

Influenzae

Dr Tom Jefferson

Cochrane Collaboration

Jefferson.tom@gmail.com

(Activities and interests statement
with Chair)

Outline

1. Influenza and influenza-like illness are not the same thing
2. Seasonal and pandemic influenza
3. The role of experts and media
4. Vaccines and antivirals have a weak or non-existent scientific evidence base
5. Q&A

**Influenza and influenza-like illness are
not the same thing**

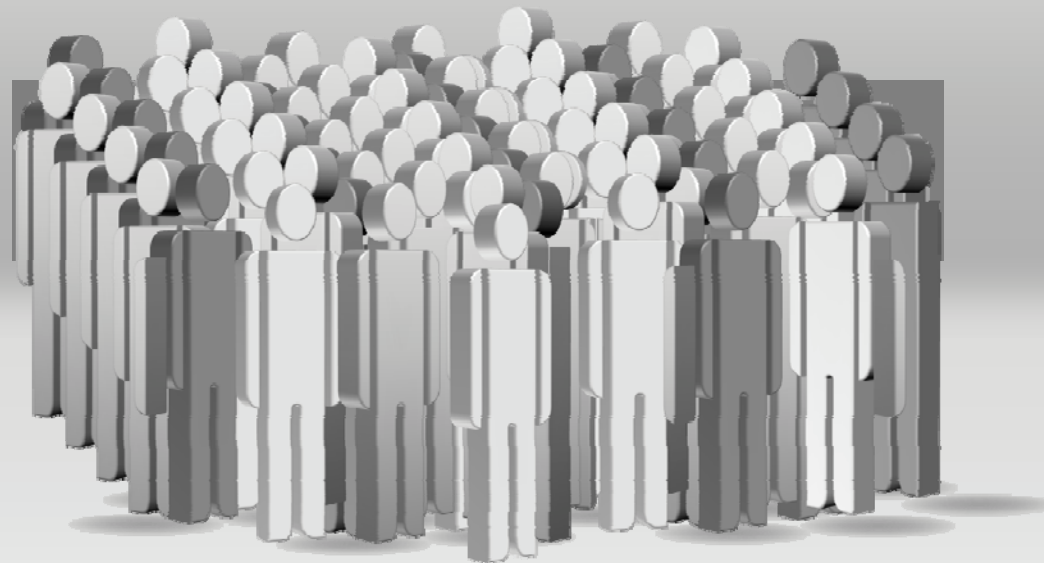
Influenza-like illness (“flu”) definition (WHO)

“ILI is an acute respiratory infection with sudden onset characterised by fever $>38^{\circ}\text{C}$ and at least one of the following: headache, malaise, rigors and sweating, asthenia and at least one respiratory symptom such as rhinitis and pharyngitis”.

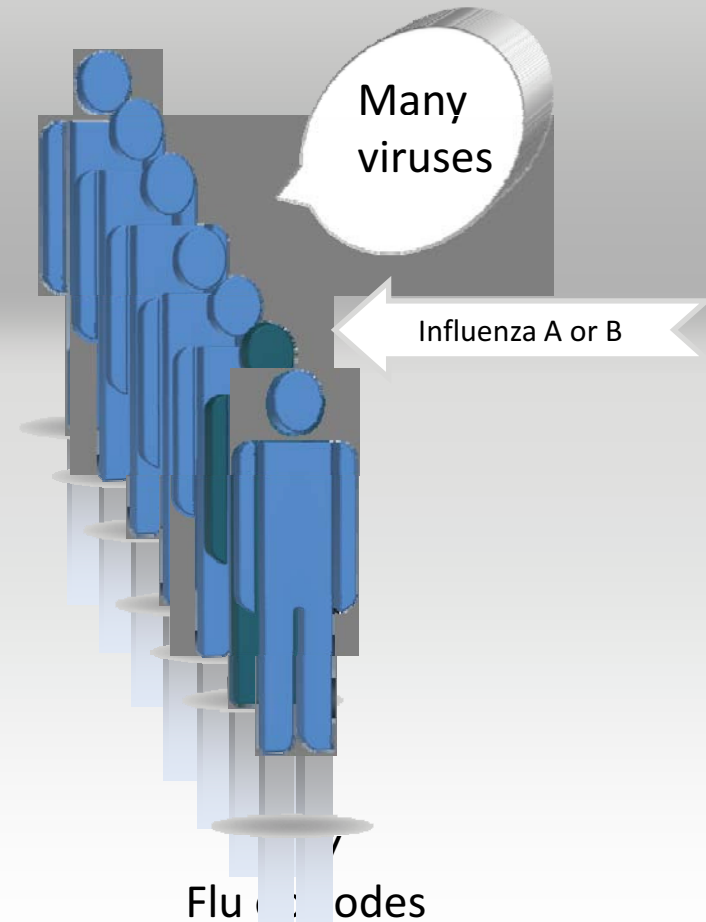
RESULTS—What % of ILI in your state is influenza? Some answers

- “to determine really how much ILI is flu, you really need to capture all of the ILI which is at the clinical level”
- “beats me” “we don’t know the actual extent of influenza .. we can make a good epi guess from cobbling together all the systems that we have.”
- “I don’t know”
- “there wouldn't be a way to answer that question”
- “How much are influenza? We do not know.”
- “I couldn't tell you because ILI is not notifiable.”
- “We don’t know .. and that’s the honest answer”
- “that is a black box, how much ILI is there, really that is flu”
- “I don’t know ... they’re going to be a number of respiratory viruses that co-circulate in the winter.”
- CDC: “We too have been interested in knowing how much of the ILI is truly influenza and to do that we are piloting a new system this fall to try and get at that information.”

How many flu episodes/year How many are influenza?



N=100
No flu episodes



Based on 274 influenza vaccines and 28 epi studies 1966-2007 (> 3 M observations)

conclusions

Do we know what we are talking
about?

Seasonal and pandemic influenza

Change of pandemic influenza definition (around 1 May 09)

- “...resulting in epidemics worldwide with **enormous numbers of deaths and illness**” vanishes
- “Current” definition emphasis on new virus and spread
- Why change? “It was a mistake, and we apologize for the confusion.”
“(That definition) was put up a while ago and paints a rather bleak picture and could be very scary.” The correct definition is that “pandemic” indicates outbreaks in at least two of the regions into which WHO divides the world, but has nothing to do with the severity of the illnesses or the number of deaths” (Natalie Boudou 4th of May 2009)
- And: “We wrote that definition [i.e. the one pre-dating the 4th of May 2009] with avian flu in mind” (Dr Hartl 7 Feb 2010)
- Strange mistake since all WHO pandemic docs (20004-2009) report the pre-4th of May 09 definition and it makes no mention of avian influenza

Conclusion

An influenza pandemic is whatever WHO
decides it is

The role of experts and media

Key opinion leaders

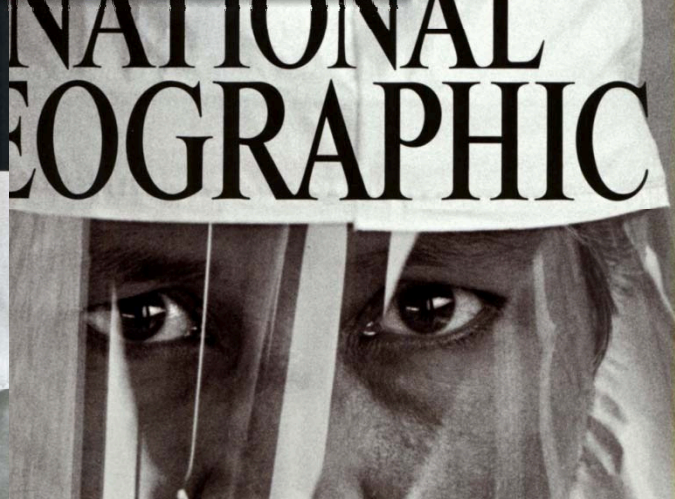
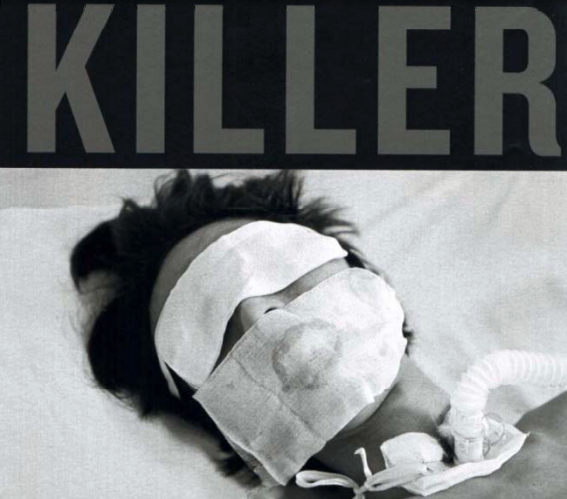
(Czech puppet picture courtesy of the BMJ)

“We are supposed to be prepared for a pandemic of some kind of influenza. Because the flu watchers, the people who make a living out of studying the virus and who need to attract continued grant funding to keep studying it, must persuade the funding agencies of the urgency of fighting a coming plague.”



Philip Alcabes. *Dread: How Fear and Fantasy Have Fueled Epidemics from the Black Death to the Avian Flu*. PublicAffairs, £15.99, pp 336 ISBN: 978-1586486181

New York Times, October 24, 2004



IN A FEW WEEKS A NEW PANDEMIC

can afford to pay less than half of a bird's market value as compensation. And then there are the deaths

has faded. When asked whether he expects his district to be hit by bird flu again next year, a

WOULD HIT MAJOR CITIES

long borders with Laos and Cambodia, destitute lands struggling with their own avian-flu out-

INDIA: MY FAMILY VS.
THE MAOISTS
By Sudip Mazumdar

BUSH: THE DILEMMA
OF IN-HOUSE DISSENT
By Richard N. Haass

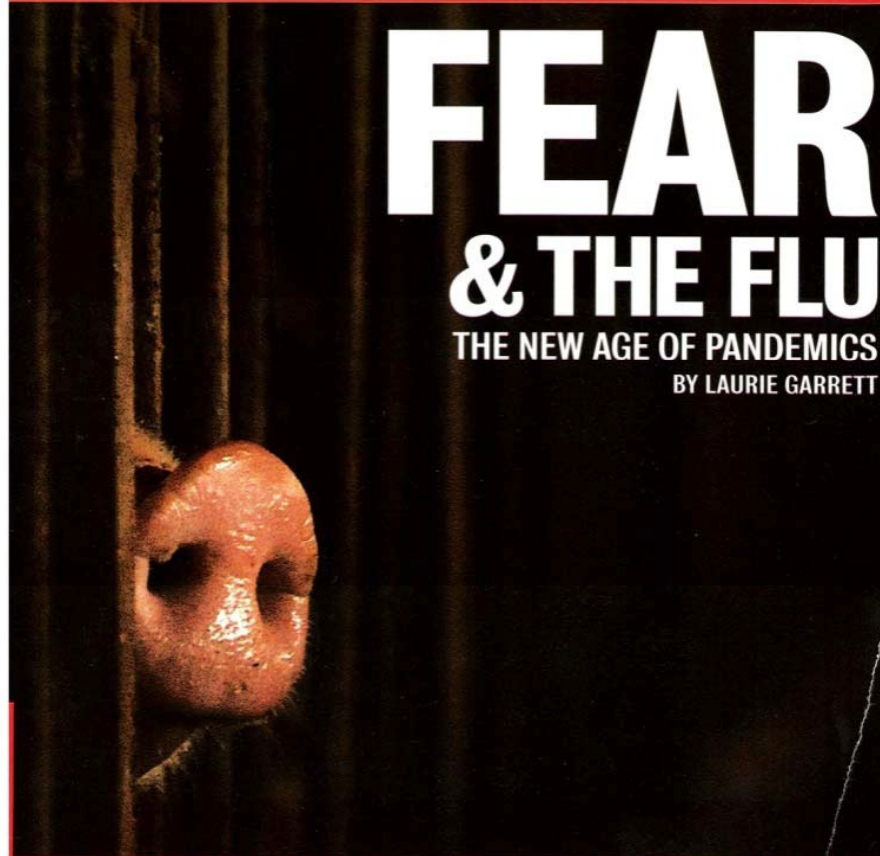
WHY STOCKS ARE
IGNORING BAD NEWS
By Barton Biggs

SPECIAL DOUBLE ISSUE
Newsweek

FEAR & THE FLU

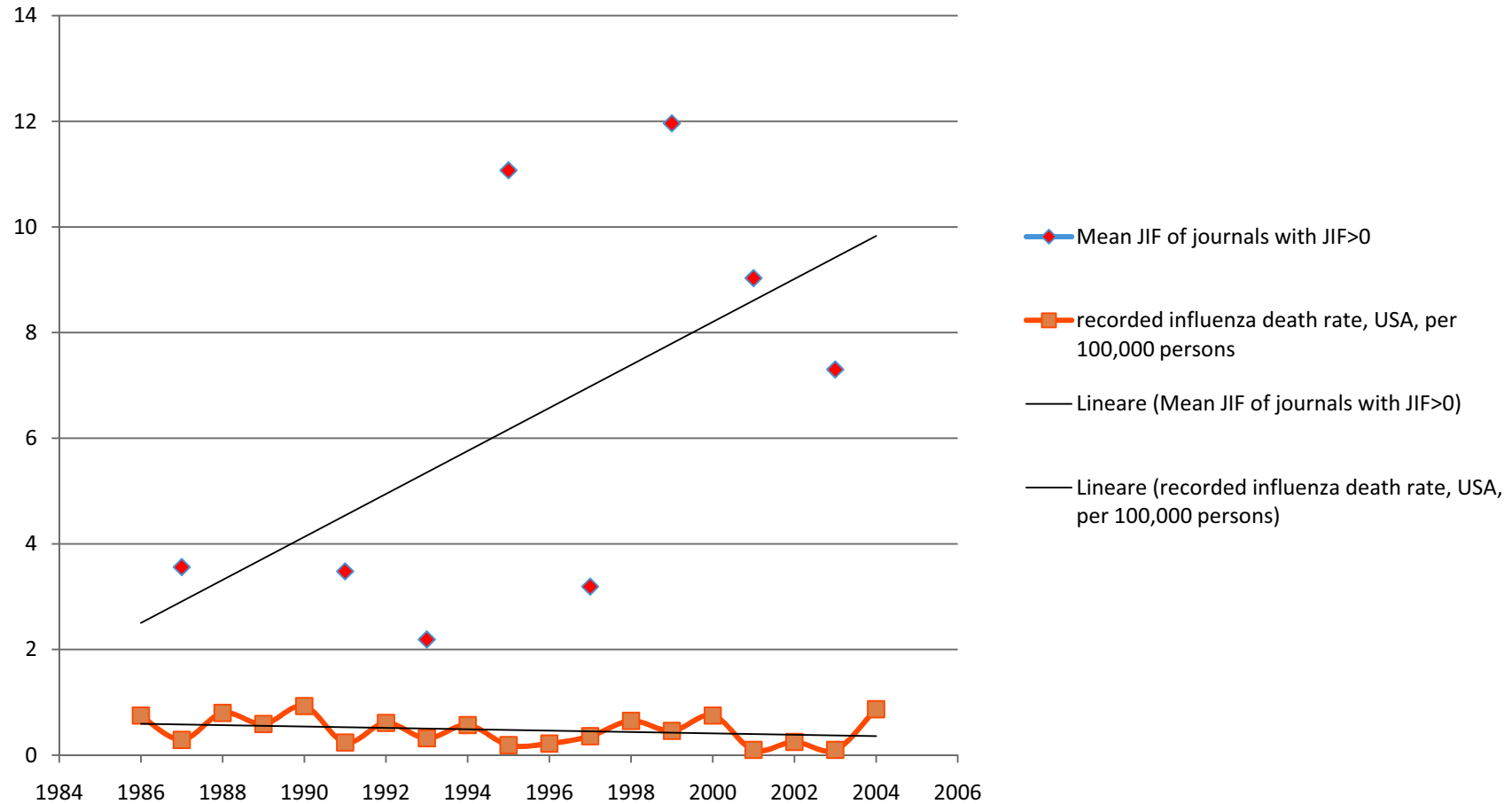
THE NEW AGE OF PANDEMICS

BY LAURIE GARRETT



Albania	LeK 600	France	€4.50	Israel	NIS 36.00	Netherlands	€4.50	Denmark	DKK 62.00
Austria	€4.50	Germany	€4.50	Italy	€4.50	Norway	NOK 42.00	Spain	€4.50
Belgium	€4.50	Greece	€4.50	Kazakhstan	€4.40	Poland (incl. tax)	PLN 13.50	Sweden	SEK 35.00
Bulgaria	BGN 4.75	Croatia	€4.50	Lebanon	€4.40	Portugal (incl. tax)	€4.50	Switzerland	CHF 2.00
Czechia	CZK 22.00	Denmark	€4.50	Lithuania	€4.40	Romania	Lei 11.00	Turkey	TL 4.00
Denmark	€4.50	Hungary	FL 620.00	Luxembourg	€4.50	Russia	€4.40	Ukraine	€4.40

Influenza related mortality vs prestige and citation of influenza vaccines studies

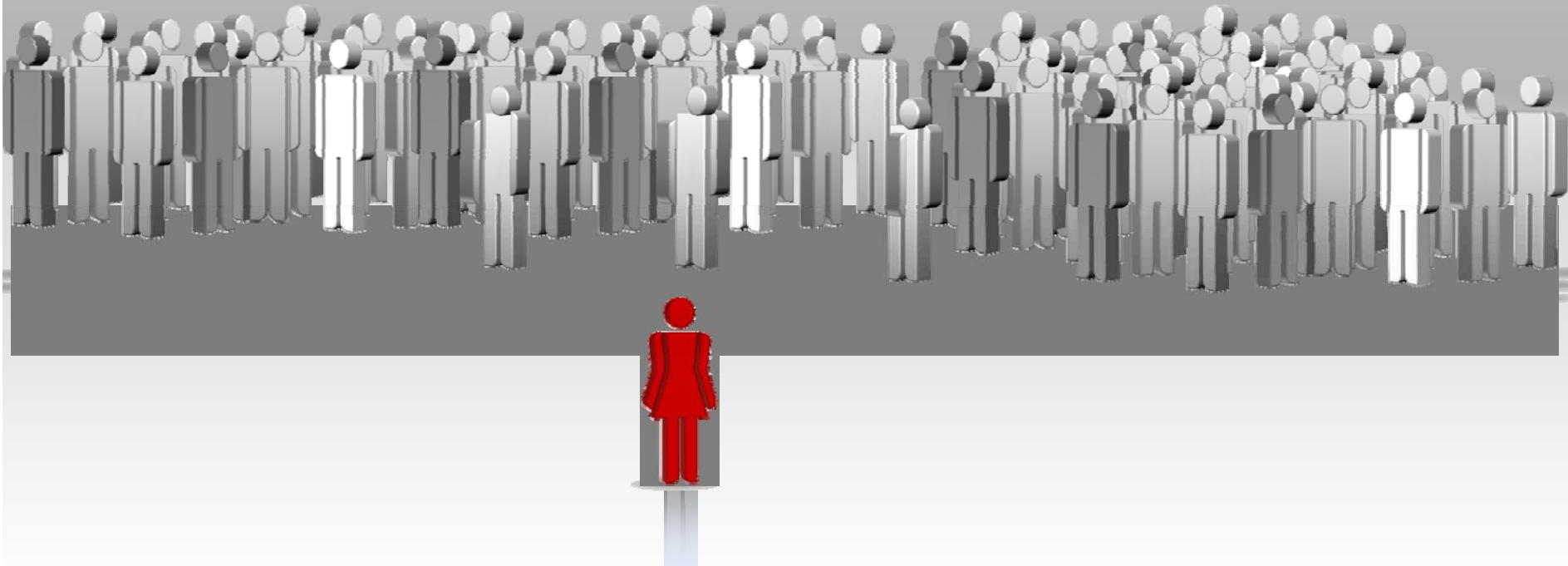


**Vaccines and antivirals have a weak
or non-existent scientific evidence
base**

Effectiveness of influenza vaccine in healthy adults (real world conditions)



Vaccinated n=100



From Cochrane review of 42 clinical trials

Oseltamivir facts



- Unpublished dataset (people aged 16 and over) n= 2691 (people who entered treatment placebo-controlled RCTs)
- Published dataset n=1797
- Request for data met with confidentiality agreement and secrecy clause
- Effects on complications in h. adults: no effect in published trials

WHO

WHO pandemic preparedness and response guidance document (April 2009) 63 pages:

Antivirals 16 hits

Vaccines 24 hits

Handwashing & masks 2 hits each

Thank you for listening