



REPORT FOR POLICYMAKERS

**Pandemic Preparedness in the
European Union, Autumn 2007**



EXECUTIVE SUMMARY

Since 2005, the EU and all its Member States (together with those others in the European Economic Area) have made unprecedented progress in strengthening European preparedness against the next pandemic. The health sectors in all countries have developed preparedness plans and, at national level, much is being done to make these plans operational. Arguably Europe is the best prepared region in the world.

There has been no reduction in the threat of a pandemic. All that has changed since 2005 is that we are two years nearer the next pandemic, and citizens might expect to be as protected as they can be by now. That is not yet the case, reflecting the fact that preparing complex countries for a pandemic takes at least five years of sustained effort. It is a fact that European countries as a whole are only half way to being properly prepared. That is a view supported by the accompanying Technical Report on European Pandemic Preparedness prepared by the European Centre for Disease Prevention and Control (ECDC), and by the self-assessment of Member States.

ECDC estimates that a further two to three years of sustained effort and investment are needed by the EU and its Member States to achieve the level of preparedness needed to respond well to a pandemic. This means reaching a level of preparedness where citizens can be confident that when the inevitable pandemic comes:

- primary care systems will be able to deliver treatments like antivirals and antibiotics to most of those who need them, when they need them;
- hospital systems will be able to deliver acute care to the sickest influenza patients as well as continuing to provide essential treatment for non-influenza-related conditions despite inevitable high levels of staff sickness;
- essential services like power, food and fuel supplies will continue to function at the local level;
- pandemic vaccine will start to arrive in the hands of primary care services within six months of the pandemic and there will then be enough seasonal vaccine each year after that when annual epidemics of influenza can be expected to be more intense.

Much remains to be done by EU structures and Member States. Five key areas on which Member States are particularly recommended to focus are: 1. Integrated planning and preparation across governments and sectors; 2. Making plans operational at the local level; 3. Ensuring inter-operability at the national and regional levels (that countries work together before and during a pandemic); 4. Stepping up prevention efforts against seasonal influenza, especially through vaccination; and 5. Extending and better directing influenza research to answer key questions.

In summary, by continuing to act together, Member States and the European Commission, supported by EU Agencies like ECDC, have made great progress in preparing Europe for a pandemic. However, the work is not yet finished and there is a danger that without completion the initial work will not be translated into real protection for EU citizens when the inevitable pandemic comes. A further two to three years of intense work are needed at all levels, but especially at the local level, and by all European partners in order to finish the job.



INTRODUCTION

Accompanying this document is the Final Report of ECDC's assessment of the state of preparedness of the European Union (and other European Economic Area States) for the next influenza pandemic.¹ The preparedness status is as of autumn 2007. This assessment has been based on:

- formal surveys undertaken by ECDC in the Autumns of 2006 and 2007;
- a unique programme of standardised self-assessment visits that ECDC-led teams have undertaken with all thirty states;
- four Europe-wide (including all of WHO's European Region) Pandemic Preparedness Workshops undertaken by the Commission and WHO.

The report follows and builds on ECDC's Interim Report of 2006² along with the results and work presented at the latest and largest European Pandemic Preparedness Workshop held by the Commission with WHO European Region and ECDC in Luxembourg on 25–27 September.³

WHO and ECDC are confident that there has been no diminution in the threat of a pandemic which all experts agree is inevitable.⁴ Though it cannot be predicted when the next pandemic will come or its exact nature when it does come it will sweep the world rapidly and result in some years of reinvigorated annual epidemics of seasonal influenza.

Many, though not all, aspects of preparing for a pandemic will strengthen general preparedness and preparedness against other threats to health security. Further, pandemic preparedness is one of the key aspects of implementing the new International Health Regulations.⁴

Pandemics cannot be prevented but much can be done to mitigate and reduce the damage they cause in Europe and ensure that European societies continue to function through them. Casualties are inevitable but the threat to citizens can be reduced by good preparation. Equally, much can be done to reduce the impact of the seasonal epidemics that occur annually in the EU which cause many more preventable deaths and much more illness between pandemics than do pandemics themselves.

In 2005 the Commission made its first formal communication from the Commission on pandemic preparedness.⁵ Europe is now two years closer to the next pandemic, and with all

¹ European Centre for Disease Prevention and Control. EU/EEA Pandemic Preparedness Technical Status Report, Autumn 2007 ECDC November 2007.

² European Centre for Disease Prevention and Control. Pandemic Influenza Preparedness in the European Union Status Report as of Autumn 2006 ECDC January 2007 http://www.ecdc.eu.int/pdf/Pandemic_preparedness.pdf

³ European Commission Joint EC/ECDC/WHO Workshop on Pandemic Influenza Preparedness http://ec.europa.eu/health/ph_threats/com/Influenza/ev_20070925_en.htm

⁴ WHO The world health report 2007 – A safer future: global public health security in the 21st century <http://www.who.int/whr/2007/en/index.html>

⁵ Communication from the Commission to the Council, the European Parliament, the European economic and social committee and the committee of the regions on pandemic influenza preparedness and response planning in the European Community, at http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2005/com2005_0607en01.pdf



the work that has been done European citizens might expect that the EU is already prepared. However, that is not yet the case.

The purposes of this short paper are:

- **to set the ECDC report in the context of what else has been done in the EU (and other European Economic Area countries) since 2005;**
- **to identify how well prepared the EU is now for a pandemic;**
- **to specifically make recommendations for the way forward and describe what more needs to be done by Member States and cross-European bodies before the end of the decade.**

... MUCH ACHIEVED

The interim and final ECDC reports document how Member States have made great progress in strengthening their preparedness against pandemic influenza since the initial 2005 communication from the Commission.⁵ They have done so by an unprecedented concerted effort. The major developments in EU preparedness since 2005 documented by the Commission and ECDC include the following:

- All Member States have national health sector preparedness plans, one or two have now published government-wide plans (i.e. including non-health sectors) and more are moving in that direction.
- Development and application of the standardised ECDC methodology⁶ has enabled all Member States to assess their own preparedness. This was developed and applied by ECDC in collaboration with each Member State, drawing on experts from the Commission, WHO and other Member States.
- Preparations in the veterinary sector have meant that despite continuing introductions into the EU of the dangerous avian influenza type A/H5N1 ('bird flu'), notably through wild birds, there have been few outbreaks in domestic birds and no known human H5N1 cases in the EU.
- Most Member States have progressed their health sector plans from the planning stage and started to make them operational.
- There has been a high level of political commitment to the pandemic preparedness process across the EU, senior officials involved are aware of the threat and highly motivated, and monies have been committed.
- There has been major investment in general influenza research at both EU⁷ and national levels.
- Though an attempt to create an EU stockpile was unsuccessful, many Member States have large stockpiles of antiviral drugs, and all countries at least have some antivirals available.

⁶ ECDC Pandemic influenza Assessment Tool Version March 2007

http://www.ecdc.europa.eu/Health_topics/Pandemic_Influenza/Assessment_tool.html

⁷ European Commission DG Research Influenza Research EU Funded Projects 2001–2007 May 2007

http://ec.europa.eu/research/health/poverty-diseases/doc/influenza-research_en.pdf



- Most Member States are putting plans in place for ordering and receiving specific pandemic vaccines when the pandemic comes.
- Some Member States are considering purchasing human H5N1 vaccines.⁸
- There are systems in place to detect and investigate initial cases of pandemic influenza in almost all EU countries.
- Many Member States have developed innovative approaches and good practises that other countries are learning from across and beyond the Union. – the *Member State to Member State Approach*.³
- All relevant EU Agencies and bodies (ECDC, the European Medicines Agency (EMA), the European Food Standards Agency (EFSA) and the Joint Research Centre as well as the Commission itself) have made important contributions.
- Working with industry and the specialist laboratories of WHO's Global Influenza Surveillance Network, EMA has developed mechanisms that will significantly shorten the time to develop and produce specific pandemic vaccines. At the same time, research and development activities, including those of European industries, and EU-funded projects like *Flusecure* have been pioneering mechanisms supporting the speedier development of new pandemic vaccines and human H5N1 vaccines.⁹
- An EU-wide network of influenza communicators has been formed, and arrangements are in place for a certain level of coordination. Protocols for sharing prior information on communications to the press and the general public have been agreed.
- The largest pandemic exercise ever mounted anywhere in the world was carried out by the Commission in November 2005 involving all Member States and relevant EU Agencies.¹⁰ Many, though by no means all, Member States have also undertaken national exercises.
- There is a growing body of EU-level guidance on pandemic preparedness on the websites of ECDC¹¹ and the Commission,¹² complementing guidance provided by WHO.

As a consequence of these and other developments Europe is now the best prepared region in the world for the next pandemic.

However, it does not mean that Europe is properly prepared yet, only that the other regions are less prepared.

⁸ The case for purchasing these is considerably less clear cut than for specific pandemic vaccines, see ECDC reports Expert Advisory Groups on Human H5N1 Vaccines: Scientific Questions. Stockholm, August 2007. Available at: <http://ecdc.europa.eu/pdf/Sci%20Questions%20final.pdf>; Expert Advisory Groups on Human H5N1 Vaccines: Public Health and Operational Questions. Stockholm, August 2007. Available at: <http://ecdc.europa.eu/pdf/PH%20Questions%20final.pdf>; see also <http://www.eurosurveillance.org/ew/2007/070920.asp>

⁹ EMA <http://www.emea.europa.eu/pdfs/human/vwp/471703en.pdf>
<http://www.emea.europa.eu/htms/human/pandemicinfluenza/pre.htm>

¹⁰ Common Ground A pandemic influenza exercise for the European Union. Final Report March 2006
http://ec.europa.eu/health/ph_threats/com/common.pdf

¹¹ http://www.ecdc.europa.eu/Health_topics/Pandemic_Influenza/Guidance.html

¹² http://ec.europa.eu/health/ph_threats/com/Influenza/influenza_level_en.htm



... SO THAT IS NOT ENOUGH. MUCH MORE STILL NEEDS TO BE DONE

ECDC's 2007 Final Technical Report documents how the European Union is not yet adequately prepared for the next pandemic. The Report identifies a series of important areas where more work needs to be done and ECDC estimates that a further two years of sustained effort and investment are needed by the EU and its Member States in order to achieve the level of preparedness required to respond effectively to a pandemic. Even more work may be needed in countries that are some way behind the others.

This is consistent with ECDC's estimate that proper pandemic preparedness can only be achieved by around five years of intense work by Member States. The fact is supported by Member States' own estimates of the work that remains to be done. Even now, after two or three years of work, all the recent national self-assessments of preparedness undertaken by countries with ECDC still found long lists of further work that needs to be done by them, by ECDC and others parties. Such estimates of what more needs to be done are also consistent with the perspective of WHO, the United Nations Systems Influenza Coordinator and authorities in other parts of the world.

Currently ECDC and Member States are finding that preparedness is least developed at the local level so that despite all the national plans and stockpiles of drugs, etc, individual citizens and families will not yet find arrangements in place when the pandemic comes. Applying ECDC's *Local Acid Tests*¹³ this means reaching a level of preparedness where they can be confident that when the pandemic comes:

- primary health care systems will be able to deliver treatments like antivirals and antibiotics to most of those who need them as quickly as necessary;
- hospital systems will be ready and able to deliver acute care to severely ill influenza patients as well as continuing to provide essential treatment for non-influenza-related conditions (trauma care, obstetric services, emergency surgery, etc) despite having up to 20% of staff off sick or having to care for relatives;
- business continuity planning has been undertaken to ensure that essential services like power, food and fuel supplies will continue to function at the local level;
- pandemic vaccine will start to arrive in the hands of primary care services within six months of the start of the pandemic and be delivered speedily to those that need it most and then be available for all who can benefit in subsequent years when annual epidemics will be more virulent.

¹³ ECDC suggested 'Acid Tests' for helping to assess and strengthen local preparedness for moderate or severe pandemics. February 2007: http://www.ecdc.eu.int/Health_topics/Pandemic_Influenza/tests.htm



SPECIFICALLY, WHAT MORE NEEDS TO BE DONE?

Drawing on ECDC's Report, and what Member States are themselves recommending, the following are the key areas on which Member States are recommended to focus further work.

- **Integrated planning across governments.** A pandemic will impact on the whole of government and society. While every Member State has health sector plans, most of these have yet to complete the transition to make them multi-sectoral. Many countries report not yet having business continuity plans to maintain essential public or private services outside the health sector during the sustained stress of a pandemic (e.g. transport, utilities, private businesses, police, etc). One of the best ways of ensuring this work is done is to plan large intersectoral national pandemic exercises which serve as a focus for all sectors. A number of countries are planning these for 2008 or 2009 and the European Commission is planning further EU-wide exercises in the same timeframe.
- **Making plans operational at the local level.** This is probably the least developed area and perhaps the hardest to achieve. It includes the preparation of local primary care and hospital services and all other core local services, both public and private. This is crucial because eventually national preparedness has to be delivered locally. Therefore, national preparedness efforts will not be effective unless the frontline responders are properly prepared. Further work is needed in all countries. Specific issues that need to be addressed include reconfiguring hospitals so they can deliver essential services at the height of a severe pandemic and the logistics of rapidly distributing antiviral drugs to those who need them, when they need them, and ensuring that all local services have completed business continuity planning for a pandemic.
- **Interoperability at the national and regional levels.** Making sure that national plans and actions work well together between countries and within countries where planning is a devolved responsibility, undertaking more joint planning and exercises between neighbouring countries and EU-wide exercises and including the countries around the edges of the European Union where preparedness is weaker.
- **Stepping up prevention efforts against seasonal influenza.** Immunisation and a number of other public health measures planned for use against pandemic influenza can also be used against seasonal influenza. Better prevention against seasonal influenza would save thousands of lives each year across the EU. The more effective the EU is in preventing seasonal influenza – and the more used we are to using influenza vaccines and antivirals – the better prepared we will be to deal with a pandemic. Currently the EU capacity to produce specific pandemic vaccines falls far short of what will be needed and expected during the next pandemic. This capacity can only be increased if Europe starts doing better in vaccinating against seasonal influenza. While some EU countries are approaching the globally agreed targets, most have some



way to go.¹⁴ This will be crucial after the next pandemic because previous experience shows that in the years following a pandemic, the annual seasonal influenza epidemics are larger and more lethal.

- **Extending and directing influenza research.** Many important specific research questions still need to be answered. For example, how exactly does influenza transmit? will it be worthwhile for the public to use masks in a pandemic? and should ordinary masks be used by everyone in health care or should they use the more expensive respirators? The major investment in basic research on influenza now needs to be extended to include more operational research and be specifically directed to answer the questions identified by ECDC and other specialist groups. More work especially needs to be done on seasonal influenza, how it spreads and can be prevented, as well as more work developing better seasonal and prototype pandemic vaccines. This will all help us to be better prepared for a pandemic.

A number of other detailed areas are specified in the ECDC report but these five areas are key areas of work for the next two to three years.

In summary, by acting together, Member States and the European Commission, supported by EU Agencies like ECDC, have made great progress in preparing Europe for a pandemic. However, the work is not yet finished and there is a danger that without completion that initial work will not be translated into real protection for EU citizens when the pandemic comes. At least a further two to three years of intense work are needed at all levels and by all European partners in order to finish the job.

¹⁴ The Commission will extend this work on seasonal influenza vaccination in a paper to Council in the second half of 2008.