Publisher: CDC; Journal: Emerging Infectious Diseases
Article Type: Research; Volume: 5; Issue: 5; Year: 1999; Article ID: 99-0507
DOI: 10.321/eid0505.990507; TOC Head: Research

The Economic Impact of Pandemic Influenza in the United States: Priorities for Intervention

Martin I. Meltzer, Nancy J. Cox, and Keiji Fukuda

Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Suggested citation: Meltzer MI, Cox NJ, Fukuda K. The Economic Impact of Pandemic Influenza in the United States: Priorities for Intervention. Emerg Infect Dis [serial on the Internet]. 1999, Oct [date cited]. Available from http://www.cdc.gov/ncidod/eid/vol5no5/meltzer.htm

Appendix I

For the equation in the main text defining net returns due to vaccinations, savings from outcomes averted and the costs of vaccination are calculated as follows:

Savings from outcomes averted =∑ (Number with outcome before intervention

age, risk group Outcomes death, hospitalization, outpatient, ill, no medical care age, risk group

x compliance =x vaccine effectiveness x $value of outcome prevented)

age, risk Outcomes death,

Publisher: CDC; Journal: Emerging Infectious Diseases
Article Type: Research; Volume: 5; Issue: 5; Year: 1999; Article ID: 99-0507
DOI: 10.321/eid0505.990507; TOC Head: Research

group hospitalization,

outpatient, ill, no

medical care

and;

Cost of vaccination =$cost/vaccinee x population x compliance

age, risk group age, risk group age, risk group

Table. High and low levels of assumed vaccine effectiveness

	Vaccine effectiveness in preventing disease outcomes[ab]					
	High[c]			Low[c]		
Disease outcomes	0-19 yrs	20-64 yrs	65 + yrs	0-19 yrs	20-64 yrs	65 + yrs
Death	0.70	0.70	0.60	0.40	0.40	0.30
Hospitalization	0.55	0.55	0.50	0.55	0.55	0.50
Outpatient visits	0.40	0.40	0.40	0.40	0.40	0.40
Ill, no medical care sought	0.40	0.40	0.40	0.40	0.40	0.40

[a]Vaccine effectiveness is defined as the reduction in the number of cases in each of the age and disease categories.
[b]Within a defined age group, it was assumed that there was no difference in vaccine effectiveness between subgroups at high risk and not at high risk.
[c]The terms high and low level of effectiveness are subjective and reflect only a judgment of the levels of effectiveness in the two scenarios relative to each other.

Address for correspondence: Martin Meltzer, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Clifton Road, Mail Stop C12, Atlanta, GA 30333, USA; fax: 404-639-3039; e-mail: qzm4@cdc.gov.