



THE IRISH COUNCIL FOR

**BIOETHICS**

COMHAIRLE BITHEITICE NA HÉIREANN

## Ethical Dilemmas in a Pandemic

Proceedings of the  
Irish Council for Bioethics Conference  
17th October 2006, Dublin

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THE IRISH COUNCIL FOR

**BIOETHICS**

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## CONFERENCE PROGRAMME

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Chair:	<b>Dermot Gleeson</b> , Chairperson, Irish Council for Bioethics
9:45 - 10:00	Conference Registration
10:00 - 10:05	<b>Welcome from the Chairperson</b>
10:05 - 10:20	<b><i>Infectious Disease Pandemics: a Scientific Overview</i></b> <b>Cliona O'Farrelly</b> , School of Medicine & Medical Science, UCD
10:20 - 10:25	Questions

10:25 - 10:55	<b>KEYNOTE LECTURE -</b> <b><i>From SARS to Bird Flu: the Canadian Experience</i></b> <b>Ross Upshur</b> , University of Toronto, Joint Centre for Bioethics
10:55 - 11:00	Questions
11:00 - 11:15	General Discussion
11:15 - 11:30	<b>Tea and Coffee Break</b>

## SESSION I – ETHICAL DILEMMAS

Chair:	<b>Darina O'Flanagan</b> , Health Protection Surveillance Centre
11:30 - 11:35	Chair's Introduction
11:35 - 11:55	<b><i>Personal Freedoms v. Public Good</i></b> <b>Donncha O'Connell</b> , Faculty of Law, NUI Galway
11:55 - 12:00	Questions
12:00 - 12:20	<b><i>Priority Setting: the Allocation of Scarce Resources</i></b> <b>Marcel Verweij</b> , Ethiek Instituut, University of Utrecht
12:20 - 12:25	Questions
12:25 - 12:40	General Discussion
12:40 - 13:40	<b>Lunch Break</b>

## SESSION II – ETHICAL CONSIDERATIONS IN PANDEMIC PLANNING

Chair:	<b>Richard O’Kennedy</b> , School of Biotechnology, DCU
13:40 - 13:45	Chair’s Introduction
13:45 - 14:05	<b><i>Pandemic Planning: the European Perspective</i></b> <b>Jan Semenza</b> , European Centre for Disease Prevention and Control
14:05 - 14:10	Questions
14:10 - 14:30	<b><i>Planning for the Pandemic in Ireland</i></b> <b>Darina O’Flanagan</b> , Health Protection Surveillance Centre
14:30 - 14:35	Questions
14:35 - 14:55	<b><i>International Collaboration to Stop Pandemics</i></b> <b>Stephen Thomas</b> , Global Health, School of Medicine, TCD
14:55 - 15:00	Questions
15:00 - 15:15	General Discussion
15:15 - 15:30	<b>Tea and Coffee Break</b>

## SESSION III – COMMUNICATION

Chair:	<b>Stephen McMahon</b> , Irish Patients’ Association
15:30 - 15:35	Chair’s Introduction
15:35 - 15:55	<b><i>Risk Communication: Media Issues</i></b> <b>Brian Trench</b> , School of Communications, DCU
15:55 - 16:00	Questions
16:00 - 16:20	<b><i>Public Risk Perception</i></b> <b>Noel Sheehy</b> , School of Psychology, Liverpool John Moores University <sup>1</sup>
16:20 - 16:25	Questions
16:25 - 16:40	General Discussion
16:40 - 16:45	<b>Closing Remarks</b> <b>Siobhán O’Sullivan</b> , Scientific Director, Irish Council for Bioethics

<sup>1</sup>Prof. Sheehy was unable to attend the conference, therefore, no summary of his presentation is given in these proceedings.

## BIOGRAPHICAL INFORMATION ON CONFERENCE SPEAKERS

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### **PROFESSOR CLIONA O'FARRELLY**

#### **School of Medicine & Medical Science, UCD**

Professor O'Farrelly is the director of research laboratories at the Education and Research Centre, St. Vincent's University Hospital and a member of the Irish Council for Bioethics.

She received her PhD in immunology from Trinity College Dublin (TCD) in 1982. She then worked as a research fellow in the Departments of Immunology and Clinical Medicine at TCD from 1982–1985, before moving to the Department of Biochemistry at Sussex University in the UK as a research fellow from 1985–1987. From 1987–1990 she worked as a lecturer on biology at Harvard University. She returned to the Departments of Immunology and Clinical Medicine at TCD as a Wellcome lecturer from 1990–1991, before becoming a Health Research Board research fellow at the Department of Immunology, TCD from 1991–1993. At the same time she worked as a research consultant at the Scripps Research Institute, California. Since 1992, she has been an honorary lecturer in the Faculty of Health Sciences, TCD, where she was awarded the prestigious Irish Research Scientists Association Gold Medal in 1998. In addition, she has been an honorary lecturer in the Faculty of Medicine, UCD since 1996 and was made adjunct professor of the faculty in 2003. She is also affiliated with the Conway Institute of Biomolecular and Biomedical Research at UCD.

### **DR. ROSS UPSHUR**

#### **Joint Centre for Bioethics, University of Toronto**

Dr. Upshur received BA (Hons.) and MA degrees in philosophy before receiving his MD from McMaster University in 1986. After 7 years of rural primary care practice he returned to complete his MSc in epidemiology and fellowship training in Community Medicine and Public Health at the University of Toronto. He is currently the director of the University of Toronto Joint Centre for Bioethics and a staff physician at the Department of Family and Community Medicine, Sunnybrook Campus of the Sunnybrook Health Sciences Centre.

Dr. Upshur is the Canada Research Chair in Primary Care Research and a research scholar and associate professor at the Departments of Family and Community Medicine and Public Health Sciences, and he is an adjunct scientist at the Institute of Clinical Evaluative Sciences at the University of Toronto. He is a member of the Royal College of Physicians and Surgeons of Canada, the College of Family Physicians of Canada, the Joint Centre for Bioethics at the University of Toronto and is an associate member of the Institute of Environment and Health at McMaster University. He is an affiliate of the Institute of the History and Philosophy of Science and Technology at the University of Toronto.

His research interests include the concept of evidence in healthcare, medical epistemology, clinical reasoning, public health ethics, ethics and health information, empirical approaches in bioethics, primary care research methods, time series applications in health services research, communicable disease and environmental epidemiology. He has published peer-reviewed studies in each of these domains. At the University of Toronto, he has designed and taught courses in the graduate, postgraduate and undergraduate curriculum in ethics and epidemiology, as well as supervising doctoral and masters candidates and being a clinical supervisor in the postgraduate Family Medicine Residency programme. He has served on advisory boards for the International Joint Commission, Doctors Without Borders, and Scidev.net and has consulted with the World Health Organisation (WHO).

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**MR. DONNCHA O'CONNELL****Faculty of Law, National University of Ireland (NUI), Galway**

Mr. O'Connell is the dean of the Faculty of Law at NUI, Galway where he teaches constitutional law, legal systems, European human rights and equality law. He was called to the Irish Bar in 1992 and joined the Law Faculty in 1993 after completing an LL.M at the University of Edinburgh.

From 1999 until 2002 (while on leave of absence), he was the first full-time director of the Irish Council for Civil Liberties, a non-governmental organisation founded in 1976 by Mary Robinson, Kader Asmal and Donal Barrington. In 2002 he was appointed as the Irish member of the EU Network of Independent Experts on Fundamental Rights established by the European Commission. Mr. O'Connell has participated, as a Council of Europe expert, in several judicial training programmes in Croatia, Georgia and Azerbaijan, and he has worked in a similar capacity in other countries with the Netherlands Helsinki Federation and Interights.

He was a board member of Amnesty International (Irish Section) from 2002–2004 and of the National Council of the Free Legal Advice Centres (FLAC) Ltd. from 2002–2005. In the past, he has been a visiting lecturer at Boston College (USA), l'Université de Poitiers (France), Montana State University (USA), the Department of Social Studies (TCD), the Law School (TCD) and the Equality Studies Centre (UCD). He edits the *Irish Human Rights Law Review*, published by Clarus Press in 2006, and is the co-editor (with Mike Milotte) of *Justice in Controversy*, a monograph series published by Irish Academic Press. Mr. O'Connell has recently been co-opted on to the Board of Directors of Druid Theatre Company.

**DR. MARCEL VERWEIJ****Ethiek Instituut, University of Utrecht**

Dr. Verweij is a lecturer at the Ethics Institute and coordinator of the masters programme in Applied Ethics. Dr. Verweij studied philosophy in Utrecht and graduated in 1989 with a thesis on the nature of moral thinking. Afterwards, he became a junior research fellow of the Centre for Bioethics and Health Law. He worked on moral problems in healthcare management, medical research, and preventative medicine. He received his PhD (Utrecht University, 1998) for the dissertation "Preventative Medicine between Obligation and Aspiration". This study contained a broad overview of moral issues in preventative medicine, but also an in-depth analysis of moral considerations (*i.e.* about medicalisation), which are not as strict as most common moral requirements.

Dr. Verweij has worked as a clinical ethicist and as a research fellow in moral philosophy at the universities of Nijmegen, Amsterdam and Utrecht. He has a particular interest in the interactions between ethical theory and reflection in applied ethics, notably public health ethics. Currently, his research focuses on the reasonable demands of beneficence, on the ethical dimensions of immunisation and on the values of public health.

**DR. JAN SEMENZA****European Centre for Disease Prevention and Control**

Dr. Semenza obtained both his MSc in molecular genetics (1987) and his PhD in molecular cell biology (1991) from the Swiss Federal Institute of Technology. He also received an MPH in environmental health (1994) from the University of California at Berkeley. He is clinical associate professor of Public Health and Preventative Medicine at the Oregon Health and Science University. He is interested in environmental health and uses the tools of molecular epidemiology in order to elucidate the link between environmental exposure and cancer. Dr. Semenza combines his scientific experience in both biomedical research and environmental epidemiology to investigate cancer susceptibility and gene-environment interactions. He is also interested in a wide range of other environmental health issues, such as urban health, social inequality and international health.

Dr. Semenza is a senior advisor to the European Centre for Disease Prevention and Control, and he regularly collaborates with the WHO on surveillance projects and spends several months a year in developing countries, including Sudan and Brazil. He teaches core courses in the Oregon MPH programme, including environmental health and epidemiology, as well as university studies courses on film and health, and global health.

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**DR. DARINA O'FLANAGAN****Health Protection Surveillance Centre**

Dr. O'Flanagan is the director of the Health Protection Surveillance Centre (HPSC) and a member of the Irish Council for Bioethics. The HPSC is Ireland's leading specialist centre for the surveillance of communicable diseases. Prior to becoming director of the HPSC, Dr. O'Flanagan worked for the Department of Public Health of the Eastern Health Board. Dr. O'Flanagan qualified from Trinity College Dublin medical school in 1979 and obtained an MPH from UCD in 1986. She is a Fellow of the Royal College of Physicians and Fellow of the Faculty of Public Health Medicine in the RCPI. She is a member of the National Immunisation Advisory Committee of the Royal College of Physicians in Ireland and has served on advisory groups to the Department of Health and Children, including those on CJD, meningitis, tuberculosis, biological threats, influenza and severe acute respiratory syndrome (SARS). She is a current member of the advisory forum of the European Centre for Disease Prevention and Control.

**DR. STEPHEN THOMAS****Global Health, School of Medicine, TCD**

Dr. Thomas is a lecturer in health policy and management and the director of the masters programme in global health at TCD. Prior to moving to Ireland he was the director of the Health Economics Unit at the University of Cape Town. Dr. Thomas did his undergraduate degree in politics, philosophy and economics at Oxford University as well as his masters degree in development economics, before completing his PhD at the University of Cape Town. He has a wealth of experience in policy-oriented research in government and academia in developing countries, particularly in South Asia and East and Southern Africa. His research interests include resource allocation, equity, health financing and the development of absorptive capacity in rural districts as a platform for health system change. He is also interested in the politics of reform and how best to deal with vested interests in the health system.

Currently, he is leading research into the viability of social health insurance in the Irish context. Other current research interests include evaluating the applicability of a resource allocation working party (RAWP) type model for health sector resource allocation in the Irish context and exploring strategies to retain human resources in developing countries through the use of incentive packages. Dr. Thomas is also responsible for directing the new masters programme in global health at TCD. This unique course explores the impact of global forces on individual health systems, using social science analytical frameworks and tools. Its aim is to prepare students for work in the development of health sector policy and the governance of its resources, whether in developing countries, donor governments, NGOs or research organisations.

**MR. BRIAN TRENCH****Head, School of Communications, DCU**

Mr. Trench is a senior lecturer and head of the School of Communications in DCU. He teaches modules in science and the media, science and society and research methods. His research interests are in online journalism and in social uses and representations of science and technology. He manages the Biosciences and Society research group within the National Institute for Cellular Biotechnology and has been a theme leader in the EU-funded ENSCOT (European Network of Science Communication Teachers) and MUDIA (Multimedia Content in the Digital Age) projects. Mr. Trench was a member of the government advisory body, the Irish Council for Science Technology and Innovation, 1997–2003. He was a full-time journalist for 20 years before joining DCU.

### **MR. DERMOT GLEESON S.C.**

#### **Chairperson, Irish Council for Bioethics (December 2003 – March 2007)**

Mr. Gleeson qualified with a BA (economics and politics) in 1968, an LL.M in 1970, and as Barrister-at-Law (King's Inns) in 1970. He has been a practising Senior Counsel from 1979 to date. He was the Attorney General of Ireland from 1994 to 1997. His special areas of interest include constitutional and administrative law. He has appeared on a number of occasions before the European Court of Justice, European Court of Human Rights and the European Commission on Human Rights. He also lectured in law (constitutional, and administrative law, and jurisprudence) at University College Cork from 1974–1978. Mr. Gleeson has been the chairman of the Allied Irish Bank (AIB) Group since 2003, having joined the board of AIB in 2000.

### **PROFESSOR RICHARD O'KENNEDY**

#### **School of Biotechnology, Dublin City University (DCU)**

Professor O'Kennedy is a member of the Irish Council for Bioethics. He is director of the Applied Biochemistry Group and his research is focused on antibody-based assay development. This research has won national and international awards, including the Royal Irish Academy Award for Biochemistry (2001). He was a founding member of the National Centre for Sensor Research at DCU. He is a principal researcher and leader of Education and Outreach in the Biomedical Diagnostics Institute and a principal researcher at the Centre for Bioanalytical Sciences at DCU. He has played a major role in science communication and the development of science awareness amongst primary, secondary and third level students and the public, both in Ireland and abroad. He is currently president of the London International Youth Science Forum, organiser of the Irish Biology Olympiad, chairman of the Centre for Talented Youth and a member of the Life Sciences Committee of the Royal Irish Academy.

### **MR. STEPHEN MCMAHON**

#### **Chairman, Irish Patients' Association (IPA)**

Mr. McMahon was educated at Blackrock College and TCD, where he obtained a diploma in advanced system analysis. Mr. McMahon has wide business experience, having worked for 30 years for a large multinational oil company as a planning analyst in finance, marketing, IT and operations. Mr. McMahon is chairman and co-founder of the IPA, based in Dublin, and a member of the Irish Council for Bioethics. Mr. McMahon has recently been elected to the governing board of the International Alliance of Patients, a global voice for patients advocating patient centred care to over 60 countries. He has also served as the Irish delegate on a Council of Europe expert group on media and health.

## INTRODUCTION

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The current outbreak of the H5N1 strain of avian influenza in humans began in Southeast Asia in 2003, but given the potential threat of this disease developing into a pandemic, avian influenza is of global interest. As a result, numerous countries have developed and are developing pandemic preparedness plans to deal with such an eventuality.

Influenza pandemics are thought to occur when strains of influenza in birds (and possibly pigs) mutate and cross the species barrier to propagate efficiently among humans. The H5N1 strain of avian influenza has shown itself to be capable of infecting people, and causing high rates of mortality, but has not at this time become capable of propagating efficiently among humans. Since April 2003 there have been 307 confirmed human cases of H5N1 avian influenza, which have resulted in 186 deaths.<sup>2</sup> While the majority of these cases occurred in Asia, the outbreak has spread to parts of Africa (Egypt, Nigeria and Djibouti), the Middle East (Iraq) and Europe (Turkey and Azerbaijan).

The situation is constantly monitored at a national and international level, with the World Health Organisation (WHO) coordinating surveillance on the spread of avian influenza in humans and the World Organisation for Animal Health (OIE) monitoring its spread in bird populations. The WHO has also devised a system of six phases of pandemic alert to inform the world of the severity of the threat of a pandemic, ranging from phase 1—where no new influenza virus subtypes have been found in humans; to phase 6 (the pandemic phase)—where there is increased and sustained transmission of influenza among the human population. Since 2005 the world has been at pandemic alert phase 3, whereby a new influenza virus subtype is causing disease in humans, but there is no efficient and sustained spread of the disease among humans.<sup>3,4</sup>

Given the potential threat of an avian influenza pandemic and the importance of ethical decision-making in the planning and control of disease outbreaks, the Irish Council for Bioethics (ICB) held a conference entitled “Ethical Dilemmas in a Pandemic” on 17 October 2006, to facilitate discussion of the ethical issues pertaining to the control of infectious diseases.

In Ireland, a number of initiatives have been put in place to monitor, advise and plan for a pandemic influenza outbreak. These initiatives involve, among others, the Department of Health and Children, the Health Service Executive (HSE), the Health Protection Surveillance Centre (HPSC), the Pandemic Influenza Expert Group and the Department of Agriculture and Food.<sup>5</sup> The general consensus from these groups is that an avian influenza pandemic outbreak would have a significant impact on the health of the Irish population, more than likely resulting in high rates of illness, hospitalisation and death.

The Pandemic Influenza Expert Group has used a model, based on the profile of previous United Kingdom (UK) influenza pandemics, to estimate the health impact of an avian influenza outbreak for Ireland.<sup>6</sup> The model examined two scenarios: one based on a clinical attack rate of 25% (*i.e.* 25% of the population will show symptoms of influenza), which equates to 1,058,731 people; and the other, the worst-case scenario, based on a clinical attack rate of 50%, which equates to 2,117,463 people. With the first scenario, the model predicted a hospitalisation rate of 0.55% and a mortality rate of 0.37%, or 5,823 and 3,917 people respectively. For the worst-case scenario, the model predicted a hospitalisation rate of 3.7% (78,346 people) and a mortality rate of 2.5% (52,937 people).<sup>7</sup> The model envisaged the pandemic outbreak lasting for a total of 15 weeks. A pandemic influenza outbreak similar to these scenarios would, thus, place severe pressure on the Irish economy and health system.

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<sup>2</sup>See the World Health Organisation website. Accessed on 24, May 2007 at: [http://www.who.int/csr/disease/avian\\_influenza/country/cases\\_table\\_2007\\_05\\_24/en/index.html](http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_05_24/en/index.html).

<sup>3</sup>See the World Health Organisation website. Accessed on 24, May 2007 at: [http://www.who.int/csr/disease/avian\\_influenza/phase/en/index.html](http://www.who.int/csr/disease/avian_influenza/phase/en/index.html).

<sup>4</sup>Health Service Executive and Department of Health and Children, 2007. *National Pandemic Influenza Plan*. Dublin, 32p.

<sup>5</sup>For more information see: Health Service Executive and Department of Health and Children, *op. cit.*; Pandemic Influenza Expert Group, 2007. *Pandemic Influenza Preparedness for Ireland: Advice of the Pandemic Influenza Expert Group. Draft for Consultation*. Dublin, 587p; National Influenza Pandemic Planning Committee, 2002. *A Model Plan for Influenza Pandemic Preparedness*. Dublin, 119p.

<sup>6</sup>Pandemic Influenza Expert Group, *op. cit.*

<sup>7</sup>All calculations used in the model were based on the Census 2006 Preliminary Report from July 2006, in which the Irish population was given as 4,234,925.

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It should be noted that the scenarios mentioned above are based on a single wave pandemic whereas a typical pandemic has at least two and sometimes three waves occurring over a 12-month period.

While the main concerns with regard to an avian influenza pandemic focus on the health impacts, this is not solely a public health issue and will affect all sectors of society. Depending on the severity of the pandemic outbreak there could be serious impacts on the economy and business activity, due to high levels of employee absenteeism, disruption to the supply of and demand for goods and services, disruption to transport and logistic systems, restrictions on business travel, as well as the related human resource, insurance and cash flow implications.<sup>8</sup>

Notwithstanding the risk to human health, an outbreak of avian influenza, among wild birds, would pose a significant risk to the poultry industry in Ireland. Information and guidance on biosecurity practices to reduce the risk of flock infection is widely available for farmers and other individuals working with poultry. Given the importance of this industry, estimated to be worth €150million,<sup>9</sup> the control measures that would be implemented in the case of an influenza outbreak are necessarily severe and would result in the culling of infected flocks in their entirety, as well as in restrictions on the transport and trade of animals to and from areas suspected or confirmed as experiencing an outbreak.<sup>10</sup> Such measures were taken against the first reported case of H5N1 influenza in a poultry flock in the UK in February 2007.<sup>11</sup>

Given the seriousness of the potential health and economic impacts associated with an outbreak of pandemic influenza, it is vital that adequate planning is in place to mitigate the effects of such a pandemic. In Ireland, the *National Pandemic Influenza Plan* was published by the Department of Health and Children and the HSE in January 2007.<sup>12</sup> The purpose of this plan is to inform the general public about pandemic influenza, to explain what the government and the health services are doing to prepare for a possible pandemic and to advise the public on what they need to do if there is a pandemic. The *National Pandemic Influenza Plan* is based on WHO recommendations for national pandemic plans and reflects the advice of the Pandemic Influenza Expert Group in Ireland.

The Pandemic Influenza Expert Group also published a comprehensive report entitled *Pandemic Influenza Preparedness for Ireland: Advice of the Pandemic Influenza Expert Group* in January 2007.<sup>13</sup> This report provides guidance and public health advice to healthcare workers and others involved in pandemic influenza preparedness and response. This report also acknowledges the importance of advance planning to counteract the effects of a pandemic. The Pandemic Influenza Expert Group advises that ethical issues pertaining to a pandemic should be addressed at a national level now, in advance of a pandemic. Open identification and discussion of the ethical principles and values underlying decisions taken for pandemic preparedness will encourage the cooperation and “buy-in” of the general public.<sup>14,15,16</sup> In this way, those affected by measures implemented to counteract the effects of a pandemic outbreak should be more understanding, trusting and accepting of these measures.

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<sup>8</sup>Forfás 2007. *Business Continuity Planning – Responding to an Influenza Pandemic*. Dublin, 66p.

<sup>9</sup>MacConnell, S 2006. “Rearing fowl without frontiers”. *The Irish Times*, 28th August 2006.

<sup>10</sup>Department of Agriculture and Food, 2007. *Code of Practice in Relation to Avian Influenza for Breeding and Rearing of Game Birds intended for Release or for Export*. Dublin, 11p.

<sup>11</sup>*The Irish Times*, 2007. “Deadly strain of bird flu found on English farm”. *The Irish Times*, 3rd February 2007.

<sup>12</sup>Health Service Executive and Department of Health and Children, *op. cit.*

<sup>13</sup>Pandemic Influenza Expert Group, *op. cit.*

<sup>14</sup>University of Toronto Joint Centre for Bioethics, 2005. *Stand on Guard for Thee. Ethical Considerations in preparedness planning for pandemic influenza*. Toronto, 27p.

<sup>15</sup>Thomas, JC, Dasgupta, N and Martinot, A 2007. Ethics in a Pandemic: A Survey of the State Pandemic Influenza Plans. *American Journal of Public Health* 97 Supplement 1: 26-31.

<sup>16</sup>Duncan, K 2006. Ethics still un-addressed in pandemic preparedness: Possible planning guideline. *Management Ethics* Fall 2006: 1-6.

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Numerous pandemic preparedness plans have been published by national, state and federal governments, as well as by individual organisations, outlining the main issues and possible responses to pandemic outbreaks, including some ethical dimensions. The vast majority of these, however, do not offer a detailed consideration of the ethical issues involved.<sup>17,18,19</sup> However, since many state and national pandemic plans will be revised and updated, there is an opportunity to address ethical issues in more detail in the future.

The SARS outbreak in Toronto in 2003 brought many of these ethical issues to light and highlighted the necessity for advanced planning, which incorporates an ethical dimension.<sup>20</sup> The WHO has provided detailed guidance on the incorporation of ethical issues into pandemic preparedness and response plans. A number of ethical issues need to be addressed when devising a preparedness plan for pandemic influenza, and the WHO has identified four key issues that it believes should be incorporated into all such plans. The WHO has established working groups to look at each of these key ethical issues:

1. The role and obligations of healthcare workers to provide care during an outbreak of pandemic influenza.
2. The ethics of public health measures in response to pandemic influenza.
3. Equitable access in the allocation of therapeutic and prophylactic measures.
4. Issues that arise between governments when developing a multilateral response to a potential outbreak of pandemic influenza.

These key issues raise a number of questions that need to be considered in any pandemic plan, and these questions, among others, were expanded upon during the conference and are outlined in these proceedings.

### **1. The role and obligations of healthcare workers to provide care during an outbreak of pandemic influenza**

The effective response to a pandemic outbreak requires the involvement of healthcare workers. However, during a pandemic, healthcare workers will face conflicting obligations between fulfilling their duty to care for patients and protecting their own health and that of their families and others close to them.<sup>21,22</sup> On the one hand, they are skilled and trained to do this job and they entered into the profession knowing there was an element of risk involved. On the other hand, given their position at the forefront of the pandemic response, they face a disproportionate risk and the ethical principles of reciprocity and solidarity require society to support these individuals and try to minimise the risks they face.<sup>23</sup>

Healthcare workers need professional guidance, *via* codes of ethics, to clarify their role and responsibility during a pandemic outbreak. The mechanisms of assigning these roles should be fair and transparent, with an equitable distribution of the potential risks where possible.<sup>24,25</sup> In addition, healthcare workers should be provided with safe working conditions and medical and psychological care, for example priority access to antiviral drugs and vaccines. They should also receive financial assistance through an insurance fund established to help healthcare workers should they become ill (or even die) while discharging their duties.

### **2. The ethics of public health measures in response to pandemic influenza**

Public health interventions are necessary to counteract a pandemic threat; however, a balance needs to be met between protecting the rights and freedoms of individuals and maximising the common good.<sup>26</sup> Measures such as surveillance, travel restrictions, isolation and quarantine, while effective tools against infectious diseases, impact on personal freedoms such as mobility, freedom of assembly and privacy.<sup>27,28</sup>

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<sup>17</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>18</sup>Gostin, L and Berkman, B 2006. *Draft paper for Working Group Two (6 October 2006)*. Ethics of public health measures in response to pandemic influenza. World Health Organisation, 35p.

<sup>19</sup>Thomas *et al.*, *op. cit.*

<sup>20</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>21</sup>Upshur, R 2006. *Draft paper for Working Group Three (14 September 2006)*. The role and obligations of health-care workers during an outbreak of pandemic influenza. World Health Organisation, 15p.

<sup>22</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>23</sup>*ibid.*

<sup>24</sup>Upshur, *op. cit.*

<sup>25</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>26</sup>Gostin and Berkman, *op. cit.*

<sup>27</sup>*ibid.*

<sup>28</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

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The public needs to be given information on the steps that will be taken during a pandemic outbreak, along with clear and transparent criteria for the exercise and use of such measures. If the mechanisms that will be used are seen as relevant, legitimate, legal, proportional and necessary and incorporate a degree of reciprocity and support for those affected by these measures, then the likelihood of public compliance should increase.<sup>29</sup>

### **3. Equitable access in the allocation of therapeutic and prophylactic measures**

While the ethical dimension to pandemic mitigation has not often been considered in detail in national pandemic preparedness plans, the issue of the allocation of scarce resources is repeatedly covered, highlighting the importance of this issue.<sup>30</sup> During a pandemic, healthcare resources (*e.g.* medicines, equipment and personnel) will be limited, therefore there is both a need and a responsibility for governments and public health institutions to devise criteria for the allocation of resources in these circumstances.<sup>31</sup> Such criteria should aim to maximise the benefits of using the resources available while also reducing discrimination in their allocation. Accordingly, the criteria chosen should be reasonable, equitable and justifiable in order to encourage “buy-in” from the general public. This should, therefore, involve discussion and consultation with the public on the priority setting mechanisms to be employed during a pandemic.<sup>32,33</sup>

The main questions that need to be considered are who should get the resources and why? Whatever groups are chosen to receive priority access to healthcare resources during a pandemic, the ethical dimension of such decisions needs to be accessible to the general public. The values of fairness and justice should underpin the criteria for resource allocation.

### **4. Issues that arise between governments when developing a multilateral response to a potential outbreak of pandemic influenza**

A pandemic influenza outbreak would have a global impact, therefore plans to mitigate and counteract this impact should reflect our global interdependence. At the same time, preparedness plans need to balance national sovereignty and protection with global solidarity and responsibility, particularly the responsibility of developed countries to co-operate with and support developing countries.<sup>34</sup> Global solidarity and interdependence will be particularly relevant in the aftermath of a pandemic, but adequate planning and contingency plans should be developed in advance.<sup>35</sup> The support of developing countries before the onset of a pandemic could help these countries to prepare for, prevent and control outbreaks of infectious disease.

A government might choose to stockpile resources such as antiviral drugs for allocation at a national level in the event of a pandemic outbreak. Developed countries have taken these steps in order to protect their citizens from the threat of a pandemic. However, developing countries may not have sufficient medical, technical and financial resources to combat the threat posed by serious infectious disease outbreaks. Developed countries, therefore, have a role to play in assisting developing countries to adequately prepare for a pandemic by providing investment and resources to support the healthcare systems in such countries.<sup>36</sup> This is particularly relevant since serious infectious disease outbreaks are more likely to occur in developing countries. With increased investment developing countries could, thus, improve their surveillance systems for monitoring potential disease outbreaks and be better equipped overall to deal with such outbreaks. Supporting developing countries shows solidarity at a global level, but also benefits the interests of developed countries by reducing the threat of pandemic outbreaks occurring.<sup>37</sup>

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<sup>29</sup>*ibid.*

<sup>30</sup>Uscher-Pines, L, Omer, SB, Barnett, DJ, Burke, TA and Balicer, RD 2006. Priority Setting for Pandemic Influenza: An Analysis of National Preparedness Plans. *PLoS Medicine* 3(10): e436 doi:10.1371/journal.pmed.0030436.

<sup>31</sup>Verweij, M 2006. *Draft paper for Working Group One (20 October 2006)*. Equitable access to therapeutic and prophylactic measures. World Health Organisation, 31p.

<sup>32</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>33</sup>Verweij, *op. cit.*

<sup>34</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>35</sup>Archer, R 2006. *Draft paper for Working Group Four (21 October 2006)*. Issues that arise between governments when developing a multilateral response to a potential outbreak of pandemic influenza. World Health Organisation, 21p.

<sup>36</sup>University of Toronto Joint Centre for Bioethics, *op. cit.*

<sup>37</sup>Archer, *op. cit.*

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## Public Perception Survey

Debate and discussion at the conference garnered the views and recommendations of experts and stakeholders with regards to the issues, both ethical and practical, which need to be addressed in planning for and responding to pandemic disease outbreaks. However, the ICB also felt it was important to gauge the views of the general public on such issues, since effective planning and management of pandemic outbreaks depends not only on the coordination of government and public officials, but also on the involvement and cooperation of the general public. As noted above, the acceptance by the general public of the counteractive measures to a pandemic is an essential part of any pandemic preparedness plan. Such public cooperation can be enhanced through fair, transparent and ethical decision-making.

With this in mind the ICB, in conjunction with TNS MRBI (*via* their telephone omnibus, TNS MRBI PhoneBus®), conducted a survey to examine public awareness, understanding and concern about influenza, including the perceived causes, treatments and consequences of a pandemic. The survey was conducted in March 2007 and involved 1,005 adults of 15 years and over who were interviewed using a structured questionnaire (see Appendix 1).

### The Findings of the Survey (For graphs see page 34)

In general, the Irish public appears to be aware of the meaning of 'flu pandemic'. When prompted, 3 out of 4 Irish people surveyed recognised a pandemic as an outbreak of disease across one or many countries. Interestingly, however, the survey suggested that most Irish people (68%) had heard nothing about the threat of a future influenza pandemic and were not closely following the story of avian influenza (76%). Those individuals who had some knowledge of a potential pandemic threat had received their information from a number of sources, but mainly television news (66%), newspapers (44%) and radio (32%). Notwithstanding the apparent lack of knowledge surrounding the potential threat of a pandemic, most of those asked (64%) felt that the news media coverage of avian influenza was proportionate.

Although many of those questioned had stated that they had not heard about a future influenza pandemic, 3 in 5 of the population (especially the older population) expressed some or great concern about an outbreak of avian influenza among humans, with almost half (48%) of the respondents believing that a human influenza pandemic is likely in the next 10 years. It was considered that such a pandemic influenza outbreak would have serious socio-economic impacts for Ireland. Some of the main impacts envisaged by the survey respondents were an increased burden on the health service, a substantial number of deaths, economic decline and the disruption of public services.

The general public expressed limited knowledge of possible treatments for pandemic influenza in humans, with only 16% of those surveyed aware of any treatment options. However, when questioned specifically with regard to an avian influenza vaccine, 81% of people recognised that it was not possible to produce an effective vaccine until the pandemic influenza virus had been identified. Nonetheless, there was still some disagreement among the public as to whether or not such a vaccine has already been developed, with 40% suggesting that it had been developed. This dichotomy indicates that there may be some confusion with respect to vaccine development. Furthermore, some 48% of those questioned mistakenly believed that a pandemic influenza vaccine was administered to children and the elderly each winter.

There was also a distinct lack of knowledge among the Irish public of any drugs that could be used to treat pandemic influenza, with 94% of the surveyed population unaware of such drugs. Even among those (5%) who knew something of possible drug treatments, only some correctly identified antiviral drugs as a means of treating pandemic influenza, though others did name the antiviral drug "Tamiflu" specifically.

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Interestingly, the survey revealed that the general public was willing to prioritise certain groups to receive vaccinations during the initial stages of a pandemic outbreak when vaccine availability would be limited. Most people (62%) believed that healthcare workers should receive vaccination first, whereas others (29%) suggested that high-risk groups such as children and the elderly should be prioritised first. In a study of national pandemic influenza preparedness plans from a number of European countries, it was found that 19 countries had prioritised specific groups to receive vaccinations. In 15 of these plans healthcare workers were given first priority to receive vaccines, whereas essential services workers were ranked second (13 plans) and people at risk of serious medical complications associated with influenza were ranked third (11 plans).<sup>38</sup>

Those questioned in the survey also had clear views on the administration of antiviral drugs, with approximately 3 in 4 Irish people believing that Ireland should share its antiviral drugs with other countries in the event of a pandemic, as this could help to limit the spread of the disease to Ireland. It should be noted, however, that the phrasing of the question does not allow differentiation between those individuals willing to share the Irish stockpile of antiviral drugs under any circumstances and those individuals only willing to share the Irish antiviral drugs if they are not needed here. The importance of global solidarity, especially between countries from the developed world and those in the developing world, has been highlighted by the WHO.<sup>39</sup>

Nevertheless, many respondents (43%) were of the opinion that once a pandemic became established in Ireland, public health officials should treat everyone as equally as possible during the management of the outbreak. However, others still felt that public health officials should give priority to sick and frail people in getting assistance (27%), or give priority to saving the most lives (23%) during a pandemic outbreak.

The general public also expressed views in relation to potential government introduced pandemic control measures. Overall, the public appears willing to accept most measures, in the short term, with the majority of survey respondents agreeing to follow increased hygiene measures, avoid air travel and avoid large public events. Many people even stated that they would accept more restrictive measures, such as keeping their children home from school or staying out of work themselves. It was considered by some that, during a pandemic, the government should provide information to the public on such issues as whether or not it was safe to send their children to school (46%) or to go to work (29%). However, the main issues the public would like to be informed of during a pandemic related to identifying the symptoms of pandemic influenza and the various treatments and their availability.

Overall, the results of this survey suggest that the general public need to be further educated and informed of the main issues associated with a potential pandemic influenza outbreak. In particular, the government's pandemic influenza plan needs to be further highlighted since current levels of awareness of this plan are extremely limited. As noted previously, those people with some awareness of pandemic influenza cited television, radio and the press as their main sources of information on this issue. Not surprisingly, television was also identified by most people (58%) as the best method for the government to provide information and advice during a pandemic. However, additional media such as radio, the press and information leaflets could also be utilised to ensure more widespread distribution of the information.

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<sup>38</sup>Mounier-Jack, S and Coker, RJ 2006. How prepared is Europe for pandemic influenza? Analysis of national plans. *Lancet* **367**: 1405-1411.

<sup>39</sup>Archer, *op. cit.*

## What is a pandemic?

The word pandemic stems from two Greek words: “pan” meaning all and “demo” meaning people, and it has come to signify a disease that effects large numbers of people. It is understood that a pandemic disease is contagious, *i.e.* caused by an infectious agent, which is easily transmitted, from one person to another (unlike cancer, which certainly affects a significant proportion of the world's population but cannot be “caught”).

To be classified a "pandemic", a disease must have three characteristics: it can be caused by a strain of disease that most people have no natural immunity to; it must cause serious illness and/or have a high degree of mortality among humans; and the disease must be easily spread from person to person. In order to cause a pandemic, some novel aspect of the infection or infectious agent allows it to thrive and spread, seriously impacting health and often causing death. The common cold, even though it affects millions of people each year, is not a pandemic, as the infectious virus does not change and it causes relatively minor symptoms.

In the past, there have been pandemics every 30–40 years. In the twentieth century, there were three pandemics, “Spanish flu” in 1918–1919, “Asian flu” in 1957–1958, and “Hong Kong flu” in 1968–1969. Of



Professor Cliona O'Farrelly

particular concern at the moment are cases of human infection by an avian influenza strain in South East Asia. This current “bird flu” in Asia is producing severe disease and deaths. If the virus acquires the capacity to be transmitted efficiently between humans, it is feared that a pandemic might be triggered.

## What causes pandemic disease?

The microbial world, found in every possible environmental niche and including fungi, yeasts bacteria and viruses, is rich and varied with millions of species, many of which are probably not discovered or described. Most microbial species are harmless, with a surprisingly small number causing serious harm. Indeed, the aim of most micro-organism agents is to maintain

their host or source of nutrition alive as long as possible—and so we live quite happily with many millions of bacteria and indeed have become dependent on them for our health. It is often the host's response to overwhelming infection that causes the symptoms and pathological damage leading to death.

Although details of the mechanisms vary widely among different virus groups, all viruses must follow three basic steps to reproduce. First, they must gain entrance and deliver their genetic material into cells. Second, the virus commandeers the machinery of the host cell so that it can make copies of its viral genome and synthesise viral proteins. Finally, the nucleic acid and protein components are synthesised and the virus particle is assembled. There are various mechanisms by which a virus can exit a cell. Some viruses lyse, or burst open cells to release the virus particles. This process immediately destroys the host cell. Other viruses will bud out of the cell through the plasma membrane. In any case, hundreds or thousands of infectious virus particles are released from an infected cell. These newly made virus particles then go on to infect new host cells and continue the cycle of virus reproduction.

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The host immune system initially recognises the invader as dangerous through highly sophisticated detection mechanisms, which then stimulate a chain of reactions leading to activation, proliferation and amplification of the cells and molecules necessary for the elimination of the virus. As immune systems evolve new detection and response mechanisms, pathogens evolve new evasion mechanisms. Two types of defense against viruses predominate: humoral immunity and cellular immunity. The humoral immune system attacks viruses when they are loose in the body, either in the bloodstream or in bodily secretions. The humoral response consists of antibodies made to specific viruses. These antibodies remain present in the circulation and secretions, hopefully eliminating the virus and protecting against future infections. The cellular immune system attempts to destroy viruses once they have taken up residence inside the body's cells. The cellular response consists of certain white blood cells, such as cytotoxic lymphocytes or natural killer cells, which attack and destroy our own cells that have been altered by viruses.

It is now known that pandemics are associated with novel viral strains that emerge due to genetic changes affecting two important proteins on the surface of the virus. Small changes in the surface proteins (antigenic drift) can give rise to yearly epidemics of influenza. More profound genetic changes, caused by the mixing of human and animal strains of influenza (antigenic shift), can give rise to novel strains of influenza virus, which can cause severe disease and high mortality.

### **How can pandemic infection be treated?**

There are two principal antiviral strategies adopted during a pandemic: use of antivirals and vaccines.

Antiviral drugs are not curative, and must be used either prophylactically or early in the development of an infection. Typically antiviral drugs interfere with viral replication as described above. This will reduce the rate of viral growth, but will not render inactive the virus already present. Antiviral therapy must normally be initiated within 48 hours of the onset of an infection to provide any benefit. Antivirals against avian influenza are now being stockpiled by a number of countries for use in the event of a pandemic virus becoming established. However, it is unlikely that stockpiles will prove sufficient during a pandemic, especially if antivirals are used in a prophylactic manner. This raises important questions with respect to who will get treatment with a limited supply of antivirals in the event of a pandemic outbreak.

Unlike antivirals, a pandemic vaccine cannot be produced until a new pandemic virus emerges and is identified, usually three to six months after the start of a pandemic. A vaccine stimulates the host immune system to mount a specific response, as described above, against an infectious agent. Manufacturing capacity for vaccines is overwhelmingly concentrated in Europe and North America, in countries that account for only 10% of the world's population. This could place developing countries at a disadvantage in the event of a pandemic, as previous experience indicates that countries with local manufacturing capacity are likely to meet domestic demand for vaccines before freeing supplies for developing countries. Current global manufacturing production capacity for vaccines falls far below the demand that will arise during a pandemic. Attempts at addressing this problem have begun by funding research into development and production of new technologies for influenza vaccines.

Dr. Ross Upshur  
Joint Centre for Bioethics, University of Toronto

The spectre of avian influenza H5N1 has raised concerns globally and has brought back memories of the feared 1919 influenza pandemic. Concerns about a newly mutated strain of avian influenza virus, with the capacity to become a pandemic organism, with high morbidity and mortality, has spurred pandemic influenza plans at all levels of the public and private sectors across the globe. The World Health Organization is playing a central role in coordinating the development of plans, and in urging member states to coordinate pandemic planning. Attendant to this rush to create pandemic plans is intense public scrutiny, including anxiety and fear. The headlines in the past year have been filled with worries about the availability of antiviral medications, with individuals rushing to secure their own stock of antivirals, and nation-states taking actions to protect themselves and their borders from the incursion of avian influenza transmitted through bird species.

It is interesting when one reflects on the roots of the term “pandemic”, and engages in a little word play. If one deletes the “dem” from pandemic, the result is “panic”, which is close to what we are verging on at this current time in our fear of pandemic influenza. However, when one takes the “dem” out of pandemic, which represents the Greek word of “demos” or “people”, it becomes important that we try to re-insert some of the better aspects of human nature, such as reason and reflection, in our preparation. If there is any reason to include ethics in pandemic planning, it would be for the following considerations. How we respond to a pandemic strain of influenza virus, how we marshal our social resources, how we work collaboratively and how we treat people who are infected or pose a risk of infection to others is a reflection of our own humanity. The measure by which we can say our response to pandemic influenza is a humane and ethical one will be judged and interpreted in light of the policies, prescriptions and management plans that are put in place. We can be certain that all actions will be evaluated in light of our response.



Dr. Ross Upshur

It is my contention that ethics has a central role in pandemic influenza planning, and that pandemic influenza plans in all jurisdictions should reflect deeply on the ethical issues raised by pandemic influenza. The SARS outbreak in Toronto in 2003 highlighted the need for an open and transparent ethical approach to preparing for and managing outbreaks of infectious disease. With this in mind, the University of Toronto Joint Centre for Bioethics (JCB) produced a report entitled *Stand on Guard for Thee. Ethical Considerations in preparedness planning for pandemic influenza*<sup>1</sup> to summarise the main ethical issues it had identified for pandemic preparedness planning. The recommendations the JCB made in relation to these ethical issues are outlined below:

### An ethical guide for pandemic planning

1. National, provincial/state/territorial and municipal governments, as well as the healthcare sector, should ensure that their pandemic plans include an ethical component.
2. National, provincial/state/territorial and municipal governments, as well as the healthcare sector, should consider incorporating both substantive and procedural values in the ethical component of their pandemic plans.

<sup>1</sup>University of Toronto Joint Centre for Bioethics, 2005. *Stand on Guard for Thee. Ethical Considerations in preparedness planning for pandemic influenza*. Toronto, 27p.

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### Health workers' duty to provide care during a communicable disease outbreak

1. Professional colleges and associations should provide, by way of their codes of ethics, clear guidance to members in advance of a major communicable disease outbreak, such as pandemic influenza. Existing mechanisms should be identified, or means should be developed, to inform college members as to expectations and obligations regarding the duty to provide care during a communicable disease outbreak.
2. Governments and the healthcare sector should ensure that:
  - a. care providers' safety is protected at all times, and providers are able to discharge duties and receive sufficient support throughout a period of extraordinary demands; and
  - b. disability insurance and death benefits are available to staff and their families adversely affected while performing their duties.
3. Governments, hospitals and health regions should develop human resource strategies for communicable disease outbreaks that cover the diverse occupational roles, that are transparent in how individuals are assigned to roles in the management of an outbreak and that are equitable with respect to the distribution of risk among individuals and occupational categories.

### Restricting liberty in the interest of public health by measures such as quarantine

1. Governments and the healthcare sector should ensure that pandemic influenza response plans include a comprehensive and transparent protocol for the implementation of restrictive measures. The protocol should be founded upon the principles of proportionality and least restrictive means, should balance individual liberties with protection of the public from harm and should build in safeguards such as the right of appeal.
2. Governments and the healthcare sector should ensure that the public is aware of:
  - a. the rationale for restrictive measures;
  - b. the benefits of compliance; and
  - c. the consequences of non-compliance.
3. Governments and the healthcare sector should include measures in their pandemic influenza preparedness plans to protect against stigmatisation and to safeguard the privacy of individuals and/or communities affected by quarantine or other restrictive measures.
4. Governments and the healthcare sector should institute measures and processes to guarantee provisions and support services to individuals and/or communities affected by restrictive measures, such as quarantine orders, implemented during a pandemic influenza emergency. Plans should state in advance what backup support will be available to help those who are quarantined (*e.g.* who will do their shopping, pay the bills and provide financial support in lieu of lost income). Governments should have public discussions of appropriate levels of compensation in advance, including who is responsible for compensation.

### Priority setting, including the allocation of scarce resources, such as vaccines and antiviral medicines

1. Governments and the healthcare sector should publicise a clear rationale for giving priority access to healthcare services, including antivirals and vaccines, to particular groups, such as front-line health workers and those in emergency services. The decision makers should initiate and facilitate constructive public discussion about these choices.
2. Governments and the healthcare sector should engage stakeholders (including staff, the public and partners) in determining what criteria should be used to make resource allocation decisions (*e.g.* access to ventilators during the crisis, and access to health services for other illnesses), should ensure that clear rationales for allocation decisions are publicly accessible and should provide a justification for any deviation from the pre-determined criteria.
3. Governments and the healthcare sector should ensure that there are formal mechanisms in place for stakeholders to bring forward new information, to appeal or raise concerns about particular allocation decisions and to resolve disputes.

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Global governance implications, such as travel advisories

1. The WHO should remain aware of the impact of travel recommendations on affected countries, and should make every effort to be as transparent and equitable as possible when issuing such recommendations.
2. Federal countries should utilise whatever mechanisms are available within their system of government to ensure that relationships within the country are adequate to ensure compliance with the new International Health Regulations.
3. The developed world should continue to invest in the surveillance capacity of developing countries, and should also make investments to further improve the overall public health infrastructure of developing countries.

**Mr. Donncha O'Connell**  
Dean of Law at NUI Galway



Mr. Donncha O'Connell

The critical measure of any right is the extent to which it is qualified.<sup>1</sup> As practically no right is absolute, the words used to qualify or limit rights are as important as the words used to define a right. Different words of limitation apply to different rights.

Under the Irish Constitution a variety of formulae are used to qualify rights, but the Preamble to the Constitution, which is important as an overarching source of inspiration for the value system that supposedly pervades the entire instrument, speaks about: "...seeking to promote the common good, with due observance of Prudence, Justice and Charity,

so that the dignity and freedom of the individual may be assured, true social order attained, the unity of our country restored, and concord established with other nations."

### Specific constitutional rights are qualified in the following terms:

- Equality before the law
  - Due regard to differences of capacity, physical and moral, and of social function.
- Personal rights of the citizen<sup>2</sup>
  - State undertakes to protect, defend and vindicate as far as practicable.
- Right to life of the unborn
  - As far as practicable,
  - Due regard to the equal right to life of the mother,
  - Specific provision for freedom to travel and freedom of information on abortion.
- Personal liberty
  - Presumed to be entitled but can be deprived in accordance with law,
  - Extensive provision for *habeas corpus*; restrictions on bail in certain situations.
- Inviolability of the dwelling
  - Save in accordance with law.
- Freedom of expression/peaceful assembly/to form associations and trade unions
  - Subject to public order and morality and other specific limitations
- Family and education
  - Not explicitly qualified and declared in emphatic language of Natural Law.
- Private Property
  - Principles of social justice/exigencies of the common good.
- Freedom of religion
  - Subject to public order and morality.

<sup>1</sup>For a discussion see: Costello, D 1992. "Limiting Rights Constitutionally", in J O'Reilly (ed.) *Human Rights and Constitutional Law – Essays in Honour of Brian Walsh*. The Round Hall Press, Dublin, p.177-187.

<sup>2</sup>Those specified in the text of the Constitution are the right to life, personhood, private property and a good name, but a catalogue of unspecified or unenumerated rights have been declared by the judiciary to exist, presumably, subject to the same limitations as those applicable to specified rights.

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If we look to the European Convention for the Protection of Human Rights and Fundamental Freedoms (1950)<sup>3</sup> (ECHR), which Ireland ratified in 1953, we see that rights like the right to life (Article 2) and freedom from torture and inhuman or degrading treatment or punishment (Article 3) are described as “non-derogable”. In other words, they cannot be derogated from, even in times of emergency.

Article 5 protects liberty and security of the person and sets out the circumstances in which personal liberty can be validly restricted. An explicit restriction on liberty is set out in Article 5(1)(e) in the following terms: “the lawful detention of persons for the prevention of the spreading of infectious diseases, of persons of unsound mind, alcoholics or drug addicts or vagrants.”<sup>4</sup>

Rights contained in Articles 8-11 of the ECHR—covering privacy/family life, thought, conscience and religion, expression and peaceful assembly—are subject to a formula of limitation under which the limitation in question must be:

- in pursuit of a legitimate aim and in accordance with law,
- by proportionate means and
- necessary in a democratic society (*i.e.* in response to a pressing social need).

In the past, it was understood that certain other rights were subject to “inherent limitations”, but beyond acknowledging the obvious—for example, that a person in detention is not in a position to exercise a range of freedoms—this is not a doctrine of interpretation of any enduring significance.

In the context of measures necessitated by a pandemic, a number of human rights challenges arise. Let us imagine a situation in which a pandemic is so serious as to require emergency or emergency-type measures, such as the suspension of a range of fundamental rights.

The difficulty here is that the Irish Constitution (Article 28) only provides for declarations of emergency in situations of war or armed rebellion. Admittedly, it is not required that Ireland be directly involved in such a war or armed rebellion for emergency powers to be invoked and—if the views of the UN Human Rights Committee are to be taken into account—Ireland has, perhaps, been too fond of the state of emergency in the past!

The ECHR (Article 15) contemplates other situations in which a valid state of emergency might be declared to exist—*i.e.* an emergency other than war “threatening the life of the nation”—but that Convention only applies within Ireland in a limited manner<sup>5</sup> and, crucially, at a sub-constitutional level.

In other words, it is not possible to use the wider definition of emergency under the ECHR to fill in the gaps left by the narrower definition under the Irish Constitution, unless the emergency measures introduced in such a situation rely *de facto* on the ECHR standards. Even if you could do this, the right to life (Article 2 ECHR) and freedom from torture and inhuman or degrading treatment or punishment (Article 3 ECHR) are both stated to be non-derogable rights for the purpose of any emergency declared pursuant to Article 15 of the ECHR.

Therefore, it would seem that—absent a constitutional amendment to allow for the declaration of emergency in a situation other than one involving war or armed rebellion—ordinary rights subject to ordinary words of limitation will apply in the context of an emergency-type situation arising from a pandemic. The practical question then to be asked is whether the normal limitations on rights, based on some concept of the public or common good or public order and morality, are sufficient to accommodate the kinds of compromises, in terms of personal freedom, supposedly required to protect the wider public good.

Firstly, it would be mistaken to see the idea of the common good as something akin to a perpetual counterpoint to individual freedoms. The understanding of the common good in the Irish Constitution is premised on the idea of individuals (citizens?) living in a political community. In other words, the existence and exercise of personal freedom is a vital component of the common good. This is evident at least in the Preamble to the Irish Constitution.

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<sup>3</sup>Council of Europe, 1950. European Convention for the Protection of Human Rights and Fundamental Freedoms. Rome.

<sup>4</sup>The only case to date in which this restriction on Article 5 was directly considered was *Enhorn v. Sweden* (25th January 2005). The relevant judgment is available at: [www.coe.int/](http://www.coe.int/).

<sup>5</sup>This is because of the interpretative mode of incorporation used in the European Convention on Human Rights Act 2003, which came into force on 31st December 2003.

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While the exercise of personal freedoms can be restricted by reference to wider or competing societal interests, the collective rights of “others” (the common good), and rights can never be exercised so as to abuse the rights of others (abuse of rights doctrine), it would be wrong to see the common good as covering a panoply of abstract rights to which real rights asserted by an individual must yield.

This is a very real risk in emergency-type situations, where the sense of the common good can be stretched to justify the jettisoning of the most fundamental freedoms. If we need an analogy, the extreme measures limiting civil liberties adopted in the name of fighting a global war on terror are a case in point.

But let us assume a strongly utilitarian approach justified on the basis of the extreme circumstances resulting from an actual or threatened pandemic. Would it be possible to implement an efficient set of measures within the law and without a formal declaration of emergency to deal with the pandemic?

The answer to this question, in so far as it involves an assessment of the likely disposition of the courts towards such measures, is speculative. While legal challenges to quarantine measures as an unwarranted incursion on personal liberty might well survive a challenge, if done proportionately and “in accordance with law”, it would be preferable not to have the courts involved in such assessments in the first place. In any event, some legislative intervention would probably be required to deal with the likely problem of involuntary admissions.

If selection criteria for admission to treatment programmes were to be used so as to deny admission to certain categories of person on a discriminatory basis (*e.g.* the good innings qualification), such criteria might be justifiable on the basis of “differences of capacity, physical or moral and of social function”; but an argument could also be made that such criteria are invidious and arbitrary.

This might not apply if a challenge was presented in the form of an attempt to force the state to vindicate the right to life of someone whose life chances were treated unfavourably in the context of a pandemic treatment programme, bearing in mind the different status of the right to life.

But would we want the courts to be engaged in this kind of licensing of access to treatment in the real emergency context of a pandemic situation? It is undoubtedly the case that the courts would not view such a depressing prospect with any enthusiasm.

Just because it might be possible to administer a pandemic response within the law absent of a formal declaration of emergency, is not a good enough reason to work within the current legal framework. It would make more sense to amend Article 28 of the Constitution to allow for the declaration of emergency in the context of an extreme pandemic situation. Such an amendment to the Constitution should also introduce appropriate safeguards for the use of such declarations to include, for example, the necessity of a special majority of the Oireachtas before a declaration could be issued, periodic parliamentary review of such declarations and the possibility of some marginal review of individual claims by the judiciary. Critically, the definition of a pandemic justifying a state of emergency would have to be clearly established. This will not be without difficulty.

As pandemic measures would, in all probability, be introduced on an all-island basis, it could be beneficial to launch a public health education campaign explaining the kind of measures necessitated by a pandemic and the kind of co-operative response expected from the public. This would require a clear exposition of the type and scale of measures to be introduced and an up-front acknowledgment of the implications of such measures for the exercise of individual freedoms.

However, it could be suggested that orchestrating a pandemic response with a flimsy and unclear legal basis might give rise to more problems than would be the case by making clear provision now, legitimised by popular approval, for the kind of drastic measures that will be required in an extreme pandemic situation.

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As we will still be bound, as a matter of international law, by the terms of the ECHR, it will not be possible to derogate from Articles 2 and 3 of the European Convention. It will, thus, not be possible to avoid all contention on the extent of the state's positive obligations to protect life, which, in any event, is not as clearly enunciated as the state's obligation to refrain from taking life unlawfully. The European Court of Human Rights is (regrettably) showing signs of nuancing its absolutist position on Article 3 of the ECHR, and it is likely that the exigencies of a pandemic situation would lead to a measured application of the rights protected by Article 3, bearing in mind the wide margin of appreciation afforded to Council of Europe member states in the context of properly notified emergency situations.

In preparation for a pandemic, governments and public health institutions should develop criteria and policies for allocation of medical resources. These should take into account:

- (1) **Efficiency:** to maximise health benefits with given resources, preferably (though not necessarily) in terms of saving most lives.
- (2) **Equity:** to avoid unjustified discrimination. Equity also supports giving priority to groups who are at highest risk for influenza-related death, and to prioritise children and young adults. Equity and efficiency will often conflict. Moreover, cut-off points in group definitions (*e.g.* where to draw the line if young adults are given priority) will inevitably be arbitrary. Policies for priority setting will therefore be controversial, which further underlines the need for:
- (3) fair and reasonable procedures for justification, public consultation, and enforcement of compliance (Accountability).

### Priority access to protection or therapeutic treatment can be justified for some groups.

- (1) Professionals, like healthcare workers who are involved in saving the lives of many others, should be given priority access to protection against infection (protective equipment, chemoprophylaxis in early stages, vaccination). This helps to sustain healthcare functions and prevent nosocomial infections. The group of “life-savers” further may consist of vaccine developers and other professionals who are necessary in response to the pandemic. Moreover, professionals who are involved in saving many persons from non-influenza related death might be included as well. This argument to prioritise life-savers can inflate rapidly and may also be easily abused at the cost of vulnerable groups. Governments should be very reluctant to apply and broaden such criteria.
- (2) Persons who are at high-risk to get severe complications and die from influenza have a stronger claim to vaccination and to antiviral treatment (if they get ill) compared with persons who are at lower risk and for whom these interventions are less urgent.
- (3) The “fair innings” argument supports giving priority to saving the lives of the young rather than the old. This applies to prevention (vaccination) as well as to treatment. The fair innings argument does not specify “where to draw a line” between persons who are eligible for priority access and those who are not.

Such a “line” will always be rather arbitrary, and will depend on availability of resources. Such arbitrariness is, however, no reason to reject age-criteria altogether.



Dr. Marcel Verweij

### Antiviral drugs

It is essential that there will be international (WHO) stockpiles for geographical antiviral prophylaxis, as part of a rapid response to a first outbreak of pandemic influenza, with the aim being to contain the outbreak at the source or to delay further spread. On a national level, countries should use antiviral stockpiles primarily for treatment of patients, and they should avoid massive pre-emptive prophylactic use of antiviral drugs. In their decisions about the magnitude of antiviral stockpiles and their application, governments should also support low-income countries for which antiviral drugs may be unaffordable.

<sup>1</sup>This paper is based on the summary of the following document: Verweij, M 2006. *Draft paper for Working Group One (20 October 2006)*. Equitable access to therapeutic and prophylactic measures. World Health Organisation, 31p.

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Within a country, a number of priorities for antiviral drugs can be justified:

- (1) Post-exposure prophylaxis for healthcare workers, at least in the beginning of the pandemic. This may both reduce the risk of nosocomial infection and prevent the healthcare system from breaking down during the first stage of the pandemic.
- (2) Antiviral treatment of all symptomatic patients. If it is not possible to treat all symptomatic patients there are strong reasons to prioritise:
  - (a) Professionals who are essential for saving lives and who get ill themselves, because this increases the chance that they will recover and continue their work.
  - (b) Symptomatic patients in pandemic high-risk groups who are at increased risk of severe disease and death, because they require urgent treatment.
  - (c) Symptomatic younger adults and children on the basis of the fair innings argument.

In times of drug scarcity it is tempting to treat more patients with a decreased dose or shortened course of antiviral drugs. This will facilitate the development of drug-resistant virus strains, which is harmful to those patients who have already been treated as well as to public health at large. Distributing reduced doses among a larger group should, therefore, not be considered as a fair and just response to scarcity.

### **Medical care for patients**

Most influenza patients will require (at least) basic medical and nursing care and relief of symptoms. Developing and maintaining healthcare infrastructures for primary care is a major priority for pandemic preparedness in those contexts, especially because such investments will be beneficial at all times, and not only during a pandemic.

In intensive care facilities, priority setting during a pandemic should focus on saving the most lives possible, which means giving priority to those patients who are expected to recover relatively fast. This can be done by developing several tiers of successively more strict medical criteria for the inclusion and exclusion of patients. Yet even when the most restrictive criteria are applied, there will be situations where there are two or more patients eligible for one Intensive Care Unit (ICU). In such cases, fairness would dictate either prioritising the patient who is significantly younger, or giving all eligible patients an equal chance of treatment (*i.e.* a lottery).

It should be noted that such exclusion criteria should apply to all diseases and not just to influenza-related illness. Moreover, they may apply to withholding as well as withdrawing life-support.

It is difficult to specify clear guidelines for allocating non-ICU hospital beds on the basis of the general principles of efficiency and equity. Considerations of equity support prioritisation according to medical need. Some practical recommendations are to avoid nosocomial infections by creating special departments for influenza patients and to give persons without the support of family or neighbours priority access to basic care facilities.

### **Vaccination**

There are several justified, though sometimes competing, directions for priorities in vaccination:

- (1) Prioritising healthcare workers and other “life-savers” helps to sustain the healthcare system and produces indirect (health) benefits.
- (2) Vaccinating children may be most effective in reducing transmission and hence in reducing the attack rate of pandemic influenza. This approach may not save most lives, but it does offer all persons (who are not yet immune) within a population a prospect of benefit.
- (3) For persons in pandemic high-risk groups, vaccination is more urgent than for others; but it is unfair to vaccinate only them if not all can be vaccinated. If the increasing supplies of vaccine will be sufficient to vaccinate all eligible persons in a population within a limited time, then it is reasonable to vaccinate high-risk groups first. If not, fairness may require different priorities.
- (4) Children and young adults have a strong claim to vaccination on the basis of the fair innings argument. (1) and (3) together give strong support to prioritising children.

Dr. Jan C. Semenza

European Centre for Disease Prevention and Control (ECDC)

The ECDC is a new EU agency, founded in the aftermath of the SARS pandemic and at the dawn of the recurrent avian influenza outbreaks in 2003, with the mandate to prevent and control communicable disease transmission in Europe. This overarching public health agency in Europe has been operational since May 2005 and although still relatively small (70 staff members as of July 2006), the organisation is rapidly growing. According to its mission, the Centre shall identify, assess and communicate current and emerging threats to human health from communicable diseases; thus, the Centre has focused on developing a comprehensive surveillance system for the EU, setting up a system for rapid response to outbreaks and epidemics, and establishing a unit for scientific advice.

In collaboration with European Commission (EC), and the WHO Regional Office for Europe (WHO EURO), the ECDC has initiated an extensive EU assessment of preparedness for an influenza pandemic. This effort consists of European pandemic preparedness workshops, regional pandemic preparedness workshops and country assessment visits; all 25 EU member states were assessed by October 2006, and all will be visited by mid 2007, including Ireland. In partnership with the host country, the ECDC assesses seasonal influenza surveillance and virology



Dr. Jan C. Semenza

activity; pandemic planning and coordination; situation monitoring and assessment; prevention, mitigation and treatment; regional and local arrangements; communication; international interoperability; pandemic exercises; and avian influenza.

Overall, pandemic preparedness in Europe has advanced substantially since March 2005, and national preparedness plans are now in place, in general publicly available, constantly updated and increasingly operationalised at the regional and local level through specific strategies, training and exercises. Nevertheless, further progress is needed to strengthen preparedness, not just in the health sector but also in other societal sectors, including more detailed communication plans, pre-prepared messages and education materials, and to develop strategies for community non-pharmacological

public health measures. The ECDC endorses some of these measures but not all: *e.g.* hand washing is strongly recommended; respiratory hygiene is recommended; early self-isolation at home is recommended; mask-wearing by the sick in a caring situation is recommended; however, mask-wearing by the public is neither recommended nor endorsed, based on a lack of scientific data (permissive approach); and quarantine is generally not recommended in a pandemic. Particular emphasis during these assessments is placed on the interoperability of preparedness between regions and across bordering countries.

Pandemic planning in Europe brings about a number of ethical dilemmas, such as inequitable distribution of pandemic vaccine (once it is available) or antivirals in Europe, which may hamper the most effective application of pharmaceuticals during a pandemic. Other ethical considerations have to be applied to a public-health emergency of these proportions: under public pressure, political decisions might be taken for which there is little evidence-based support; the media might resort to sensational reporting with negative implications for the public. However, many of these ethical predicaments can be counteracted by a proactive approach. National pandemic vaccination and antiviral strategies with clearly defined plans for procurement, distribution and population targeting can help assure effective administration of pharmaceuticals. Public education campaigns during the influenza season can educate the public about appropriate public health measures prior to a pandemic, and clearly defined national communication plans can advance responsible reporting by the media.

**Dr. Darina O’Flanagan,  
Health Protection Surveillance Centre**

Planning for a pandemic in Ireland may be divided up into three areas. The first is the work of the expert guidance group under the chairmanship of Professor William Hall, Director of the National Virus Reference Laboratory (NVRL). This group initially produced *The Model Plan for Pandemic Influenza* in 2001, which was further updated in 2002 and more recently in 2007.<sup>1</sup> Secondly, operational plans for pandemic influenza were included in the work under the aegis of the Department of Health and Children in the generic Public Health Emergency Plan, which was produced in 2004. These operational plans are currently being further refined under the Emergency Planning Division of Population Health in the Health Service Executive (HSE). Thirdly, high level strategic guidance is being developed by the Department of Health and Children and will be available for publication shortly.<sup>2</sup>

The membership of the Pandemic Influenza Expert Advisory Group includes hospital clinicians with expertise in infectious diseases, microbiology, virology and accident and emergency, and also representatives from the NVRL, Irish College of General Practitioners, Department of Agriculture, Irish Medicines Board, Health Protection Surveillance Centre, Health Protection in the HSE, Emergency Planning in the HSE, Primary Community and Continuing Care (PCCC) in the HSE and the National Hospitals Office in the HSE. The terms of reference of the Expert Advisory Group are:

- To function as a standing group that will monitor and review national and international research and developments in relation to pandemic influenza, and provide expert advice to the minister and the HSE.
- To review current advice and guidance on pandemic influenza preparedness and response, identify gaps, and update and provide clear, evidence based expert advice on pandemic influenza preparedness and response.

The WHO alert phases are divided into the inter-pandemic phase, where there is a new virus in animals and no human cases, and additional “Alert” phases. Alert phase 1 is where there is a low risk of human cases developing, and Alert phase 2 is where there is a higher risk of human cases occurring. Pandemic Alert phases 3, 4 and 5 occur when a new virus has been shown to cause human cases. Pandemic Alert phase 3 is where there is no or very limited human-to-human transmission. Pandemic Alert phase 4 is where there is evidence of increased human-to-human transmission. Pandemic Alert phase 5 is where there is evidence of significant human-to-human transmission, and Pandemic Alert phase 6 is where there is evidence of efficient and sustained human-to-human transmission. During Pandemic Alert phase 6, the EU also has an additional four alert levels depending on whether there are any confirmed human cases in any EU member state. Similarly, in Pandemic Alert phase 6 there are four Irish alert levels ranging from 1, where there are as of yet no cases in Ireland, to Irish alert level 4, where there is widespread activity in Ireland.



*Dr. Darina O’Flanagan*

<sup>1</sup>National Influenza Pandemic Planning Committee, 2002. *A Model Plan for Influenza Pandemic Preparedness*. Dublin, 119p: Pandemic Influenza Expert Group, 2007. *Pandemic Influenza Preparedness for Ireland: Advice of the Pandemic Influenza Expert Group. Draft for Consultation*. Dublin, 587p.

<sup>2</sup>This guidance has now been published: Health Service Executive and Department of Health and Children, 2007. *National Pandemic Influenza Plan*. Dublin, 32p.

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Modelling data has been used to provide estimates of the pandemic progression. The initial empirical model used is based on that produced by the Health Protection Agency in the UK in October 2005<sup>3</sup> and it represents a weighted sum of deaths over time from previous pandemics, *i.e.* those occurring in 1918, 1957 and 1968. The assumptions in this model include

- that 25% of the population will show symptoms, *i.e.* a clinical attack rate of 25%;
- that 0.55% of cases will result in hospitalisation; and
- that 0.37% of cases will result in death.

Based on this model, the pandemic runs in one wave lasting approximately 15 weeks, peaking in weeks 6 and 7 with over 200,000 cases each week in those two weeks. The total number of cases would be 979,341, *i.e.* around 25% of the population. Overall, in this model it is estimated that there would be 5,386 hospitalisations and 3,624 deaths.<sup>4</sup> However, it is important to realise that in this model the assumptions of a 25% clinical attack rate, a 0.55% hospitalisation rate and a 0.37% death rate are considered to be low, and they could be significantly higher in reality.

The Department of Health and Children has set up an inter-departmental committee that would review the non-health impact of a pandemic, *i.e.* the impact on trade, essential services, *etc.*

Methods to mitigate against a pandemic include the provision of antivirals. The Expert Group has advised the Department of Health and Children to stockpile both Oseltamivir and Zanamivir; and the government has ordered a stockpile of Oseltamivir sufficient to treat 25% of the population, including health workers. An additional stockpile of Zanamivir for 18% of the population has also been ordered. This will provide enough antivirals to treat all who become ill. Gani *et al.* in 2005 estimated that this could lead to 50-77% reduction in the anticipated hospitalisations and in the development of lower respiratory tract infections requiring hospitalisations.<sup>5</sup> The advantage of Zanamivir is that it could be used if resistance developed to Oseltamivir or if the attack rate was higher than the proposed 25%.

Priority groups have been identified for use if the stockpile is insufficient:

- (1) Patients hospitalised with influenza,
- (2) Ill healthcare workers and emergency services workers,
- (3) Sick high-risk persons in the community,
- (4) Sick high-risk residents of institutions (*e.g.* nursing homes *etc.*) to control outbreaks.

Routine seasonal influenza vaccines will provide little or no protection in the event of a pandemic. The new virus strain has to be identified, and a new vaccine must be developed to match the pandemic strain of the virus. It would take four to six months to produce this new pandemic vaccine, and possibly longer. Therefore, it is unlikely to be available during the early stages of the pandemic. When the vaccine becomes available the aim will be to immunise the whole population as soon as possible, and it would probably be necessary to provide a two-dose schedule. As the production will take time, vaccines will be given to some groups before others according to nationally agreed priorities. The priority groups for vaccine have been agreed on by the Expert Advisory Group and are as follows:

- Providers of essential services (*e.g.* fire, utilities, *etc.*),
- Healthcare staff with patient contact,
- High medical risk *e.g.* chronic heart disease, renal failure, diabetes, pregnant women (3rd trimester), children 6 months–23 months,
- People over 65 yrs,
- Selected industries—to ensure maintenance of essential supplies,
- All age groups.

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<sup>3</sup>Health Protection Agency, 2005. *Influenza Pandemic Contingency Plan*. London, UK.

<sup>4</sup>For a more up-to-date discussion of the results of this model see the following document: Pandemic Influenza Expert Group, 2007. *Pandemic Influenza Preparedness for Ireland: Advice of the Pandemic Influenza Expert Group. Draft for Consultation*. Dublin, 587p

<sup>5</sup>Gani, R, Hughes, H, Fleming, D, Griffin, T, Medlock, J, and Leach, S 2005. Potential impact of antiviral drug use during influenza pandemic. *Emerging Infectious Diseases*, 11(9):1355-1362.

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The Expert Group has also advised the minister to purchase a supply of H5N1 vaccine, enough to vaccinate 200,000 healthcare workers and essential staff. This may provide some protection pending development of the pandemic vaccine. However, it will not be matched to the pandemic strain and further work is underway at present in international trials to examine the amount of cross-protection between these H5N1 vaccines and strains, which are newly emerging and which may have drifted from the original strains.

Public health interventions, which do not rely on the use of drugs or vaccines include personal interventions to reduce the spread of infection, for example:

- Hand washing: prevents acquiring the virus from contact with infected surfaces and from passing it on;
- Respiratory hygiene: covering the mouth and nose when coughing or sneezing;
- Avoiding crowds (where feasible): non-attendance at large gatherings such as concerts, theatres, cinemas, sports arenas, *etc.*

It is very important for people to realise that they should stay at home if they are sick with a respiratory illness. Individuals who are ill during a pandemic are advised to be isolated at home or if seriously ill in healthcare facilities and to use facemasks to avoid transmission to close contacts. The use of facemasks by well members of the general public is an area where there has been little scientific research and, therefore, very little evidence of effectiveness. The advice of the Expert Advisory Group is therefore that use of masks by the general public, while permitted, is not encouraged due to the lack of evidence. It is important to note that if people do decide to use masks during a pandemic that they are aware of the appropriate methods of putting on and taking off masks.

The WHO has made recommendations on measures to increase social distancing, which could be applied in alert phases 4, 5 and 6 of a pandemic. These include measures such as the closure of schools, playschools, *etc* to reduce the mixing of children, and the closing non-essential workplaces. It is important to realise that these measures will vary by phase, and what is appropriate early on during the pandemic when there are relatively few cases, such as home isolation and possible quarantine and antiviral prophylaxis of contacts of cases may not work later when the pandemic is very widespread. International modelling of data has demonstrated that measures such as closing borders would not be effective.

Additional guidance has been prepared in relation to clinical management of pandemic cases in primary care with criteria for hospital referral and for clinical management of adults and children referred to hospital.

The Inter-sectoral Sub-Group of the Expert Group, with the Department of Agriculture, HSE and Health and Safety Authority, have provided guidance on public health management of avian influenza outbreaks, and the Expert Group has produced guidance for assessment, surveillance and public health management of possible avian influenza cases in humans. For example, posters have been developed, in collaboration with the Department of Health and Children, the Department of Agriculture, the HSE and the HPSC, for use in airports. These posters provide advice for those who are travelling to an area affected by avian influenza or returning from an area affected by avian influenza.

The ethical issues in a pandemic include:

- (1) Equity of access to antivirals and vaccines.
- (2) Transparency, honesty and good communications;
  - The decision makers should initiate and facilitate constructive public discussion about these choices.
- (3) Individual autonomy v. public good;
  - Quarantine: use of least restrictive methods *e.g.* voluntary where possible,
  - Proportionality: all interventions should be proportional to the risks and benefits resulting from the intervention.
- (4) Imperatives of urgency in outbreak situations;
  - Early detection/intervention makes the difference between containment and catastrophe. Decisions will have to be made before all the evidence is available.
- (5) Duty of care of healthcare workers and value of reciprocity of employers. As health care workers have a duty to be on the front line it is the duty of employers to offer protection where available *e.g.* antivirals and vaccines.

Finally, it is essential to emphasise that planning for a pandemic is an on-going process, and as new information becomes available internationally plans must be adapted accordingly.

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## INTERNATIONAL COLLABORATION TO STOP PANDEMICS

“We have seen the enemy and it is us”<sup>1</sup>

**Dr. Stephen Thomas**  
Centre for Global Health, School of Medicine, TCD

Thanks to globalisation Ireland can no longer think of itself as independent. We exchange with the rest of the world goods, services, people, values, lifestyles and disease. However, the choices we make, about what to take from the rest of the world, have repercussions. The extensive use of health professionals from developing countries in the Irish health system impacts badly on healthcare in those countries. Furthermore, the failure of health systems in many developing countries may have knock-on effects for us in the failure to control disease globally. With the risk of a new pandemic in the form of avian influenza we have to ask ourselves whether we undermine the global response by importing foreign professionals to boost our own health system. Our actions may come back to haunt us.

According to the WHO, 57 countries now face a critical shortfall of human resources, which will cost hundreds of millions of dollars to redress. There has been, and continues to be, extensive migration of health professionals from rural to urban areas, from public to private practice and, most importantly for us, from the developing to the developed world.

Africa is the worst hit: there are more than ten times the number of health workers per person in Europe than in Sub-Saharan Africa. In Lesotho, recent government data show the number of doctors is only a third of requirements. Human resource attrition has reached horrendous proportions in such countries, undermining health system performance and the ability to provide even basic healthcare. Part of this is caused by international flight, but part is also caused by an existing pandemic, HIV/AIDS. In Malawi, the United Nations Development Programme (UNDP) estimated that the number of deaths of health professionals rose hugely in the 1990s, to around 200 per year, as a consequence of HIV/AIDS. Poor health system performance, migration of health professionals and a raging pandemic combined to create a vicious downward spiral.



*Dr. Stephen Thomas*

<sup>1</sup>A modified version of this presentation was published as: Thomas, S 2006. International collaboration to stop pandemics – Is it ethical to poach medical staff from developing countries with poor healthcare? *Irish Medical News*, 23(44).

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What responsibility does Ireland have? Nurse managers in some hospitals rely on foreign nurses to maintain services, according to recent work done by Paul Troy and Eilish McAuliffe, Centre for Global Health, TCD.<sup>2</sup> Indeed, according to data from the Economic Migration Policy Unit (Department of Enterprise, Trade & Employment), more than 5,000 registered foreign nurses were given working visas for Ireland between 2000 and the end of 2004. Such professionals provide an important boost to the number of available health workers in Ireland, helping to maintain services. Yet it is foreign governments, frequently in the poorest countries, that bankroll the education of these health professionals and thus subsidise our healthcare. So what should Ireland's response be? A closer look at our own self-interest might help us change our behaviour. By undermining the health system response of other countries we put ourselves at a higher risk of new pandemics by not containing the problem elsewhere.

There are some useful strategies if we are to avoid our chickens coming home to roost. First, the health system needs to review its ethical recruitment policies. The government should consider compensating those countries, and not just the individuals, who have invested their own tax-payers' money in training health workers. Such funds could help train and retain health workers. Another approach is to invest in medical education in developing countries, making the link between what they produce and what we consume more explicit. A further tack is to help developing countries develop non-tradable cadres of health workers, such as medical assistants. These workers do not have internationally recognisable qualifications and are, therefore, less likely to leave. Further, the government should consider making monetary assistance available to developing countries to support financial incentives or salary top-ups to those health professionals who stay in-country. Finally, it is important that the government lobbies other governments to do likewise so that our activities can be harmonised. Our efforts should not undermine developing country governments, but support their own capacity and their own plans for system development. Such strategies will go a long way in helping to strengthen healthcare in developing countries and decrease the global risks of new pandemics.

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<sup>2</sup>See Troy, P and McAuliffe, E 2007. Nurses' experiences of recruitment and migration from developing countries: a phenomenological approach. *Tropical Medicine and International Health*, 12 Supplement 1 (Abstracts of the 5th European Congress on Tropical Medicine and International Health).

Mr. Brian Trench  
School of Communications, DCU

This paper considers the routines and values of media in covering risks and hazards and is organised around the statement of four main issues in the media representation of risks.



Mr. Brian Trench

Issue 1: Risks are all around us – media coverage of these is necessarily selective and partial. In the view of some influential sociologists, the sense of risk is a defining characteristic of contemporary society. In the global context of many, and sometimes overlapping, serious risks to public health and public security, it is difficult for any of us to maintain our focus effectively on any one of these. Despite the continuing conviction of world health authorities that an influenza pandemic remains highly possible, probable, or even inevitable, media attention to this topic has waned considerably. The news values of novelty and proximity do not (yet) weigh in favour of highlighting the

influenza threat. In a globalised world this may seem parochial, but some selection has to be made and the media's criteria for making such a selection correspond in some degree with those of their audiences.

Issue 2: Media accounts and assessments of risks are made within a different framework from those applied in formal assessments.

At individual and group levels, and in the media, risks are assessed in terms of how they fit into lifeworld choices, and not merely in terms of a formula about the probability and the scale of the hazard. Scientists and engineers frequently criticise media for their accounts of risk on an apparent assumption that there is a correct way to represent risk. An analysis by two biologists of media coverage of the impact of the West Nile virus in North America, for example, carries the title, Limited Precision in Print Media Communication of West Nile Virus Risks.<sup>1</sup> "Media stories should provide information that the public really needs to know and wants to know," the authors state. If we knew for certain what the public wants to know and needs to know, and if we knew that the two corresponded, then media analysis and media production would be remarkably easier.

Issue 3: Media operate under internal and external constraints that influence their coverage of risks.

In summarising the main findings from dozens of studies of media coverage of environmental and public health risks, Prof. Jenny Kitzinger highlighted these points, among others:<sup>2</sup>

- Unusual risks are more attractive to media than common risks
- Journalists seek out the "human face" of risk; they may be more interested in the death of one famous individual than in the overall count

<sup>1</sup>Roche, JP and Muskavitch, MAT 2003. Limited Precision in Print Media Communication of West Nile Virus Risks. *Science Communication* 24(3): 353-365.

<sup>2</sup>Kitzinger, J 1999. Researching Risk and the Media. *Health, Risk and Society*, 1(1): 55-69.

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- A cluster of reported cases will attract more attention than the process leading to this cluster
  - Media will often examine a risk through official procedures such as regulatory decisions; their interest will be stimulated by overt conflict between stakeholders and perceived vested interests and secrecy.

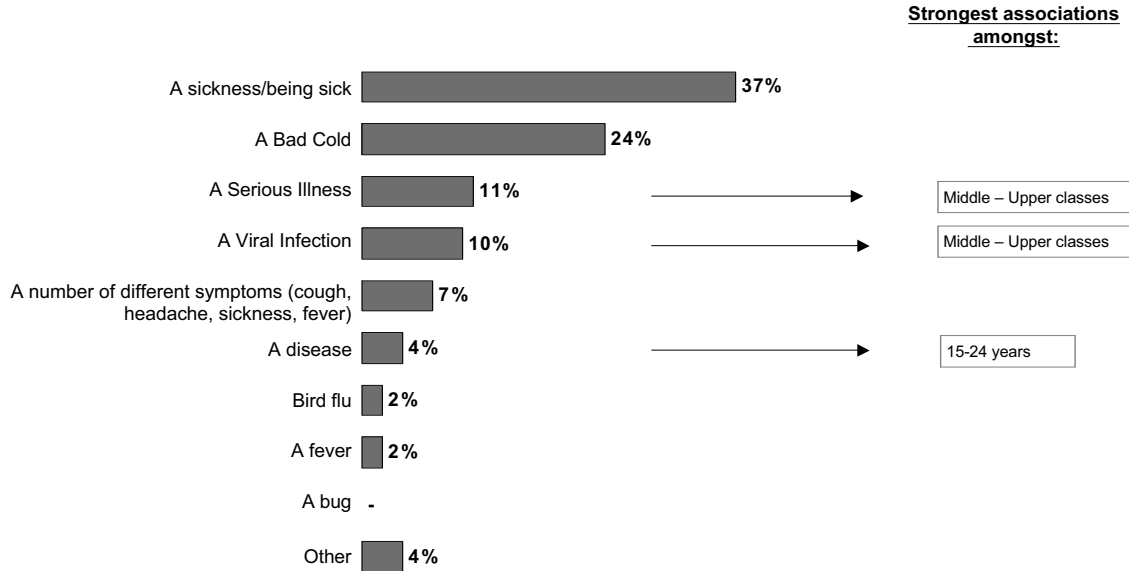
Kitzinger remarks that the way the media amplify a risk message is complex, possibly random and certainly non-systematic. But reflection on these and related observations can help inform communication strategies in relation to a given risk.

Issue 4: The media cannot be counted on to co-operate with, or be a conduit for, public authorities managing a risk.

All media, including those defined as commercial, are affected by some notion of service to their readers, listeners and viewers. They want to provide information that is of use on topics that are of relevance. This does not mean we can predict how the media will conduct themselves in any given risk situation. However, when a pandemic alert goes to a higher level and the country is defined as being in an emergency, or crisis, the media can be expected to align themselves more fully with official messages. The experience of the foot and mouth disease outbreak supports this contention. The management of that crisis by the public authorities was seen to be coherent and credible, and the media by and large supported the collective endeavour. Even in an emergency, however, the media will seize on any evidence that official sources are not telling the truth, or at least not the whole truth. Any failings or gaps in the official story will be magnified greatly, precisely because the authorities are under an intense spotlight. In any engagement with the media there are risks to be run, and risk communication is especially risky.

## Spontaneous Meaning Of Words 'Flu/Influenza'

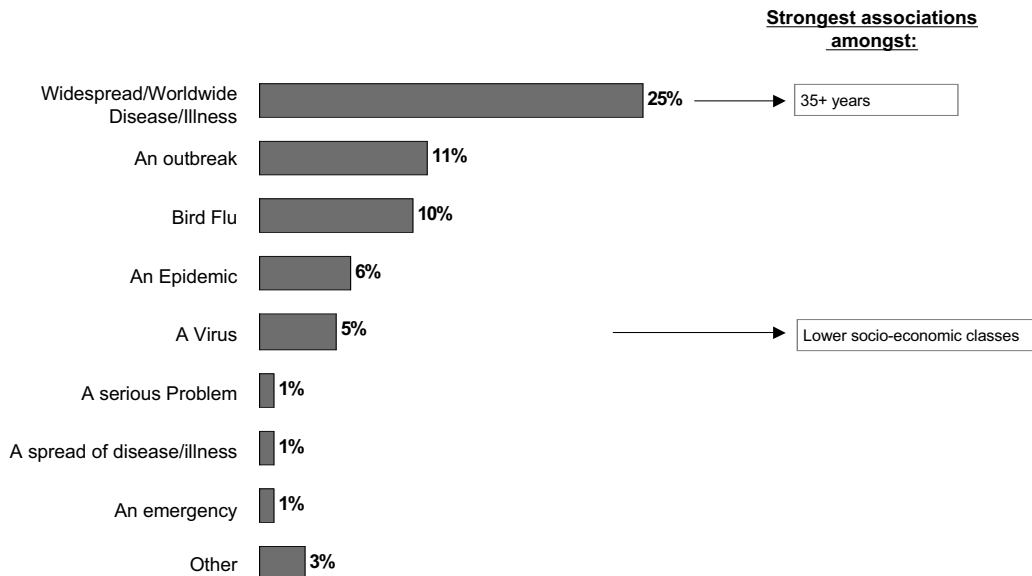
Base: All adults aged 15+ (1005)



Q.1 What, if anything, does the word flu/influenza mean to you ?

## Meaning Of 'Pandemic' (Unprompted)

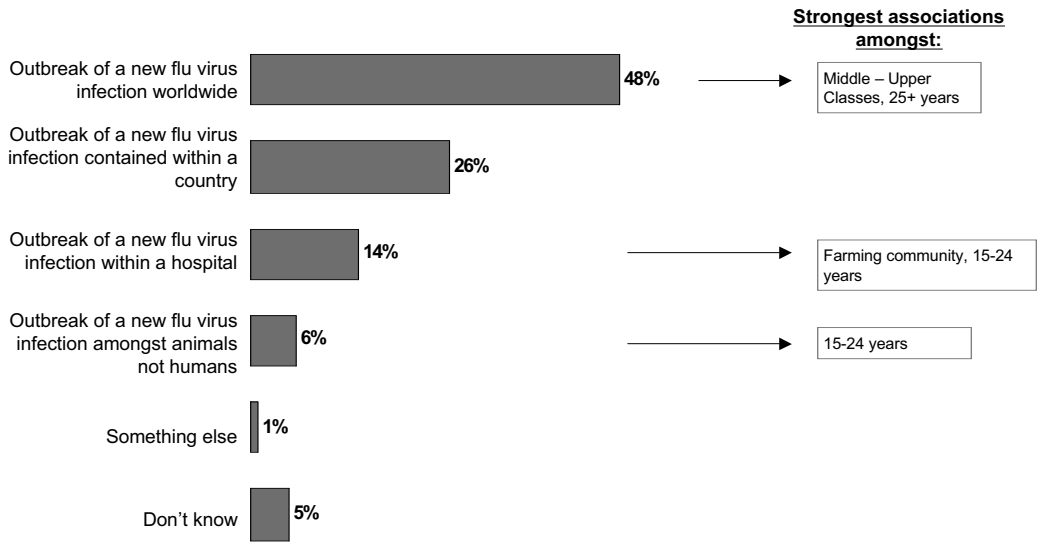
Base: All adults aged 15+ (1005)



Q.2 What, if anything, does the word pandemic mean to you?

## Meaning Of 'Flu Pandemic' (Prompted)

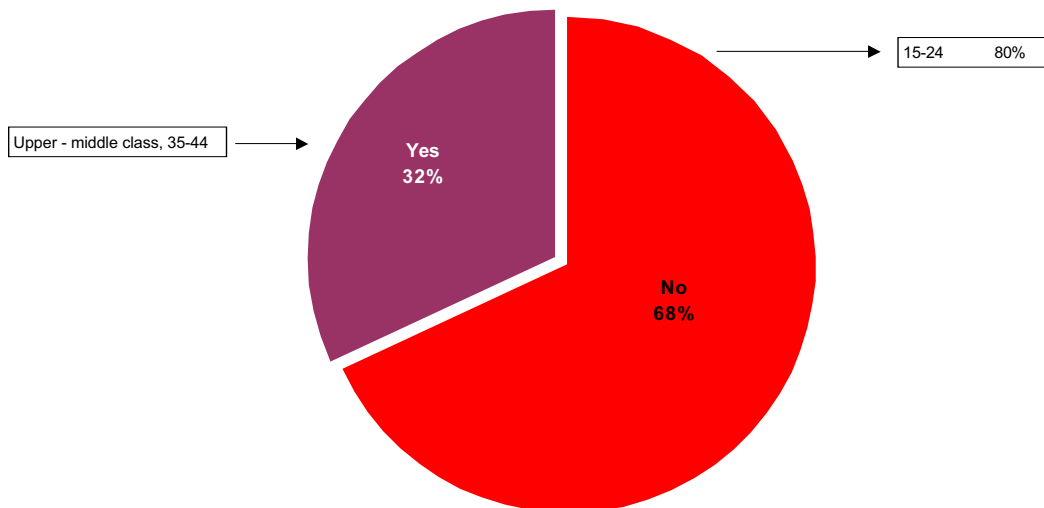
Base: All adults aged 15+ (1005)



Q.3 Which of the these, if any, do you think most closely describes a flu pandemic?

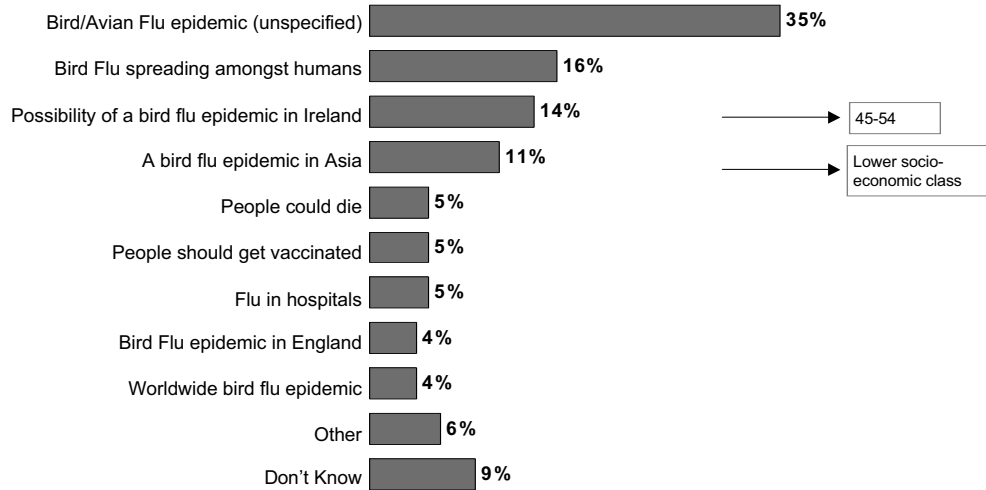
## Heard Anything About A Future Flu Pandemic?

Base: All adults aged 15+ (1005)



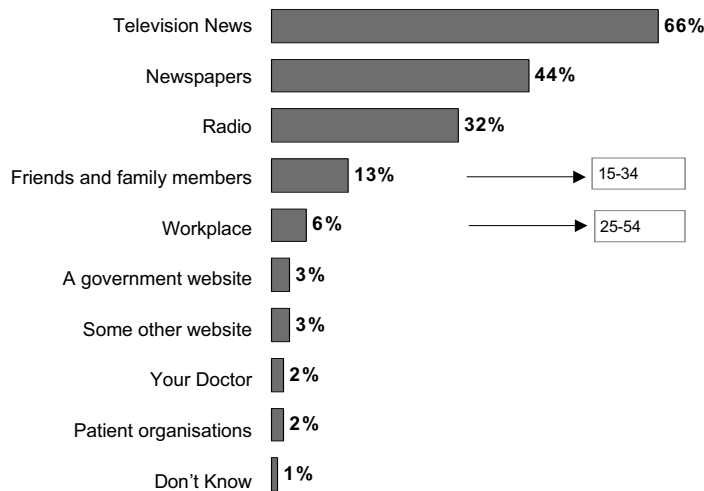
Q.4 Have you heard anything recently about a future flu pandemic?

## What Heard Recently About A Future Flu Pandemic? Base: All who had heard something (339)



Q.4 (a) Please specify anything you know

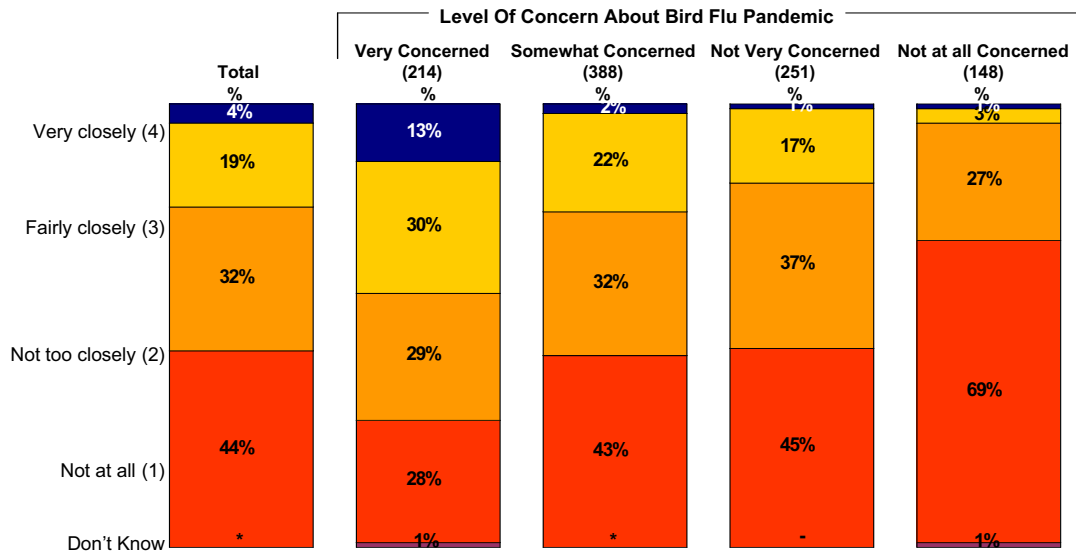
## What Media Has Informed The Public About Bird Flu? Base: All adults 15+ who have received information about avian/bird flu



Q.5 Have you received any information about the avian or bird flu from any of the following sources?

# How Closely Have You Followed Stories About Bird Flu?

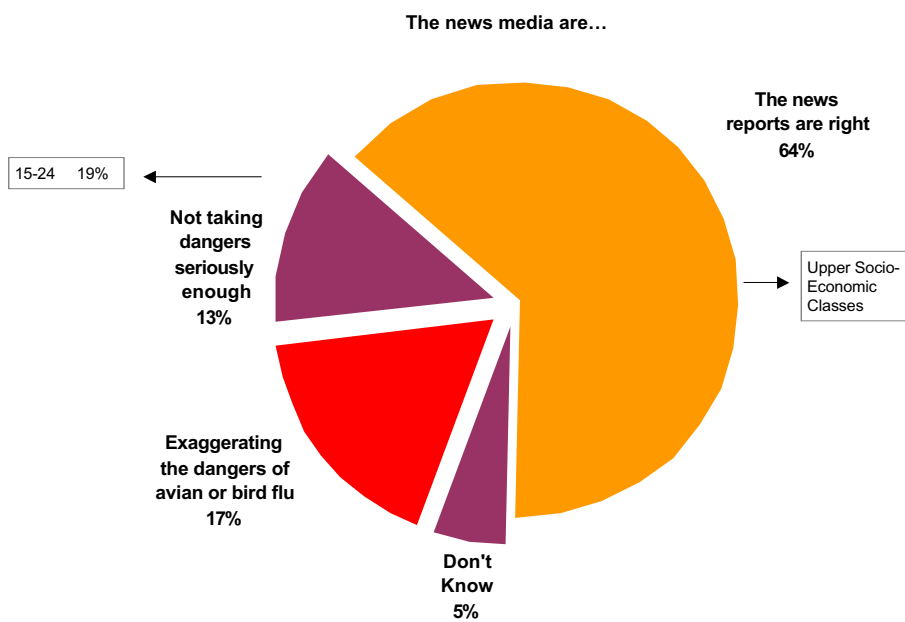
Base: All adults aged 15+ (1005)



Q.6 During the past month, how closely have you been following stories about avian or bird flu? Would you say?

# Perceptions Of News Media Coverage Of Bird Flu?

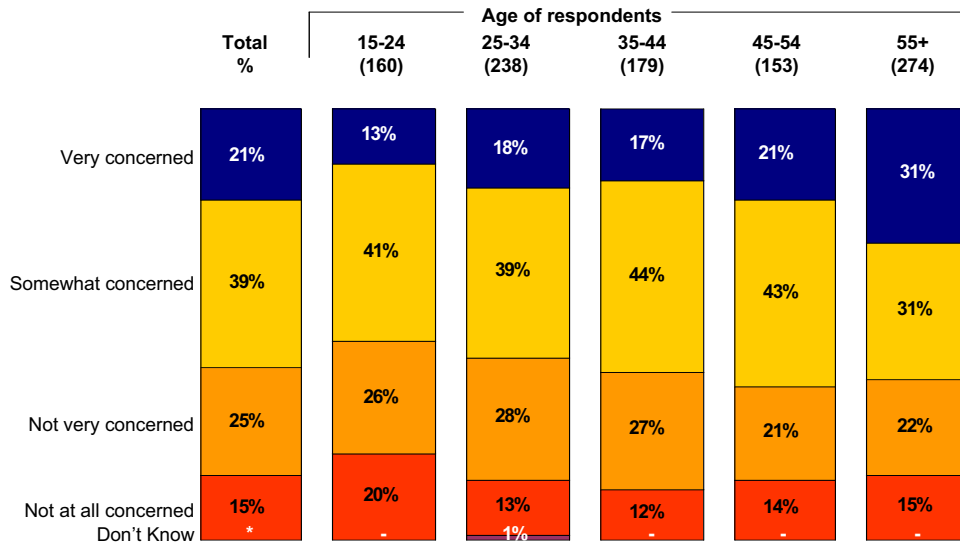
Base: All adults aged 15+ (1005)



Q.7 Do you think the news media are..?

## Level Of Concern About Bird Flu Pandemic?

Base: All adults aged 15+ (1005)

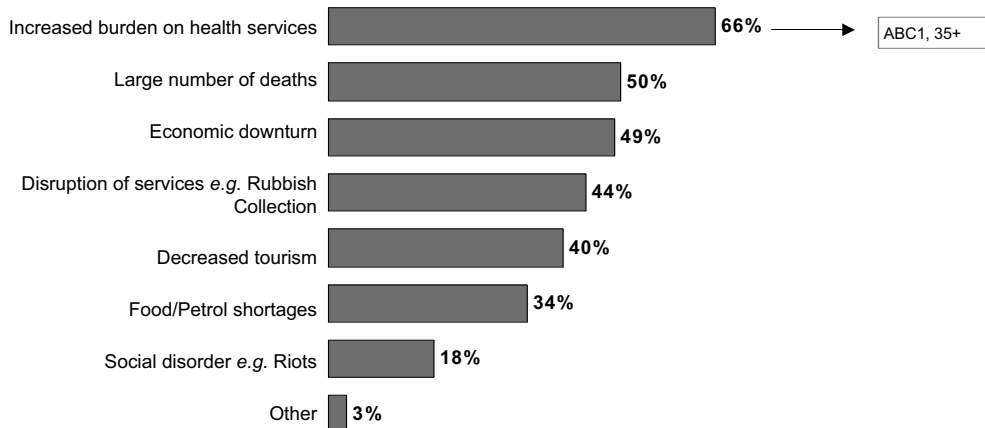


Mostly lower socio-economic classes 'very concerned'. All socio economic classes somewhat concerned.

Q.8 How concerned, or not, are you about a pandemic outbreak of avian or bird flu amongst humans? Would you say you are....?

## Which Do You Think Could Occur As A Result Of An Irish Flu Pandemic?

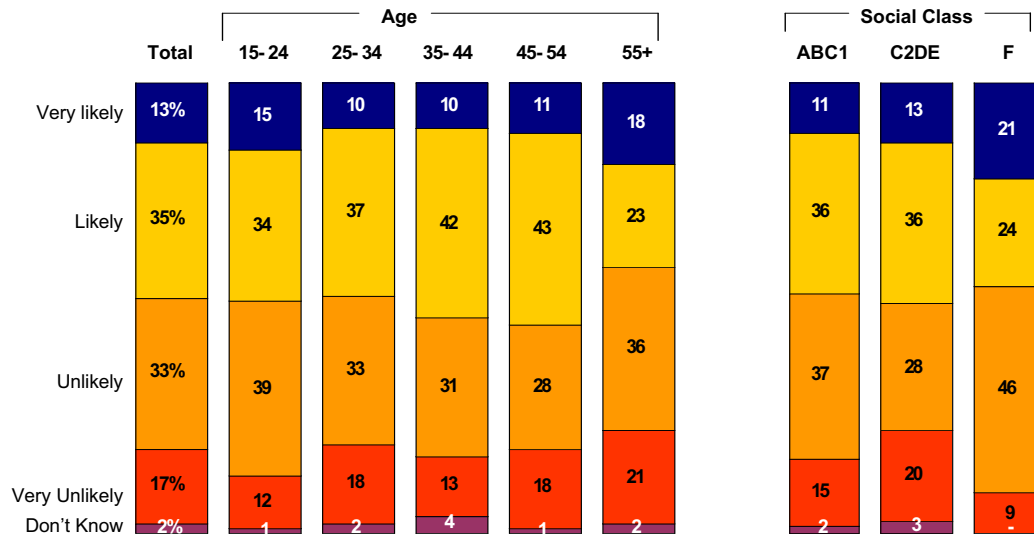
Base: All adults aged 15+ (1005)



Q.9 Which, if any, of these do you think could occur as a result of a human flu pandemic affecting Ireland?

## Likelihood Of Flu Pandemic Occurring In The Next 10 Years Which Affects Humans

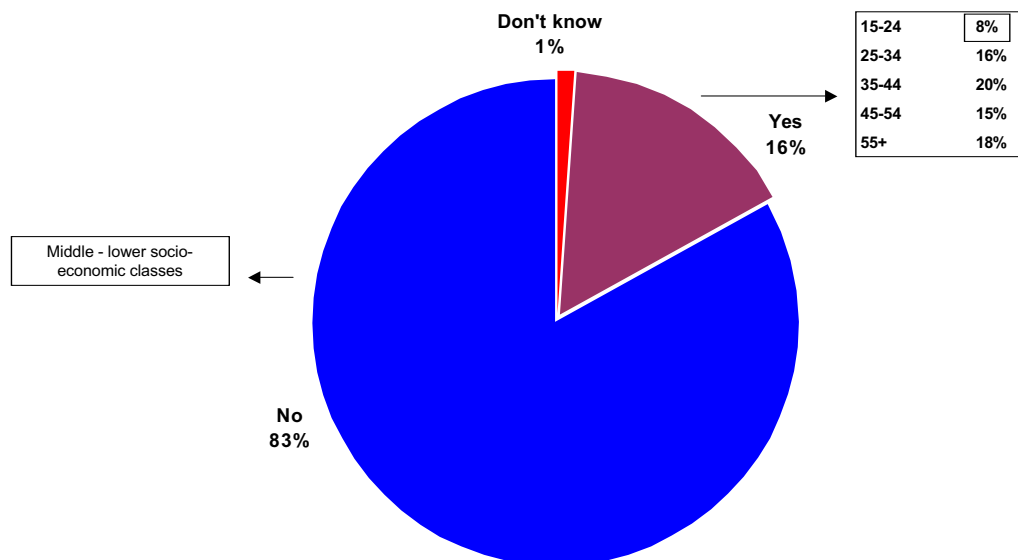
Base: All adults aged 15+ (1005)



Q.10 How likely do you think it is that a flu pandemic affecting humans will occur in the next 10 years?

## Awareness Of Methods Of Treating Pandemic Flu In Humans

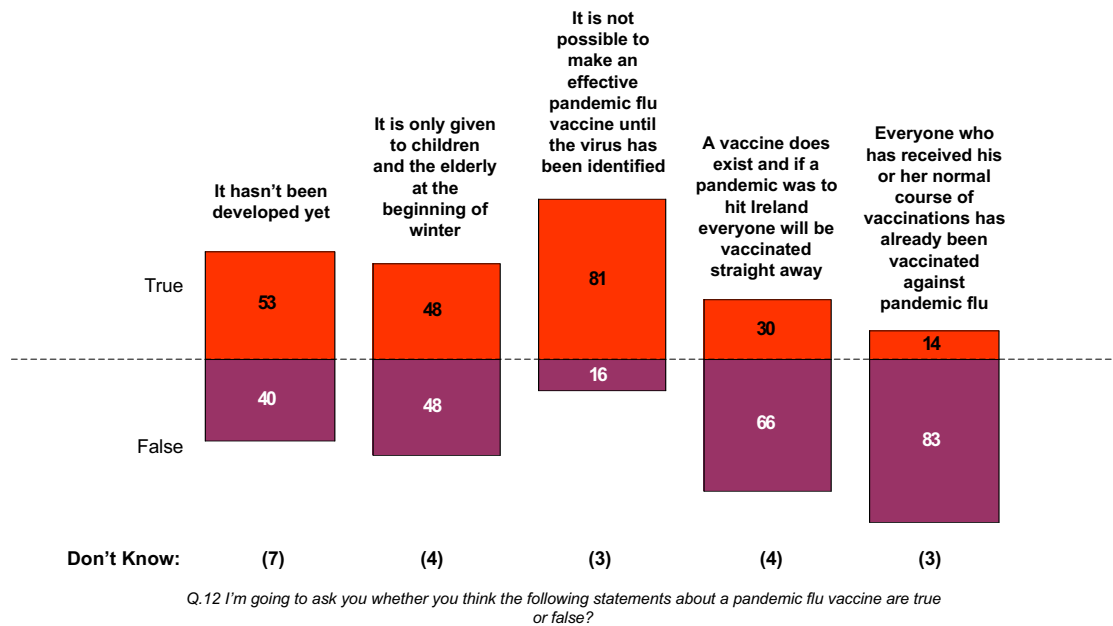
Base: All adults aged 15+ (1005)



Q.11 Are you aware of any methods of treating pandemic flu in humans?

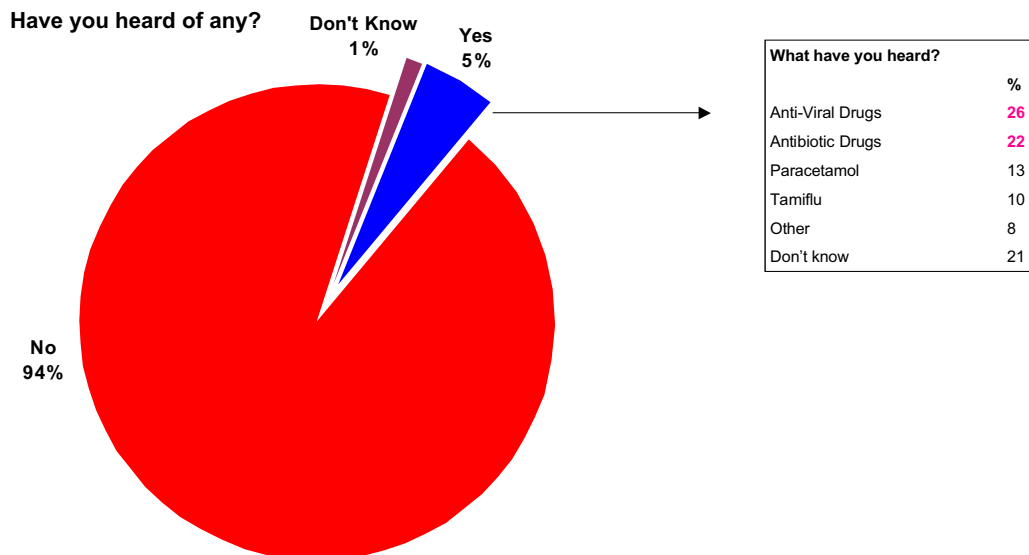
## Degree Of Truth Regarding Statements About Bird Flu Vaccine.

Base: All adults aged 15+ (1005)



## Knowledge Of Drugs Used To Treat Pandemic Flu

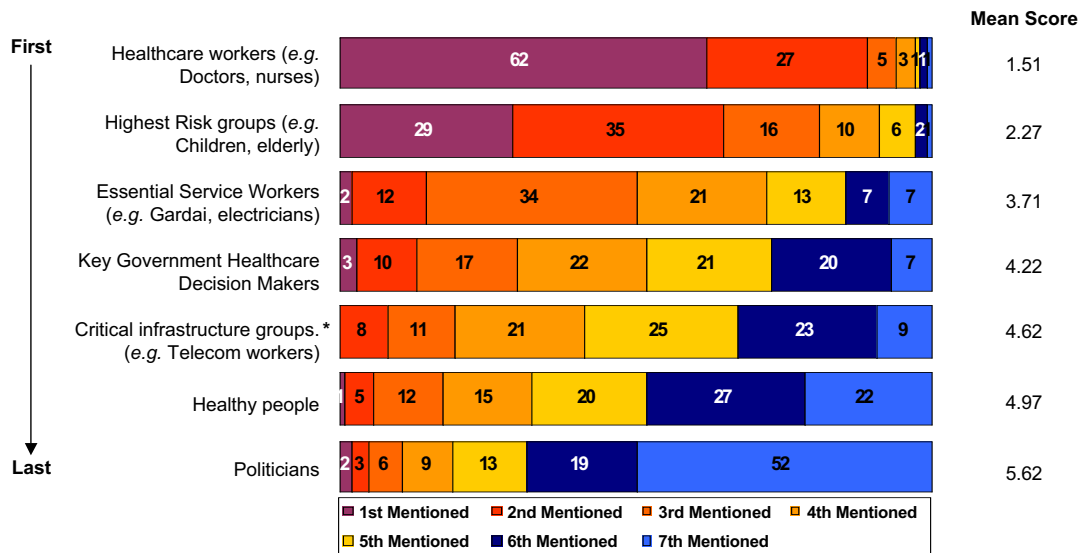
Base: All adults aged 15+ (1005)



Q.13 Apart from vaccines, have you heard of any drugs that could be used in the treatment of pandemic flu?  
Q.13 a What have you heard? Names, etc.?

## Priority Of Vaccination During A Flu Pandemic

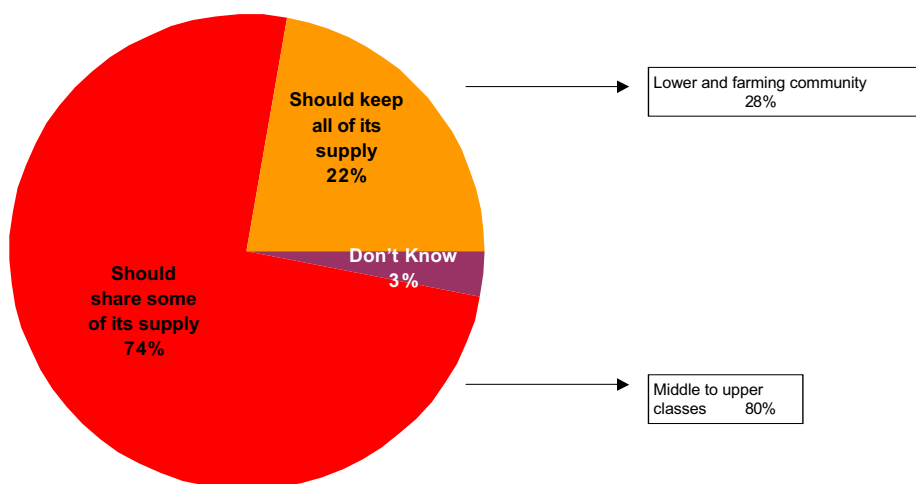
Base: All adults aged 15+ (1005)



Q.14 During the early stages of a pandemic, the supply of flu vaccine will likely to be limited. I am now going to read a list of possible people who could get priority for vaccination until vaccine supplies are more plentiful. Please rank these in order of 1-7. Who should get priority? You may choose more than one, please prioritise your answers.

## Should Ireland Share Its Supply Of Antiviral Drugs?

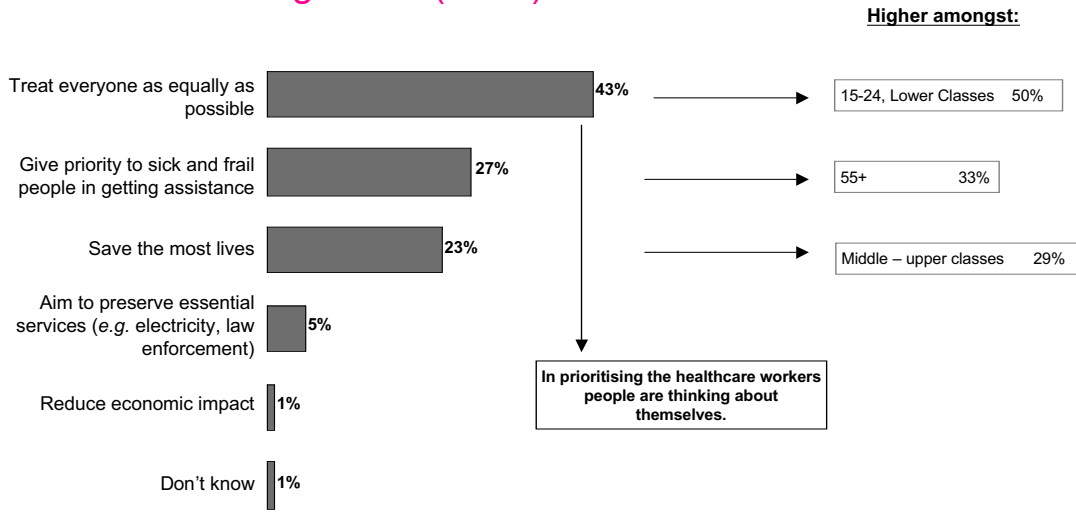
Base: All adults aged 15+ (1005)



Q.15 Should Ireland share some of its supply of antiviral drugs with other countries, or should it keep all of its supply for possible future use in Ireland?

# What/Who Should Be The Priority For Irish Health Officials In A Flu Pandemic?

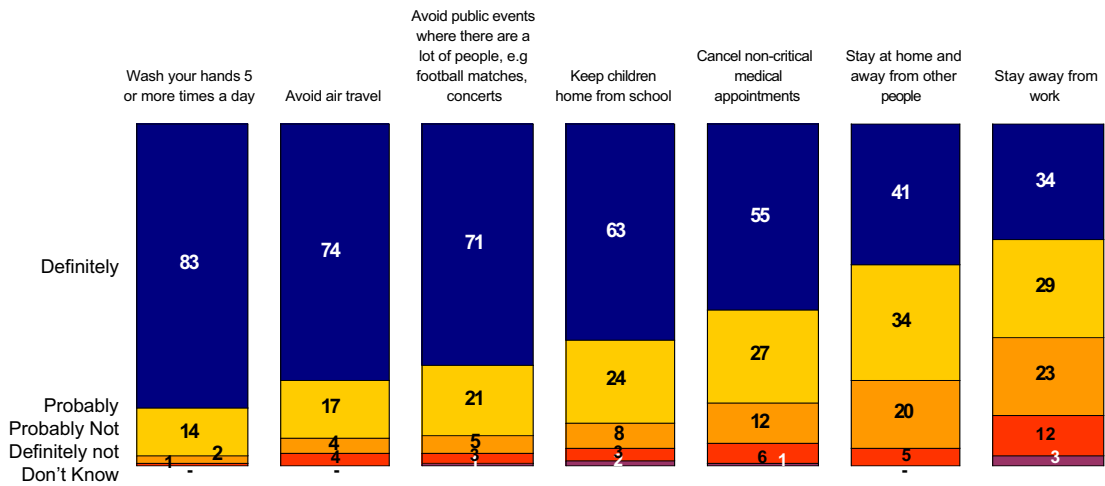
Base: All adults aged 15+ (1005)



Q.16 In the event of a pandemic flu amongst humans in Ireland, which one of these do you think should be the most important priority for public health officials?

# In A Flu Pandemic, Would You Take The Following Actions At The Government's Request?

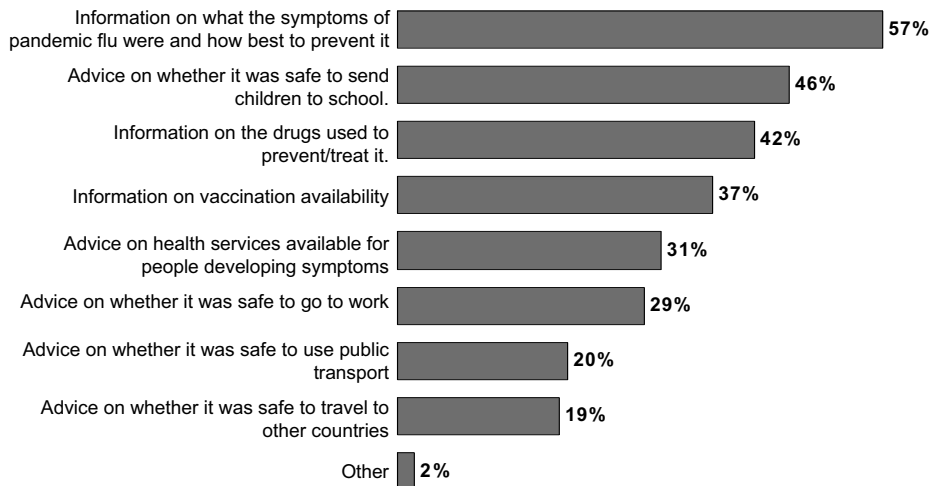
Base: All adults aged 15+ (1005)



Q.17 If you were asked by the government to assist in slowing down the spread of a flu epidemic by doing the following things for two to three weeks, do you think you would do what they asked?

## Most Important Advice For Government To Give If A Flu Pandemic Was About To Strike Ireland

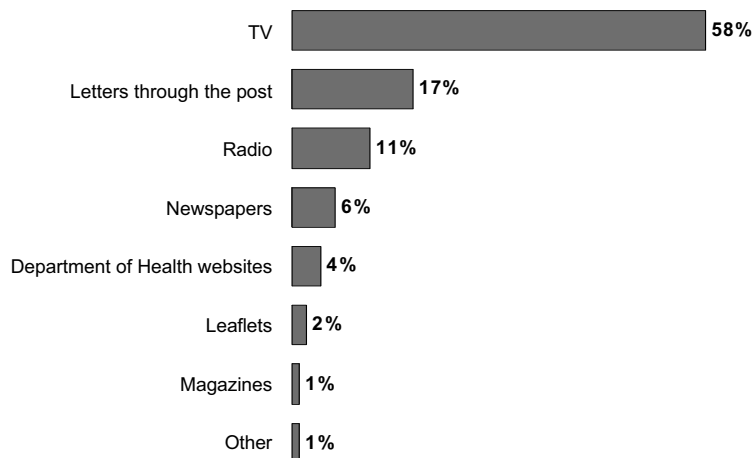
Base: All adults aged 15+ (1005)



Q.18 This is a list of types of advice or information the government could provide if a pandemic was about to affect Ireland. Which, if any, of these do you think are the THREE most important pieces of info or advice you would want the government to provide you with if a flu pandemic was about to affect Ireland?

## Best Way Of Receiving Health Advice During A Flu Pandemic

Base: All adults aged 15+ (1005)

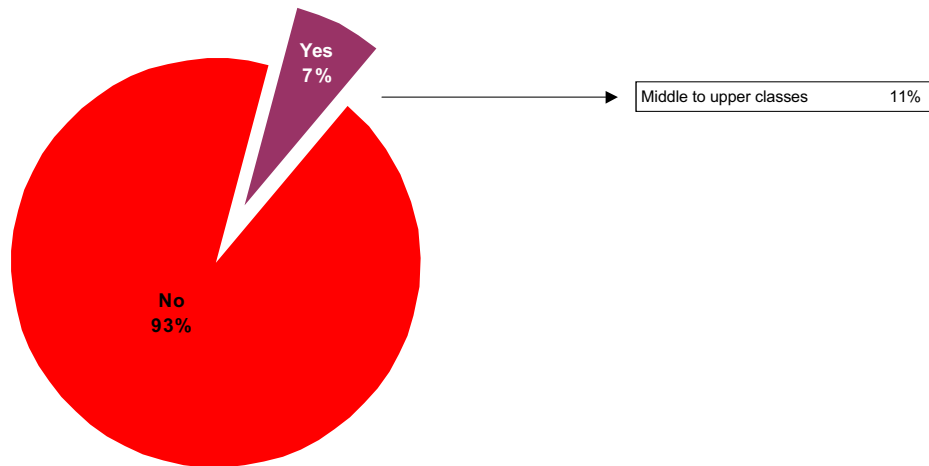


Q.19 What would be the best way of getting this advice (you just mentioned) to you?

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# Awareness Of The Pandemic Influenza Plan For Ireland

Base: All adults aged 15+ (1005)



Q.20 Have you heard of the Pandemic Influenza Plan for Ireland?

# Appendix 1: Survey of Public Perception of Pandemic Influenza

**Q.1** What, if anything, does the word flu/influenza mean to you? **Probe:** What else does it mean to you?

**Q.2** What, if anything, does the word pandemic mean to you? **Probe:** What else does it mean to you?

**Q.3** Which of these, if any, do you think most closely describes a flu pandemic? **READ OUT**  
**Please choose one**

- Outbreak of a new flu virus infection within a hospital .....1
- Outbreak of a new flu virus infection worldwide .....2
- Outbreak of a new flu virus infection contained within a country .....3
- Outbreak of a new flu virus infection among animals not affecting humans.....4
- Don't know (DNRO) .....5
- Something else (please specify \_\_\_\_\_) .....6

**Q.4** Have you heard anything recently about a future flu pandemic?

Yes 1 No 2

Please specify anything you know

**Q.5** Have you received any information about the avian or bird flu from any of the following sources?  
**READ OUT**

	<u>Yes</u>	<u>No</u>
Television News . . . . .	1	1
Newspapers . . . . .	2	2
Radio . . . . .	3	3
Friends and Family Members. . . . .	4	4

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Your Doctor . . . . .	5	5
A Government Website. . . . .	6	6
Some other Website . . . . .	7	7
Patients Organisations. . . . .	8	8
Work Place. . . . .	9	9

**Q.6** During the past month, how closely have you been following news stories about avian or bird flu? Would you say ...?

Very closely . . . . .	.1
Fairly closely . . . . .	.2
Not too closely . . . . .	.3
Not at all . . . . .	.4

**Q.7** Do you think the news media are ...?

Exaggerating the dangers of avian or bird flu . . . . .	1
Not taking the dangers seriously enough. . . . .	2
The news reports are about right . . . . .	3

**Q.8** How concerned, or not, are you about a pandemic outbreak of avian or bird flu among HUMANS? Would you say you are ...?

Very concerned . . . . .	1
Somewhat concerned . . . . .	2
Not very concerned . . . . .	3
Not at all concerned . . . . .	4

**Q.9** Which, if any, of these do you think could occur as a result of a HUMAN flu pandemic affecting Ireland? You may choose more than one. **READ OUT**

Large number of deaths . . . . .	1
Increased burden on the Health Service . . . . .	2
Social Disorder <i>e.g.</i> riots . . . . .	3
Disruption of services <i>e.g.</i> rubbish collection . . . . .	4
Food /petrol shortages . . . . .	5
Decreased tourism . . . . .	6
Economic Downturn . . . . .	7
Other . . . . .	8

**GENERAL INFORMATION** (to be provided to those questioned)

**INTERVIEWER – READ OUT**

- Experts do not know exactly when the next pandemic will occur
- It is likely to be caused by a new flu virus (possibly related to bird flu in South East Asia)
- It is expected to affect all ages. Experts estimate that roughly 25%-50% of people in Ireland may get ill
- The Health Service may be put under severe pressure and possibly overwhelmed for some time
- Experts estimate that 4,000 to 53,000 people may die if a flu pandemic hits Ireland

**Q.10** How likely do you think it is that a flu pandemic affecting humans will occur in the next ten years?

- Very Likely .....1
- Likely .....2
- Unlikely .....3
- Very Unlikely.....4
- Don't know .....5

**Q.11** Are you aware of any methods of treating pandemic flu in humans?

Yes  No

Please specify anything you know

**Q.12** I'm going to ask you whether you think the following statements about a pandemic flu vaccine are true or false.

	True	False
It hasn't been developed yet	1	2
It is only given to children and the elderly at the beginning of winter	1	2
It is not possible to make an effective pandemic flu vaccine until the virus has been identified	1	2
A vaccine does exist and if a pandemic was about to affect Ireland everyone would be vaccinated straight away	1	2
Everyone who has received his or her normal course of vaccinations has already been vaccinated against pandemic flu	1	2

**Q.13** Apart from vaccines, have you heard of any drugs that could be used in the treatment of pandemic flu?

Yes  No

What have you heard? Names, etc?

**Q.14** During the early stages of a pandemic, the supply of flu vaccine will likely be limited. I am now going to read out a list of possible people who could get priority for vaccination until vaccine supplies are more plentiful. Please rank these in order of importance from 1 – 7. **READ OUT ALL 7 ANSWERS FIRST.** Which should get priority? Who next? **READ OUT REMAINING ONES IF NECESSARY**  
You may choose more than one, please prioritise your answers

- Healthcare Workers *e.g.* doctors, nurses .....1
- Critical infrastructure groups *e.g.* telecommunication workers.....2
- Key government health care decision-makers .....3
- Politicians .....4
- Highest risk groups *e.g.* the elderly, children .....5
- Healthy people.....6
- Essential Service Workers *e.g.* Gardaí, Electricians .....7
- None of these .....8

It is likely that if there is an flu pandemic, there won't be enough anti-viral drugs or vaccines for everyone who needs it. Some people have suggested that the Ireland should share some of its supply with other countries in order to try to stop the spread of the disease to Ireland.

**Q.15** Should Ireland share some of its supply of antiviral drugs with other countries, or should it keep all of its supply for possible future use in Ireland

- Should share some of its supply.....1
- Should keep all of its supply .....2
- Don't Know .....3

**Q.16** In the event of a pandemic flu amongst humans in Ireland, which **one** of these do you think should be the MOST important priority for public health officials? **READ OUT FULL LIST – SINGLE CODE**

- Treat everyone as equally as possible ..... 1
- Save the most lives ..... 2
- Aim to preserve essential services like electricity and law enforcement ..... 3
- Reduce Economic Impact..... 4
- Give priority to sick and frail people in getting assistance ..... 5

**Q.17** If you were asked by the government to assist in slowing down the spread of a flu pandemic by doing the following things for two to three weeks, do you think you would do what they asked?

**PROBE:** Definitely, Probably, Probably not, Definitely Not, Don't Know

**READ OUT**

- Avoid public events or events where there are a lot of people  
*e.g.* football matches, concerts ..... 1
- Stay away from work..... 2
- Cancel non-critical medical appointments ..... 3
- Keep children home from school..... 4
- Avoid air travel ..... 5
- Wash your hands 5 times or more each day..... 6
- Stay at home and away from other people ..... 7

**Q.18** This is a list of types of advice or information the government could provide if a pandemic was about to affect Ireland. Which, if any, of these do you think are the three most important pieces of info or advice you would want the government to provide you with if a flu pandemic was about to affect Ireland.

**READ OUT FULL LIST**

Advice on whether it was safe to go to work.....	1
Advice on whether it was safe to send children to school .....	2
Advice on whether it was safe to use public transport .....	3
Information on what the symptoms of pandemic flu were & how best to prevent it .....	4
Information on the drugs used to prevent/treat it .....	5
Information on vaccine availability .....	6
Advice on the health services available for people developing symptoms.....	7
Advice on whether it was safe to travel to other countries .....	8
Other, please specify _____ .....	9

**Q.19** What would be the best way of getting this advice (you just mentioned ) to you? Please choose one.

**READ OUT**

T.V. ....	1
Radio .....	2
Department of Health Website.....	3
Newspapers .....	4
Magazines .....	5
Leaflets .....	6
Letters through the post .....	7
Other please specify _____ .....	8

**Q.20** Have you heard about the Pandemic Influenza plan for Ireland?

Yes .....	1
No .....	2

**GIVE REAL PANDEMIC DEFINITION NOW**

Flu pandemics occur when a new flu virus emerges and spreads rapidly from person to person worldwide.

Questionnaire adapted from: Gupta, RK, Toby, M, Bandopadhyay, G, Gelb, D, Nguyen-Van-Tam, JS 2006. Public Understanding of Pandemic Influenza, United Kingdom. *Emerging Infectious Diseases*, **12**(10): 1621-1622.

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1. To identify and interpret the ethical questions raised by biomedicine in order to respond to, and anticipate questions of substantive concern.
2. To investigate and report on such questions in the interests of promoting public understanding, informed discussion and education.
3. In the light of the outcome of its work, to stimulate discussion through conferences, workshops, lectures, published reports and where appropriate suggest guidelines.

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**BIOETHICS**

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