

Selling Influenza

Who's buying?

Are you at risk
for serious complications from flu?

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February 21, 2013

If you have asthma, diabetes, heart disease, or certain other chronic medical conditions, you're at risk for flu complications that can lead to hospitalization and even death. Vaccination is your best protection against flu.

Get vaccinated.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Selling Sickness 2013 conference
Washington, DC



Spread Music. Not Flu.

Even healthy people can get the flu, and it can be serious. Everyone 6 months and older should get a flu vaccine. This means you. This season, protect yourself—and those around you—by getting a flu vaccine.



U.S. Department of
Health and Human Services
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Control and Prevention

For more information, visit <http://www.flu.gov>

A pregnant woman is shown from the waist up, wearing a bright yellow sweater. Her hands are gently cradling her pregnant belly. A yellow diamond-shaped sign with a black border is pinned to her sweater, displaying the text "NO FLU ON BOARD" in bold, black, sans-serif capital letters. The background is a solid dark red color.

**NO FLU
ON BOARD**

For information,
visit www.flu.gov, or
call 1-800-CDC-INFO.

FLU CAN HARM YOU AND YOUR BABY.



**VACCINATION CAN
PROTECT YOU BOTH!**

Population

Recommendation

Adults ≥ 65 years

Adults ≥ 50 years

Children 6 to 23 months

Children 6 to 59 months

Children 6 months to 5 years

Children 6 months to 5 years

Everyone ≥ 6 months

Recommendation

Pregnant women

Pregnant women

Healthcare workers

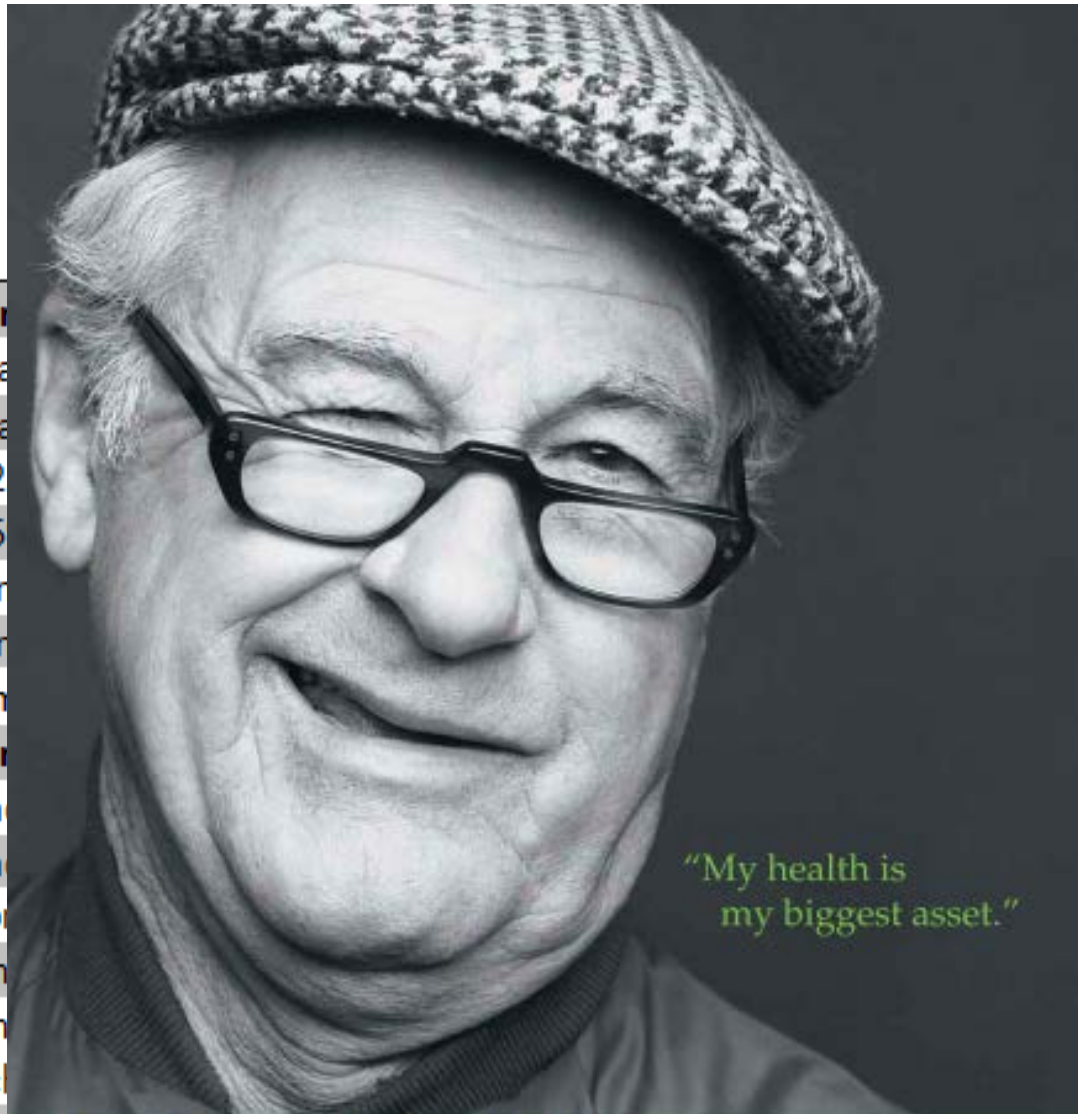
Household contacts

Household contacts

caregivers of children

Household contacts

caregivers of children



"My health is
my biggest asset."

If you're 65 years or older, getting a flu shot
is the best way to protect yourself
and those around you from flu.

<http://www.flu.gov>
1-800-CDC-INFO

Get Your Flu Vaccine. Not the Flu.

The flu benefit is a covered service for Medicare
and for children enrolled in Medicaid and CHIP.



11-00000-01

2008
2009
2010

X X X

X X X

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How it's presented by officials

Influenza is a serious, deadly disease

Flu shot is (virtually) risk free

Flu shot saves lives



**Shots
aren't just
for kids.**

Vaccines for adults can prevent serious diseases and even death. Ask your doctor about what immunizations **you** need. Because **staying healthy at any age** isn't kid stuff.



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Vaccines can prevent Influenza (flu), shingles, diphtheria/tetanus, pertussis, and pneumococcal diseases.

<http://www.cdc.gov/vaccines/adults>

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Just the facts

THE THREAT

Scientific studies show influenza tragically kills thousands (often tens of thousands) of Americans each year, particularly the elderly.¹

THE INTERVENTION

Scientific studies show the vaccine can cut elderly deaths in half ^{2,3}

¹ Centers for Disease Control and Prevention. Estimates of deaths associated with seasonal influenza --- United States, 1976-2007. *MMWR* 2010 Aug 27;59(33):1057-62.

² Gross et al. The efficacy of influenza vaccine in elderly persons: a meta-analysis and review of the literature. *Ann Intern Med*. 1995 Oct 1;123(7):518-27.

³ Nichol et al. Effectiveness of influenza vaccine in the community-dwelling elderly. *N Engl J Med*. 2007 Oct 4;357(14):1373-81.

Just the facts

THE THREAT

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THE INTERVENTION

Scientific studies show the vaccine can cut elderly deaths in half ^{2,3} ... even outside influenza season.⁴

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² Gross et al. The efficacy of influenza vaccine in elderly persons: a meta-analysis and review of the literature. *Ann Intern Med*. 1995 Oct 1;123(7):518-27.

³ Nichol et al. Effectiveness of influenza vaccine in the community-dwelling elderly. *N Engl J Med*. 2007 Oct 4;357(14):1373-81.

⁴ Eurich et al. Mortality reduction with influenza vaccine in patients with pneumonia outside "flu" season: pleiotropic benefits or residual confounding? *Am J Respir Crit Care Med*. 2008 Sep 1;178(5):527-33

50% reduction in deaths?

Implausible benefit

- “We could not correlate increasing vaccination coverage after 1980 with declining mortality rates in any age group.”
- “there are not enough influenza-related deaths to support the conclusion that vaccination can reduce total winter mortality among the US elderly population by as much as half.”

Simonsen et al. *Arch Intern Med* 2005;165:265-272.

Cochrane systematic review (2010)

- “This review looked at evidence from experimental and non-experimental studies carried out over 40 years of influenza vaccination. We included 75 studies. ... The results are mostly based on non-experimental (observational) studies, which are at greater risk of bias, as not many good quality trials were available. ... Due to the poor quality of the available evidence, **any conclusions regarding the effects of influenza vaccines for people aged 65 years or older cannot be drawn.**”

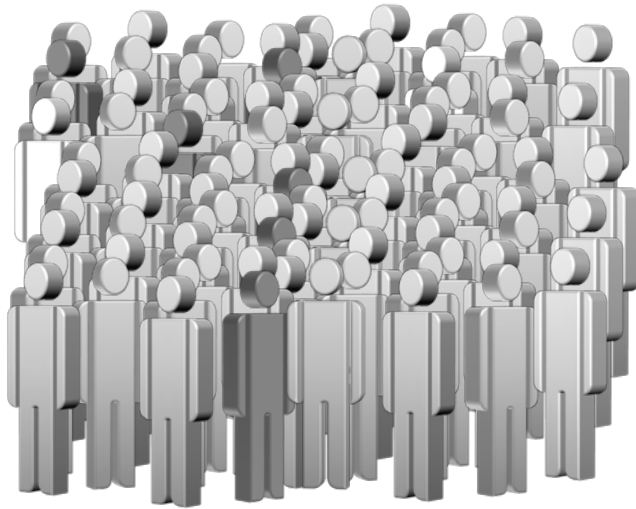
Jefferson et al (2010). Vaccines for preventing influenza in the elderly. *Cochrane Database of Systematic Reviews*.

Efficacy of influenza vaccine in healthy adults

(**vaccine content completely matching circulating strain**)

Based on 8 clinical trials, 11,285 participants

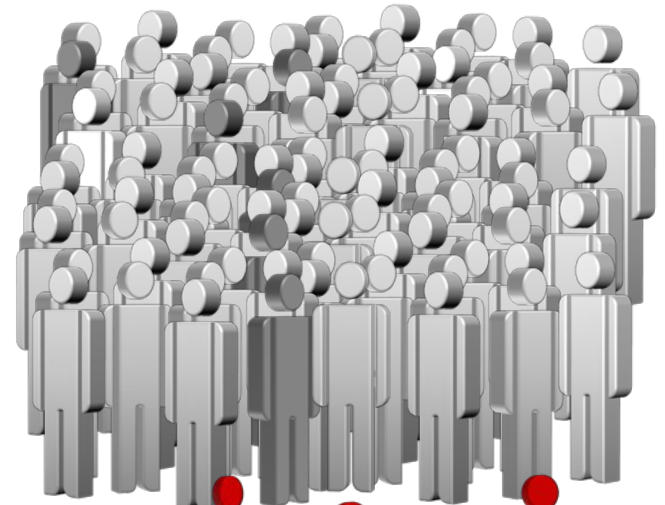
100 healthy adults, **vaccinated**



1 develops
influenza



100 healthy adults, **not vaccinated**



4 develop
influenza

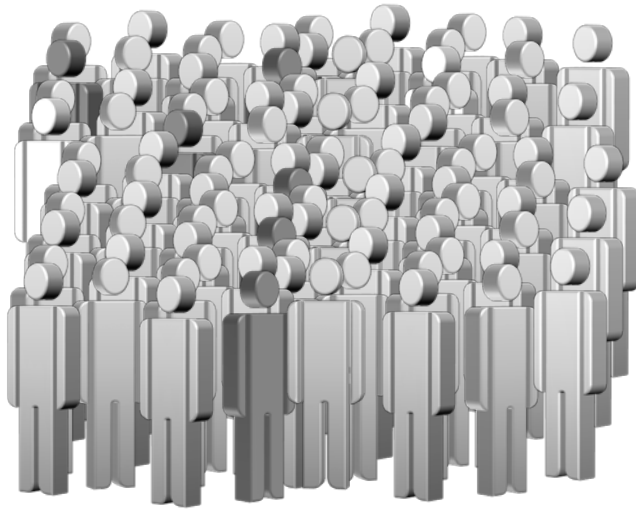


Efficacy of influenza vaccine in healthy adults

(vaccine content incompletely matching circulating strain or not reported)

Based on 6 clinical trials with 10,331 participants

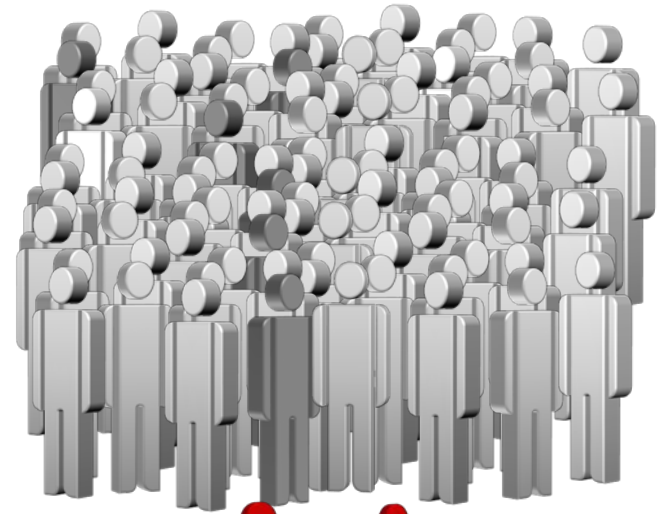
100 healthy adults, **vaccinated**



1 develops
influenza



100 healthy adults, **not vaccinated**



2 develop
influenza





“the track record for serious adverse events is very good. It's very, very, very rare that you ever see anything that's associated with the vaccine that's a serious event.”

Anthony Fauci, 2009

Unexpected adverse events following influenza vaccination

BMJ helping doctors make better decisions

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BMJ 2010;340:c2994 doi:10.1136/bmj.c2994 (Published 9 June 2010)
Cite this as: BMJ 2010;340:c2994

Letter

Child influenza vaccination

Ramifications of adverse events in children in Australia

Peter Collignon, infectious diseases physician and microbiologist¹,
Peter Doshi, program in history, anthropology, science, technology and society²,
Tom Jefferson, coordinator³

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Many serious adverse reactions to this year's seasonal influenza vaccine have occurred across Australia, and its use remains suspended in children aged 5 years and under.^{1 2 3} Data released on 1 June 2010 show that 1 in every 110 young children vaccinated with the CSL vaccine had a febrile seizure.³

A previous H1N1 vaccine study published earlier this year showed that a large proportion of children developed fevers after vaccination: between three and six in every 10 children under 3 years, depending on dose.⁴ The study was, however, underpowered to detect febrile convulsions at the current rates in Australia because it included only 162 children under 3 years.

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Global Advisory Committee on Vaccine Safety

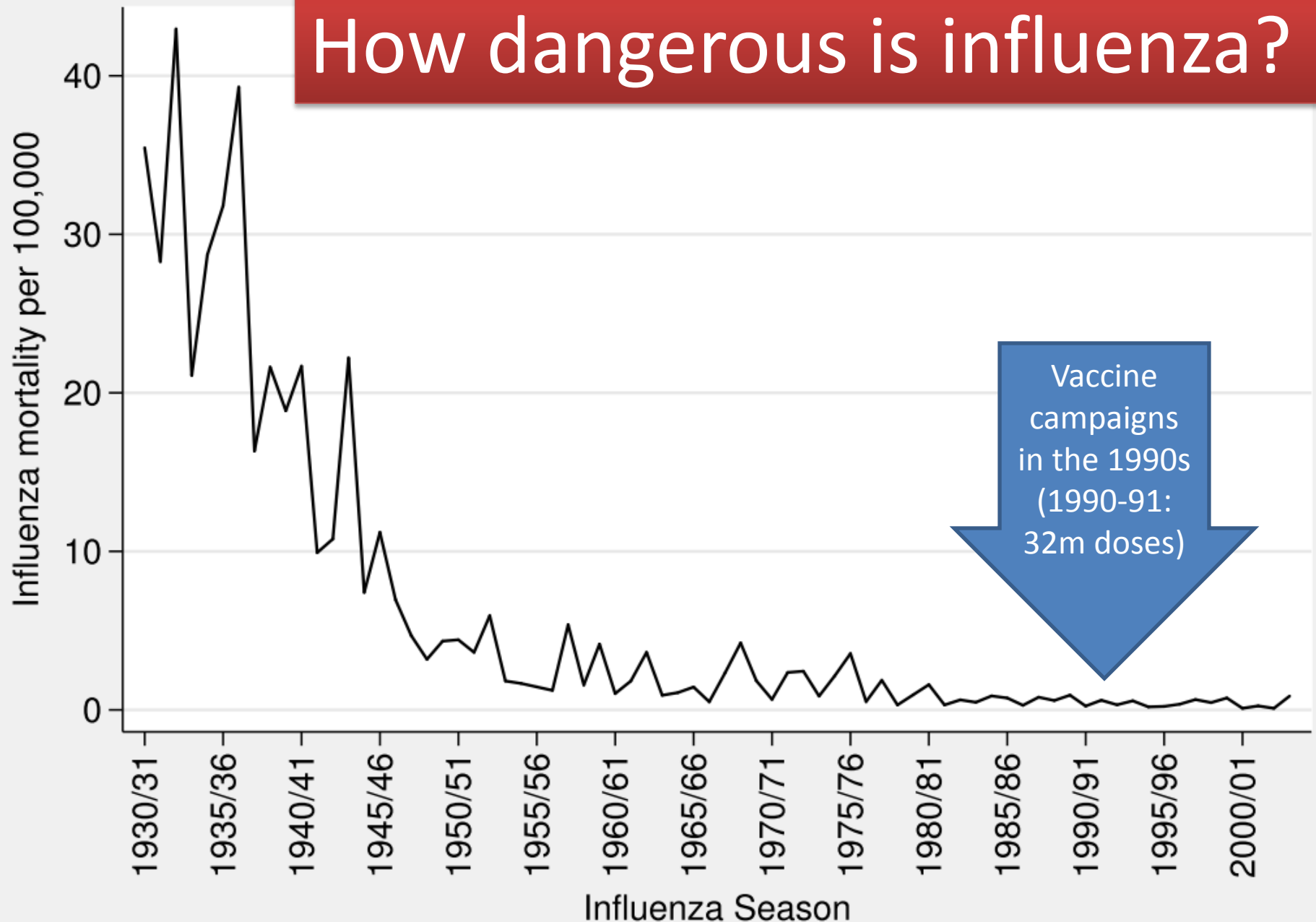
Statement on narcolepsy and vaccination

21 April 2011

Since August 2010, following widespread use of vaccines against influenza (H1N1) 2009, cases of narcolepsy, especially in children and adolescents, have been reported. Narcolepsy is a rare sleep disorder that causes a person to fall asleep suddenly and unexpectedly. The rates reported from Sweden, Finland and Iceland have been notably higher than those from other countries. Swedish and Finnish authorities have presented preliminary statements on their investigations in the first quarter of 2011.

On 1 February 2011, the National Institute for Health and Welfare of Finland issued a preliminary statement following an investigation into the cases of narcolepsy in Finland¹. A systematic retrospective registry-based review was conducted of all

How dangerous is influenza?

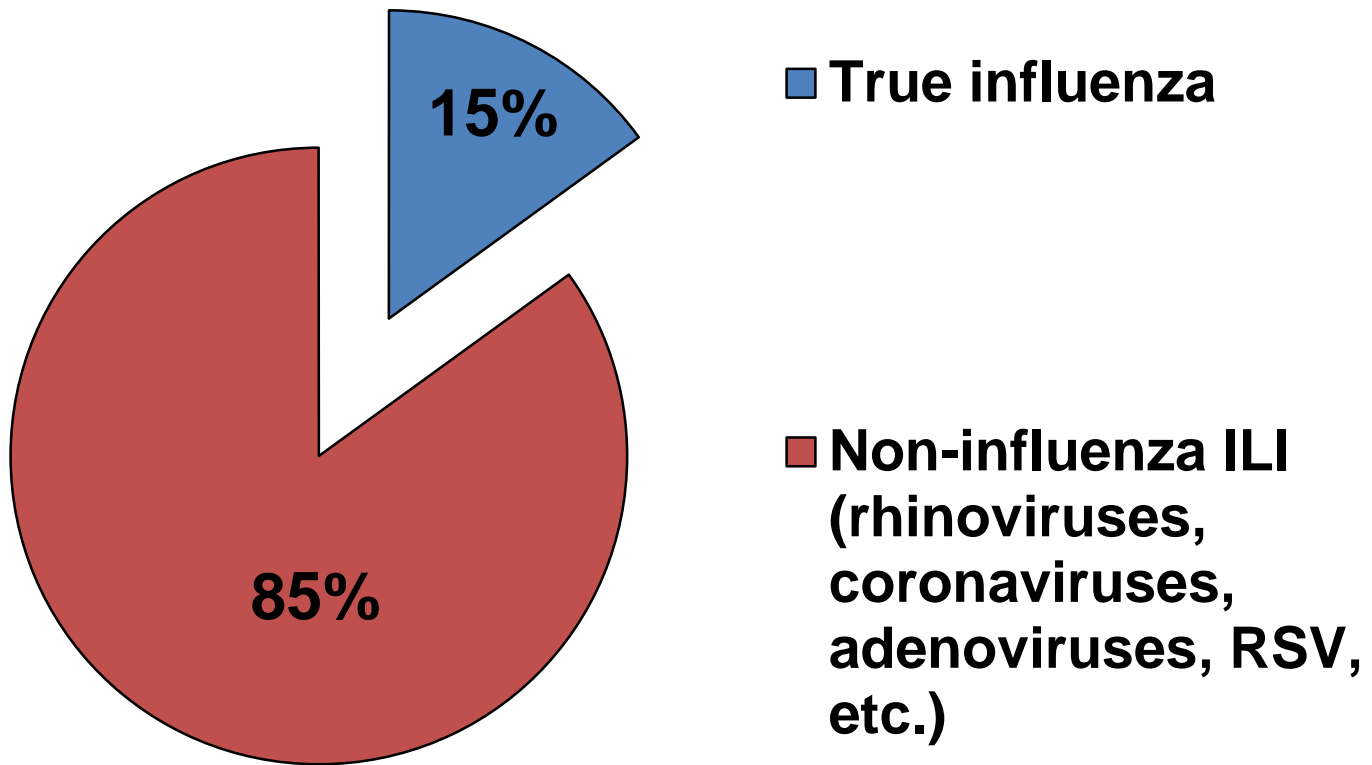


Data source: Doshi. *American Journal of Public Health*.2008; 98: 939-945.

WHO/NREVSS laboratories, USA

Season	Specimens Tested	Influenza negative	Influenza positive	Percent positive for influenza
1997-1998	99072	86143	12929	13%
1998-1999	98582	84340	14242	14%
1999-2000	92403	78630	13773	15%
2000-2001	99497	88991	10506	11%
2001-2002	109139	92737	16402	15%
2002-2003	96871	87030	9841	10%
2003-2004	152262	127158	25104	16%
2004-2005	186590	162020	24570	13%
2005-2006	179772	158362	21410	12%
2006-2007	179268	155515	23753	13%
2007-2008	225329	185502	39827	18%
2008-2009	519543	412765	106778	21%
2009-2010	456302	366067	90235	20%
2010-2011	246128	191902	54226	22%
2011-2012	202600	177378	25222	12%
Average				15%

What causes “the flu” (i.e. ILI)?



Source: CDC WHO/NREVSS data. Seasonal average of 15 seasons (1997-98 to 2011-12).

Selling Sickness & Disease Mongering

- Female Sexual Dysfunction
- Social Anxiety Disorder
- Male pattern baldness
- Bipolar disorder
- ADHD
- Erectile Dysfunction

Disease Mongering

How it's presented by officials	Closer to the truth?
Influenza is a serious, deadly disease	For the vast majority, influenza is unpleasant but self-limiting
Flu shot is (virtually) risk free	Unexpected serious adverse events have occurred
Flu shot saves lives	No evidence the "flu shot" is saving lives

Box 1. The Major Disease-Mongering Tactics Identified by Lynn Payer [1]

1. "Taking a normal function and implying that there's something wrong with it and it should be treated" (p. 88)
2. "Imputing suffering that isn't necessarily there" (p. 89)
3. "Defining as large a proportion of the population as possible as suffering from the 'disease'" (p. 89)
4. "Defining a [condition] as a deficiency disease or disease of hormonal imbalance" (p. 93)
5. "Getting the right spin doctors" (p. 93)
6. "Framing the issues in a particular way" (p. 94)
7. "Selective use of statistics to exaggerate the benefits of treatment" (p. 95)
8. "Using the wrong end point" (p. 96)
9. "Promoting technology as risk-free magic" (p. 96)
10. "Taking a common symptom that could mean anything and making it sound as if it is a sign of a serious disease" (p. 98)

Cited in Tiefer L (2006) Female sexual dysfunction: A case study of disease mongering and activist resistance. PLoS Med 3(4): e178.