



**World Health
Organization**

**Transcript of virtual press conference with
Gregory Hartl, spokesperson, and Dr Marie-Paule Kieny,
Director of the Initiative for Vaccine Research
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Gregory Hartl: Welcome to WHO's daily 17:00 o'clock briefing. My name is Gregory Hartl, I am the Spokesperson for WHO and next to me is Dr Marie-Paule Kieny, the Director of the Initiative for Vaccine Research in WHO, who will be giving you a technical briefing in a couple of minutes on pandemic vaccine development. First of all, I would just quickly like to summarize the latest figures we have as of 14:20 GMT, it's about 45 minutes ago. We had 11 countries officially reporting 331 cases of influenza A(H1N1) infection with 10 deaths. They come from the following countries: United States has 109 cases with 1 death; Mexico has 156 cases with 9 deaths; Austria 1 case; Canada 34 cases; Germany 3 cases; the Netherlands 1 case; New Zealand 3 cases; Spain 13 cases; Switzerland 1 case; United Kingdom 8 cases. Thank you very much. I now turn over to Dr Marie-Paule Kieny.

Marie-Paule Kieny: Good afternoon, good evening, good morning. It's a pleasure to do this first briefing on vaccine against influenza A(H1N1).

Why are we so interested in vaccines against this new virus? It is because we all know that vaccines are an extremely effective public health tool and in addition, vaccines against seasonal influenza are protective against the death – in severe disease – of millions of people every year. So, therefore, it is generally recognized and accepted that it would be critically important to have a vaccine if you want to stop the pandemic that might be coming with this virus.

Let me first go into the development of this new vaccine so that you know where we are in this development, and let's just deal with this issue of knowing whether the seasonal vaccine, as it is, would be effective against influenza A(H1N1). As you know, some of you know, the seasonal vaccine is composed of three components, and one of these components is also called H1N1 and this virus has been circulated in the human population for many years, but it is quite different from the one that is circulating now. But in order to assess whether vaccination with seasonal vaccine would be effective or not, serum from vaccinated people has been tested by the US CDC in Atlanta, and for the time being, the results show that there is very little chance that seasonal vaccines as they are used in their vast majority in all countries of the world, would be effective against this particular virus. Why do I say “in the vast majority”? It is because there are still tests going on some very specific preparations that have been made, using what is called an adjuvant or (...) adjuvant that is a “booster” if you wish for a vaccine, and on serum from people who had been vaccinated against seasonal influenza with vaccine containing this booster. The serum from these people is still testing at the US CDC and we will know in a few days whether this particular seasonal vaccine could be potentially protective against influenza A(H1N1). Apart from that, the current opinion and consensus of the experts and the scientists is that

there would be no protection awarded by this vaccine. Now, why are we sure that a new vaccine will be successful? Are we sure that we will get a new vaccine? As you know, for some diseases, it has been painfully slow to develop vaccine – like HIV for example. I think that for this particular vaccine there is no uncertainty because there is tremendous experience in the vaccine industry to make vaccine against both seasonal influenza and also against the avian H5N1 virus. Those of you who followed this topic might know that it was initially very difficult to make vaccine that are thought to be effective against H5N1, and that the industry has succeeded in making it.

So based on these two pieces of extensive experience, we have no doubt that making a successful vaccine is possible within a relatively short period of time. What is a relatively short period of time when a pandemic is imminent? Of course, we would like to have a vaccine tomorrow, we would have wanted to have it yesterday. The reality is that from the time the potentially pandemic virus is identified, it takes between 4 to 6 months to have the first doses of vaccine coming out of the factory and be available for immunizing people.

Why does it take so long? Well, it's a long journey. Even if you know by heart all the steps, you know that you are going to get there, it is still a long journey.

So what are the main steps? You first need to isolate the virus, this is done. Then, when you have a virus, you need to adapt it to make vaccines, you need to tweak it. And these steps, which are going on now at the US CDC as well as in many WHO Collaborating Centres, are to adapt this virus to produce vaccine. This will be done, we think, by mid- or end of May. So then, the starting material to make vaccine will be ready. It will immediately be shipped to the manufacturers, and the manufacturers will immediately put it in their laboratories and fine-tune to adapt it to their particular production methodology. After that, they will inoculate eggs. Indeed, the technology to make influenza vaccine is based on the inoculation, with virus, of embryologic eggs – or of cell culture but it is not so important in terms of volume right now. Then, they let the virus grow in the eggs, they harvest the virus in the eggs; they need to kill the virus because of course, you don't want to inject live virus to the population and they do then what is called “formulate”. They will mix it with various of these boosters and they will make various formulations, as it is called, with different levels of dosage. All these candidate vaccines – we are at the stage where we have candidate vaccine that can be tested in humans – will be submitted to very strict quality control and will be evaluated in humans through clinical trials. Why is that? It's because if you inject a potential vaccine in a mouse, the response of the mouse doesn't tell you anything. It doesn't tell you if it will work in human. So the obligatory step will be to test it in humans, in clinical trials, and following this, national regulatory authorities will need to register to put their approval on this vaccine before it can be made available to all. This is absolutely mandatory and obligatory because by no means do we want to compromise the safety of otherwise healthy people by inoculating them with a product that would not have all the guarantees of safety and quality. These are all the reasons why it might take, it will take, between 4 to 6 months between the time the virus is isolated to the availability of the first dose. I'm very happy to listen to and try to answer to the best of my possible knowledge to any questions that you might have.