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**Pandemic 2009-10 - ECDC’s future look and risk assessment**

*Introduction*

Your Royal Highness, President in Office, Commissioner Vassiliou, Ministers,

When I last spoke to you on April 30th the first people with the pandemic virus had only just reached Europe. Now 10 weeks later, despite influenza usually transmitting poorly in spring and summer the virus has moved quickly. It is establishing itself in parts of Europe and applying my Centre’s criteria the first of our countries are affected.
Today I would like to present to you our future look of how Europe will probably be affected over the summer, autumn and into the winter, in doing so picking up the conclusions of the excellent Swedish Presidency Meeting on July 2nd & 3rd. First I will do this assuming that what we are seeing now continues. That this continues to be a moderate pandemic and I will call this the ‘Current Scenario’. Then I will briefly present to you a second ‘Worsening Scenario’ in case the virus becomes more pathogenic as is it did in 1918-19. Of course other scenarios are possible such as if antiviral resistance is added to the Current Scenario.

**Future look at the threat from the Pandemic 2009-2010 –**

**Over the summer, autumn and winter – ‘Current Scenario’**

Looking at the current scenario, we will observe outbreaks
occuring at different dates in different European countries throughout the summer. Though we cannot predict when the first real waves will affect each country, but they will come. (Figure 1)

This theoretical view of a national first wave (Figure 2) with its four phases (initiation, acceleration, peak and declining) is idealised here. One country, the UK seems to be at the start of an acceleration phase and its authorities project that if things continue unchanged they could be experiencing up to 100,000 cases a day already by the end of August. I am very grateful to the UK officials for letting me use this projection. (Figure 3) So if we think that the pandemic will wait till the October and November that could be overly optimistic. There is not a lot of time for final preparations. We have to do it now!

Incidentally reality is never that simple or tidy as the
idealised wave. For example as you see here (Figure 4) local peaks will be lower or higher than the overall national peak and not all parts of our countries will be affected simultaneously. This is why planning guidance for local hospitals has to take this into consideration.

There is positive news though. So far the majority of infected people have only a mild illness and do not even need to go to the doctor. Also it remains the case that older people (over 60 years) are relatively unaffected.

However the experience of the UK shows that contact tracing and containment are unsustainable at a certain moment – and in line with the epidemiological situation, countries will have to switch to treatment or mitigation.

The Autumn and Winter, however, will be entirely different, when the main wave comes, even under the Current
Scenario. The numbers infected so far in Europe must be well under 1% of the population; in the Autumn and Winter, however, we expect at least 20% of the population to be affected in a pandemic. There will be in addition the other usual ‘winter pressures’ on the health services, from seasonal influenza, other viruses and the effects of colder weather. Even under the Current Scenario you can see from these pyramids comparing Seasonal and Pandemic Influenza (Figure 5) how pressures will rise on the health services with many more people requiring hospital care; and there will be death. Hence the conclusion last week that countries will need to prepare their primary and secondary health services to absorb these numbers.

The Higher Risk Groups

From the experience of the USA it seems there are three groups of people who are at higher risk of experiencing severe disease when infected:
o People with certain chronic conditions (respiratory disease, diabetes and other conditions that suppress immunity)

o Pregnant women

o Young children (especially under age 2)

These higher risk groups need to receive antivirals early and pandemic vaccines as they become available and licensed; this may be earlier for the adults than for children and pregnant women. We need to confirm that these are also the risk groups in Europe and in a workshop with Member States and WHO on July 14-15th ECDC will propose new arrangements for surveillance to do just that. Incidentally we estimate that at any one time there are around 60 million such people in Europe. The implication of this is the challenge to ensure that all the people in those groups are able to get prompt treatment ahead of others when they fall sick. Prioritising them and those who provide essential
services for early treatment, perhaps even for prophylaxis and certainly for the pandemic vaccine when it becomes available and licensed for them will potentially prevent many hospital admissions and deaths.

**Surveillance in a pandemic in Europe – A future look**

As the pandemic progresses in Europe, the objective of surveillance activities will move away from the reporting of numbers as they rarely inform policy and practice. It will be much more important to monitor the intensity of influenza activity, its geographical spread, trends over time, risk groups, mortality and severity; strain circulation and changes of the virus characteristics (antiviral resistance and virulence). The meeting ECDC will hold on July 14-15 will agree a strategy with your specialists.
Health communication challenges

It will be important to communicate with the public and professionals on the basis of science and what the public is thinking and feeling. Some member states already undertake small surveys to measure the knowledge, perceptions and attitudes of national citizens and we should share that evidence to support sound decisions on what, how and when to communicate.

Remaining uncertainties and the Worsening Scenario

I am afraid there remain a number of uncertainties. That is the nature of influenza and pandemics:

- How effective are the antivirals and will antiviral resistance emerge?
o What will be the mix of the seasonal flu and the current pandemic virus? We are studying the data from the south carefully for this.

o Will the virus stay just a moderate strain?

On this last point Europe should also consider another scenario. That of the virus changing for the worst, perhaps becoming more pathogenic as it did in 1918-19 (Figure 6) when a small wave of deaths in the Spring and Summer was followed by wave of a much more virulent virus in the autumn. ECDC does not consider it likely that the 1918-19 pattern will repeat itself but the precautionary principle dictates that we must be prepared for a worsening scenario and a more virulent and pathogenic strain when it returns from its “holiday “ in the Southern Hemisphere. Thus we have to use the little time left at our disposal to finish the
preparedness, the planning of the mitigation phase and all control measures that can save lives.

**Solidarity with the Developing World**

It is also essential to have solidarity with the less well off countries around the world and do our utmost to support them.

Finally: we all invested a lot into pandemic preparedness since 2005. Now we know it was the best investment! We have a tough 12 months ahead of us, but we will go through it together!

You can always count on ECDC’s support!!!

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