example how many vaccines will be needed and how can production be increased to meet these needs (http://www.evm-vaccines.org/290403%20Flu%20pandemic%20final.pdf).

The European Scientific Working Group on Influenza (http://www.eswi.org) is also active in the area of pandemic preparedness. This group organises an important scientific conference in Europe every two years where issues related to pandemic preparedness are high on the conference agenda.

Preparation by member states

The EU member states have also been active in preparing for a potential influenza pandemic. A survey carried out in November 2000 found that eight countries (50% of those surveyed) had an official pandemic plan, seven countries had a plan that was in an advanced stage or draft format and one country did not have a plan. Many of these plans have now been finalised and European countries are now starting to implement these at a national and local level. A number of countries have started to stockpile antiviral drugs (France, Belgium and the Netherlands).

Further challenges to Europe-wide pandemic planning

Consolidation of these different activities is now required and the general level of preparedness will be tested by an EC-funded simulation project (http://europa.eu.int/comm/health/ph_programme/howtoapply/call_130356_2004.htm)The simulation should help measure preparedness at a European and national level, and identify weaknesses that need strengthening or correcting.

One important challenge that has not yet been resolved is the equitable distribution of vaccines (if these are available) and stockpiled antiviral drugs. Considering EU treaties no longer hold in a situation of 'force majeure', member states could legally hoard nationally produced vaccines and/or antiviral drugs. This would be a very unfortunate development for Europe and mechanisms to ensure equitable access to vaccines and antiviral drugs within the EU should therefore be encouraged.

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Differences between new United States recommendations and existing European guidelines on the use of postexposure prophylaxis (PEP) following non-occupational exposure

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Last week the United States Department of Health and Human Services Published updated recommendations for the use of post-exposure prophylaxis (PEP) following non-occupational exposure to HIV [1]. The evidence is still unclear as to the efficacy of this intervention and this report provides a comprehensive overview of available literature, and discusses the benefits and problems with the administration of PEP in certain circumstances. It also clearly re-emphasises that the most effective way to prevent transmission of HIV is to prevent exposure, and any programme of PEP administration should not replace primary prevention.

In 2004, the Euro-NONOPEP project group Published recommendations for PEP use along with the results of their two-year Europe-wide study [2]. Although the two guidelines considered the same intervention in the same circumstances, there are marked differences in their recommendations. Both guidelines state the basic notion that PEP should be administered to people exposed to potentially infectious bodily fluids of a known HIV-infected person, when the exposure represents a substantial risk of transmission. In these cases, a 28-day regimen of highly active retroviral therapy (HAART) should be prescribed. After this point, however, they differ in three main areas.

First, the United States (US) guidelines recommend that PEP is only prescribed when the source person is known to be HIV-infected. For cases where the HIV status of the source is unknown, the guidelines state that the clinician should assess each case individually and use their judgement. The European recommendations lay out the circumstances under which PEP should or should not be considered or prescribed if the status of the source patient is unknown. If the source patient is from a group or area of high HIV prevalence (at least 15%) the European guidelines recommend that PEP be prescribed following receptive anal sex; for other exposures, anal, vaginal or oral (with ejaculation), PEP should be considered. They also state that if the source patient is not from a high-risk group, then PEP should only be considered following receptive anal sex. The US recommendations put a stronger emphasis on the potential side effects of PEP and conclude that these may well outweigh the potential benefits if the infective status of the source patient is unknown.

Second, both guidelines focus on the risk of transmission. For some transmission situations, where the partner is HIV-infected, the transmission values used by each group are similar or the same, e.g. following a blood transfusion: US, 90%; European, 90%-100%. For other exposures, the transmission risk estimates used are very different. In particular, the US document estimates the risk of transmission via receptive anal sex to be 0.5%, while the European group estimates this to be 3%. This large difference in transmission risk may have influenced the recommendations made for PEP usage. As mentioned above, the European guidelines recommend that PEP be considered in any situation where unprotected receptive anal sex has occurred. As long as there is continuing uncertainty as to the true risk of transmission via different exposures, it is difficult to reach consensus on all the situations where PEP should be prescribed.

The final significant difference concerns the advice on the regimen of antiretrovirals to use. The Euro-NONOPEP group recommends the use of triple therapy (treatment with a combination of three drugs belonging to two different classes) but states that a two-drug regimen (treatment with two nucleoside reverse transciptase inhibitors (NRTI)) is also an option. This is based on evidence that drugs acting at different stages of the virus' life cycle are superior to monotherapy and that tri-therapy has been shown to treat HIV-infected patients most effectively. However, the US recommendations state that there is no evidence to indicate that a three-drug regimen would be more effective than a two-drug regimen. They place a heavier emphasis on the possible risks of side effects and state that these should be discussed with the patients. They also consider the prescription of medication to treat side-effects of HAART.

The differences in recommendations highlight the ongoing controversy surrounding the use of PEP following a non-occupational exposure. An increasing number of countries are addressing the use of PEP and establishing recommendations [Table].

TABLE

A selection of non-occupational PEP recommendation from European countries

Country	Web page
Germany	http://www.rki.de/INFEKT/AIDS_STD/AZ_ENG/HIVPEPL_E.HTM http://www.rki.de/INFEKT/AIDS_STD/AZ_ENG/HIVPEPK_E.HTM
Italy	http://www.inmi.it/news/LineeGuida/RecommendationsNONOCC.htm
Poland	http://www.msi.com.pl/pub/hiv/vol_1/no_1/3177.pdf
Spain	http://www.msc.es/profesional/preProSalud/sida/pdfs/guia_actuacion_profilaxis.pdf
Switzerland	http://www.hiv.ch/rubriken/therapie/pep/pepsex/pepsexi.htm (in Italian) http://www.hiv.ch/rubriken/therapie/pep/pepsex/pepsexf.htm (in French) http://www.hiv.ch/rubriken/therapie/pep/pepsex/pepsexf.htm (in German)
United Kingdom	http://www.bashh.org/guidelines/draft_04/pepse[1]_010404.doc

As there cannot be a randomised control trial for this intervention, it is important that countries share data and recommendations to build up the evidence available. Members of the Euro-NONOPEP group are promoting an initiative to analyse cases of high-risk exposure to HIV supplied by registries in Europe, Australia and the United States. The Euro-NONOPEP group has also submitted a protocol for a Cochrane review on NONOPEP to the Cochrane Review Group on HIV Infections and AIDS. Some of these registries have had difficulties sustaining operational funding; some have been discontinued, while others are operating on a voluntary basis of case reporting.

Since the publication of the Euro-NONOPEP recommendations for PEP, some studies of PEP regimens with a better adherence and fewer adverse events have been conducted [3-6]. These studies, and the recent publication of the US guidelines, have highlighted the need to revise and update the Euro-NONOPEP and other national guidelines. Thus, the comprehensive US guidelines will no doubt provide an important focal point in the future.

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RESULTS OF SURVEY OF NATIONAL INFLUENZA PANDEMIC PREPAREDNESS IN EUROPE

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The World Health Organization (WHO) and the European Commission are currently working together to improve influenza preparedness in the European Region. So far, only a few countries have submitted national influenza pandemic plans to WHO and/or the European Commission. To help countries that do not yet have a draft national influenza preparedness plan, and to update plans where they already exist, the European Commission and WHO held a two day workshop for all countries in the WHO European region on 2-3 March 2005.

The specific objectives of this workshop were to:

- facilitate the processes involved in planning influenza pandemic preparedness
- provide an opportunity to discuss the priorities of a pandemic plan with colleagues and facilitators
- identify the way forward for WHO/EU member states as they develop their pandemic plans
- identify whether further assistance is needed and, if so, what form it should take

To determine the stage of pandemic planning in the different European countries, a questionnaire was sent to all member states of the WHO European Region (56 countries, including 25 European Union member states) before the workshop, all of whom responded. Fifty of the respondents stated that a responsible national body exists which is working on pandemic preparedness. Thirty-one have a national preparedness plan available and Published; of these, 18 are European Union (EU) states. The remaining states and entities either have a draft plan at differing stages of development, or do not have a plan [TABLE 1].

Within the European Union, considerable progress in influenza pandemic planning has been made in the last few years. In 2005, 18/25 (72%) EU countries had Published plans. In 2000, just 4 of 11 (36%) EU countries surveyed had plans that were accepted by health authorities [1,2].

TABLE 1

Response from states/entities about the existence of a national influenza pandemic plan, 2005

National Plan and Responsibilities	All respondents (56)		EU Member States (25)		non-EU states/ entities (31)	
Question	Yes	Percentage	Yes	Percentage	Yes	Percentage
Is there a responsible body and/or a responsible person working on influenza pandemic preparedness planning?	50	89%	25	100%	25	81%
Is there a national influenza pandemic preparedness plan available and Published?	31	55%	18	72%	13	42%

National plans differ as far as the elements considered. The table below shows 10 components considered to be important and the percentage of countries which have these in their Published or draft plan. Based on the response, it is clear that surveillance and provision of laboratory facilities are the two most developed components included in the pandemic plans [TABLE 2].

Of those that have a Published plan, four countries have also conducted simulation exercises to test its efficiency and efficacy.

As well as specific questions related to the components of a pandemic preparedness plan, countries were also asked to provide details of their national influenza programme in the interpandemic period [TABLE 3]. Almost all countries have a functional surveillance system and a vaccination programme for risk groups (100% of EU member states have these two components). Twenty four countries (13 EU and 11 non-EU) maintain stocks of antivirals.

National influenza plans from European countries and other countries worldwide that are available on the internet can be found here: http://www.eiss.org/html/pandemic_plans.html