

*Finnish national preparedness plan for an
influenza pandemic*

**Proposal of the Working Group on National
Pandemic Preparedness**



Ministry of Social Affairs and Health

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1 SUMMARY

The Ministry of Social Affairs and Health established a National Working Group for Pandemic Preparedness on April 21, 2005, with a remit to prepare a national preparedness plan for pandemic influenza. Its aim is to limit the harm a pandemic could cause to the health of the population and to ensure the continuous function of the society as much as possible.

The document contains a summary of background information about influenza and influenza pandemics, surveillance, and a description of measures available for reducing the damages from a pandemic. The document describes the organizations in charge of the preparedness for an influenza pandemic in Finland, the decision-making process, as well as the objectives and guidelines for the operation of the healthcare services in the different phases leading to a pandemic. The document includes ethical considerations on the allocation of limited resources, and presents technical guidelines to healthcare professionals. Summaries are included on the pandemic preparedness plans of all administrative sectors. In addition, the document proposes revisions in legislation, as well as other measures and additional resources that are required for the implementation of the plan and for maintaining preparedness

1.1 Influenza pandemic

Influenza is a respiratory tract infection of sudden onset caused by influenza viruses type A and B which cause annual epidemics around the globe. During these epidemics, 5 to 15 % of the population acquires the infection. In Finland, excess mortality caused by annual epidemics ranges from hundreds to over one thousand during severe epidemics. Influenza epidemics cause a considerable strain on the healthcare services and at worst can disturb school and work activities over a period of several weeks. The impact of the annual epidemics can be limited by vaccination in autumn before the epidemic season. These vaccinations are free of charge for individuals belonging to groups at risk for severe complications after influenza infection.

A pandemic is caused by the rapid global spread of an influenza A virus subtype novel to the human population. Morbidity during a pandemic can rise to 25 – 35 % of the population, significantly higher than during the annual epidemics. The clinical features of the disease caused by a pandemic virus can be more severe than those associated with annual epidemic influenza viruses. Serious illness may develop also in otherwise healthy, young individuals.

Wild waterfowl harbour a large variety of influenza A virus subtypes that have not been found in humans during the last century and which could potentially cause a pandemic. Avian viruses, however, are poorly transmissible to humans. The virus causing next pandemic cannot be predicted, nor when it will emerge. The continuously geographically spreading avian influenza epidemic caused by the A/H5N1 virus that emerged in Asia at the end of 2003 has increased the risk of a pandemic to a considerably higher level than seen during the past 30 years. Outbreaks and epidemics in poultry caused by the A/H5N1 virus have spread from Asia to Europe and the Middle East. By the beginning of 2006, infection with the A/H5N1 virus has been documented in more than 150

humans, and half of the infected persons have died. With almost no exceptions these individuals have contracted the infection through handling virus-infected, ill or dead birds, or otherwise through close contact with ill poultry.

According to the WHO pandemic preparedness plan, the situation has now reached pandemic alert phase 3. If this A/H5N1 virus acquires the ability to spread between humans, it will cause small (phase 4) or large (phase 5) outbreaks in humans before the onset of a pandemic (phase 6).

1.2 Possibilities to reduce the impact of a pandemic

It is impossible to predict the severity of the next pandemic. However, certain basic assumptions concerning the impact of a pandemic are required in order to establish a pandemic preparedness plan. For the current Finnish pandemic preparedness plan, it is assumed that during a first pandemic wave of 8 weeks' duration, 35 % of the population may fall ill with influenza, of whom 10 000 to 36 000 may require hospital treatment, and 3 500 to 9 000 may die. Such an impact is considerably higher than the one observed during the Asian influenza pandemic (1957) or during the Hong Kong influenza pandemic (1968), but it would be substantially less than the impact of the Spanish Flu pandemic (1918).

If the morbidity associated with the pandemic is high and the average clinical presentation clearly more severe than seen during annual epidemics, the impact on the society may be wide-ranging and substantial. Absenteeism from work may cause dysfunction in key sectors of the society, essential for the wellbeing of the population. Rumours and fear may lead to damaging over-reactions by individuals and subgroups in the population. Disturbances lasting several weeks or months in all segments of the society may cause significant economic loss, both at national and at international level.

Minimizing the impact of a pandemic requires close cooperation between administrative sectors and may require facilitated decision making. For the scenario of a significant fraction of the workforce falling ill within a two-month pandemic wave, a key component in developing pandemic preparedness is defining clear mandates regarding responsibilities at the national level and a detailed action plan for all administrative sectors, in addition to advance procurement of materials. This is a particular challenge for the healthcare services where a greatly increased workload needs to be addressed while much of the staff will be on sick leave and there is a shortage of hospital beds. The progress of the pandemic may be slowed, with a consequent fall in the peak burden on healthcare services, by measures that slow down the transmission of the virus in the population. These measures include good hand hygiene, appropriate coughing and sneezing practices, and encouraging ill persons to stay home. Closing of day-care centres and schools may be considered, and non-essential mass gatherings may be prohibited.

The most effective measure to reduce the impact of a pandemic would be immunization with a vaccine made from the pandemic virus. The production of such a specific vaccine ('targeted vaccine'), however, can only begin after WHO has declared the beginning of a pandemic. Since the vaccine manufacturing process takes several months, it is unlikely that such a targeted pandemic vaccine will be available during the first wave of the pandemic. During past pandemics several subsequent waves have been observed.

Thus, the availability of a targeted pandemic vaccine would be important during a second or subsequent wave of the pandemic. Once a pandemic emerges, the global demand for a pandemic vaccine will be much higher than production capacity can meet. For this reason, Finland has made a contract with a Dutch vaccine manufacturer, according to which an annual fee ensures a privileged slot in the line of vaccine orders for Finland to receive 5.5 million doses of pandemic vaccine within approximately 6 months from the start of a pandemic. To shorten manufacturing and pre-testing time, vaccine manufacturers produce a so-called mock-up vaccine containing some of the proteins of the avian A/H5N1 virus that is currently causing sporadic human cases. In case the A/H5N1 virus causes the next pandemic, and the pandemic virus is structurally close to the current avian A/H5N1 viruses, partial protection could be provided by vaccinating the whole population by the mock-up vaccine. The mock-up vaccine is produced in advance, and could be taken in use if a first wave of a pandemic begins. Finland will purchase A/H5N1 mock-up vaccine to immunize the whole population. At the earliest, this vaccine will be available late 2006 or early 2007. The organization of two separate vaccine campaigns for the entire population presents an additional challenge for the healthcare services.

Early treatment of influenza patients with specific antiviral drugs may significantly alleviate the illness caused by the pandemic virus and thus reduce the impact a pandemic can cause for the society. For the event of a pandemic, Finland has acquired 1.3 million treatment courses of the antiviral oseltamivir (Tamiflu). In order for the drug to be of benefit, the pandemic virus must be susceptible to the drug, which cannot be ascertained in advance. Furthermore, distribution of the drug must be organized in such a way that treatment of individual patients can be initiated early during the course of illness. This requires exceptional measures and detailed plans in primary healthcare. The detailed guidelines for using the drug will be finalized only after the pandemic has emerged and the specific characteristics of the pandemic virus are known.

1.3 Operation of the healthcare services during a pandemic

During a pandemic, the healthcare services will be under the greatest pressure. The impact of a pandemic on the society will largely depend on the successful operation of the healthcare services. The present preparedness plan addresses a wide range of activities of the healthcare services to minimize damage from a pandemic threat and a pandemic. It presents the principles of identifying influenza cases and epidemics, as well as the evaluation and treatment of patients. The plan contains guidelines for exceptional treatment arrangements in healthcare and for placement of patients, and it outlines the responsibilities of different organisations in the healthcare services and their cooperation. Among others, the plan contains guidelines for personal protective equipment in healthcare settings. These measures require the procurement of a variety of supplies.

During the pandemic threat period the virus may spread from person to person in local clusters or outbreaks. If person-to-person transmission has not yet been identified in Finland during this stage, the main objective of the healthcare services is to swiftly identify infected persons entering the country, isolate them and initiate treatment in or-

der to prevent further transmission of the infection. Once the pandemic has started, the main objective is to slow the speed of its spread and to care for the patients.

The justification of planned actions and the fair allocation of limited prophylactic and treatment measures require ethical processing of these issues. Although Finland intends to purchase one dose each of the two different vaccines for every inhabitant, these vaccines may arrive in different shipments. Consequently, decisions may have to be made as to which subgroups of the inhabitants will be vaccinated first. Likewise, the limited availability of oseltamivir does not allow for its use in all proven indications. In the opinion of the National Working Group for Pandemic Preparedness the primary value of pandemic preparedness is saving years of life. Thus, all actions towards reducing the impact from a pandemic should aim particularly at the prevention of disease and death in children. On the other hand, protecting healthcare staff treating infectious disease patients is important, because of their increased risk of exposure, and the specific burden caused by the situation on healthcare services.

With a perceived decline in threat from infectious diseases during 1970-1990s, preparedness to address such threats was not developed. Thus, the organizations to combat unexpected infectious disease threats and the resources required to address such threats have remained scarce. Reducing significantly the impact of a pandemic can only be achieved if resources for the surveillance and control of infectious diseases are permanently increased at national and regional levels.

Under exceptional conditions, operation of the healthcare services can only be successful if healthcare staff is well informed about preparedness plans before the onset of a pandemic, and about possible revisions of plans once the pandemic has reached the country. This needs to be incorporated also in resource allocation for communications at national and regional levels.

1.4 Securing the vital functions of the society

The national government has defined in a decision of principle the vital functions of the society that need to be secured under all circumstances. These include state governance, state function as an international body, military defence, internal security, maintaining the functionality of economy and society, and securing for the population livelihood, capability to function and to cope with the crisis.

An influenza pandemic can present a threat to almost all vital functions of the society. The National Working Group for Pandemic Preparedness has requested each of the ministries to identify functions in their domains that need to be secured. Besides social welfare and healthcare, such services include energy supply, food supply, essential transports, as well as the means for traffic and communications. Severe disruptions in any of these services threaten the function of the society.

Strategies to secure vital functions exist in all government sectors, and they are regularly updated. During a pandemic, the greatest burden will fall on the healthcare services, but securing other vital government functions will present a major challenge. The National Working Group for Pandemic Preparedness has formulated detailed guidelines for preparedness in the healthcare services, and the present document also provides the

core information, from which other sectors can update their pandemic preparedness plans.

1.5 Execution of the preparedness plan and monitoring of implementation

Developing preparedness according to the present plan requires measures from all administrative sectors. The Permanent Secretary of each ministry is the highest official in charge of preparedness. It is therefore proposed that the council of the Permanent Secretaries will be in charge of implementing this pandemic preparedness plan. This council can efficiently coordinate the integration of measures to improve preparedness between all administrative sectors.

When WHO declares that the pandemic threat has reached phase 4 or when it progresses to phase 5, i.e., the virus is increasingly transmitted between humans, the Ministry for Social Affairs and Health establishes a Pandemic Coordination Committee. Its duty it is to support activities to improve preparedness in the healthcare services and other sectors of the society. The Pandemic Coordination Committee will work in close cooperation with the council of Permanent Secretaries and the group of preparedness officials that are coordinated by the Council of State.

All ministries must ensure that preparedness plans within their sector are regularly updated at local, regional, and national level, and that the resource, legislative and other prerequisites are ensured for the necessary measures to increase preparedness. At least once a year, each ministry makes an assessment to ensure that the National Pandemic Preparedness Plan is up-to-date regarding the mandate of the ministry, and makes the necessary revisions.

The Ministry of Justice will continue preparing amendments to the Emergency Powers Act, so that a major epidemic is classified as a state of emergency as defined in the Act. The Ministry of Social Affairs and Health prepares the necessary revisions in the laws and decrees on communicable diseases, medicines, private healthcare, public health, and specialized healthcare. The other ministries assess whether revision of relevant laws are needed in order to implement efficient control of a pandemic.

The ministries ensure their capability to implement communications within their sector regarding a pandemic. Information, guidelines and recommendations on web-sites are continuously updated. Each administrative sector makes a plan for enhanced communications and prepares relevant material in advance.

After the first version of this National Preparedness Plan for Pandemic Influenza has been delivered to the Minister of Social Affairs and Health, the proposal will be published on the internet. The document will then be submitted for written statements, and the statements evaluated and integrated in the document. Exercises are an essential part in ensuring the function of preparedness plans. The first exercises will be held later during 2006.

2 INTRODUCTION

During the 20th century, influenza viruses caused three global epidemics, i.e. pandemics, in 1918, in 1957, and in 1968. They had a significant impact on public health, and substantial economic, societal, and political consequences. Based on increasing knowledge about influenza viruses and pandemics accumulated recently, it is likely that mankind will sooner or later face another influenza pandemic.

During recent decades, WHO has established a network of reference laboratories for the global surveillance of influenza. WHO has consistently communicated on the threat of a pandemic and encouraged member states to prepare for such an event. Many member states have developed a preparedness plan, but until recently, measures to improve preparedness have been very restricted in many countries and did not cover all functions that may be affected by a pandemic, and need to be covered by a pandemic preparedness plan. With a perceived decline in threat from infectious diseases during 1970-1990s, preparedness to address such threats was not developed. This misconception rooted in the successful elimination of threats presented by certain infectious agents. Therefore, preparing for extensive infectious disease epidemics has not been considered important.

Since 1995, the Finnish National Public Health Institute (KTL) has maintained a concise pandemic preparedness plan. The international anthrax threat in 2001, the international SARS epidemic in 2003, and a survey by the Ministry for Social Affairs and Health have indicated that preparedness for biological threats, ie large epidemics of infectious diseases, or pandemics is inadequate in Finland. Towards the end of 2003, large epidemics of avian influenza caused by the A/H5N1 influenza virus emerged in Asia and have since spread to several European countries. According to WHO, these epidemics of avian influenza have increased the threat of a pandemic. Single human cases caused by the A/H5N1 virus have been associated with these avian epidemics. By the beginning of 2006, in excess of 150 human cases have been confirmed; approximately half resulted in death.

With the increased pandemic threat, WHO, the European Commission, and the recently established European Centre for Disease Prevention and Control (ECDC) have repeatedly encouraged member states to update their preparedness plans and published strategic guidelines and technical recommendations. Recently, preparedness for influenza pandemic has been repeatedly discussed by the European Council.

The Ministry of Social Affairs and Health nominated on April 21, 2005, a National Working Group for Pandemic Preparedness, with the following duties: (1) to prepare a national plan for pandemic preparedness; (2) to establish guidelines for preparedness in the healthcare services; (3) to ensure efficient cooperation between different administrative sectors. The Working Group consisted of representatives from the administrative sectors of Social Welfare and Health, the Ministry of Agriculture and Forestry, the Ministry of the Interior, the Ministry of Foreign Affairs, and the Ministry of Defense. The term of the Working-Group ended February 28, 2006.

In addition to the National Working Group for Pandemic Preparedness many other ministries and departments have implemented measures to improve pandemic preparedness.

3 PURPOSE OF THE PREPAREDNESS PLAN

The aim of this preparedness plan is to provide guidance to all levels of the healthcare services for pandemic preparedness, and to support activities of all other administrative sectors .

Adapted to the specific Finnish context, this preparedness plan presents a possible scenario for the development of a pandemic, its impact on health, society, and economy. Furthermore, it addresses measures that are available to reduce the impact of a pandemic, ethical issues specific to a pandemic situation, the areas of responsibility and exceptional arrangements for healthcare organizations. The plan identifies the needs of procurement of materials for improving preparedness, the need for cooperation between the different administrative sectors, requirements for exceptional organisational arrangements during the event of a pandemic, and needs of communications. The plan addresses a wide range of issues related to a pandemic, thus providing the basis to other administrative sectors when preparing their detailed pandemic preparedness plans. For practical reasons, plans of other administrative sectors than the social affairs and health are presented only briefly in this document. Efficient implementation requires integration of plans prepared by the different administrative sectors.

The preparedness plan needs to be continuously adapted to change in threats and functional environment, change in possibilities to predict further developments , or when control measures become available. For this reason, the preparedness plan will never be “ready”. An influenza pandemic can emerge at any time, within months or within years. It can be caused by a virus currently presenting a pandemic threat or by any other influenza A virus subtype. Preparing for an influenza pandemic concomitantly enhances Finland’s ability to cope successfully with any other large, international or global epidemic. Strengthening structures for combating pandemics at the same time improves core areas of infectious disease control and enhances public health. Preparedness supports securing the society’s vital functions.

Primary responsibility in the preparedness of healthcare services rests, apart from the municipalities, in the regional organization, in which Hospital Districts and the Provincial Offices jointly guide the planning and implementation for preparedness in the public and private healthcare services. The function of the regional organization is to create a regionally adapted organisation and command structure, and a plan that incorporates regional and local characteristics.

A key objective of the plan is to ensure equal services to the population in different areas of the country even in the exceptional conditions of a pandemic, although organization and implementation may differ from region to region. Incorporated in this plan are a number of specific technical guidelines addressing issues essential during the current stage of pandemic threat. These guidelines may have to be adapted when new knowledge accumulates. Resources permitting, the Ministry for Social Affairs and Health and its expert organizations support other administrative sectors in the development of preparedness plans for infectious disease threats and their implementation.

It is desirable that the present preparedness plan is widely used for training to improve preparedness, and in the preparation and implementation of adapted local plans. This plan also provides the base for strengthening the resources needed in different organiza-

tions. The assessment of the economic impact of an influenza pandemic will continue during the implementation of the preparedness plan.

15 IMPLEMENTATION, EXERCISING, EVALUATION AND UP-DATING OF NATIONAL PANDEMIC PREPAREDNESS PLAN

Developing preparedness in accordance with the National Pandemic Plan requires measures in all administrative sectors. The highest official responsible for preparedness in each ministry is the Permanent Secretary; thus, the responsibility for execution of the National Pandemic Plan is proposed to be lodged with the council of Heads of Preparedness or Permanent Secretaries of the ministries, which is capable of efficiently coordinating the integration of preparedness of all administrative sectors. If it deems necessary, the Ministry of Social Affairs and Health may appoint a working group to support and supervise the execution of the plan in the social and healthcare sector. The working group must cooperate closely with the Pandemic Working Group of the National Public Health Institute and the Advisory Board on Communicable Diseases operating within the Ministry of Social Affairs and Health. The Ministry will ensure that it has at its disposal sufficient human resources to supervise the execution in the social and healthcare sector, and to support and monitor drafting of preparedness plans of other administrative sectors. The Ministry of Social Affairs and Health may appoint, when it deems necessary, a pandemic preparedness coordinator and deputy coordinator, taking into consideration, in addition to the national tasks, also the needs arising from Finland's period of Presidency of the EU in the latter half of 2006.

The Ministry of Social Affairs and Health and the National Public Health Institute monitor the development of the global pandemic situation and preparedness at transnational level (by international organisations, global and regional organisations and individual countries). The Ministry of Social Affairs and Health cooperates with the Heads of Preparedness in monitoring progress in national preparedness.

When WHO announces that the threat of a pandemic has progressed to alert level 4, or at the latest when reaching alert level 5, when human to human transmission is taking place, the Ministry of Social Affairs and Health will appoint a Pandemic Coordination Group to direct preparedness in and control measures by healthcare services, and for supporting developments in national preparedness and control. For day-to-day operations, the group will appoint a sub-committee with representation from the most important administrative sectors in terms of pandemic control. The coordination group will operate in close cooperation with the council of Heads of Preparedness and Permanent Secretaries coordinated by the Prime Minister's Office and its Government situation centre. At the pandemic phase 6, the Ministry of Social Affairs and Health will set up a national crisis centre which will maintain a round-the-clock situation assessment on the progress of the pandemic and assist the Pandemic Coordination Group.

Each ministry will be responsible for proceeding in preparedness in its own administrative sector and for ensuring that more detailed administrative sector-specific preparedness plans are drawn up. Objectives concerning preparedness will be incorporated as appropriate in the annual contracts between ministries and their subordinate departments and administrative units, making monitoring of their advance a part of the departments' annual activities.

Regional preparedness will be supervised and coordinated by the Provincial Offices that will utilise the expertise of Hospital Districts for support in developing preparedness in

healthcare services. They will update their own preparedness plans to comply with the national plan, and ensure that the plans of their own regional healthcare services (Hospital Districts and health centres), as well as those of other administrative sectors and local authorities are compatible.

An essential part of ensuring the appropriate function of preparedness plans is their testing in exercises. Two extensive preparedness exercises have been held in 2005, to test preparedness on national level in a pandemic situation. The lessons learned through them on the problems in preparedness have been utilised in drawing up this plan. The Council of State has further decided that in order to test the appropriate operation of the government management systems, an avian influenza preparedness exercise will be organised in March, and a pandemic exercise in April 2006.

Towards the end of 2006, when updating of provincial level plans has been completed, their appropriateness should be tested through an exercise specifically designed for assessing the operation of Provincial Offices and regional levels of different administrative sectors. Based on lessons learned from this exercise, the national plan will be updated as appropriate, and the revised plan should be tested in a national preparedness exercise to be organised during 2007.

The first version of the National Pandemic Preparedness Plan will be published on the Internet, once the proposal of this working group is submitted to the Minister of Social Affairs and Health. The plan will be updated after it has been evaluated in a comments round, and the suggestions for amendment incorporated. The finalised plan will be approved by the Ministry of Social Affairs and Health, once it has been presented to the council of Permanent Secretaries.

Each ministry must check that the plan is up-to-date with regard to issues under their own administrative sector at least once a year, and make revisions as required. As a consequence of a changing pandemic threat or international preparedness situation, updating and revision may be necessary more frequently than in the annual evaluation process. Such required changes will be notified to the council of Permanent Secretaries by the ministry within the administrative area of which the need for change lies, jointly with the Ministry of Social Affairs and Health. Once the council of Permanent Secretaries has approved the proposals by the ministries, they are incorporated in the official version of the National Pandemic Plan, to be maintained on the Internet. Thus, the plan may be updated as required, if necessary, regarding individual sections or even single measures only. On the other hand, the assessment and approval by the council of Permanent Secretaries will ensure compatibility of the activities by different ministries. A printed version of the plan will be published annually, or as required.

16 PROPOSED MEASURES

16.1 Preparedness plans

The Prime Minister's Office will ensure the collaboration of all administrative sectors in preparing for and prevention of avian influenza and influenza pandemic. While developing its model of crisis management, it will also consider the possibility that during an advanced alert phase for the pandemic and during the pandemic itself, management may be based on a new model.

All the ministries ensure that municipal, regional and national preparedness plans are updated to cover preparations for an influenza pandemic, and that economic, legal and other prerequisites for the preparations are in place.

All ministries will take care of preparedness planning of their own administrative sectors, taking into consideration the information included in this Preparedness Plan (e.g. paragraph 7.1 and appendix 3) and its subsequent revisions, on measures that may be taken to slow down the spread of influenza at the different phases of the pandemic, and to limit the damage it causes.

Continuity of the vital functions of society requires advance planning of sector-specific prioritisation, substitutions and alternative mechanisms. The preparedness planning must take into account that 25-35 % of the labour force may be absent from work due to their own illness for 1-2 weeks over a period of about 2-3 months. In addition, absences from work may arise due to caring for a sick child or other family member, or possibly due to caring for a child sent home from day care or school. Concentration of peak absenteeism over the 2-3 busiest weeks of the epidemic in each locality is possible.

The preparedness plans will include implementation of hand and coughing hygiene, and as far as practicable, increasing social distance in workplaces, institutions and public premises. The potential for temporary distance working should be assessed in relevant sectors.

The Ministry of Social Affairs and Health will set up a Pandemic Coordination Group, once the level of disturbance caused by pandemic alert or a pandemic, as declared by WHO, warrants this measure.

Preparedness exercises must be targeted at the sections of the Pandemic Preparedness Plan that are problem areas in inter-sectoral cooperation or other identified targets for improvement.

16.2 Key areas of inter-sectoral collaboration

With regard to planning by ministries, areas to be jointly coordinated with the Ministry of Social Affairs and Health administrative sector include

Prime Minister's Office

- national assessment of the situation
- coordination of communications
- creation of Council of State web service system
- national crisis management system

Ministry of the Interior

- deployment of rescue services and supervision of personnel
- official support possibly requested from the Police
- -integration of regional and municipal level preparedness and planning with social and healthcare services
- operation of the Border Guard

Ministry for Foreign Affairs

- coordination of international cooperation
- notices and recommendations on travel
- guidelines for Finnish nationals abroad

Ministry of Justice

- application of the Emergency Powers Act, borderline issues regarding interpretation of legislation
- guidelines on the Prison Service

Ministry of Defence

- provision for special needs of peace-keeping forces
- consideration of granting leave for troops
- provision for special characteristics of the Defence Forces medical services in preparedness
- official support possibly requested from the military, use and functions of military conscripts

Ministry of Education

- collaboration in training, including guidelines and planning of training for persons to be recruited from outside the regular employment frame
- decisions to close educational institutions
- use of schools and other buildings for other purposes
- communications

- participation of parishes in communications
- support in crisis situations
- organisation of funeral services

Ministry of Agriculture and Forestry

- protection of workers exposed to ill birds and protection of poultry exposed to ill persons
- communication to the population on the nature of risk and guidelines for behaviour in the context of suspected and confirmed cases of avian influenza in pandemic alert phases 3-5

Ministry of Transport and Communications

- ensuring functioning of communications infrastructure
- planning of procedures for international transport in pandemic alert phases 3-5

Ministry of Trade and Industry

- ensuring and developing material preparedness for a pandemic situation
- assessing the economic impact of the preparedness for pandemic and from a pandemic
- supporting preparedness of business sector through the National Board of Economic Defence

Ministry of Finance

- operation of Customs
- resource requirements and supervision of distributing costs

Ministry of Labour

- operation of labour administration in recruitment of social and healthcare personnel
- use of reception centres e.g. in a possible quarantine situation for a group of passengers

Ministry of the Environment

- issues of water and waste management

16.3 Regional and local preparedness plans

State Provincial Offices will supervise, coordinate and monitor regional preparedness and control of pandemic influenza in their areas.

Hospital Districts (20) are responsible for the specialist level care of patients, and provide expert supervision for local authorities. Hospital Districts, jointly with State Provincial Offices (5) and municipalities, will draw up regional healthcare preparedness

plans. State Provincial Offices, Hospital Districts and municipalities will ensure that sufficient resources are in place for the measures laid down in the plans.

Provincial Offices will ensure that Occupational Health Services are involved as active participants in regional and local pandemic plans.

Provincial Offices shall set up registers of private healthcare service providers and professionals.

Municipalities and health centres shall draw up their own preparedness plans, taking into account collaboration in regional planning.

When signing contracts on outsourced services, municipalities must ensure that they guarantee continuity of service also in situations of biological threat and other catastrophes.

16.4 Legislation

The Ministry of Justice will continue preparing amendments to the Emergency Powers Act, so that a major epidemic is classified as a state of emergency as defined in the Act.

Powers of Provincial Offices must be clarified both in a situation of disruption caused by a pandemic and in a state of emergency, so that powers of command and coordination in relation to e.g. obligation to work would be assigned to them.

The Ministry of Social Affairs and Health is preparing the amendments to the Act and Decree on Communicable Diseases on authorising quarantine, decreeing human cases of influenza A/H5N1 during pandemic alert phases 3-5 as a infectious disease endangering the public (category I), and on authorising the Ministry of Social Affairs and Health and Provincial Offices in a pandemic situation to order temporary revisions in social and healthcare services.

The Ministry of Social Affairs and Health is preparing amendments to the Act on Medicines, Act on Private Healthcare, the Primary Health Care Act, and the Act on Specialised Medical Care (regulations on the provision of non-urgent treatment) in such a way as to create the conditions for successful control of a pandemic.

16.5 Epidemiological and virological surveillance and guidelines

The National Public Health Institute and Stakes will improve the epidemiological surveillance of influenza through improvements to data collection on cause-specific use of healthcare services, developing the National Infectious Disease Register, and by constructing a sentinel surveillance system to permit transmission of up-to-date and reliable information through online technology for use by local, regional and national healthcare authorities.

The National Public Health Institute will maintain online guidelines on surveillance of influenza, ascertainment of cases and control measures, as relevant for healthcare personnel, as well as relevant guidelines for the public.

16.6 Infection control

The National Public Health Institute will assess the information management procedures required for use of quarantine and for surveillance of those exposed to the virus.

The Ministry of Social Affairs and Health, in collaboration with the National Agency for Medicines, the National Emergency Supply Agency and the National Public Health Institute, is preparing a decision-making procedure, through which regulated use of antiviral influenza drugs may be adopted at the pandemic stage, when the drugs are only available from the central emergency stock.

Hospital Districts and health centres will draw up regional and local pandemic plans in such a way that transmission of infections is avoided in the treatment chain, including the reception, transport and placement of patients at all stages of the pandemic.

The Occupational Safety and Health Section of the Ministry of Social Affairs and Health and the Finnish Institute of Occupational Health, in collaboration with the National Public Health Institute and other relevant parties, will prepare the operational principles and guidelines for labour protection and occupational health services in such a way that they are compatible with those in other healthcare services.

16.7 Strengthening expertise and know-how

It is proposed that the resources of the National Public Health Institute for providing support for pandemic preparedness should be strengthened by setting aside special funding for 2006, for the purpose of implementing the measures as required by the National Pandemic Preparedness Plan. The budget framework of National Public Health Institute funding for 2007-2011 is proposed to be raised in order to improve the control of biological threats.

For Hospital Districts, special funding is proposed to be set aside for 2006, for the purpose of recruiting personnel for infectious disease epidemiology and control, in order to secure the implementation of the National Pandemic Preparedness Plan and regional infectious disease control. In order to strengthen infectious disease control in the long term, it is proposed that the Hospital Districts should have a special budget allocation annually for this purpose starting from 2007.

For strengthening the Finnish Food Safety Authority in supporting preparedness against threats of animal disease and a pandemic, setting aside special funding is proposed for 2006. Its funding framework is proposed to be raised in the 2007 budget in order to strengthen protection against animal disease threats, especially in virus diagnostics and veterinary epidemiology.

Resources required for planning and coordination of pandemic preparedness by Provincial Offices and municipalities must be investigated and assessed. Based on preliminary assessment by the working group, every Provincial Office social and health department should acquire a coordinator for pandemic preparations and preparedness planning.

Hospital District, health centre and other healthcare service employers must provide information and training on occupational health and safety for their staff in accordance with occupational health and safety regulations, and ensure that sufficient quantities of protective equipment are available in healthcare units.

The Ministry of Social Affairs and Health will improve the preparedness of healthcare personnel to meet the pandemic situation by supporting ethical debate and preparing guidelines for management of infectious patients.

The Ministry of Education and the Ministry of Social Affairs and Health will jointly prepare a plan of training employees involved in outpatient and inpatient care of influenza patients, when recruited from other duties, and incorporating material on infectious disease threats such as a pandemic in basic training curricula.

The National Public Health Institute and Hospital Districts will organise training to improve trace back investigation necessitated by influenza and numerous other infectious diseases, and to define the objectives, implementation and prerequisites in primary healthcare of quarantine, which has been little used in the last decades. The Provincial Offices will participate in organising training for regional preparedness planning, cooperating with Hospital Districts and the National Public Health Institute.

16.8 Material preparedness

The Ministry of Social Affairs and Health will prepare a draft resolution on joint Nordic vaccine production, and will propose from 2008 onwards an allocation in the budget for an advance purchase agreement for a targeted pandemic vaccine. It will also draft a resolution on possible use of mock-up vaccines.

The National Public Health Institute will prepare for vaccination campaigns to be implemented using model and targeted vaccines (procurement and distribution of vaccines, training and provision of guidelines to healthcare personnel, and provision of information directed to the general public).

The Ministry of Social Affairs and Health, the National Public Health Institute, the National Agency for Medicines and the National Emergency Supply Agency will assess the additional requirements in terms of emergency supplies.

The National Agency for Medicines jointly with the Ministry of Social Affairs and Health will develop the procedures for securing appropriate obligatory stocks of vaccines, antiviral drugs, medications required for treatment of complications from influenza, and supplies for prevention and control, as well as for their controlled release into use in a pandemic situation. For treatment and prevention of pandemic influenza, the National Emergency Supplies already contain or procurements are planned for antiviral medications and vaccines, supplies for vaccinating are being assessed. With the exclu-

sion of these materials, Hospital Districts and health centres should assess their drug, materials and protective equipment needs and implement the necessary purchases.

Because the National Emergency Supplies may only be released in a pandemic situation, it is proposed that the Hospital Districts acquire at least a stock of 500 treatment courses of oseltamivir for possible use in pandemic alert phases 3-5.

The Hospital Districts may negotiate with the National Emergency Supplies regarding the incorporation of regional procurement of materials and protective equipment within the contract framework of National Emergency Supplies. In such an instance, the Hospital District will be responsible for the recycling of the stocks and for reimbursement of materials taken into use or having become too old to be used.

Each healthcare unit must relate the number of patients requiring hospitalisation, intensive care and respirator treatment to available resources, and draw up a plan of their optimal use, as well as an estimate of required additional purchases.

16.9 Communications

The ministries shall ensure that they have the preparedness for communications concerning their own administrative sector with regard to the pandemic. Information, guidelines and recommendations on websites will be continually updated.

Each operative party should test the load capacity of the online services and, if necessary, draw up plans for improving load capacity.

The preparedness plans should include provisions for telephone helplines. The different administrative sectors must prepare for enhanced communications and prepare in advance material for this purpose.

Adoption of the VIRVE telephone system developed for communication between authorities and training for its use should be expanded and made more efficient.

16.10 International actions

Finland supports the EU systems for communicable disease control, particularly strengthening the role of the ECDC.

Finland plays her part in providing aid to South -East Asian countries and in other international measures to improve pandemic control and co-ordinated by WHO.