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# Pandemic Influenza and Pregnant Women, Children, and Health Services

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# Pandemic Influenza and Pregnant Women, Children, and Health Services

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**ABSTRACT:** This document provides resources on pandemic influenza and potential consequences for pregnant women, children, and delivery of health services. It also contains additional information on preparedness for pandemic influenza at community, institutional, state, national, and global levels. Links to electronic resources are noted where available.

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## I. Pandemic Influenza and Pregnant Women

This section contains resources on special considerations for pregnant women in the event of an outbreak of influenza. For example, in Rasmussen *et al.*'s report, the authors recommend several ways to address this population in the context of pandemic influenza: educate pregnant women on potential adverse effects of influenza medicines on the fetus; ensure consistent guidelines on routine prenatal care and delivery during pandemic influenza; and develop contingency plans to limit influenza exposure to pregnant women.

Rasmussen SA, Jamieson DJ, Bresee JS. Pandemic influenza and pregnant women. *Emerg Infect Dis* 2008 Jan.  
<http://www.cdc.gov/EID/content/14/1/95.htm>

Beigi RH. Pandemic influenza and pregnancy: a call for preparedness planning. *Obstet Gynecol.* 2007 May;109(5):1193-6.

Jamieson DJ, Theiler RN, Rasmussen SA. Emerging infections and pregnancy. *Emerg Infect Dis.* 2006; 12: 1638–43.  
<http://www.cdc.gov/ncidod/EID/vol12no11/06-0152.htm>

Rasmussen SA, Hayes EB. Public health approach to emerging infections among pregnant women. *Am J Public Health.* 2005; 95:1942–4. 34.

Indiana State Department of Health. Pandemic Influenza Q&A for Pregnant Women and Children.  
<http://www.state.in.us/isdh/bioterrorism/PandemicFlu/pdfs/PregnantWomen.pdf>

## II. Pandemic Influenza and Children

Section II presents reports and studies on why children are considered a vulnerable population in the event of pandemic influenza. The potential risks of seasonal and pandemic influenza to children are described in these documents, as well as ways to prevent the transmission of influenza to children during a potential pandemic of influenza.

Glass, Laura; Glass, Robert. Social contact networks for the spread of pandemic influenza in children and teenagers. *BMC Public Health*, January 2008, Vol. 8 Issue: Number 1.  
<http://www.biomedcentral.com/content/pdf/1471-2458-8-61.pdf>

Trust for America's Health and The American Academy of Pediatrics. *Pandemic Influenza: Warning, children-at-risk.* October 2007.  
<http://healthyamericans.org/reports/fluchildren/KidsPandemicFlu.pdf>

**Abstract:** This briefing document provides an overview of the risks to children for both seasonal and pandemic influenza and policy recommendations on addressing these potential risks to children.

Giacomet V, Tarallo L, De Marco G, Giannattasio A, Barbarino A, Guarino A. Preparing for an influenza pandemic in Italy: resources and procedures in paediatric hospital units. *Euro Surveill.* 2007 Jul 1; 12(7):E7-8.

Radonovich, Lewis J., Jr.; Bender, Bradley S.; Small, Parker A., Jr. Children Should Be Among the Highest Priority Groups to Receive Immunization for Seasonal and Pandemic Influenza. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science, December 2007, Vol. 5 Issue: Number 4 p363-366.*

Scarfone RJ, Alexander S, Coffin SE, St John KH, Sullivan F, Wagner J, Zaoutis T. Emergency preparedness for pandemic influenza. *Pediatr Emerg Care.* 2006 Sep; 22(9):661-8; quiz 669-70.

Langley J. Pandemic Influenza and Canada's Children. *Can J Infect Dis Med Microbiol.* 2006 Jul-Aug; 17(4): 213–215.

Camden National Health Service, UK. Pandemic Influenza and Pregnancy: Information for women in Camden who are expecting a baby. July 2006.

**Abstract:** This brochure was developed by the UK National Health Services in Camden targeted to pregnant women and families about a possible pandemic influenza. It includes background information on pandemic influenza, how pandemic influenza may affect pregnant women and babies, and ways to prevent influenza during pregnancy.

Woods CR, Abramson JS. The next influenza pandemic: will we be ready to care for our children? *J Pediatr.* 2005 Aug; 147(2):147-55. Review.

### **III. Pandemic Influenza and Health Services**

In the event of pandemic influenza, provision of health services will be interrupted due to treatment of cases and prevention of transmission of additional cases. These documents describe emergency planning and preparedness plans needed at all levels of health care delivery systems to ensure existing patients receive ongoing care during the pandemic and new cases of influenza are properly treated and cared for.

Bartlett JG, Borio L. Healthcare epidemiology: the current status of planning for pandemic influenza and implications for health care planning in the United States. (eng; includes abstract). *Clinical Infectious Diseases: An Official*

*Publication Of The Infectious Diseases Society Of America [Clin Infect Dis], ISSN: 1537-6591, 2008 Mar 15; Vol. 46 (6), pp. 919-25; PMID: 18279045.*

Chan WF, Wong TK. Preparing for pandemic influenza: revisit the basics. (eng; includes abstract), *Journal Of Clinical Nursing [J Clin Nurs]*, ISSN: 0962-1067, 2007 Oct; Vol. 16 (10), pp. 1858-64; PMID: 17880474.

Parish, Colin. Pandemic influenza: a daunting challenge for health services. *Nursing Standard*, 5/30/2007, Vol. 21 Issue 38, p12-13.

Cheong SK, Wong TY, Lee HY, Fong YT, Tan BY, Koh GCh, Chan KM, Chia SE, Koh D. Concerns and preparedness for an avian influenza pandemic: a comparison between community hospital and tertiary hospital healthcare workers. (eng; includes abstract). *Industrial Health [Ind Health]*, 2007 Oct; Vol. 45 (5), pp. 653-61; PMID: 18057808.

Renfrew County, Ontario Canada. Renfrew County & District Pandemic Influenza Plan. March 2007.

<http://www.rcdhu.com/Pandemic%20Flu%20Plan/Chapter%207.pdf>

**Abstract:** This chapter of Renfrew County's Pandemic Influenza Plan focuses on the potential consequences for delivery of health services due to pandemic influenza. It discusses preparedness strategies at all levels of care, from acute care facilities to community and other healthcare professionals such as pharmacists and midwives.

Cheong, S. K., Wong, T. Y., Lee, H. Y., Fong, Y. T., Tan, B. Y., Koh, G. C., Chan, K. M., Chia, S. E., and Koh, D. (2007). Concerns and preparedness for an avian influenza pandemic: A comparison between community hospital and tertiary hospital Healthcare workers. *Industrial Health* 45 (5), 653-661.

Mackellar, L. (2007). Pandemic influenza: a review. *Population and Development Review* 33 (3), 429-451.

Bishop, T. (2007). The Government's strategy for managing an influenza pandemic. *Practice Nurse* 34 (9), 23-25.

Preparing for the next flu pandemic: New clinical guidelines focus on coordinating services and standardising care. *BMJ* 2007;334:268-269 (10 February), doi:10.1136/bmj.39101.628715.80

Aledort, J. E., Lurie, N., Wasserman, J., and Bozzette, S. A. (2007) Non-pharmaceutical public health interventions for pandemic influenza: an evaluation of the evidence base. [Review]. *BMC Public Health* 7, 208.

<http://www.biomedcentral.com/content/pdf/1471-2458-7-208.pdf>

Tiwari, Agnes; Tarrant, Marie; Yuen, Kwan; Chan, Sophia; Kagan, Sarah; Ching, Patricia; Wong, Alan; Wong, Samson. Preparedness for Influenza Pandemic in Hong Kong Nursing Units. *Journal of Nursing Scholarship*, December 2006, Vol. 38 Issue: Number 4 p308-313, 6p

Glass RJ, Glass LM, Beyeler WE, Min HJ. Targeted social distancing design for pandemic influenza. *Emerg Infect Dis* [serial on the Internet]. 2006 Nov. <http://www.cdc.gov/ncidod/EID/vol12no11/06-0255.htm>

Christian, Michael D., Hawryluck, Laura; Wax, Randy S.; Cook, Tim; Lazar, Neil M.; Herridge, Margaret S.; Muller, Matthew P.; Gowans, Douglas R.; Fortier, Wendy; Burkle Jr., Frederick M. Development of a triage protocol for critical care during an influenza pandemic. *CMAJ: Canadian Medical Association Journal*, 11/21/2006, Vol. 175 Issue 11, p1377-1381, 5p, 1 chart.

## IV. Other Resources

CDC. *Community Strategy for Pandemic Influenza Mitigation*. February 2007. <http://www.pandemicflu.gov/plan/community/commitigation.html>

**Abstract:** This resource from CDC provides guidelines to state, territorial, tribal, and local communities on preparedness planning for pandemic influenza. Non-pharmaceutical interventions such as voluntary isolation of persons with influenza and social distancing of sick persons are the primary focus. Planning guides for specific groups, e.g., businesses and employers, childcare programs, and schools are included as appendices.

AHRQ. *Mass Medical Care with Scarce Resources: A Community Planning Guide*. February 2007. <http://www.ahrq.gov/research/mce>

**Abstract:** This planning guide from the Agency for Healthcare Research and Quality (AHRQ) provides planners at the community, institutional, state, and federal levels with information on planning for and responding to a mass casualty event (MCE) such as pandemic influenza. The six main areas related to mass casualty care examined are prehospital care, hospital and acute care, alternative care sites, palliative care, ethical issues, and legal considerations.

OSHA. *Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers*. 2007. [http://www.osha.gov/Publications/OSHA\\_pandemic\\_health.pdf](http://www.osha.gov/Publications/OSHA_pandemic_health.pdf)

**Abstract:** This guide from the Occupational Safety and Health Administration (OSHA) provides useful information and tools to pandemic

influenza planners, including internet resources, communication tools, sample infection control programs, and self-triage and home care resources. It also offers how-to advice on diagnosis and treatment of staff during a pandemic, developing planning and supply checklists, and risk communication.

Uscher-Pines L, Omer S, Barnett D, Burke T, Balicer R. Priority Setting for Pandemic Influenza: An Analysis of National Preparedness Plans. *PLoS Medicine*, October 2006, Volume 3, Issue 10:1721-172.

[http://medicine.plosjournals.org/archive/1549-1676/3/10/pdf/10.1371\\_journal.pmed.0030436-S.pdf](http://medicine.plosjournals.org/archive/1549-1676/3/10/pdf/10.1371_journal.pmed.0030436-S.pdf)

WHO. The role of WHO and recommendations for national measures before and during pandemics - March 2005.

[http://www.who.int/csr/resources/publications/influenza/GIP\\_2005\\_5Eweb.pdf](http://www.who.int/csr/resources/publications/influenza/GIP_2005_5Eweb.pdf)

**Abstract:** The global influenza preparedness plan from the World Health Organization (WHO) is intended to assist WHO member states in their planning for pandemic influenza, particularly for those experts in public health, medical, and emergency preparedness.

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