Minutes of Meeting

Theme: Risk Prevention for the COVID-19 in Fall and Winter—Suggestions based on the Characteristics of the COVID-19 and China' s Safety Strategies

Meeting time: Sept 18th 2020，19:00-20:30 (GMT+8)

Venue: Zoom

Meeting content:

Part I: Technical Seminar

Host's saying hello and asking members to introduce each other.

Sharer: Professor Li Jiayuan (Doctoral Advisor in Sichuan University)

Subject: Key points of the China' s Scientific Prevention against COVID-19 in Fall and Winter

Host:

Let's welcome Prof. Li.

Prof. Li：

Hello, everyone, I am Li Jiayuan works in West China University of medical science, located in Sichuan province, and I live in Chengdu. My major is epidemiology, I am honored to share some experiences with all the friends here.

Host:

Prof. Chen, would you like to introduce yourself?

Prof. Chen:

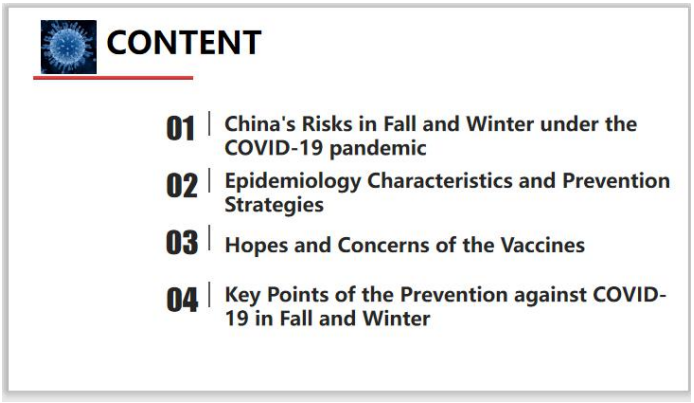
Hello everyone, I am Chen Duqiang. I'm happy to be here and it's been a long time since the last time I've been here. Hope everyone can have a wonderful weekend. Thank you!

Host:

Nice to meet you all. Our topic is "Risk Prevention for the COVID-19 in Fall and Winter—Suggestions based on the Characteristics of the COVID-19 and China' s Safety Strategies." Our first guest is Pro. Li, and she will introduce key points of the China' s Scientific Prevention against COVID-19 in Fall and Winter. Please, Pro. Li.

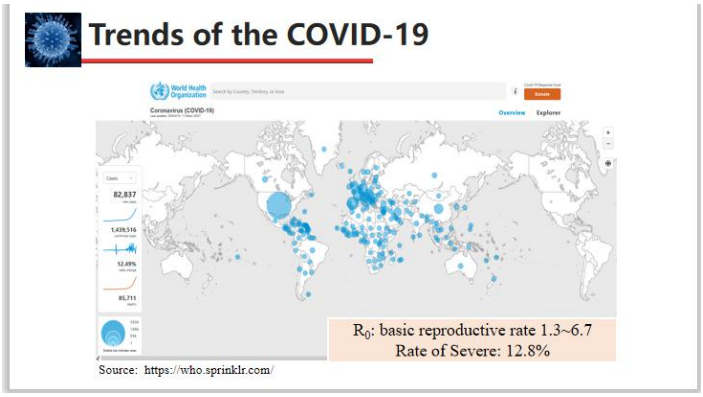
Prof. Li

During this pandemic in 2020, I participated in some work of checking the information of the epidemiology and some investigations. I know some experiment from the government and the community. Here are four contents:

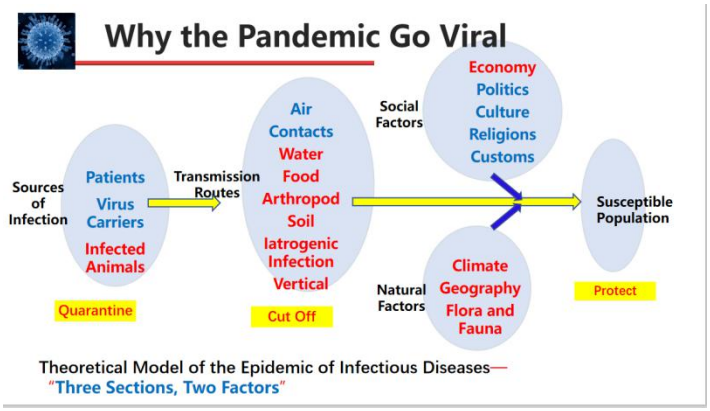


1. China's Risks in Fall and Winter under the COVID-19 Pandemic:

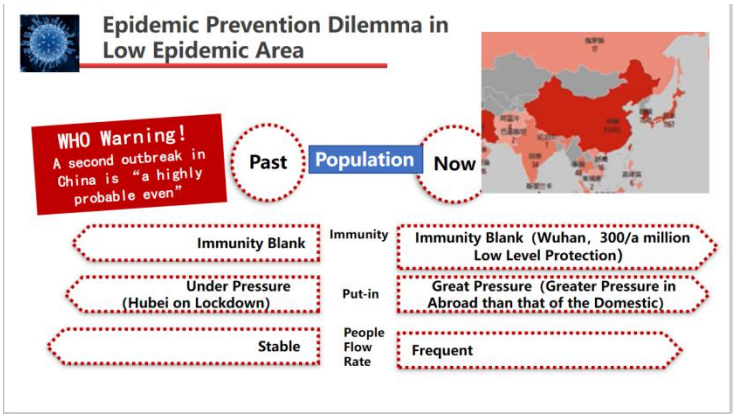
Here is the map of spread of covid-19 from the WHO website.



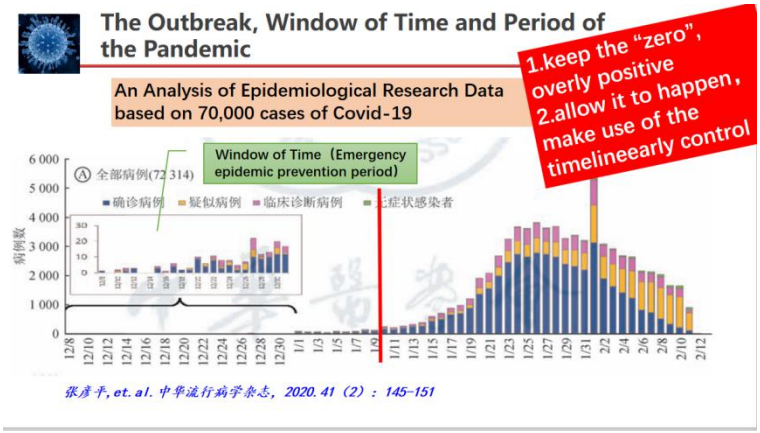
I want to show this basic reproduction number is from 1.3-6.7 in China. It shows that the pandemic is serious in Wuhan in February. It means that one can infect 7 people.



Here is the typical model for the transmission of diseases. There is the "three sections, two factors" model. These sections are sources of infection, transmission routes and the susceptible population. We need to cut off the transmission route to prevent the spread of the disease. From the sources of infections, we need to isolate the confirm cases and protect the susceptible population.

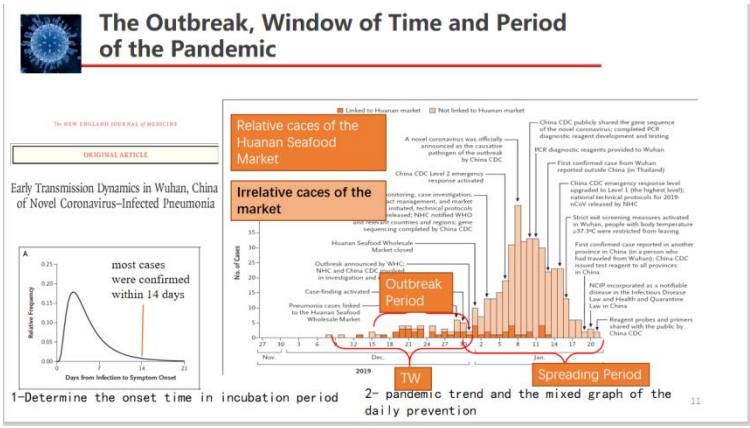


In this slide, we compare the different period of our country. We can see the situation is Wuhan in February and the situation now. There are some burdens we care facing now. When covid-19 broke out in Wuhan, we facing a "immunity blank". The city was not under great pressure because there was not a flow of population. There is still a huge immunity blank among China's population.

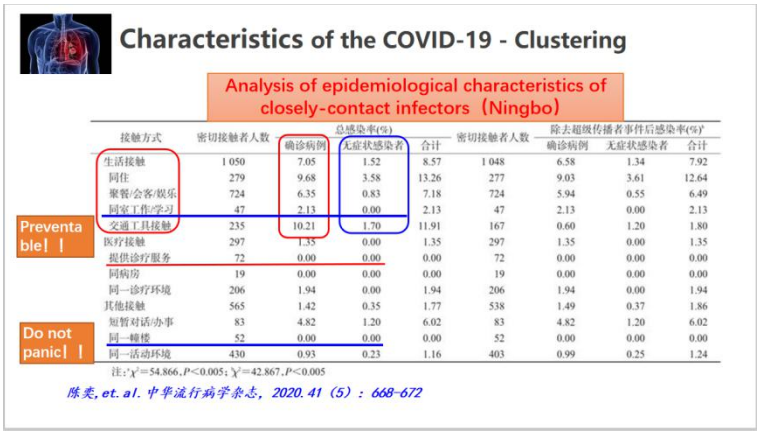


This is the analysis report based on 70,000 cases in China. We can see from this picture that there is a clear "window of time". In this period of time, the increase of the confirmed cases is comparatively slow. After that, the growth surged drastically. The government prevention activities are to take early measures to prevent the spread of the disease. So we would like to cut off the spread before the red line.

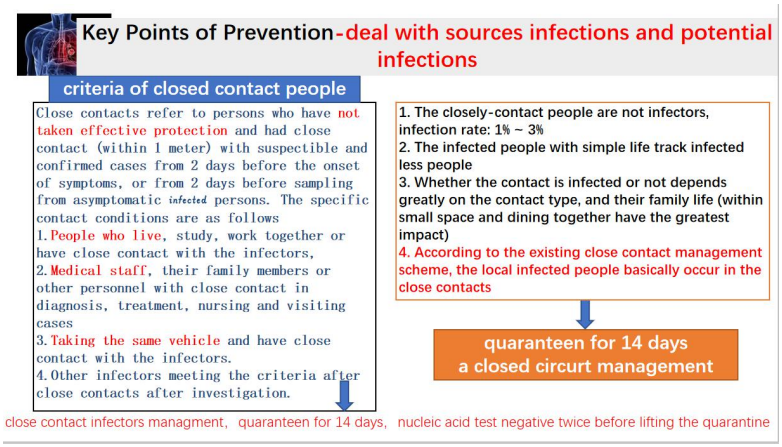
2. Epidemiology Characteristics and Prevention Strategies



There are some characteristics of the covid-19 that spread in China. The bottom-left picture shows the incubation period is from 1 to 21 days. The time for medical isolation is based on this graph from 1 to 14 days.

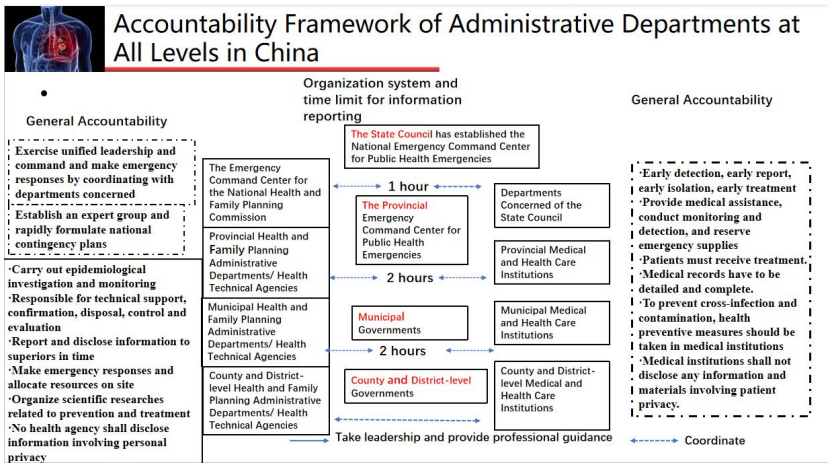


Here is report that shows the research of the characteristics of the closely-contact infectors in China. The information is the red frames shows that there are great possibilities to get infected when living together. Happily, we can see that the medical and nursing staff under protections are not likely to get infected by the disease. People who live in the same building are not get infected. So we can draw the conclusion that there are certain conditions for the spread of the covid-19.

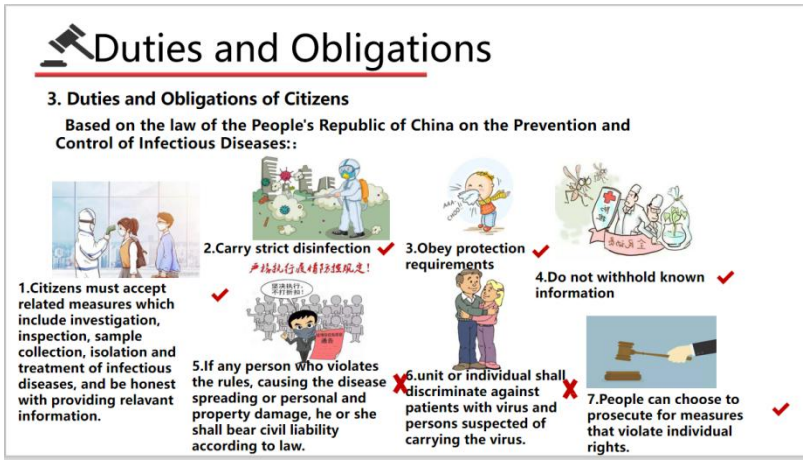


This is a booklet of China's prevention strategies. There are a clear criteria of the definition of the closely contact infectors. Firstly, it refers to the family members who live together. Secondly, it refers to the medical and nursing staff in the hospital. Then, the people share some transportation and others. People without any prevention measures can be regard as closely contact infectors. However, not all of them suit for this definition. If we have a clear transmission route, we can easily control the infectors.

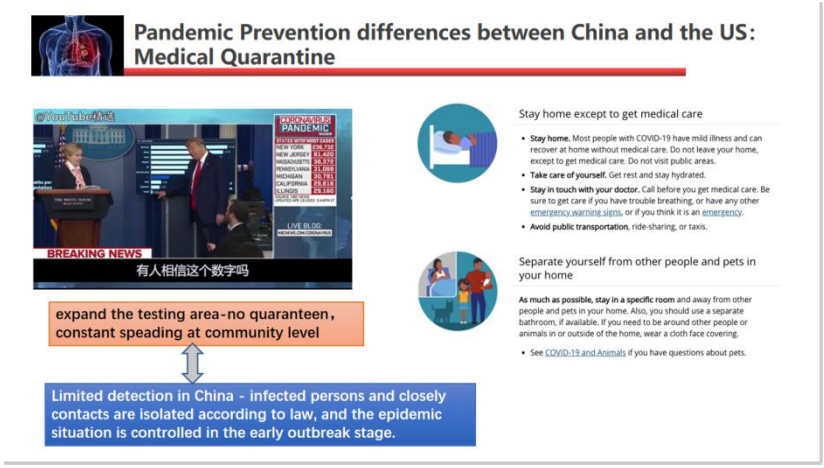
There are 40,000 people in Sichuan under the isolation accroding to this criteria, and there were over 200 people infected. The total confirmed cases in Sichan is about 500 people. We can say that our prevention is effective and this is what we called "the closed circuit management" in China. The key is to managing closely contact infectors.



This is China's the prevention framework. Each department has their own obligations and limited time. The key is to find the infectors and isolate them at early stage.

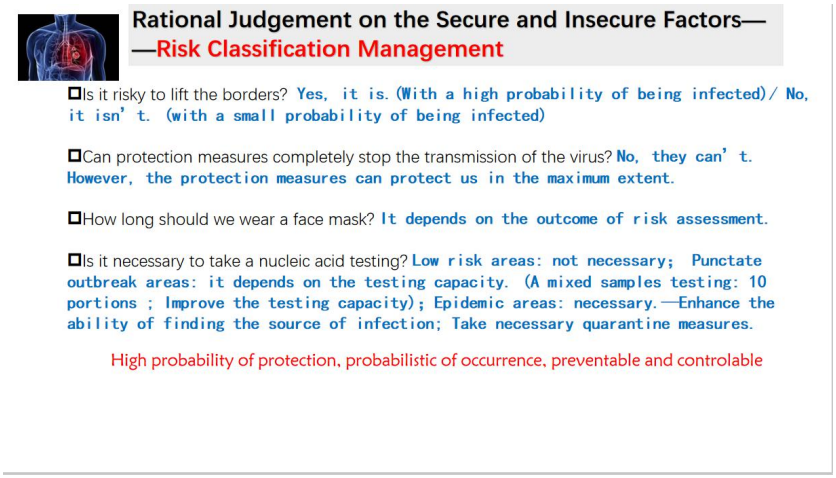


These are some specific regulations to limit citizen's activities. The first rule is that citizens must accept related measures which include investigation, inspection and isolation and treatment. Rule No. 6 mentioned some anti-discrimination protections against the patients. China takes mandatory actions towards infectors.



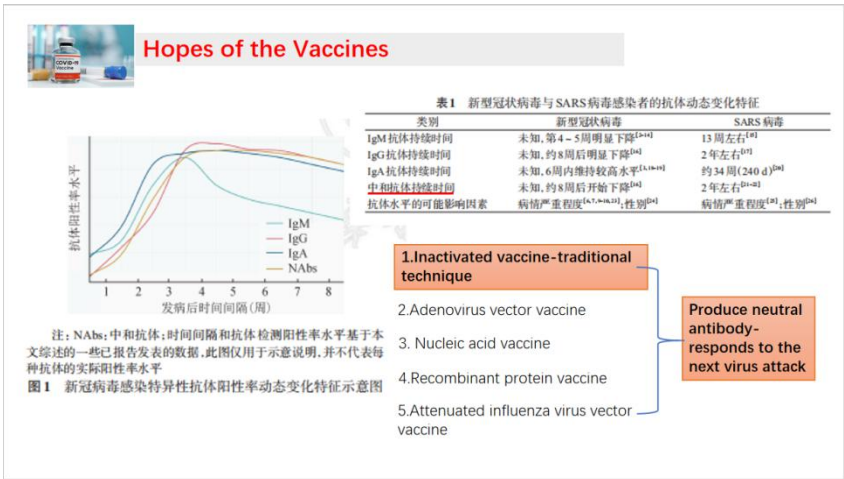
We have looked up from the US's CDC and found the guidelines. We share similarities from some certain respects but they do not have a strict control over the patients of mild symptoms and infectors. They suggested that the

patients of mild symptoms and asymptoms need to stay at home without the actual isolations. So we believed that although the number of the testing is large, the US did not take effective measures to manage the infectors.

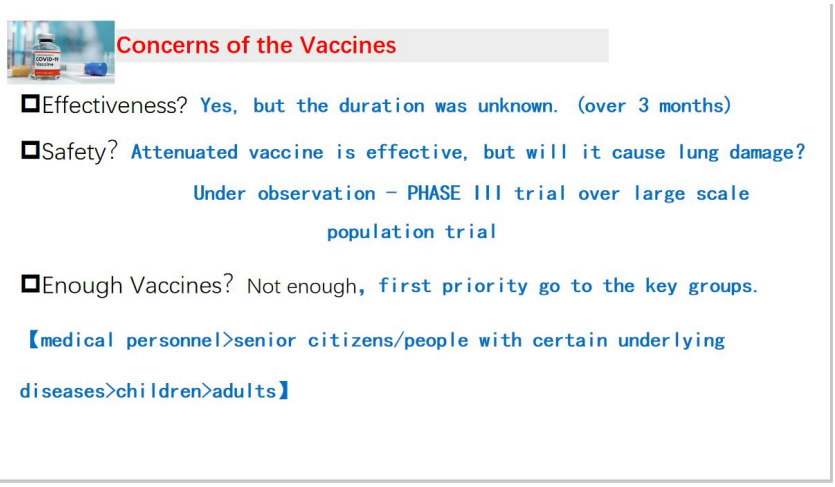


China is of a high probability of being infected if we reopen the borders, meaning that there is a potential second outbreak. The current preventions including isolation and social distancing can not successfully cut off the transmission route. So is it necessary to take a nucleic acid testing? We believed that in low risk areas, it is not necessary; areas of mid-risks: it depends on the testing capacity. (A mixed samples testing, in order to improve the testing capacity); in epidemic areas: it is necessary. Those areas need to enhance the ability of finding the source of infection and take necessary quarantine measures.

3. Hopes and Concerns of the Vaccines:



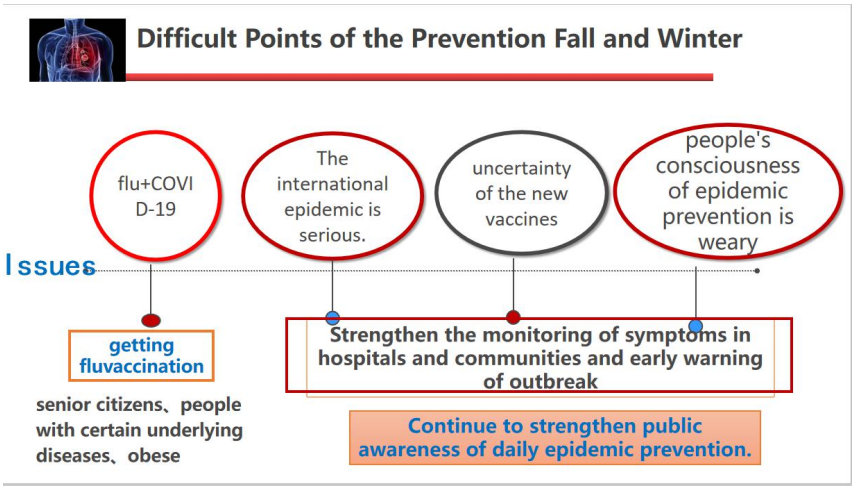
There are three types of vaccines ready for the Phase III trial. There's a large population expected that the vaccine will protect all the population. But we see from the reports that the duration of the vaccines is limited and we will witness a notable drop three months later after the vaccination. This is a bad news which means that we will probably get vaccinated frequently. The institutions need to come up with the vaccines with longer effectiveness.



We still have concerns over the vaccines' effectiveness, safety and if there will be enough vaccines.

4. Key Points of the Prevention against COVID-19 in Fall and Winter:

There will be some difficulties for disease prevention in fall and winter.



Flu will come up with covid-19 to infect more people. For senior citizens,people with certain underlying diseases and obese, we suggest them to get flu vaccination. In the international communities, the epidemic is still serious, there are uncertainties of the new vaccines and people's consciousness of epidemic prevention is weary. The government measures are still to strengthen the monitoring of symptoms in hospitals and communities.

Prevention Measures- "five early measures"+Cut off+Protections

Characteristics and Risks of COVID-19		Prevention Measures (Schools in Low Risks Areas)
Sources of Infections (rare)	➢ Pneumonia patients infected with the virus ; ➢ **Asymptomatic infection can also be used as a source of infection (limited spreading)** ➢ patients in recovery	Principles: early detection (screening symptom), early diagnosis, early report, early isolation and early treatment ("five early" measures) **1. Symptom monitoring of teachers, students and other staff: morning and daily examinations (temperature measurement, respiratory symptoms observation)** **2. Home-school cooperation: parents should observe students before entering school, and those with symptoms will not enter the school** **3. Properly carry out community testing and try to find potential sources of infection when there are cases of outbreak** **4. Manage and track the itinerary of close contacts.**
Susceptible sources	People of close contact. Those who have contact with cases or asymptomatic infection but have not taken effective protection.	
Latent Period	3-7days, no longer than 14 days	basis of quarantine for 14 days
Transmissions	1. Droplet transmission + 2. Contact transmission (main route) 3. In a relatively closed environment, when exposed to high concentrations of aerosols for a long time, there is the possibility of transmission through aerosols 4. "Since the virus can be isolated from feces and urine, we should pay attention to the environmental pollution caused by feces and urine, which will cause aerosol or contact transmission."	Health education + environmental protection: cutting off transmission channels- The most effective measures in the next two years 1.Keep social distance 2.Wearing masks in crowded and closed places [hospitals, cinemas, public transport, etc.] 3.Vigorously promote serving chopsticks and spoons 4.Chef health monitoring + separate meals in different periods 5.Disinfection of key places (canteen, toilet environment disinfection) 6.Washing hands and ventilation
susceptibility	new virus: commonly susceptible; strong household clustering	**Get vaccinated against influenza and pneumonia to avoid superinfection and wait for COVID-19 vaccines**

This is our prevention suggestions. We will mainly talk about how to cut off the transmission route. The first priority still goes to the social distancing. In closed and crowded areas, we should always wear masks for over 50% of the patient whose first symptom is not fever. This is the result of our investigation from the early stage. The third point is crucial to promote serving chopsticks and spoons. We can see that in restaurants, people get together and did not using serving chopsticks. For the general population, get flu and pneumonia vaccinated can reduce the risk of getting infected. We will patiently wait for vaccines.

Host:

Thank you Prof. Li. Doctor Imran, would you like to make a comment?

Imran:

Yes, I was listen carefully to Pro. Li's detailed speech and it's fruitful for all of us. Most of us learned from the news and definitely from China. We are still not sure about the virus although it's been 9 months since the outbreak. People have concerns for the future and the doctors said that we wait for the vaccines so it's very important. The vaccines are still far away so before they come to the market, the best thing we can do is follow the doctor's advice and keep our social distance. Every country is facing this virus, for example, my country, people are not listening to the advice and the government policies are not strict. However, people in China follow the rules and this is why the virus spread quickly in my country. Many doctors and scientists are saying that the cases will increase in fall and winter. They mentioned that the virus can mixed with flu so this is what we concerned. From my personal experience, i think the most effective way is just follow the procedure, guaranteeing and social distancing are the best ways and follow what the doctors are saying. Once the winter is over I think we will all be safe.

Prof. Li:

I agree. Social distancing and wearing masks are the most effective ways. In China, few people follow these rules because we feel safe and there are few cases now. It can also be dangerous if the virus come back again.

Imran:

One more point I want to add as you said the vaccines. The virus is not follow the normal rate, it infected quickly. As you said 1 can infected 7 people, and sometimes there are asymptomatic case that I may feel healthy, but I am actually infected and can transmit to everyone. That's why it's important and scientists should come up with new vaccines as soon as possible. Without vaccines, I think we will have a difficult time.

Prof. Li:

Even with the vaccine, we should be cautious about the pandemic. After the injection of the vaccines, we need to wait for 7-21 days for the antibodies. I think the best ways to protect ourselves is still social distancing.

Host:

Other friends wanted to share some experiences?

Zou:

I just went back from Nepal where the virus is prevailing, so I think our meeting is useful for them. This country does not have strict prevention rules so we can provide suggestions for the Nepali government. Nepali is close to India where is experiencing an outbreak of the virus. This is a dangerous place and I worried about these people because I have already worked here for 5 years. You are welcomed to offer any suggestions to me.

Prof. Li:

My suggestions are insolation and social distancing. Masks are also important, in China, in March and April, no medical staff were infected. I strongly suggest that.

Prof. Zou:

Nepal is near China and an important component of South Asia. Last time, I was informed by Indian professors by their NGO works and government works. I hope people can draw the attention to this area. Bangladesh is under control and I hope to invite more expert from South Asia so that we can focus on this area. Thank you. I just came back and there are 2,000 cases in Kathmandu. So I hope this virus will end quickly. Thank you for your sharing, thank you.

Host:

Thank you, Pro. Li, Pro. Zou. Let's move to the next part. Please welcome. Prof. Chen.

Sharer: Chen Duqiang, New Century Institute of Education Safety Science and Technology Executive President

Subject: Risk Prevention for the COVID-19 in Fall and Winter—Suggestions based on the Characteristics of the COVID-19 and China's Safety Strategies

1. From a higher understanding of the severe situation of the autumn and winter epidemic

The epidemic prevention situation in autumn and winter will be more severe and complicated: first of all, based on the existing knowledge of respiratory infectious diseases such as COVID-19, it generally continues to spread from the end of autumn to the end of spring of the following year. Therefore, the COVID-19, which is also a respiratory infectious disease, is more likely to form an epidemic peak in the autumn; secondly, other respiratory infectious diseases such as influenza will also form a peak of epidemic in the autumn. We will face multiple shocks, and the new COVID-19 virus may "take advantage of its weakness"; currently, Brazil, Australia, New Zealand and other countries in the southern hemisphere have seen cases of COVID-19 superimposed on influenza.

Specific measures: The first is the individual level. “Wear a mask, wash your hands frequently, and maintain social distancing." Respiratory infectious diseases such as COVID-19 and influenza are mainly spread through droplets. Facts have proved that these practices can effectively protect people themselves. We have noticed that some cities in France, the Netherlands, Greece, Australia and other countries have successively enforced the "mask order." The second is the group level. It is recommended that the elderly and patients with chronic diseases may wish to vaccinate the existing Streptococcus pneumonia vaccine and influenza vaccine to strengthen protection according to the actual situation. The third is the social level. Strictly implement normalized prevention and control measures. Combining the seasonal characteristics of the high incidence of respiratory infectious diseases in autumn and winter, giving full play to the linkage between the central government, local governments, and communities, the prevention and control of the COVID-19 should be done in different levels.

2. What should we take to respond to the community as a unit?

Community is the place where we live, so urban communities are the crucial part of COVID-19 prevention and control. For the prevention and control of infectious diseases, there are three important basic links, that is, controlling the source of infection, cutting off the route of transmission, and protecting susceptible people. The actions taken by a country or region on these three points will ultimately affect the outcome of the fight against the epidemic; When a region cannot effectively grasp and control the spreader, the next epidemic will intensify. We need to notice that although the government has announced various measures, whether the desired results can be achieved still depends on whether the people can cooperate. Therefore, epidemic prevention work in urban communities ultimately plays a vital role in the prevention and control of the COVID-19.

There are communities in every country and region, and these communities also have differences in one way or another. I would like to take the Chinese community as an example to provide you with an action plan that you can learn from. In China, the residents committees in urban communities are grass- roots mass autonomous organizations for self-management, self- education, and self-service by residents.” The residents committees play an increasingly important role in the construction and service of urban grass-roots communities. Their current practical functions are a government and various agencies dispatched by relevant departments undertake a large number of administrative tasks.

Most of the prevention and control measures will be implemented in the community, without which, it is impossible for China to achieve positive results in the prevention and control of the new crown epidemic. Encouraging achievements have been made in the early stage, but a huge price has been paid. In the face of the prevention and control of infectious diseases in the autumn and winter seasons, and in the face of a grim future, the

importance of community prevention and control is unquestionable. The capacity building of the community must be improved in a great level.

Basic preparations for the prevention and control of COVID-19 in urban communities. We are not only facing the COVID-19, in fact, the fight against the diseases is a long and arduous one. It may be foreseen that we will face more and greater challenges! We need to make residents realize the positive significance of community sanitation and environmental management for the prevention and control of infectious diseases. Understand the basic transmission principles, symptoms and preventive measures of major infectious diseases including the COVID-19.

Establish a common protocol for residents in community sanitation and environmental governance, and gradually form good habits. Supporting basic facilities, such as: public hand wash basins, garbage collection and treatment facilities, preparation of common protective equipment, etc. Emergency plan for community public health incidents.

Community business, public welfare and mutual assistance among residents. Solving isolation and reducing the basic necessities of life such as clothing, food, transportation and shopping for residents in the situation of going out and gathering, without significantly reducing the quality of life; Return to the affected area for personnel management. Registration, physical examination, self-isolation, follow-up observation. Publicity and education, environmental governance, medical information, material preparation, etc.

Introduction of Puyuan Road Community Epidemic Prevention and Anti-epidemic Project: According to the characteristics of Chinese social management, combining the basic work of the community, effectively implementing the basic actions of the community, starting from improving the capacity of community neighborhood committees, community self-organization, and courtyards, so that they can achieve a high degree of matching to deal with the COVID-19 and other possible occurrences prevention and control of infectious diseases. The specific activities: 1. Conduct the discovery, identification, and prevention of Class A, B, and C infectious diseases for community staff, main members of community self- organization, heads and backbones of hospitals, and conduct knowledge training and practical skills teaching for hospital environmental sanitation management. The self-organizing staff and the head of the courtyard (the head of the building, the backbone), under the guidance of professionals, sorted out the development of environmental sanitation management and sanitation and epidemic prevention in each courtyard. Discuss specific countermeasures according to the different situations of each courtyard. According to the results of the previous work, organize the compilation of the "Puyuan Road Community Courtyard Sanitation and Epidemic Prevention Knowledge Propaganda and Environmental Governance Regulations" manual and distribute it to each household. Each courtyard conducts 1-3 trainings and skills teaching for courtyard families. Cover at least 60% of families in the courtyard.

We believe that China has been relatively successful in the prevention and control of COVID-19. The basic preparations and response measures

of the community are also suitable for China's specific national conditions. Our project is to consolidate the foundation of the community, build an actionable team in the most basic community, effectively respond to the COVID-19, and prepare for other public health events that may occur in the future. Thank you!

Prof. Atsumi:

Thank you very much for your wonderful presentation. I'm very impressed with your presentation. Please being that presentation to Japan and share those ideas with Japanese people too. I think it is very important to train people in communities after COVID-19. We have some ideas about natural disasters but little in COVID-19. One question is, the education related natural disasters and COVID-19 are pretty similar, but at the same time, very different, so to you, what's the difference?

Prof. Chen:

Natural disasters are easy to observe, while COVID-19 is not. At least it is difficult for ordinary residents to recognize. For example, different infectious diseases will have similar reactions. Without professional knowledge, it is obviously difficult for us to deal with it. Therefore, community awareness training is very important.

Jennifer Liu (刘欢宇)

Fiona (高榕璞)