epidemiologists Roger Detels, and through Roger's mentorship Wu Zunyou has trained dozens and dozens of epidemiologists in China, people who have, again, who have gone to UCLA and Yale and trained.

Elanah Uretsky:

And these are the people who were back in China now who who can get this epidemic under control. They develop the strong surveillance system that Winnie talked about, a reporting system that can detect a disease outbreak and really elevate that detection to the central level very, very quickly. Connecting municipal governments with the central CDC, a sentinel surveillance system that's been effective in controlling outbreaks of H1N1 and influenza and gave the Chinese CDC the confidence to say that SARS would never return. Yet, I think what we've seen is that somehow China wasn't prepared to respond to this Coronavirus outbreak that broke out in December. And Lori Garrett, who was Yanzhong's colleague at at the council on foreign relations who was singing China's praises in 2014 and trying to get Africa to Institute measures that China had instituted during SARS is now writing about how China's incompetence is endangering the world.

Elanah Uretsky:

And I think there are many reasons we can ascribe for the lack of preparedness, and Professor Yip and Professor Huang has talked about some of these reasons. But there's issues of sort of feasibility of always being in the mode of preparedness. If you develop a system like that where you're on the ready and you can be prepared how long can you maintain that level of preparedness? How well can we expect sort of a second tier city to be prepared and to take the resources that it needs to dedicate to its health system and sort of keep them within a system of preparedness with the situation have been any different if the Coronavirus broke out in Beijing, Shanghai or Guangzhou, cities with very, very strong academic public health infrastructures. And then there's the question of the local preparedness and the impact of state local communication on preparedness in Wuhan.

Elanah Uretsky:

How much is the CDC and the government of Wuhan actually collaborating and cooperating with the central level CDC? I think the response locally can only be as strong as local officials allow and coordination with central level CDC with it's access to a wealth of world-class epidemiologists is absolutely essential. Wuhan has laboratory capacity as we've seen. But we often see that infrastructure in China is not always equally matched by human resource capacity, and there are issues that are more ably … These are issues that are probably more

ably answered by Winnie and Yanzhong. But I think there are things that we need to think about when we think about preparedness. So, in 2003, when Chinese citizens in the world first learned about SARS and were quarantined in their homes, they spoke through their phones.

Elanah Uretsky:

People need to communicate, people were unhappy and they needed to communicate. They had the mechanism of phones and text messaging at the time. That's sort of how we could communicate electronically at the time, besides email. We sent text messages, messages that are basically sent from point to point, or maybe from point to a few other people, but they're basically point to point messages. Rumors didn't sue and people did flee from Beijing before Beijing was shut down. But the government also shut that down pretty quickly, and they issued orders that rumor mongering was a crime and that people will be punished for that. My main source of information at the time was a friend of mine who was a nurse at the front lines of the SARS epidemic. And we would email or I would call her and she would tell me, “Schools are closed in Beijing.”

Elanah Uretsky:

She had a teenage daughter at the time. She said, “My daughter's home from school, but everything's okay. Everything's okay. And everything's quiet.” And maybe that's what she was reporting to me because she tends to be fairly careful in her communication with people, especially outsiders. But things seemed calm, especially considering what they were living through. Maybe under the surface things weren't as calm as she was telling me they were. Afterwards, we've heard that people were sending text messages about their sort of disquiet of the situation. They didn't necessarily want to be in quarantine. But they were doing this through their mobile phones. They're were doing this through their mobile devices, and people were acting in protest but in silent protest. And they were in classic adherence to a form of resistance that James Scott has referred to as the weapons of the week.

Elanah Uretsky:

They spoke out in sort of an uncoordinated, unorganized fashion that he's termed as everyday forms of peasant resistance. Distributed through informal networks just like we see today. And constructed through the contact lists on their phones. They were forms of resistance that were anonymous and didn't really ruffle any feathers to get anyone in the government, angry at them. So, essentially these were people who were going under the radar, covering their tracks and disseminating the message messages that they wanted to disseminate, but really sort of silently and quietly. A perfect way to do this is as Jim Scott has argued, is through hidden transcripts. Discourse that takes place off stage and under the radar of those in power who would otherwise take offense to such sentiments. Perfect forms of hidden transcripts include rumor, gossip, folktales, jokes, songs, rituals, codes, and euphemisms.

Elanah Uretsky:

For China jokes were the perfect medium for people to covertly air their sentiments. And the text message was the perfect portal for transmission. SARS opened up a window for people to practice resistance, which was prohibited with the safe disguise of outward compliance. And as Lun Xun taught jokes to the Chinese serve a purpose of making merry or a mixed bitter lives allowing people to express a bitter smile or what he called ku xiao to mock their tormentors. During the Republican era we saw what turned into what Chris Rea called The Age of Reverence. Jokes allowed open contempt of the Manchu Court during the 1911 revolution. But

they also gave people the ability to express their discontent in a positive way that perhaps was more productive than expressing negative sentiment.

Elanah Uretsky:

This is exactly what, the anthropologist Zhang Hong sort of told us during the conference that Arthur and Woody Watson organize on SARS when she came with a collection of jokes that people had passed around text messages. And it resonated with me because I was actually noticing as I was conducting research on sexuality and HIV AIDS, I saw people sort of expressing their sentiments around sexuality in the same way. So Zhang Hong she came with a bunch of jokes. She came with jokes that mocked Zhang Zemin's three represents. She came with jokes that mocked sort of how we revere China's leaders. So, Mao was the master of slogan-shouting, Deng was the master of cash-counting. Zhang Zemin was the master of stock-speculating. Hu Jintao became the master of mask-wearing.

Elanah Uretsky:

And I think the joke that resonated with me most because of what I was doing at the time, at the time I was doing research around how people make guanxi, the ritual of yingchou. A lot of banqueting and drinking and smoking and karaoke bar going. And so she came with this joke, what the party has failed to do SARS has succeeded in doing. The party failed to control dining extravagantly, SARS did. The party failed to control touring with public money, SARS did. The party failed to control having a sea of meetings, SARS did. The party fail to control deceiving one superiors and diluting one subordinates, SARS did. The party failed to control prostitution and whoring, SARS did. So, there's a lot of public reaction these days. I think people are still turning to things that we could call weapons of the weak.

Elanah Uretsky:

But public reaction in 2020 is drastically different than it was in 2003. The weapons of the week that were flouted in the messages, the hidden transcripts of text messages have been transformed to daggers pointed directly at the government. And the government seems to have little defense against them. The text-based messages that created a broad critique of the government through satire are now much more graphic messages that I think grab at us and appeal to people because graphic message can elicit such visceral emotive types of responses and really pull on a deep personal sense that's incited a sense of panic and fear that is probably unnecessary in this situation. Really causing the situation to go viral, not just because of a virus, but because of the messages that are viral in a way. Really making it difficult to bring order or to bring the situation under control.

Elanah Uretsky:

So in 2003 we heard about a whistleblower, a doctor at an army hospital who blew the cover on SARS. And we were able to react with shock and horror. But in sort of a delayed way. In 2020 we had another whistleblower doctor who we see. We're able to see the images of him real time. The news of his death got around the world in probably about 60 seconds. It gives us a little time to react. And so, I think the reaction has been so much more visceral because we don't have time to really think about what's happening. We're living this epidemic in real time along with China. In 2003 we lived in sort of according to the television reports that would come out every day from the Chinese government.

Elanah Uretsky:

And we have millions and millions of heart wrenching messages that are much more personal and individualized at this point rather than the sort of the messages that were passed around through text messages in 2003 that were targeted more at a broader audience. There's one WeChat group that's gotten four billion hits two days ago. And I've brought just a couple of the posts that have been posted. This is real real incidents and a real thing. Please help my mother. My mother cannot live without an oxygen tank so we cannot leave for home. There's no bed available and we cannot even get a kit for testing. The community official said that they could not report the case to the hospital until she's confirmed positive for Coronavirus. I really do not know what to do. Another one, the only thing I've left is just his desperation. All my family is waiting to be dead at this moment.

Elanah Uretsky:

My grandfather has trouble breathing and today he was diagnosed with Coronavirus but no hospital capacity to take him. Yesterday he already witnessed his wife die. My aunt's lung got infected as well. We've all tried all we could. We chat apps, social media post in local journals. Nothing has worked. I see the national health commission announced that hospitals are opening up more space in the news. We called every day. They either did not pick up the phone or told us there was actually no bed available to take new patients. This is a dead circle. And finally, can you imagine the community did not record my cousin's case and neither did they report it to the hospital. They always told us that, “You guys have to get tested first and then we can report the case to the hospital and that is it.” No one offered us a testing kit. Are we even human since the CT did on January 26 she's been going to the hospital back and forth.

Elanah Uretsky:

She had to wait in line to get some salient injection. She's only 28. I don't mean to sort of demote these messages. Obviously, these are real cries for help, but I think the difference between 2003 in 2020 is that the immediacy of the transmission of the messages turns into an immediate impact that we're really not able to digest and comprehend objectively. And I think if you talk to the scientists, what's really necessary is objectivity. There's certainly a certain amount of subjectivity that goes into this. But I think, and you can correct me if I'm wrong, but if we're to really respond to this effectively we really do need to keep a certain amount of objective distance. Thank you.

Arthur Kleinman:

Let me thank all the speakers. I'll just point out a few things before opening up to the audience for questions and helping direct them to the appropriate speaker that it was the Fairbank Center and the Kennedy School that sponsored the SARS in China meeting which came out as a book that number of people in this audience participated in, and that I and Woody Watson edited. We've heard something about the difference between the time of SARS and the current time. One of the big differences is the tremendous degree of distrust of doctors and hospitals in our time. It's not just distrust of the Chinese government, but distrust of doctors in hospitals. In fact, the death of Li Wenliang really reversed what had been the dominant view of doctors and hospitals at that time. That they were called calculating money oriented and not interested in serving the people.

Arthur Kleinman:

In fact, the big joke was that they were serving not the run, but the renminbi, the money. And that sending of distrust goes along very much with what Winnie pointed out, and I strongly agree with, which is the really the functional absence of primary care in China. Now, admittedly the

government has tried very hard, especially in putting a lot of money to build a primary healthcare system. But China lacks it. And that means if I took you right now to a Chinese hospital we would see a professor, three associate professors, one assistant professor, two residents, a fellow seeing 500 patients in a two and a half hour session. It's impossible to take care of 500 patients during that period of time. So, for my interest, and I just published a book called the soul of care about the importance of caregiving, caregiving actually in Chinese hospitals is poor. Poor to lousy.

Arthur Kleinman:

The people are well trained, very well trained. The material are there. But the structure of care leads to very poor care. And so, we're going to actually see at the end of this what the case fatality rates will be compared to countries around the world, and where China's case fatality rate should be much better than places that are much poorer, such as Africa, and the like. My prediction is that we're not going to see that big a difference, and that the reason is the poor quality of supportive care and the inability of the Chinese healthcare system to take care of the large number of patients who ere affected. So, moving from that, let's go directly to questions from the audience. And if you put your hands up I'll try to … How about right over here this one … Do we have a microphone? Yeah, just bring it right down.

Arthur Kleinman:

Now see, let me say two things about questions. First of all, make it a question, not a statement. All right. If you're going to make a statement, we would have invited you up here. Make it a question. So keep it to one or two sentences, and two, direct it if you can to one of people on the panel.

Speaker 8:

Oh, thank you. I think my question is directed to our public health experts, but maybe also historians and anthropologists. So, as we have seen in history and in this case during cases of emergency, we often see serious violation of basic human rights and I wonder not only in China but in the United States or wherever on this planet, how could a system immediately recognize and address these mistakes? And in your imagination, what would that system be like?

Arthur Kleinman:

Well, that's a great question. Who would like to take a shot at that? You want to start David?

David S. Jones:

Sure. There's a large body of public health law and ethics about what are the situations in which a quarantine or forcible detention is just. And the usual criteria are things like there's good evidence that this actually is a contagious disease, that this person is a risk, that it will be time limited and there's every expectation that is true for a case like this. But then also that there is appropriate caregiving provided for the people while they are in this situation, detention. There was a famous episode during the Ebola outbreak here. One of the cases that was diagnosed in Dallas. The person was hospitalized and proceeded to die very quickly. His family was quarantined in their motel room and there was no provision by the local health officials to provide food.

David S. Jones:

So this family was stuck in this hotel, couldn't leave and there was nothing for the first day or two and then finally local church groups rallied and started to provide assistance for this family. Now, you could say in the heat of the crisis, it's understandable how that happened, but there's really no excuse for that. Public health departments have been thinking about quarantine for a very, very long time, for centuries and you would hope that the minute they were going to impose that they would say, “One thing we need to do is to provide X, Y, and Z.” And it's quite clear from accounts that are coming out from China that many people who are either forcibly quarantined or self-quarantined just don't have mechanisms to provide basic food. I have a postdoc who's here, whose family lives in Northeastern China, so nowhere near the effected region.

David S. Jones:

Her parents are refusing to leave the apartment and have been subsisting for several weeks now on rice and cabbage because they won't go out. Now, you could say that's their fault. They're self quarantining. But again, there should be basic mechanisms in place to prevent that kind of thing from happening.

Arthur Kleinman:

I mean, if I could just follow on that, one of the issues with human rights, and maybe this is the limits of human rights approach in this setting is that we have the human rights of those who are infected and affected and the human rights of those who are threatened in there and the clashing right now. How about other questions right over here? Yeah.

Speaker 9:

Thank you for the presentation. I'm a student from HSPH. I'm wondering, do you have any comments on the US responses to the Coronavirus? Because yesterday, like the city of Seattle says that it does not recommend us to use the face mask to prevent the disease. And it's also says that's a very strict criteria for testing. So, even in US today maybe 40 confirmed cases patients can not receive testing. So I'm wondering if the epidemics first started in US can US government do better than Chinese government?

Arthur Kleinman:

Barry.

Barry Bloom:

All right. Thank you for the question. I was asked that by a reporter for the New York times yesterday afternoon and there is supposed to be an in-depth story on the question that you're asking, which is, is the US prepared? So, let me say two things. I know a little bit about masks and there are two kinds. One has a special filter that pulls out small particles, it's called an N95 mask, and it's reasonably effective at preventing someone from breathing in infectious agents from the air. Then there's the square surgical mask that everybody in China wears that is not going to protect them against very much coming in. It can be helpful to protect against stuff coming out. And the major issue on mask, there's not a lot of evidence that all the people running around with masks need them, or being exposed or they would do them any good if it was.

Barry Bloom:

What is critical is that anybody in the healthcare system has to be protected from the patients they're seeing. And what we have just learned in the last 24 hours is that with the flight back from the people on the ship in Japan where there were 14 people known to have virus a slew of nurses and healthcare people were sent out to welcome them when they came in with no training about how to handle and deal with infection, wearing no protective equipment, having no masks all of whom were exposed. And I think that then gets me to the second question, which I have again a little bit of experience for a couple of reasons. I've had been on a national Academy commission after 9/11, where there was a major concern about terrorism in the US and how to begin to be prepared for catastrophic things.

Barry Bloom:

I'd also been at the Kennedy School and ran a program on bio-security for a couple of years and got to know under the Obama administration how the government had organized to be prepared. And there are 17 government agencies in the federal government that have responsibilities with respect to dealing with an epidemic. Agencies are each autonomous in a sense, and they love power and money and control. So, getting them to even talk together, let alone play together is a nontrivial exercise. Not often in my experience of a long time working with the health issues in government has that been achieved? There was an office in the white house for pandemic preparedness that managed to create a phone call on a regular basis with representatives of all 17 government agencies.

Barry Bloom:

Unprecedented in my view in which they all knew what the others were doing, how they would respond, how the responsibilities would be divided. There was a counterpart person in the national security council who was also there from the point of view of particularly bio-terrorism and security for providing information and collecting information about where any event was happening and how to provide advice, number one. Number two, we believe the federal government actually can do anything or can do enough to save America from an epidemic. But healthcare in this country, as you know, is incredibly fragmented. So, it's an entirely a stable business. Every state has their own health insurance problems and funding issues and the feds through grants from CDC go to the States.

Barry Bloom:

So the issue is at one level, what was missing in China in 2003 and missing this time is the government aware of the problem and in communication with 17 agencies in the federal government including CDC and NIH, but commerce, defense and all of those will have some role to play. Are they in touch on a daily and constant basis with the public health departments of 50 states. And within those 50 states, are they in touch with the public health officers in every city and town? There was after a H1N1 a major influenza national plan in which all of this type of thinking, communication, advance preparation was organized and planned and communications were set up to deal with that. Further, as you've gathered from this group and everything you've read, the key to dealing with an outbreak is speed. The longer you wait infectious diseases are exponential. One person gives it to two, two to four, four to eight, eight to 16.

Barry Bloom:

So, the longer you wait, the bigger the problem. And so, the only way to do that is to have money sitting in the bank and an emergency trust fund in essence and the Obama administration created that. That was to be able to be released at an instance notice by the appropriate authorities. The present situation is the office no longer exists in the White House

up until yesterday. It no longer exists at the National Security Council. There have not been calls that I'm aware of between all 17 agencies to be involved in a crisis. Different agencies are saying very different things as you may have seen at the press conference. And the emergency fund somehow disappeared. There is a request to congress to pass vast amounts of money … Or not actually vast. $2.5 billion, which is relatively small if you're mobilizing people in every state to be prepared.

Barry Bloom:

That should have been done the day after we knew there was an outbreak in China and that was a possibility, in fact, a likelihood that it would spread worldwide. It certainly should have been done once we knew it was spreading worldwide and the process is starting yesterday. So, when the Times reporter asked, “Is the United States prepared for a really serious epidemic?” As of today, I have to say regrettably it once was, it is no longer.

Arthur Kleinman:

Thank you Barry. Who wants to respond further?

Yanzhong Huang:

I could [crosstalk 01:38:52].

Arthur Kleinman:

Please.

Yanzhong Huang:

Just a followup of professor Bloom's remarks, could that be caused by the sense of complacency in this country? Because I had a chance to actually speak with a former director of US CDC and ask him this question, “Is us able to handle an outbreak like this?” I said, “Well, for Wuhan type of outbreak, yes we can. But we are not sure if it's like the nationwide type of outbreak.”

Arthur Kleinman:

Let's have other questions. Let's go up over here.

Speaker 10:

I'm curious because I don't think this has really come up, but all of these decisions and information and obfuscation happened around the time when people were about to get on airplanes and trains and cars and travel for Chinese New Year. So, I'm kind of curious about two things. One is, how much do you think there was a reluctance to interfere with the holiday that led to this decision to cover the thing up? And two, how much impact on the spread certainly within China is a direct result of all that travel that in fact took place?

Arthur Kleinman:

I think we can say that there's a lot of evidence to support your concerns. Anyone else? Yes, back over here.

Speaker 11:

Hi. Thank you. Earlier you all were talking about biting time at least in places outside of China. And one of the reasons is for the development of a vaccine. And recently a company, Moderna they put forward an RNA vaccine that they're wanting to try. But the general consensus is it's going to take about a year until we have an effective and safe vaccine. What can be done by the US and by China to try to speed up that process because a year at a 2% fatality is a lot of people dying.

Barry Bloom:

Maybe I could speak to that. One of the outcomes of the emergency preparedness infrastructure created in the previous administration was, how do we get companies to invest probably $1 billion per vaccine to create a vaccine for a disease we don't have and we don't know we'll ever have? And as you know, vaccines don't make very much money and come along with a lot of liability because people are fearful of vaccines, number one. And vaccines are relatively unique in the health business in that drugs go into people who are sick and there's a greater tolerance for risk if the choice is living or getting an adverse effect for two weeks. You'd prefer to live. Vaccines go into healthy people. That's by definition what their use is. So, one has to be enormously careful.

Barry Bloom:

So, BARDA which is an agency of the government that was designed to create public sector vaccines initially for anthrax to protect against bio-terrorism, also for, some other agents and linked up with the NIH and other agencies to oversee getting vaccines out for Ebola. The technical things that have happened since then are new scientific approaches to vaccines that once you have a DNA sequence it's a matter of days or weeks till you have a potential vaccine candidate. That's unprecedented in global history. Not every candidate vaccine will protect or provide the appropriate immune response, so you have to test it in mice and other animals. That takes time. And because you put vaccines into normal people you just can't go rush off sticking this stuff into people because there's an emergency that may go away on its own and then cause more harm than good.

Barry Bloom:

So, the second step is you have to test multiple candidates at multiple levels to see which ones have the best combination of antigens that might give protections in humans. And everybody in the pharmaceutical and vaccine business knows we could cure every disease of mice, but what they tell us doesn't always work in humans. So, you still have to do human trials. And one of the things we learned in the case of HIV, you can't use people in developing countries for guinea pigs. You have to use people within your own country, which means we have to deal with all the FDA regulations and rules here to provide enormous amounts of information on the quality and safety of the vaccine. In the case of Ebola, the vaccines were finally produced and able to be used in people essentially after the epidemic was over and people complained about that. That was a blessing.

Barry Bloom:

In fact, the vaccine was used, was found to be 100% protective of dealing with context of patients. And it was done in record time. But usually what happens is you invest vast amounts of time effort, and money. And if it's a seasonal or an outbreak that is under control from public health needs the companies who do this get no money or very little money. So, the limiting factors here, I think I would ask you to consider two things. We do need to consider safety. There are possibilities for waivers in desperate and crisis situations where people could get an

investigational drug license and agree to be a volunteer if they're sick and threatened to be a volunteer as everybody with Ebola was to accept a new vaccine, and the vaccine worked for Ebola, and it might work for here even though it hasn't been approved by the FDA or WHO or pre-qualify.

Barry Bloom:

The second thing I think I have to say that you haven't seen in the newspapers, there is a situation in dengue hemorrhagic fever where if you've had a prior exposure you're not only not protected against a second strain, the antibodies from the first accelerate infection and cause severe disease in the second. There's seven papers of other Coronaviruses that indicate that possibility, so called immune enhancement in some individuals could make things worse. So, the safety issues will be here and that's why Tony Fauci, who knows we could get the Moderna vaccine out in three months. And that was the target. The target for BARDA was 60 days to have a vaccine for a bio-terrorist event. The problem is the safety issue and I think it will have to be dealt with carefully.

Barry Bloom:

There are multiple vaccines being tested in China and I don't know enough about the safety restrictions. They're already going into people now, US vaccines.

Speaker 12:

Thank you. This is great. I'm so appreciative. My question is, what measure of … Thank you. What measure of confidence do you have in the current statistics now in China about degree of the incidence and mortality? And then with that, the decision of the Chinese government to encourage people to go back to work.

Barry Bloom:

I'm not the best person to talk about the second piece, but we were on the phone yesterday with the dean of the medical school in Hong Kong who was really on top of the numbers in the whole country. And he indicated looking at the data that he has recently seen and was skeptical about the numbers, and clearly the numbers were terrible, but at least the data he's seen from Guangdong and from Hong Kong, the numbers are pretty accurate at that level coming from the national health council.

Yanzhong Huang:

I second bury that in terms of the quality of the data, I think for a promise other than Hubei, I think the data confirmed cases, the deaths and fatalities are probably more accurate than those reported from Hubei and Wuhan also, that they did this exercise, because for time they actually divided the fatalities by the confirmed cases always like a perfect 2.1%. You know, like for almost 10 days. If you submit that to the paper for publication it's going to be rejected because that apparently doctors are so … But I think the data, the quality is indeed improving. But, I'm not sure to what extent nowadays given this incentive when to resume work and production how that is going to affect the quality of the data. In a certain, there's a very strong incentive now for Beijing to minimize the losses caused by those [inaudible 01:48:45] containment measures.

Barry Bloom:

Yeah, we, we've seen in SARS, in H1N1 in just about every epidemic from China, the management of data. And for this we know that there were a whole group of early reports that

the cases began not in December but in November, which is exactly the same time that the SARS began in November. So, I think being skeptical about the data from Wuhan and from Hubei I think especially is a good as good idea.

Winnie Chi-Man Yip:

I think on your question about returning to work and to school I thought that the graph that Barry draw show that if you relax and when you see the first reduction and relax you can see a second peak. And I think this is what is worrisome. But if you look at a lot of places in China they're not like Wuhan situation, but they are self-imposing themselves in terms of quarantine like as if they're in the Wuhan situation, which I think that could be moderate returning to activities, but then it's not completely them.

Arthur Kleinman:

Other questions? This is the Asia Center, so does anyone have any questions about the rest of Asia besides China I would point out that yesterday Korea exceeded China in the reporting of new cases for the day, and that Japan has a substantial epidemic underway and other Asian countries are kind of into the audience. Yes, are you going to ask about this?

Speaker 13:

My question is about South Korea right now because I'm from Mena University. We have students right now in South Korea are about to start a semester and they left before the current situation. It's level three right now. So we're wondering whether we need to bring them back. I think the debate about Italy and South Korea is that Italy, people are over anxious and South Korea knowing not too many people care about it in this country.

Arthur Kleinman:

Do you want to say something? Anyone want to … I think the point you're making is really important for us to take into account that China is not the only example today that, is this a prelude to a pandemic? My own feeling is, and I'd be interested in Barry's response to this, that actually we have the scientific data today to say this is a pandemic. That the data is being managed by WHO, which for a variety of political reasons does not yet want to call this a pandemic.

Yanzhong Huang:

They already said it's not going to declare a pandemic, because he's phased out from its category.

Barry Bloom:

So, the definition of a … People are fixated on the words. And I think this is an example where the words don't mean what you think they do. A pandemic means community spread in multiple continents. We could call this pandemic two weeks ago. There's no question that it has reached multiple continents. There hasn't been spread in Nigeria yet, but there will be. So the issue is, how to give countries time to prepare to be told that this is the top level crisis that we know how to put a label on. And if everybody has bought up all the masks and food and whatever, calling it a pandemic is not helping the populations if you can get them to think seriously about preparing in advance. And I think that's where Tedros has got a very narrow path to go through, and has been reluctant to create that kind of panic. In Korea we had the privilege of meeting a representative from the Korean consulate here.

Barry Bloom:

The government of Korea is very concerned and I just pointed out in my talk on one day they did 88,000 tests, which means they're not testing people just that went to hospital. They're testing people that might be in the community and spreading infection that have low level respiratory infection. I don't know any other country doing that. So, I think at the medical and scientific level, as far as I can tell, they're doing an awful lot of very important work.

Arthur Kleinman:

Other questions? Way back there. We'll take that question.

Speaker 14:

So, my parents ran out, we're still in north China and they were not allowed to move out their neighborhoods. So I was wonder whether the shut down city is all control and mobility is the only effective way to tackle the crisis. Also, months ago I went to over 20 CVS, all masks sold out. I would like to know, what's the risk, current risk Boston. Because in order to encourage us to prepare, but how can we prepare for these crisis? Thank you.

Barry Bloom:

Well, if you took my previous comments seriously, that surgical masks are not going to protect you against very much you're probably not missing much. On the issue of N95 masks they're in really short supply and the healthcare system has a stockpile. The federal government has a stockpile. And each city that had emergency planning has a stockpile for healthcare workers. And if you have to know one thing, if the healthcare workers start to die of an infection, then chaos follows because there is nowhere else to go and you've lost total trust in the ability of the government to protect you. So 3M stock that makes the N95 masks has gone up quite significantly in the last two days. So, the problem is recognized, but we are a couple of weeks behind the curve in that sense.

Arthur Kleinman:

We'll take one more question.

Elanah Uretsky:

I could add thing too. I think what the shortage in the run on masks in this country shows us I think that there's been at least six weeks where you haven't able to get a mask in a CVS. It shows us what our tolerance for risk has become. And it's become very low.

Arthur Kleinman:

It's an example of panic. We must be the example.

Speaker 15:

I was wondering about seasonality because the flu that this has been likened to has a seasonal influence, and also North South hemisphere because the summer up here is the winter down there. And just if you have any thoughts on that.

Barry Bloom:

So, lots of people are worrying about two things and one is seasonality. SARS went away, it started in the autumn and it went away in the summertime. Flu comes every year and it comes

starting in the fall and peak in the winter and goes away, not completely but away in the summer, and then it comes back. People would really like to know whether this infection is going to come back, and whether it has the same seasonality as SARS does. It's a related virus. There are obviously no data that anybody can provide and we really don't know. But Marc Lipsitch has done studies of cases in different parts of China versus Hong Kong, which is a tropical climate. Although in the hemisphere it's still winter time, and there is no evidence at this point that this virus shows any seasonality. And in seasonality, this coronavirus is like cold and dry climate. And SARS didn't like humid high, absolute humidity and warm temperatures.

Barry Bloom:

There's no evidence right now that definitively answers it. But there's no evidence that this will show the same kind of seasonality. So we really have to be dependent on the implementation of the social efforts to constrain spread.

Yanzhong Huang:

Just a quick jump in. I think if it indeed developed to become seasonal, I think it may not be a bad thing because it actually will help us to gain a better understanding of the virus, and then we'll have a more balanced objective assessment of the actual risk it poses. Because when you are like exposed for unknown novel virus you tend to treat it as what we call the dreaded risk. That you develop an exaggerated this assessment on how risky that is that it causes all this panic, anxiety. But once you learn to deal with that, you get used to that, especially when the vaccines antivirus become available, you're going to treat it like a seasonal influence.

Arthur Kleinman:

And on that note of more knowledge as needed, which is a good way in the university to end the session, thank you all for coming and thanks, the panel.