

Maximizing Influenza Vaccination of Healthcare Workers

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Agenda

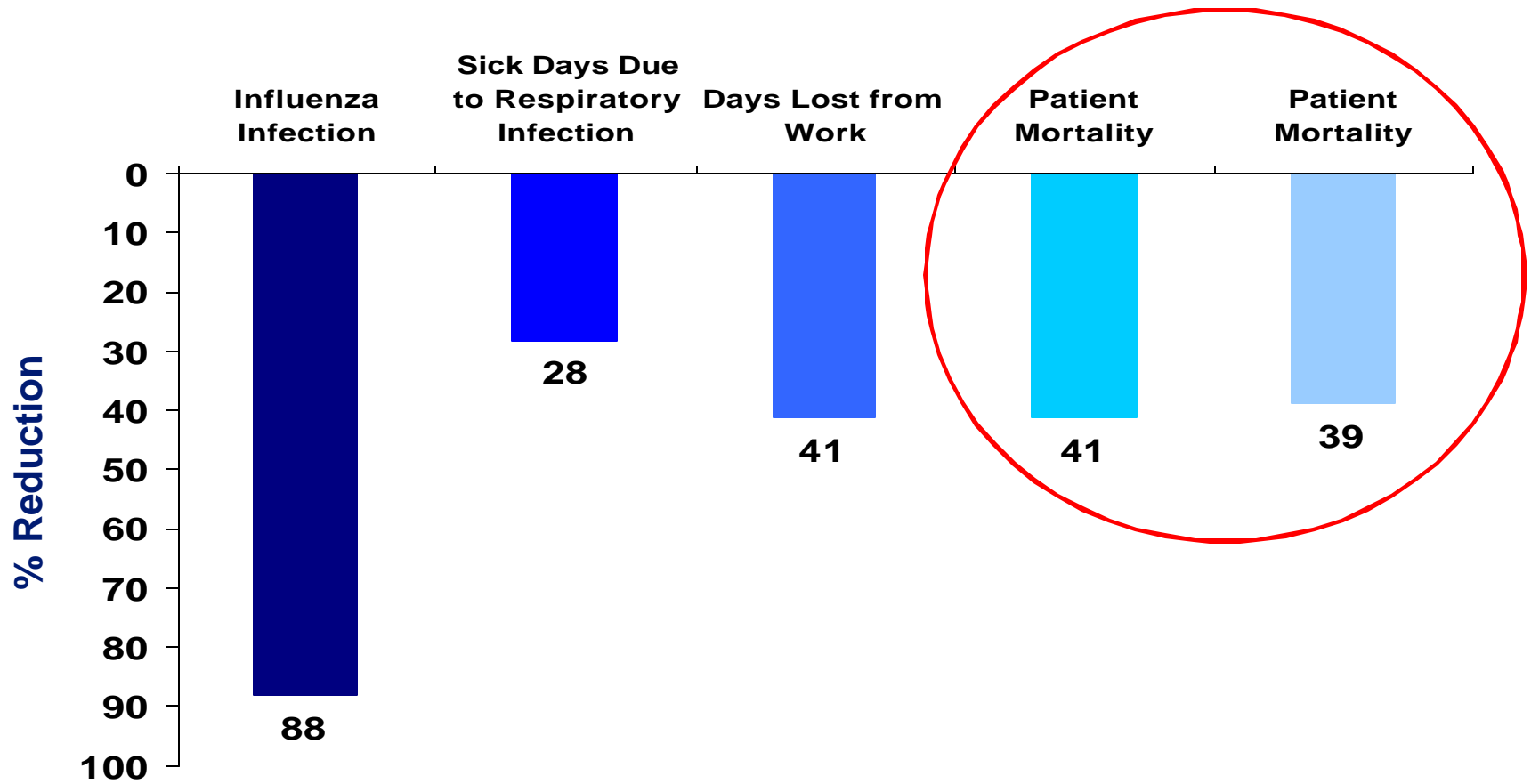
- ◆ Rationale, risks, and value of flu vaccine, including common myths
- ◆ Strategies to maximize vaccination levels
- ◆ Role of senior leadership
- ◆ Implementing a vaccine vs mask policy

No disclosures

Epidemic Influenza is a Common, Miserable, and Often Serious Illness

- ◆ Affects 5% to 20% of population yearly
 - Higher in children
- ◆ Serious case fatality: 0.5 to 1 per 1000
 - Higher in elderly
- ◆ #1 cause of vaccine-preventable death in USA

Impact of HCW Influenza Vaccination



Average annual savings of **\$13.66*** - **\$46.85*** per person vaccinated

Talbot, ICHE 2005; Feery, JID 1979; Saxen, PIDJ 1999; Wilde, JAMA 1999; Carman, Lancet 2000; Potter, JID 1997; MMWR 2005; Nichol, NEJM 1995.

**If you could halve
the mortality rate,
would you do it?**

-G Poland, Clin Infect Dis 2002; 35:378

Side Effects of Flu Vaccine

Symptom	Placebo	Vaccine	P Value
Fever	6%	6%	NS
Tiredness	19%	19%	NS
Myalgias	6%	6%	NS
Headaches	14%	11%	0.14
Arm Soreness	24%	64%	<0.001

--KL Nichol, NEJM 1995; 333: 889

Flu Myths

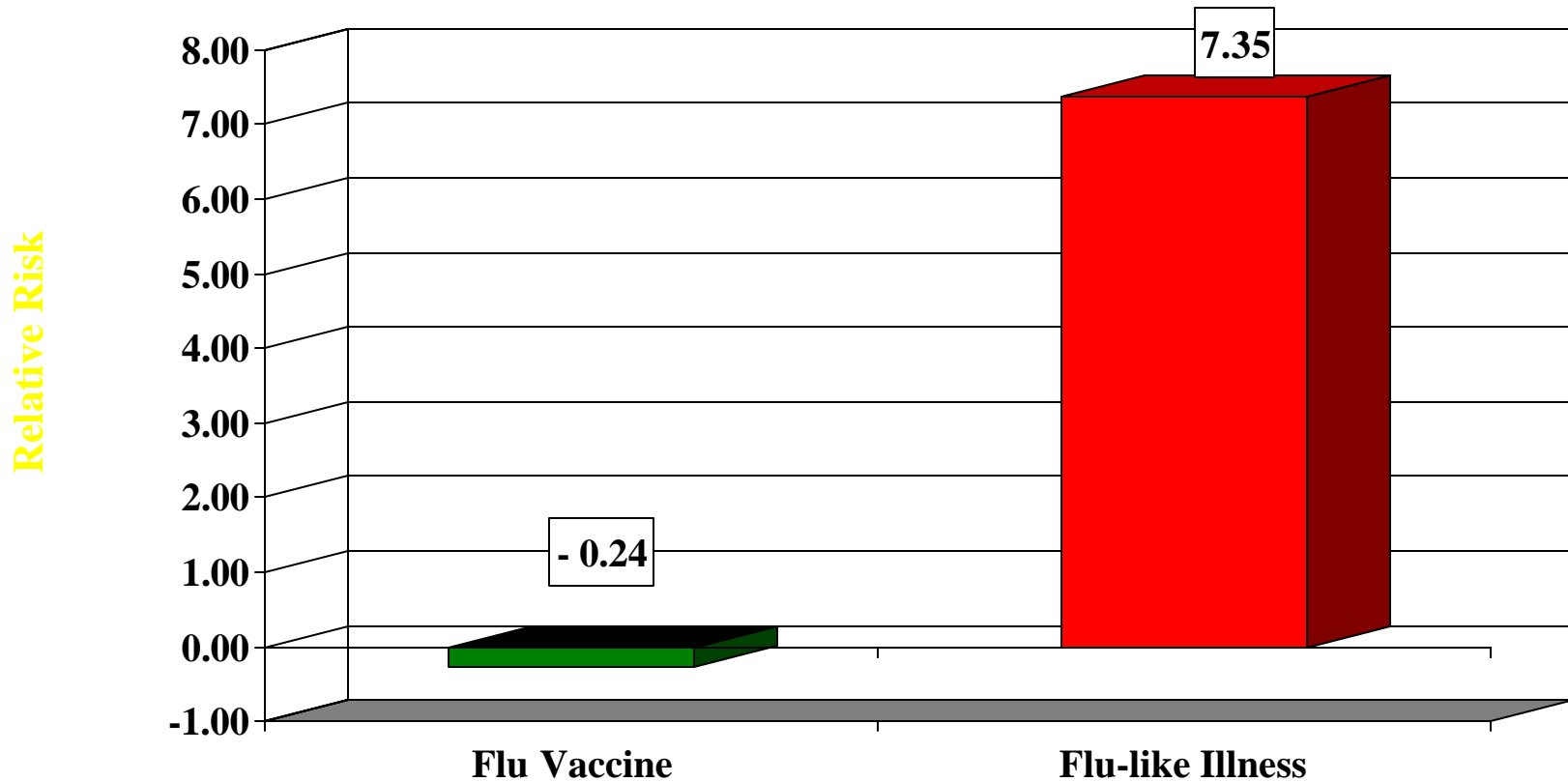
- 👎 The vaccine gave me Flu
- 👎 I never get Flu
- 👎 I'll stay home if I get sick
- 👎 Pregnant women shouldn't get vaccinated

Flu Vaccine Protects Mothers & Infants

Inactivated influenza vaccine vs
Pneumovax²³ as placebo in 340 mothers

- ↓ Respiratory illness w/fever in mothers (-36%)
- ↓ Respiratory illness w/fever in infants (-29%)
- ↓ Confirmed influenza in infants (-63%)
- ⊕ Protective up to 6 months of age

Relative Risk of Guillain-Barré Syndrome after influenza vaccination or influenza-like illness United Kingdom, 1990-2005



--Stowe, *Am J Epidemiol* 2009;169:382-8.

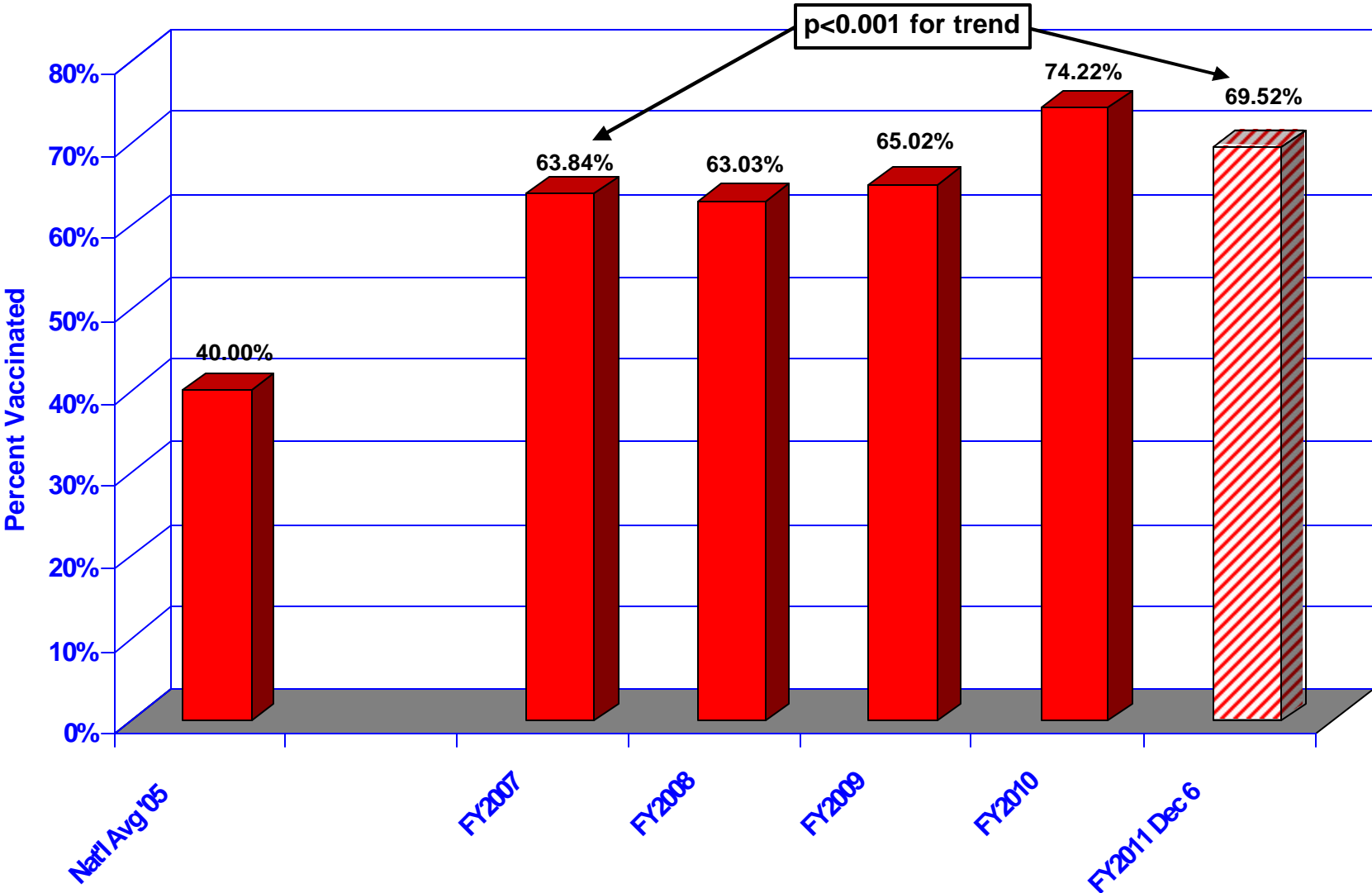
Factors Increasing HCW Vaccination Rates

- ✓ Provision of vaccine on weekends
- ✓ Train-the-trainer programs
- ✓ Feedback of vaccination rates to administration
- ✓ Feedback of vaccination rates to BOT
- ✓ Visible leadership support
- ? Require signed declination

Employee Flu Campaign 2006

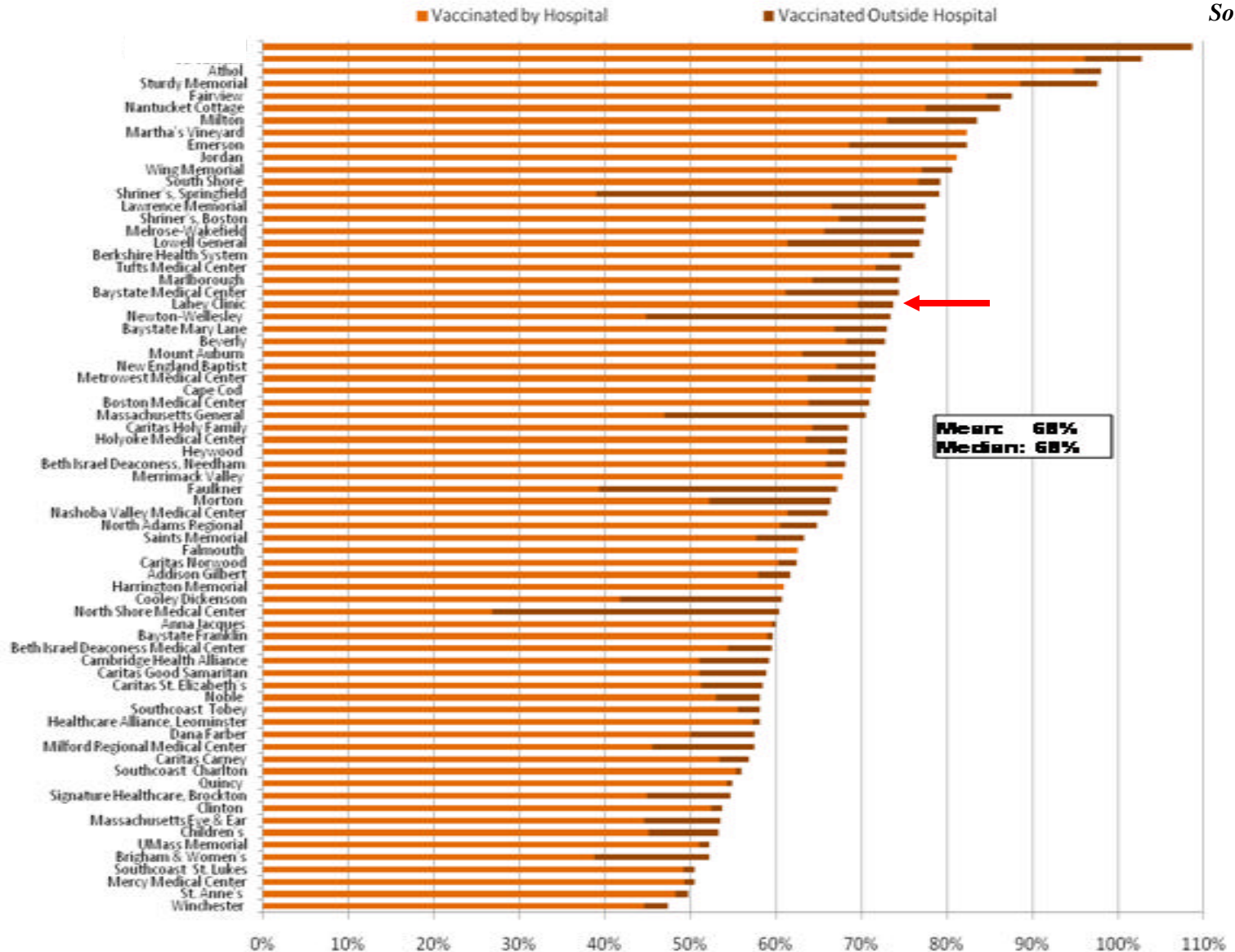


Voluntary HCW Influenza Vaccination Rates, Lahey Clinic, FY2007-Dec 6, 2011



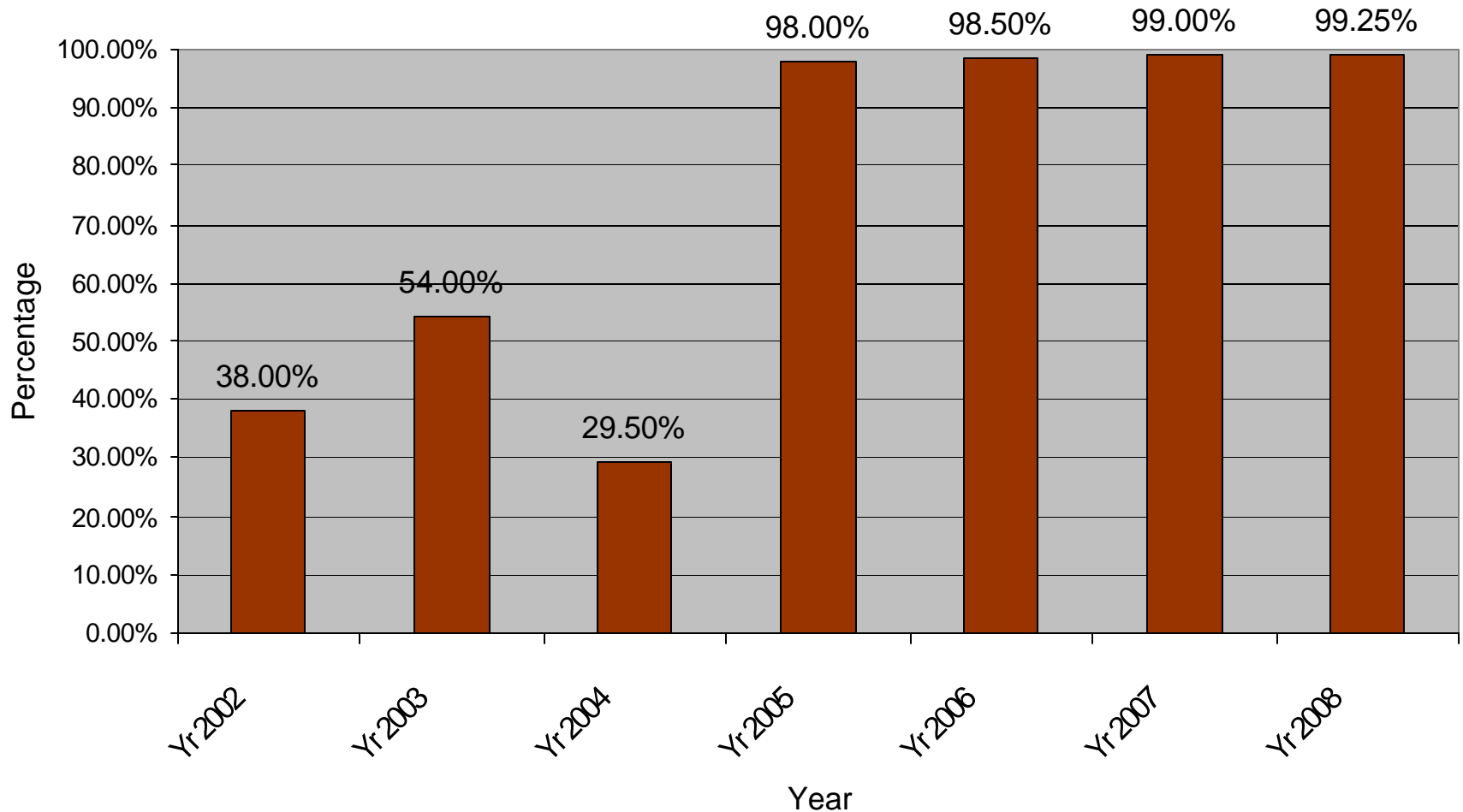
Influenza Vaccination Rates in Massachusetts Acute Care Hospitals 2009-2010, Administered by Hospital and Documented Administered Elsewhere

Source: Mass DH



Influenza Vaccination Rates

Virginia Mason Medical Center, Seattle



--Courtesy of Dr. Joyce Lammert, 2009

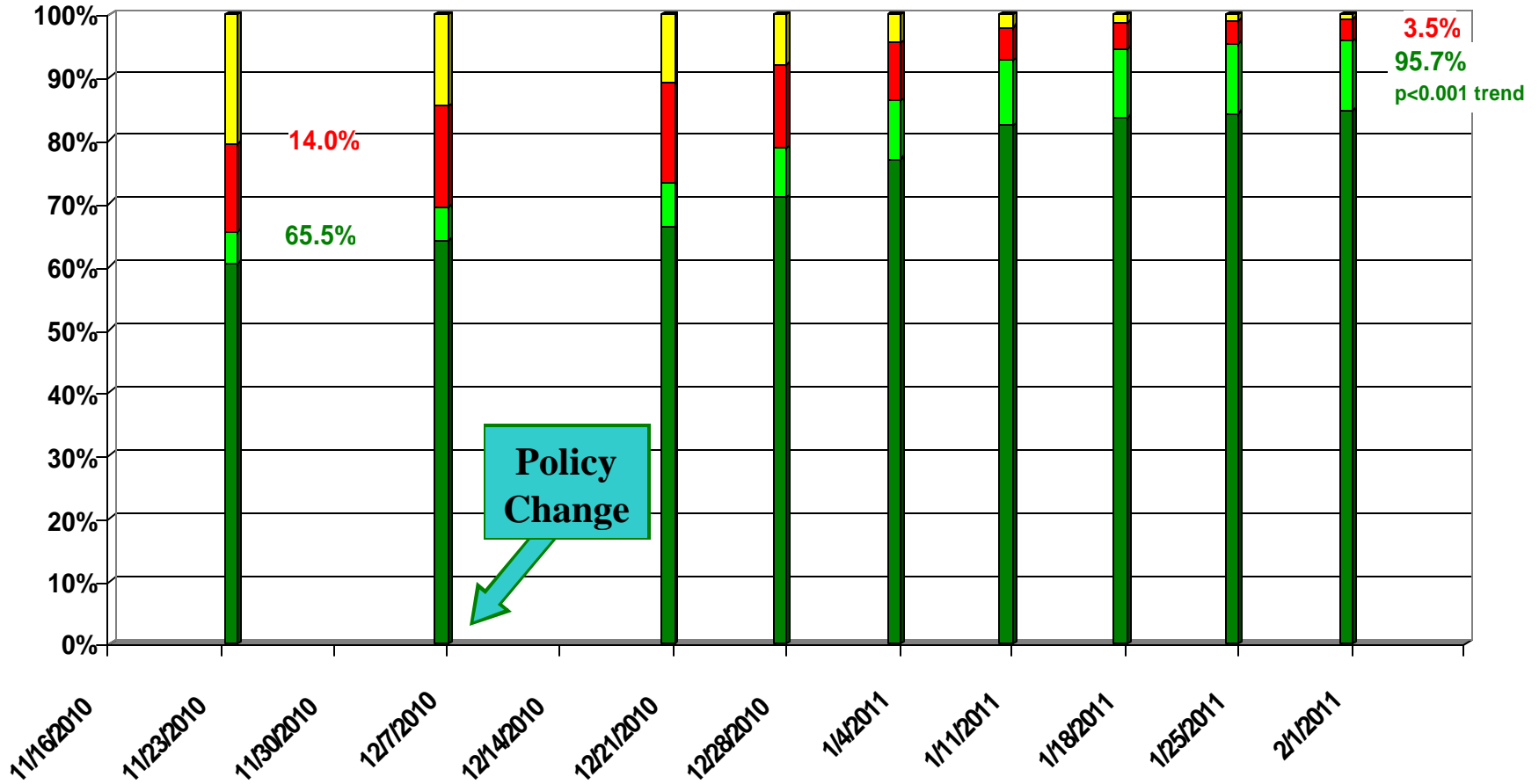
Plan for Vaccination or Mask—Adopted Dec 6, 2010

- ◆ Vaccinate every employee and volunteer
- ◆ Require unvaccinated employees to wear a surgical mask whenever within 6 ft of another person during flu season
- ◆ Provide Allergy & Neurology consults prn
- ◆ Monitor unit-based compliance electronically & provide feedback weekly

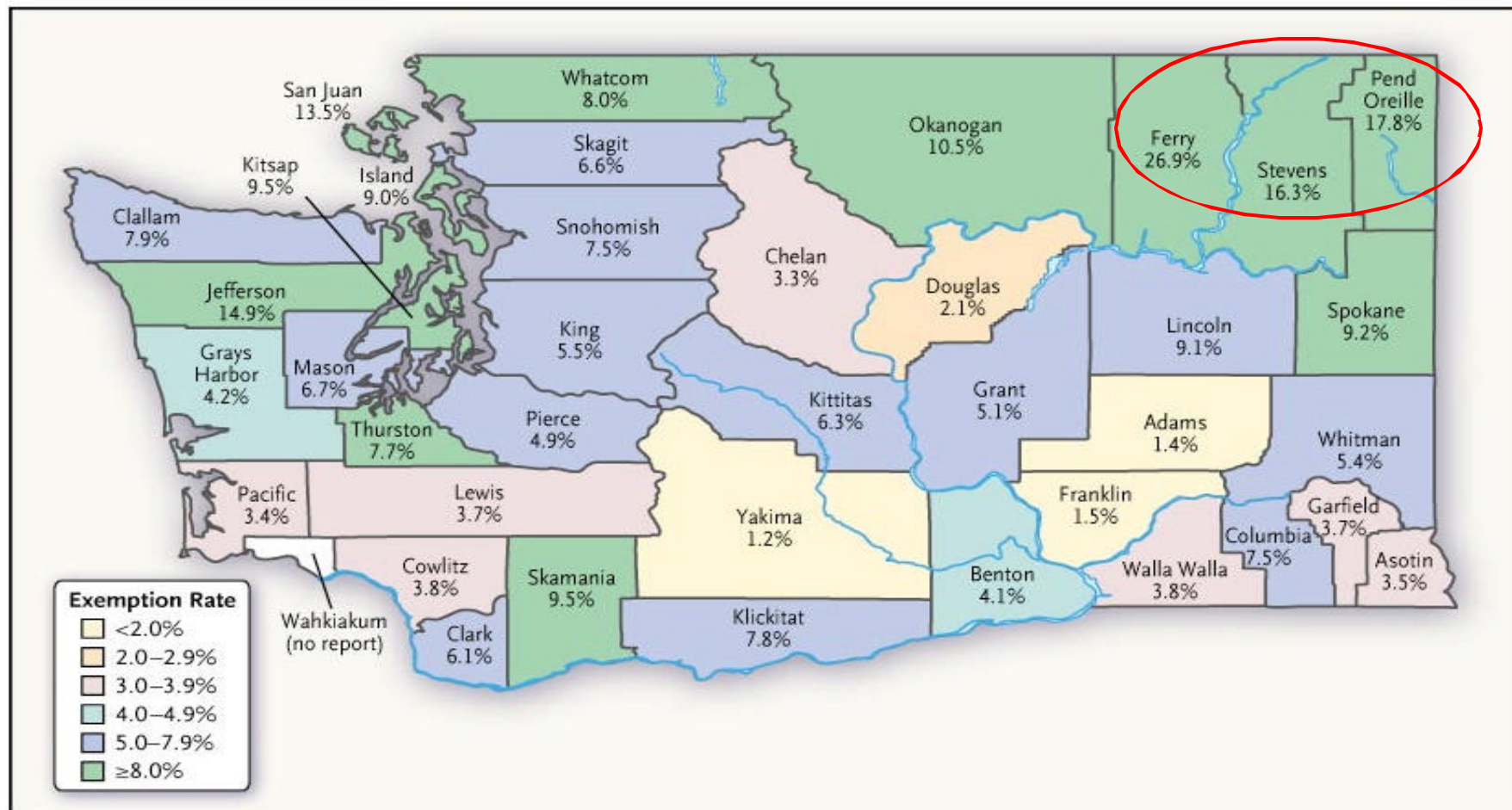
**100% of clinical & administrative leaders
were vaccinated**

Colleague Flu Vaccination Rates, Lahey Clinic, FY2011

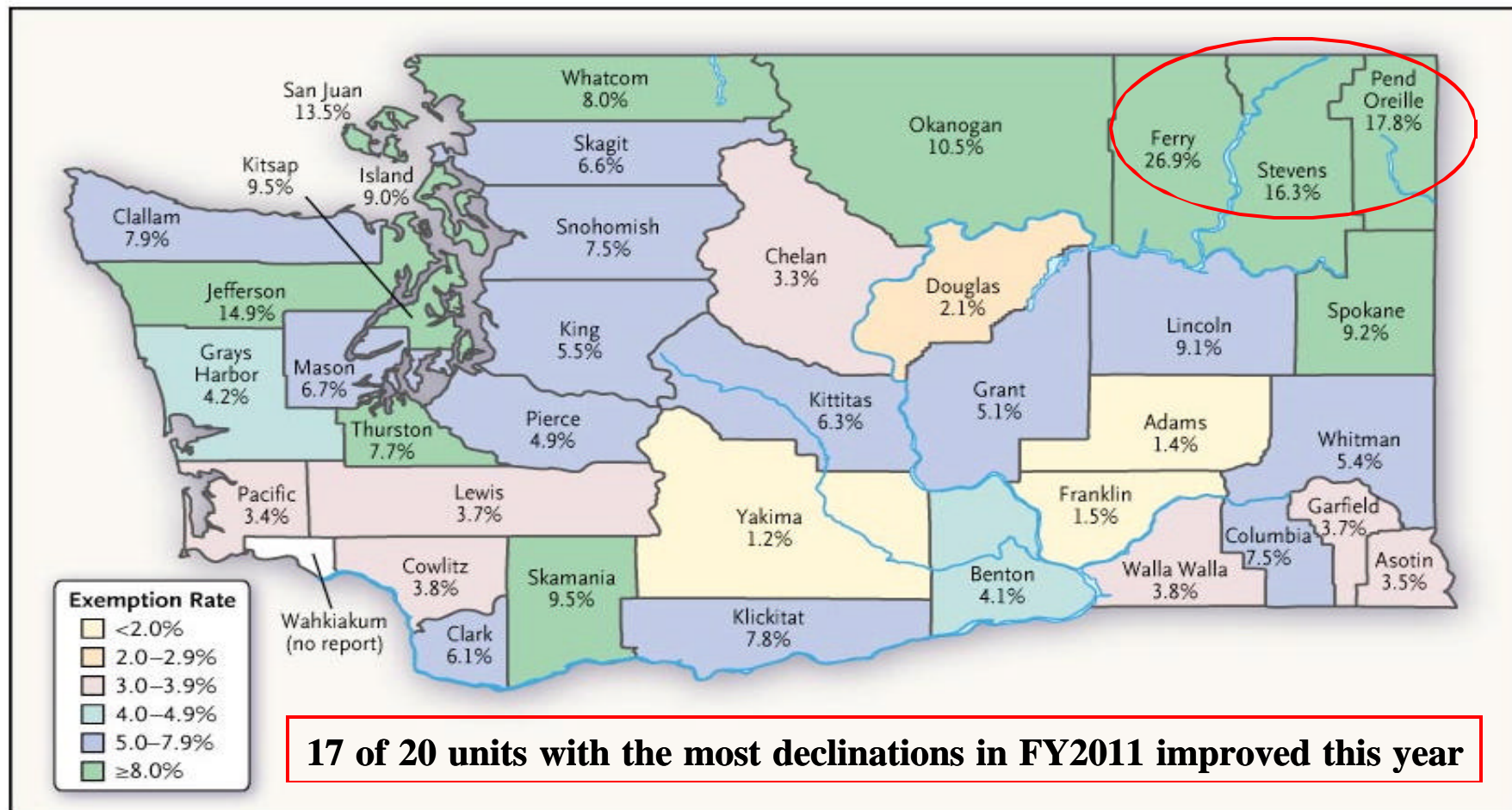
■ % Vax at Lahey ■ % Vax Elsewhere ■ % Declined ■ % No Data



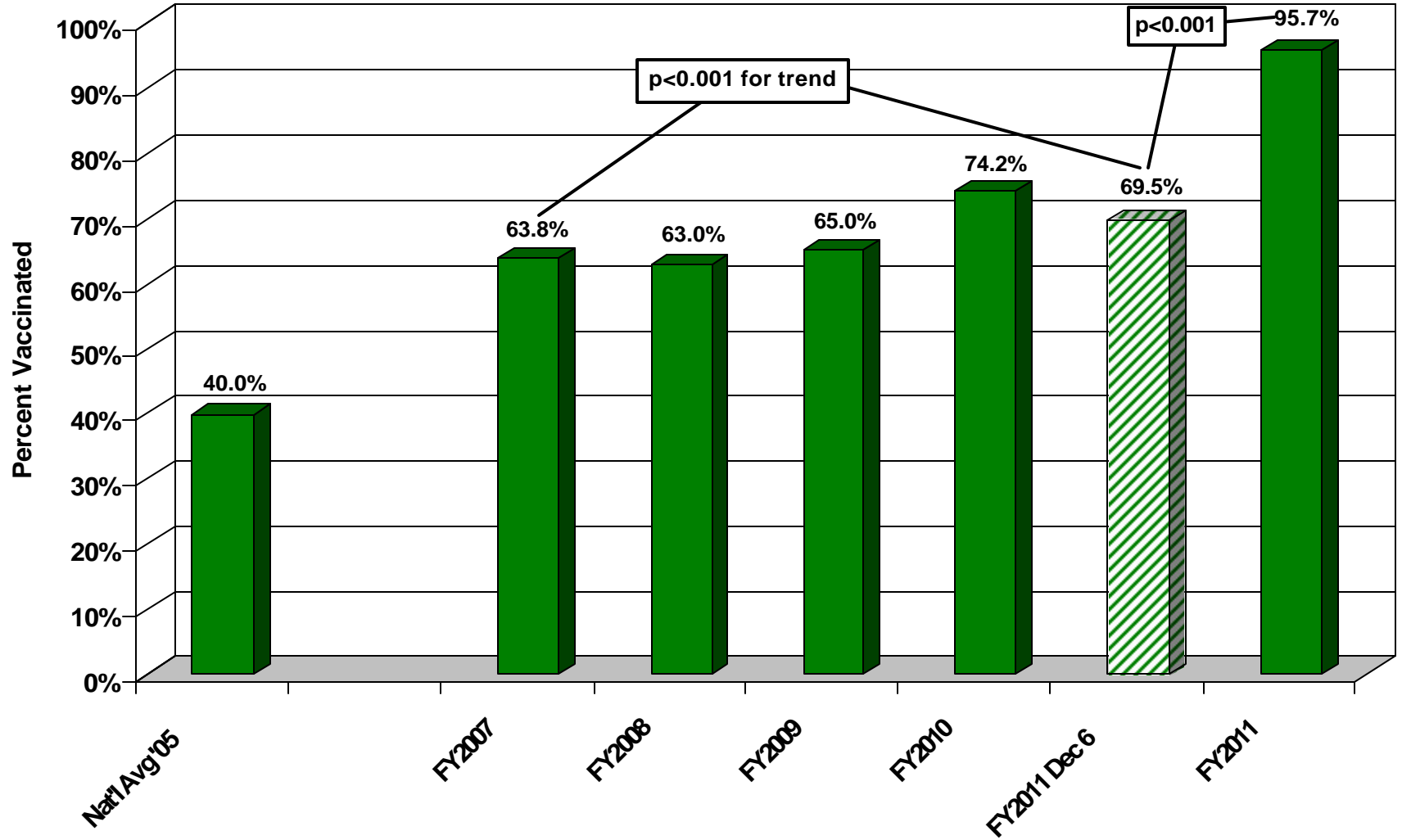
Rates of Exemption from School Vaccination for Nonmedical Reasons in Washington Counties, 2006–2007



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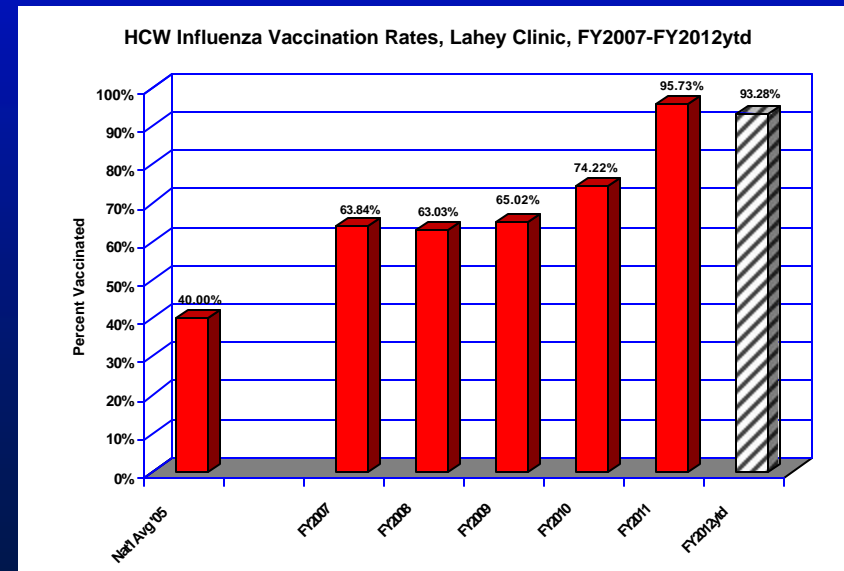


Colleague Influenza Vaccination Rate, Lahey Clinic, FY2007-FY2011



Benefits of Flu Vaccination at Lahey, FY2007-12

- ◆ Vaccination rates ? from 63.8% to 95.7%
- ◆ Saved avg \$85,813 to \$294,352 per year
- ◆ Saved 1-3 HCW lives in 6 years



Conclusions

*Flu vaccination is smart:
safe, effective, & cost-saving

Conclusions

- Voluntary HCW flu vaccination +/- signed declination increases rates significantly but with limited success^{1,4}
- Mandatory vaccination as a condition of employment achieves rates approaching 100%²
- Mandatory vaccine vs mask policies can rapidly increase vaccination rates to high levels^{3,4}
- ⊕ Masks provide an alternative to vaccination & a compromise between philosophical camps of professional duty and personal liberty

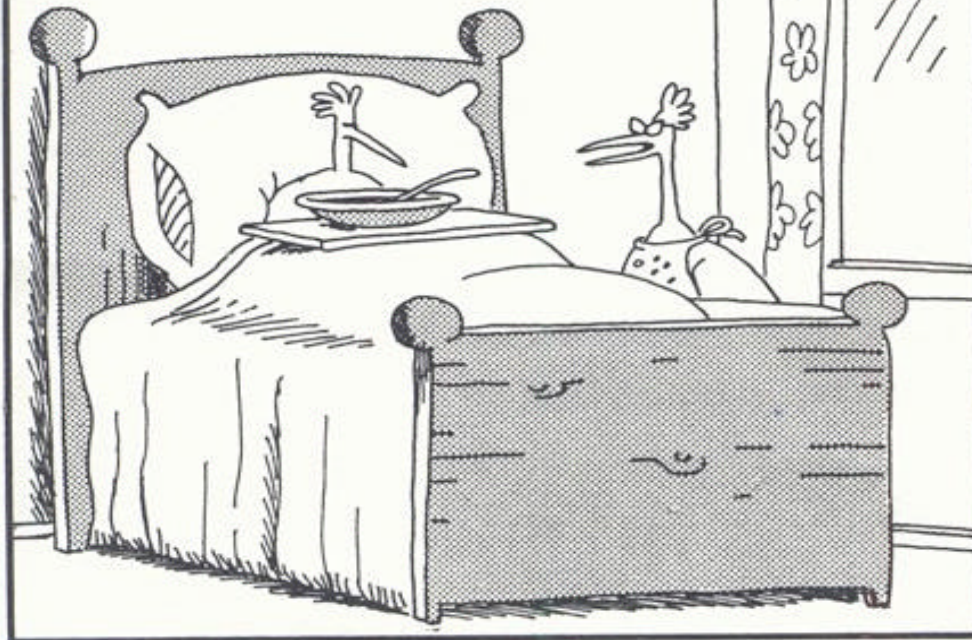
Conclusions

- Real-time monitoring pinpoints clusters of colleagues with concerns about vaccines & focuses intervention
- Personal communication with reluctant colleagues is essential, but requires major dedication of time & energy
- Allergy and Neurology consults minimize exemptions
- Support from senior leadership and Human Resources is vital

Lewison

Any Questions?

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“Quit complaining and eat it! ...
Number one, chicken soup is good for the flu—
and number two, it’s nobody we know.”