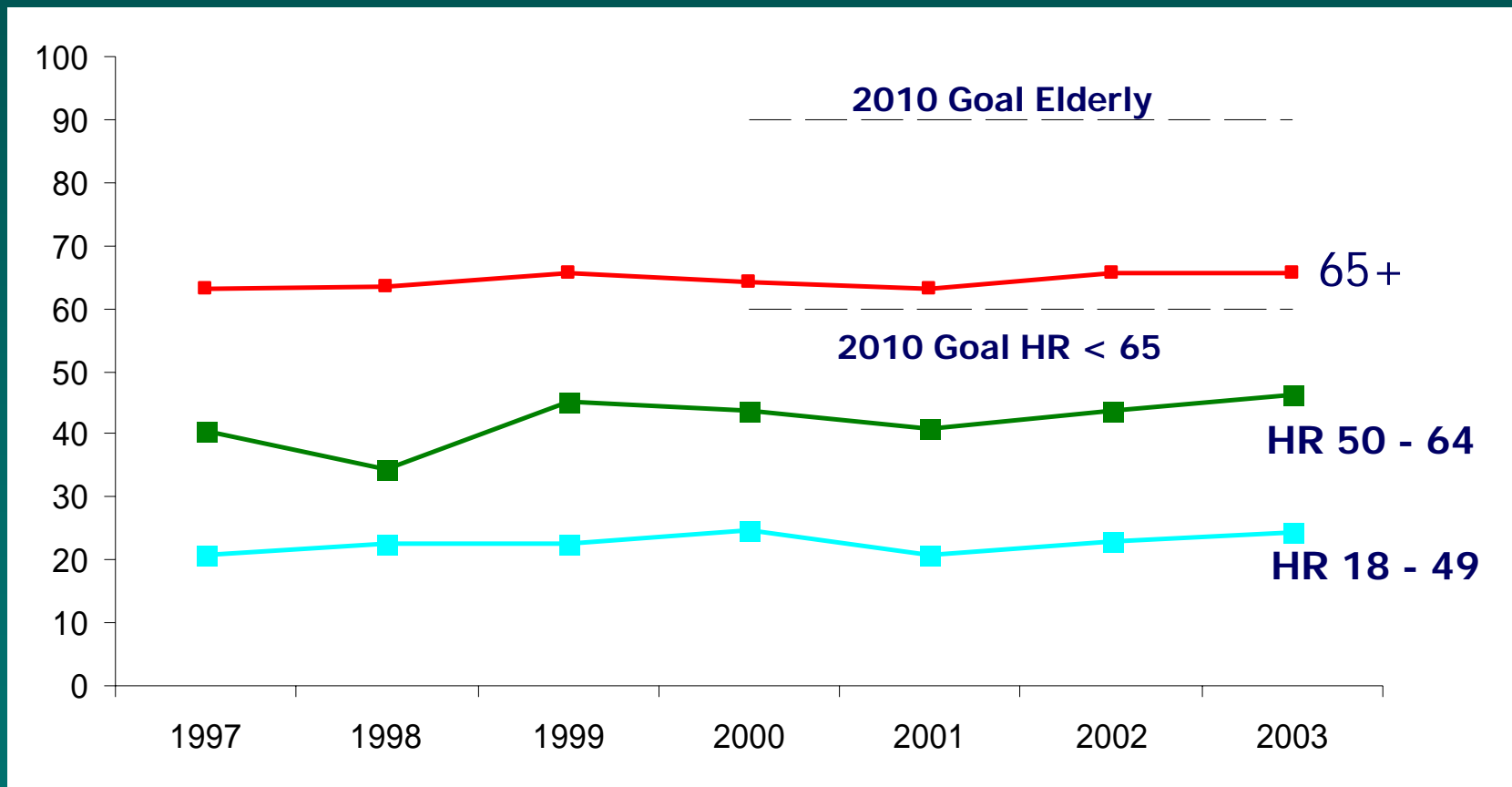

Methods for Maximizing Immunization Coverage in Adults

**2007 National Immunization Conference
March, 2007**

**Kristin L. Nichol, MD, MPH, MBA
Professor of Medicine, University of Minnesota
Chief of Medicine, Minneapolis VAMC**

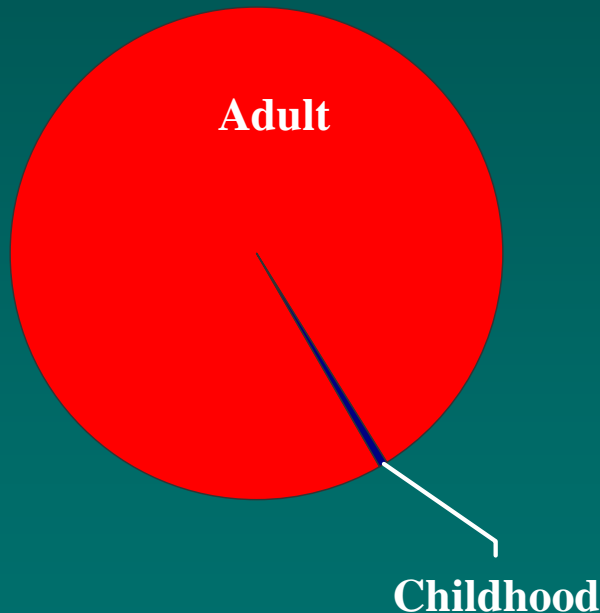
**The Problem:
Adult Immunization Rates are
Too Low and Stagnant**

US Influenza Vaccination Rates, 1997 – 2003 NHIS



VPD's Take the Highest Death Toll Among Adults

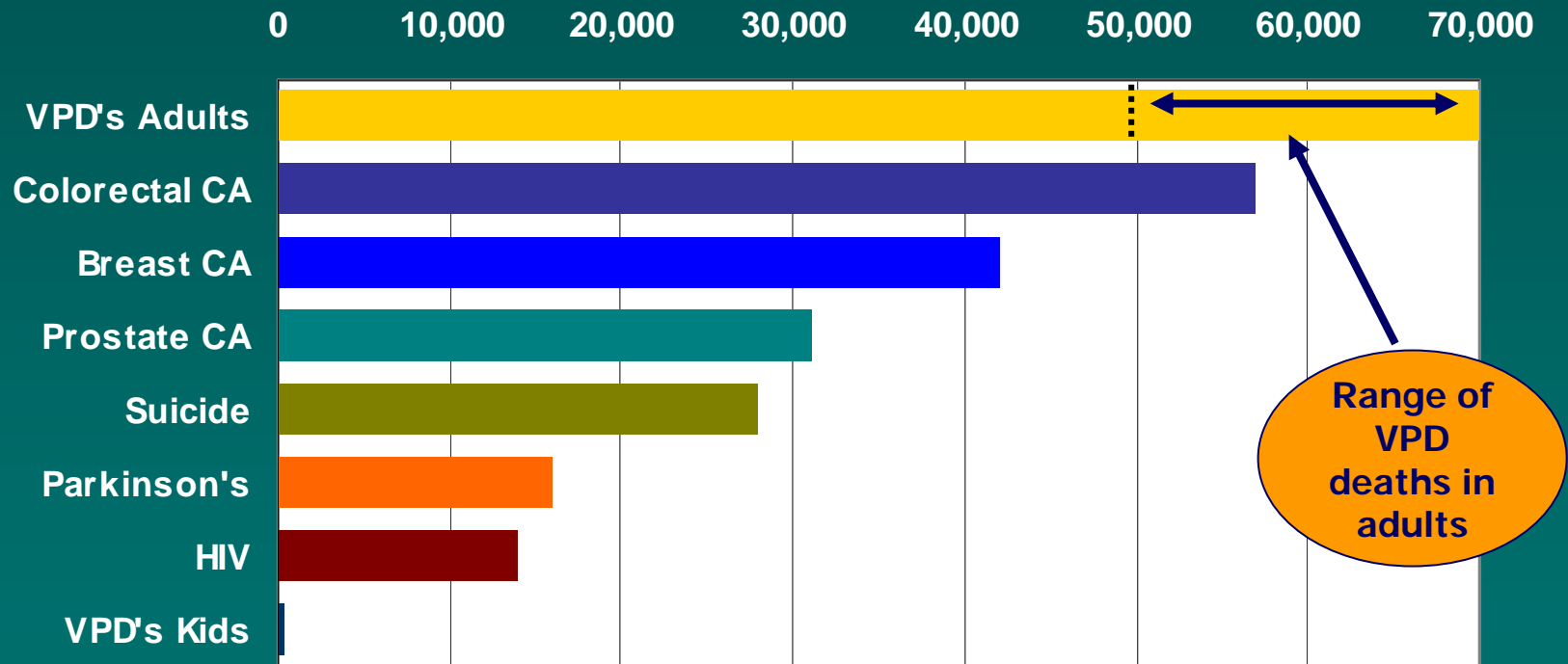
Annual VPD Deaths



- **Adults: 99% of VPD Deaths**
 - 30,000 to 70,000 deaths each year
- **Children: 1% of VPD Deaths**
 - 100 to 300 deaths each year

VPD = Vaccine Preventable Disease
Source: CDC, IOM

VPD Deaths in Adults are Similar to Other Important Causes of Death in Adults



Source: CDC, NCHS (online data for 2000).

**If We Keep Doing What We're
Doing, We'll Keep Getting
What We've Got**

Challenges for Improving Adult Vaccination Rates

- **Traditional Health Care Providers**
 - Missed opportunities
 - Lack of systems-based approaches
 - Vaccine availability
- **Non-traditional Providers**
 - Concerns about quality
 - Communication with PCPs
 - Vaccine availability
- **Patients**
 - Lack of awareness
 - Inconvenience
 - Mistrust
 - Cultural / ethnic issues
 - Cost
 - Vaccine availability

Improving Adult Vaccination: Providers

- **Education**
- **Recommend vaccination**
- **Implement systems strategies**
- **Evaluate & provide feedback**
- **Consider alternative settings**
- **Practice what we preach**

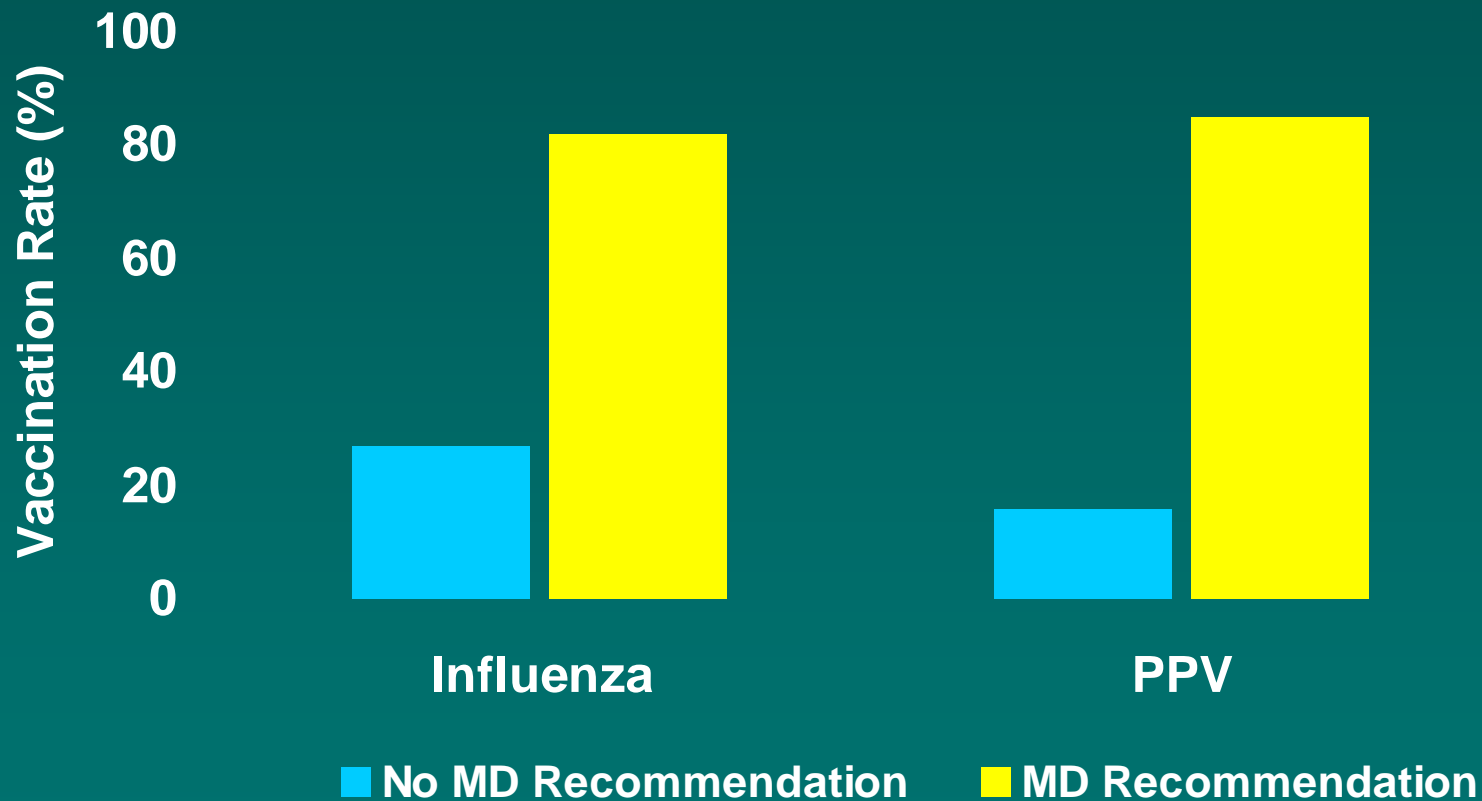
Improving Vaccination Coverage

Task Force on Community Preventive Services

- Increase demand
 - Patient reminders
 - Multifaceted programs including education
 - Regulation
- Enhance access
 - Reduce cost
 - Walk-in clinics
- Address provider barriers
 - Reminders / Feedback
 - Standing orders & policies

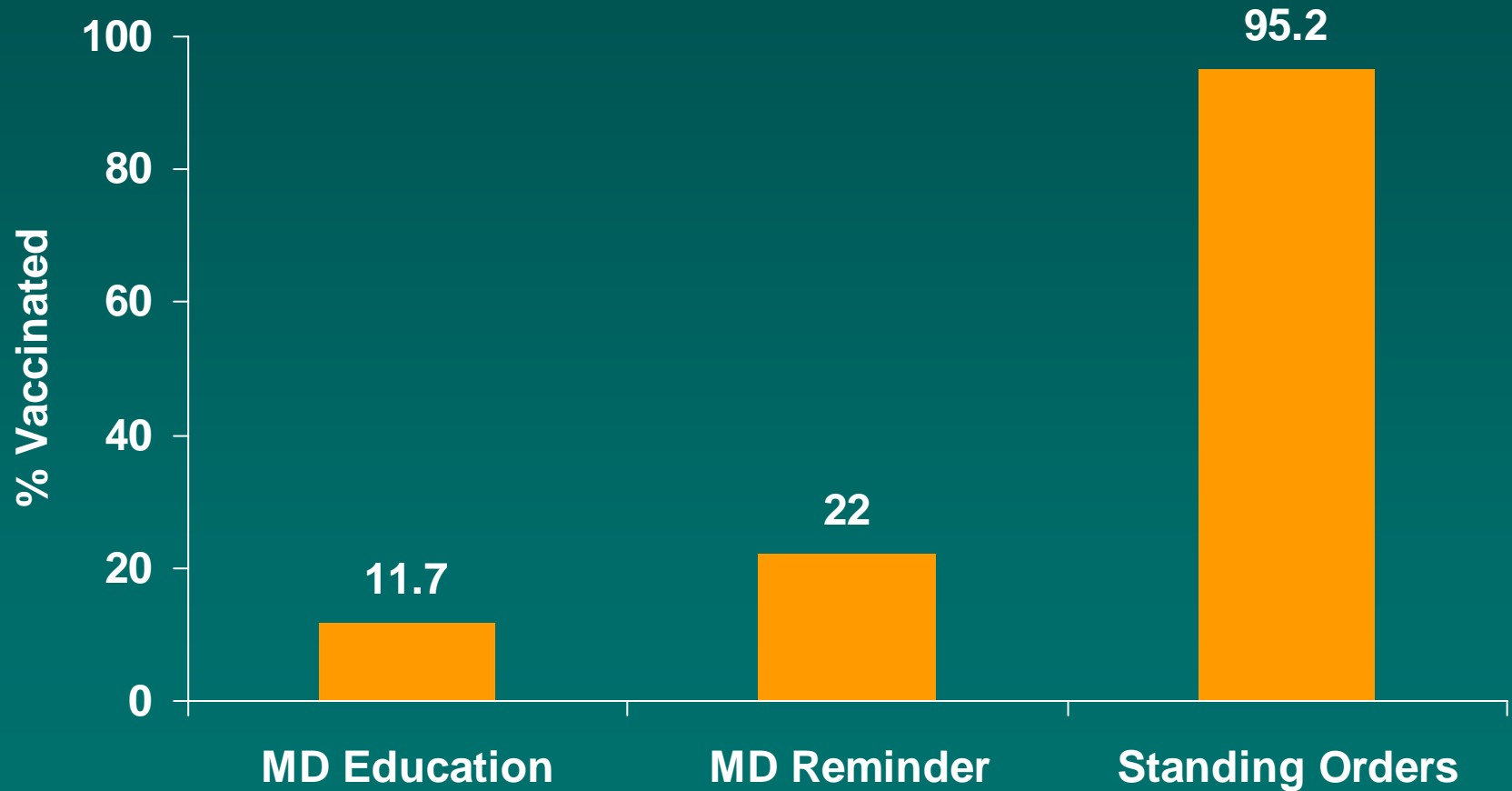
Provider Recommendation Can Overcome Negative Attitudes Among Patients

Vaccination Rates Among HR Patients With Negative Attitudes



Inpatient Standing Orders More Effective than Education or Reminders

Example: Influenza Vaccination for Elderly

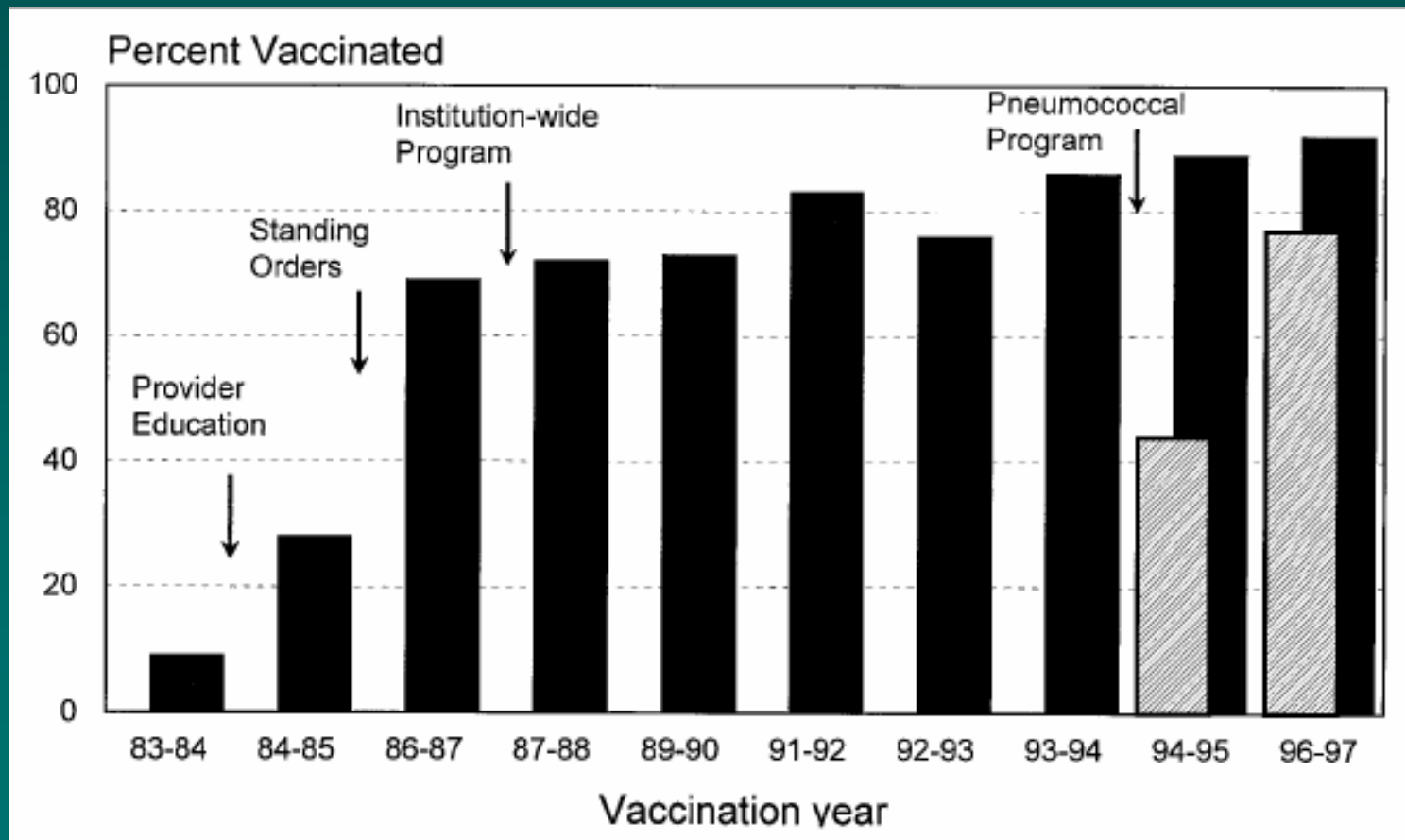


Crouse B, et al. J Fam Pract 1994; 38: 258.

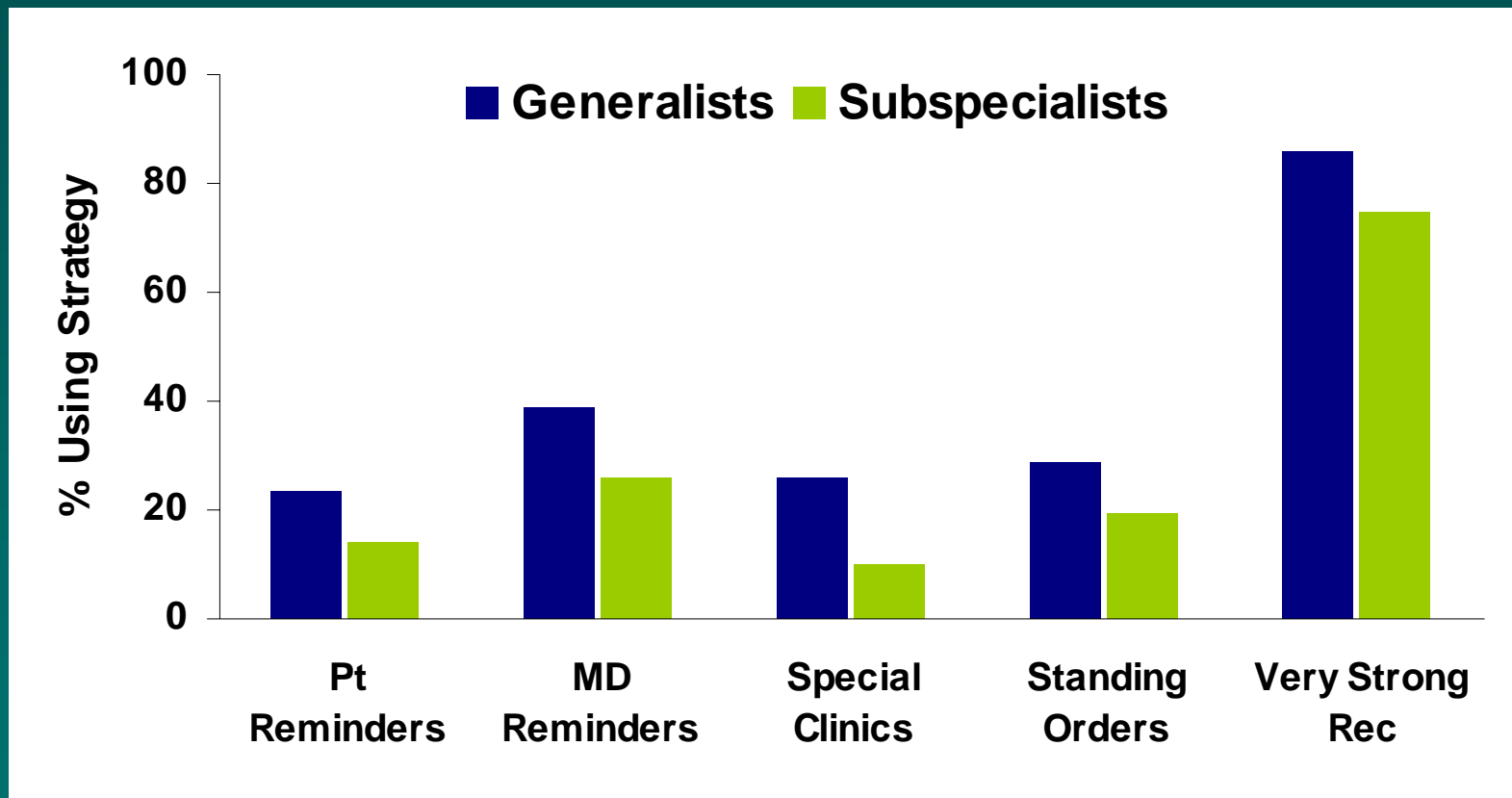
Multifaceted Program Improved Success & Sustainability

Increase Demand	Annual reminder to pts
Enhance Access	Walk-in Clinics
Address Provider Barriers	Institutional Policy Standing Orders Standardized Forms Efficient Clinic Flow Ongoing Measurement & Evaluation

Standing Orders as Part of a Multifaceted Vaccination Program



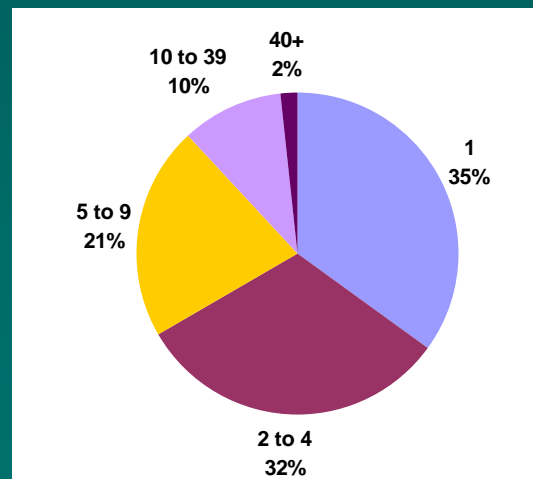
Physicians Often Don't Use Effective Strategies for Influenza Vaccinations



Nichol KL. Arch Intern Med 2001; 161: 2702.

Operational Considerations for Practice-based Systems Approaches

- Vaccination takes time & resources
- Many practices are small and may have limited resources available

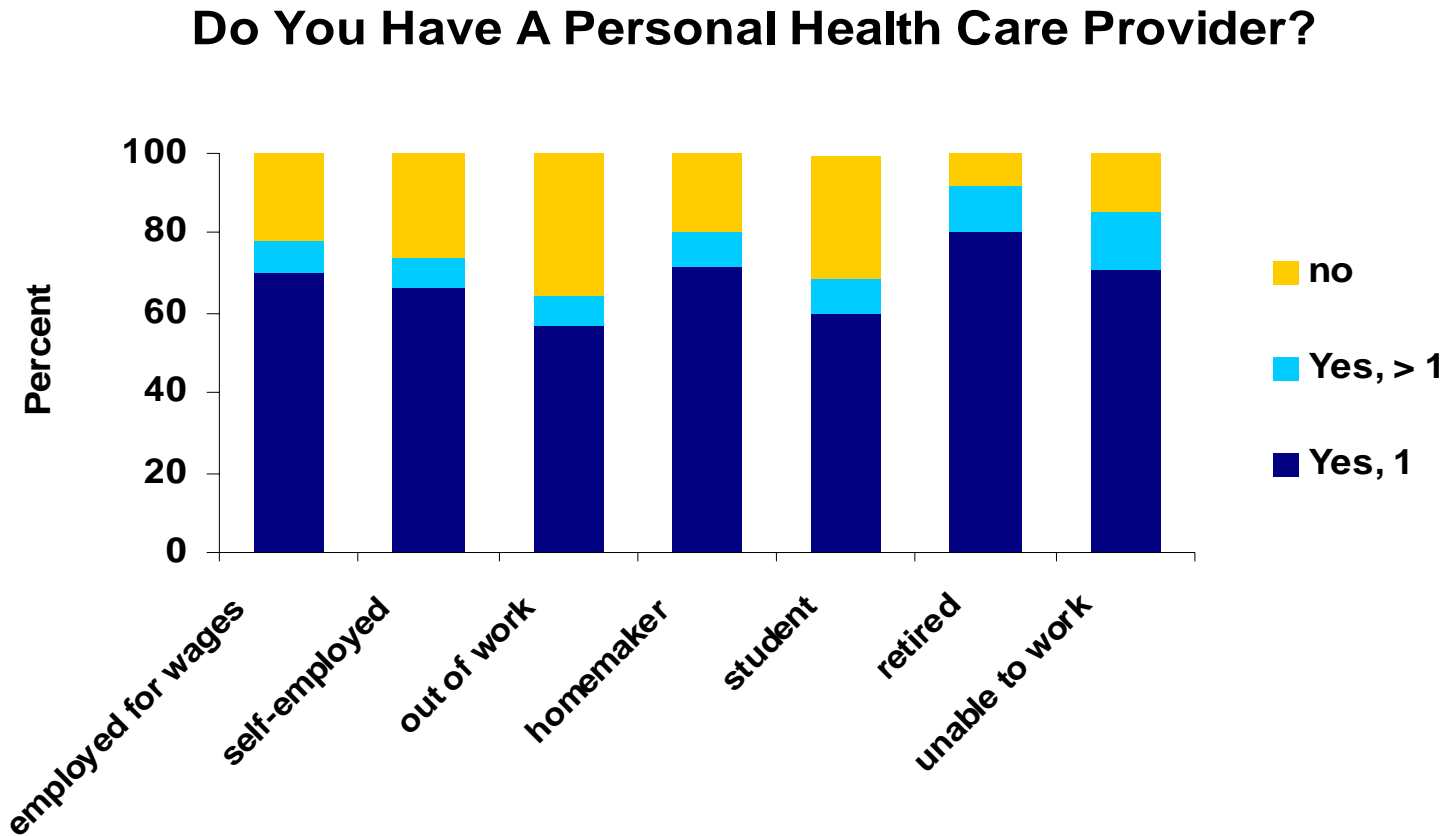


Distribution of office visits by size of practice, US 2004

Fontanesi J et al. Am J Prev Med 2004; 26: 265.

Hing E et al. Advance Data. Vital Health Statistics. 2006; 374.

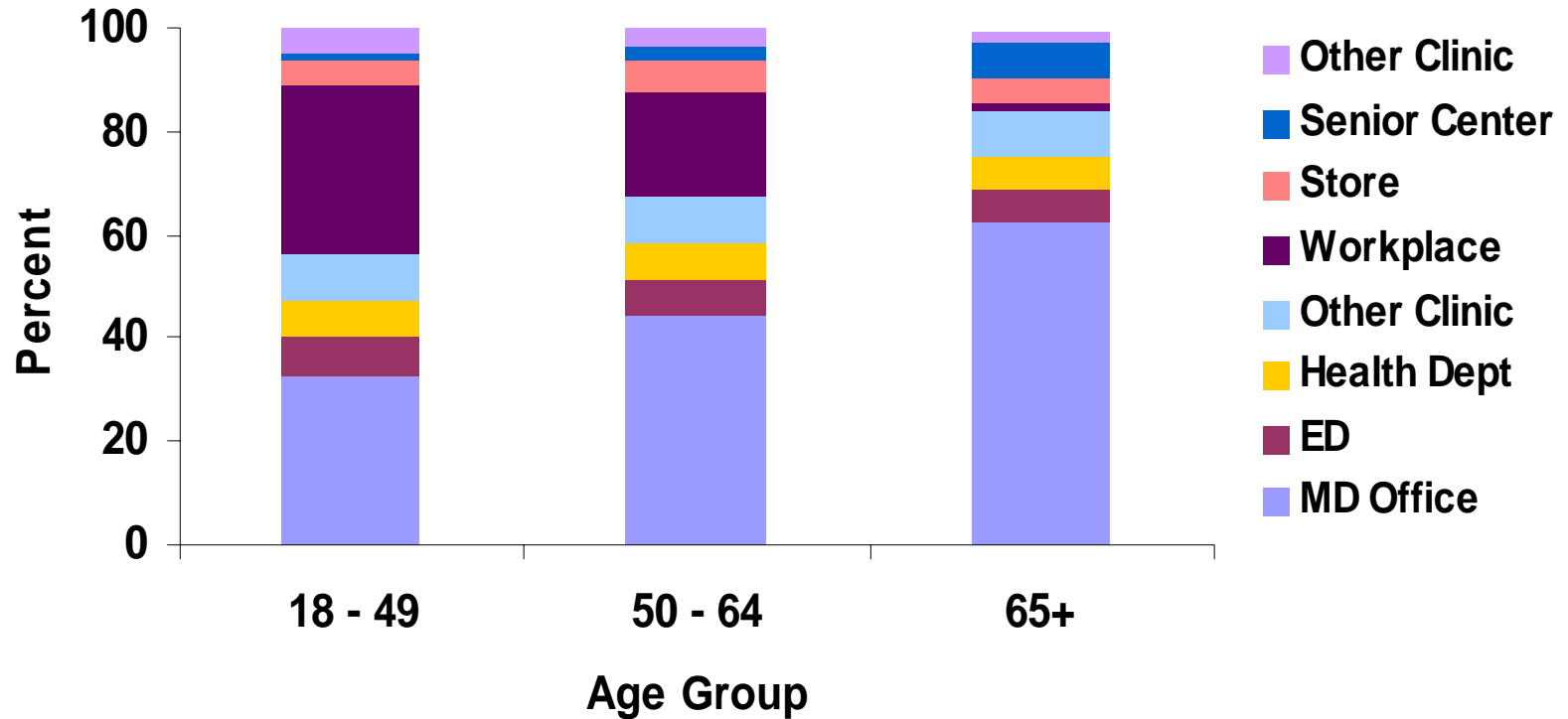
Not Every Adult has a Personal Health Care Provider



Vaccinations in Nontraditional Settings

- **Nontraditional settings**
 - Workplace / pharmacies / stores/ community centers/ schools/ places of worship/ etc
- **Potential advantages**
 - Quick, convenient, inexpensive
 - Increased public awareness and demand
 - New providers and new strategies to complement traditional health care
- **Potential disadvantages**
 - Quality (?)
 - Continuity of care with medical home

Where Influenza Vaccine Recipients Were Immunized, BRFSS 1998-99



Singleton et al. Am J Infect Control 2005;33:563-70.

Quality and Community Immunizers

Minnesota Department of Health

News Release

October 6, 2006

[Contact information](#)

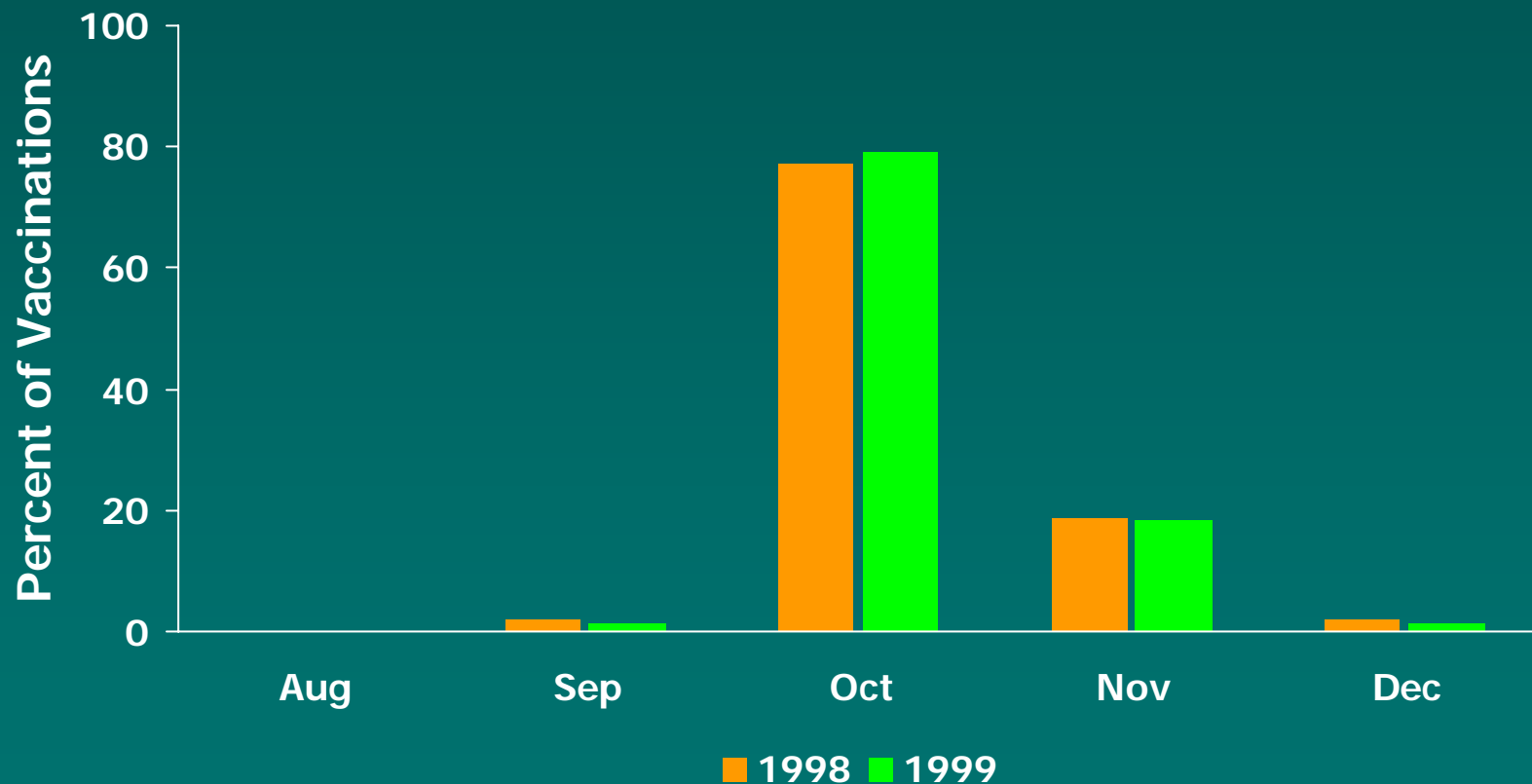
'Mark of Excellence' aims to ensure high quality outreach flu clinics
New program designates clinics with MDH training in vaccine handling, dispensing

AMA Guidelines for Store-Based Clinics

- Well-defined & limited scope of care
- Evidence-based practice and CI orientation
- Team-based approach with formal MD collaboration / supervisions
- Referral system for care beyond their scope
- Protocols for ensuring continuity of care with practicing physicians in community
- Inform patients of qualifications and limitations of their practitioners
- Appropriate sanitation & hygiene guidelines
- Electronic health records

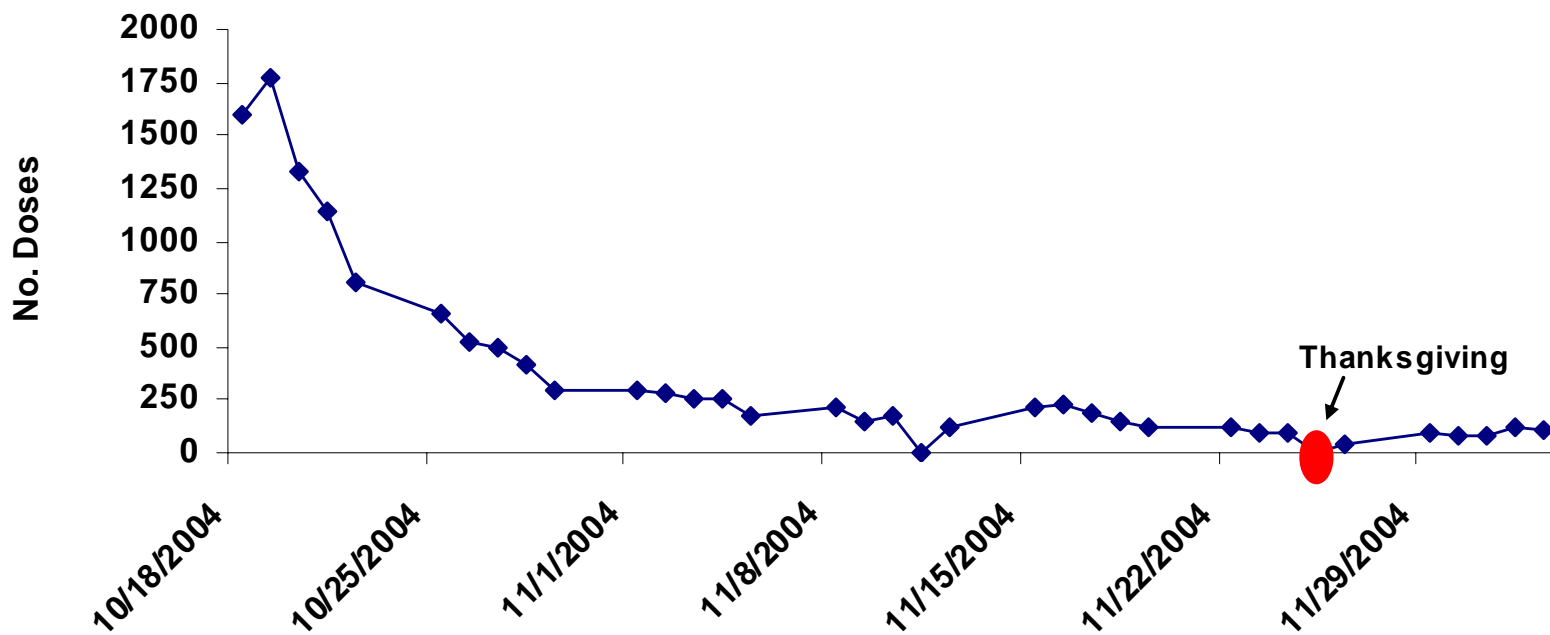
Timing of Influenza Vaccinations & the Challenge of Extending into Dec & Beyond

MN Medicare Beneficiaries



Immunizing into December & Beyond: The “The Thanksgiving Phenomenon”

Flu Shot Clinic Numbers, 2004-05 Season -- Mpls
VAMC



Patient Issues for Vaccination

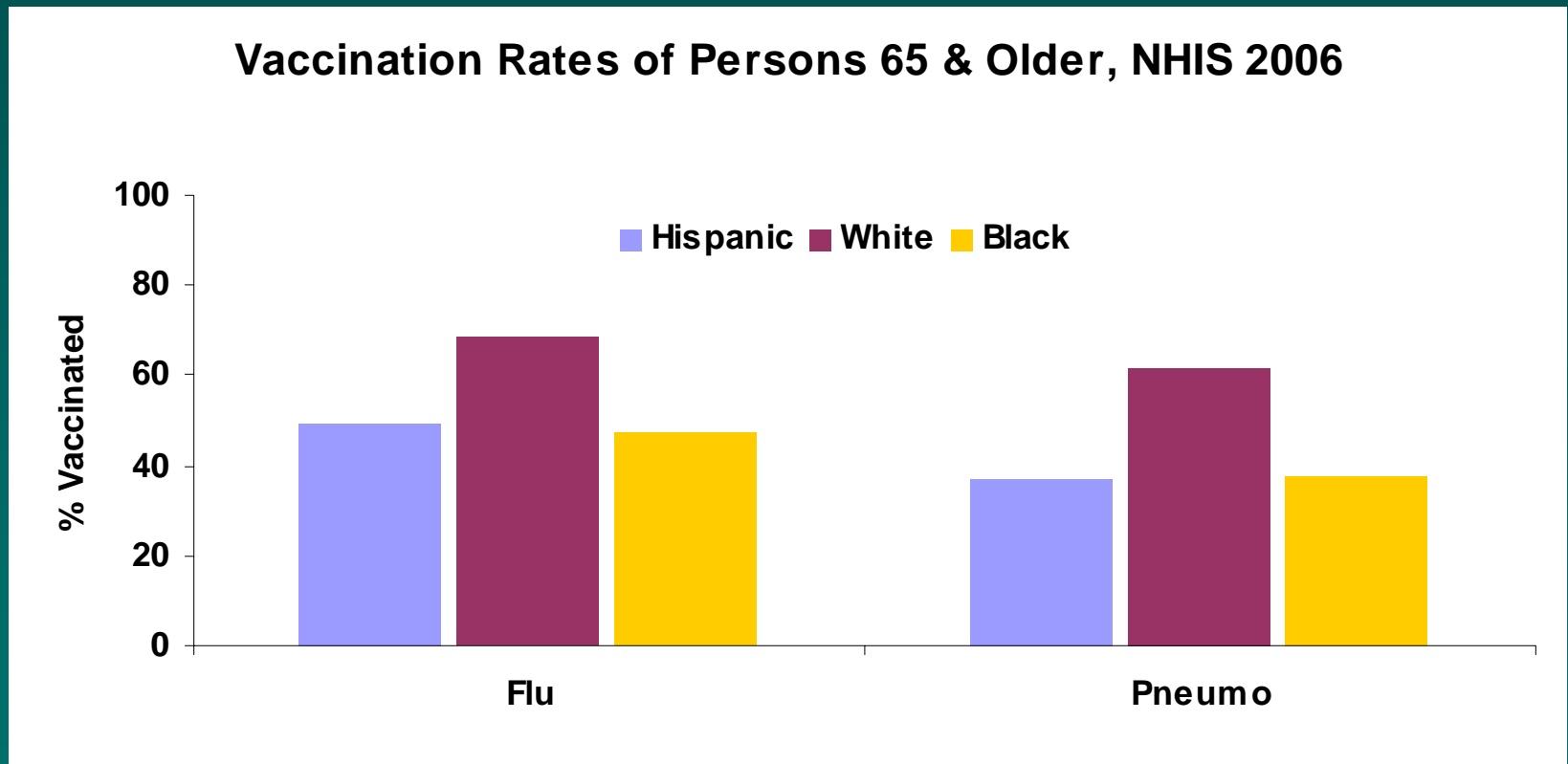
- **Awareness**
 - Disease
 - Vaccine
 - Personal risk
- **Provider Recommendation**
- **Misconceptions / fears**
 - About vaccine
 - About health care system
- **Access & ability to pay**

Why Medicare Beneficiaries Are Not Vaccinated

- **Lack of knowledge**
 - personal risk and need for vaccination
- **Misconceptions**
 - about vaccines and VPD's
- **No recommendation from MD**

MMWR 1999; 48: 556.

Disparities by Race / Ethnicity Persist



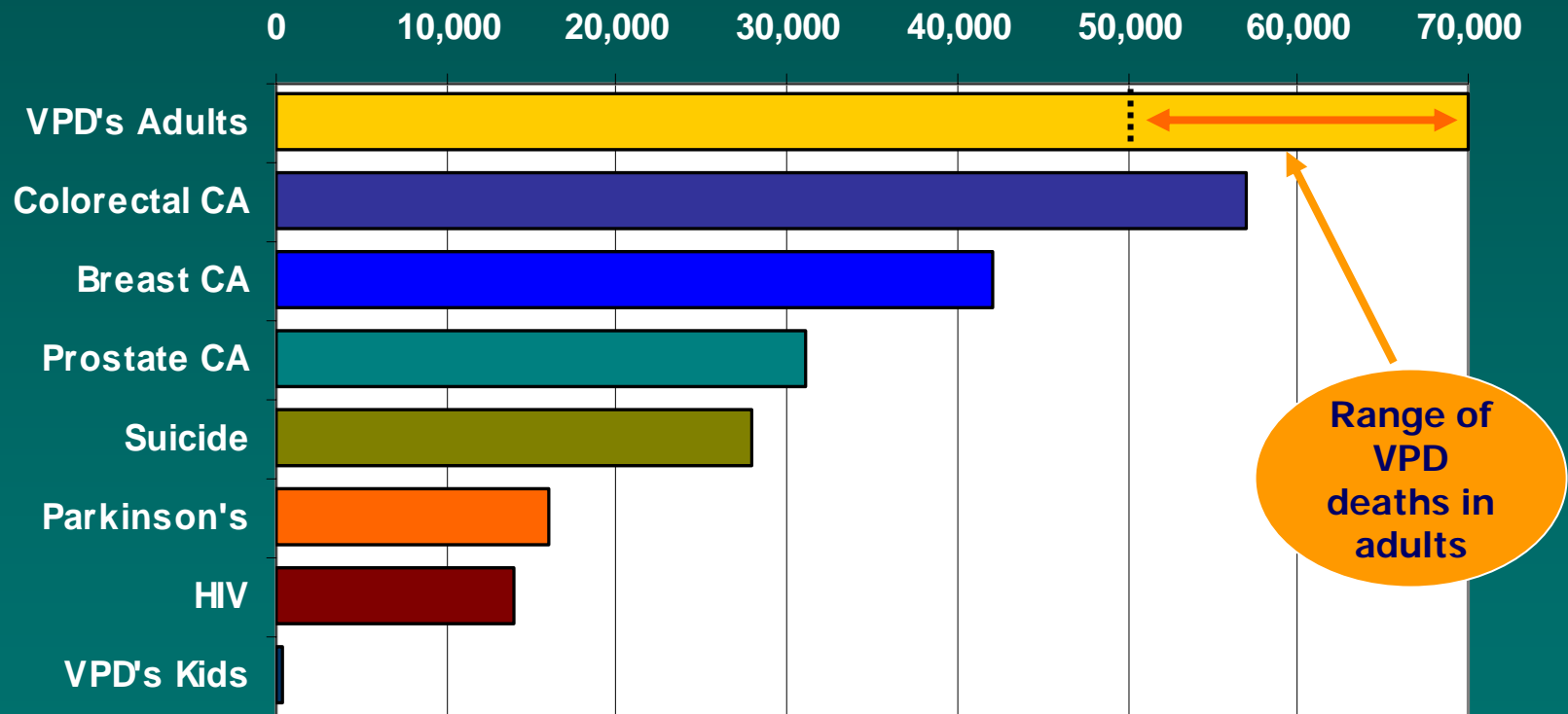
Final Thoughts

- **Providers**
 - Education
 - Recommendations to patients
 - Implementation of effective strategies
 - Education
 - Tools to implement
 - Time & resources
 - Measurement & feedback
 - QA orientation
 - Regulation / performance measures may help focus attention
 - Work with NTS as partners
 - Facilitate timely availability of vaccine
- **NTS**
 - Adherence to quality guidelines
 - Communication with PCPs
 - Timely availability of vaccine
- **Patients**
 - Should be the focus
 - Education
 - Patient-oriented delivery systems
 - patient empowering
 - Convenience
 - Cost
 - Time
 - Trustworthy
 - Oriented to the future
 - Role of internet, changing paradigms, etc

Challenges for Improving Adult Vaccination Rates

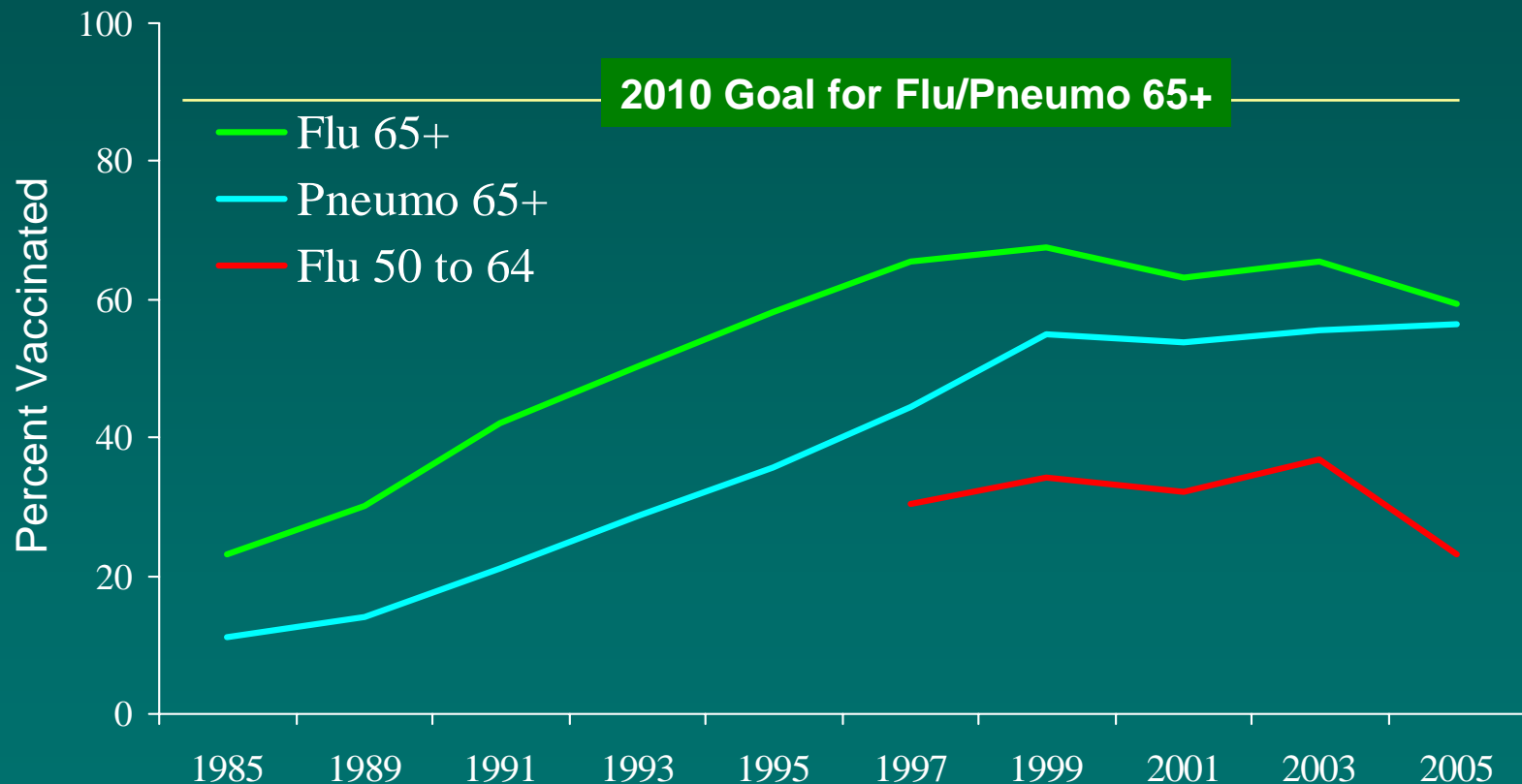
- **Traditional Health Care Providers**
 - Missed opportunities
 - Lack of systems-based approaches
 - Vaccine availability
- **Non-traditional Providers**
 - Concerns about quality
 - Communication with PCPs
 - Vaccine availability
- **Patients**
 - Lack of awareness
 - Inconvenience
 - Mistrust
 - Cultural / ethnic issues
 - Cost

VPD Deaths in Adults are Similar to Other Important Causes of Death in Adults



Source: CDC, NCHS (online data for 2000).

Influenza and Pneumococcal Vaccination Rates Are Too Low

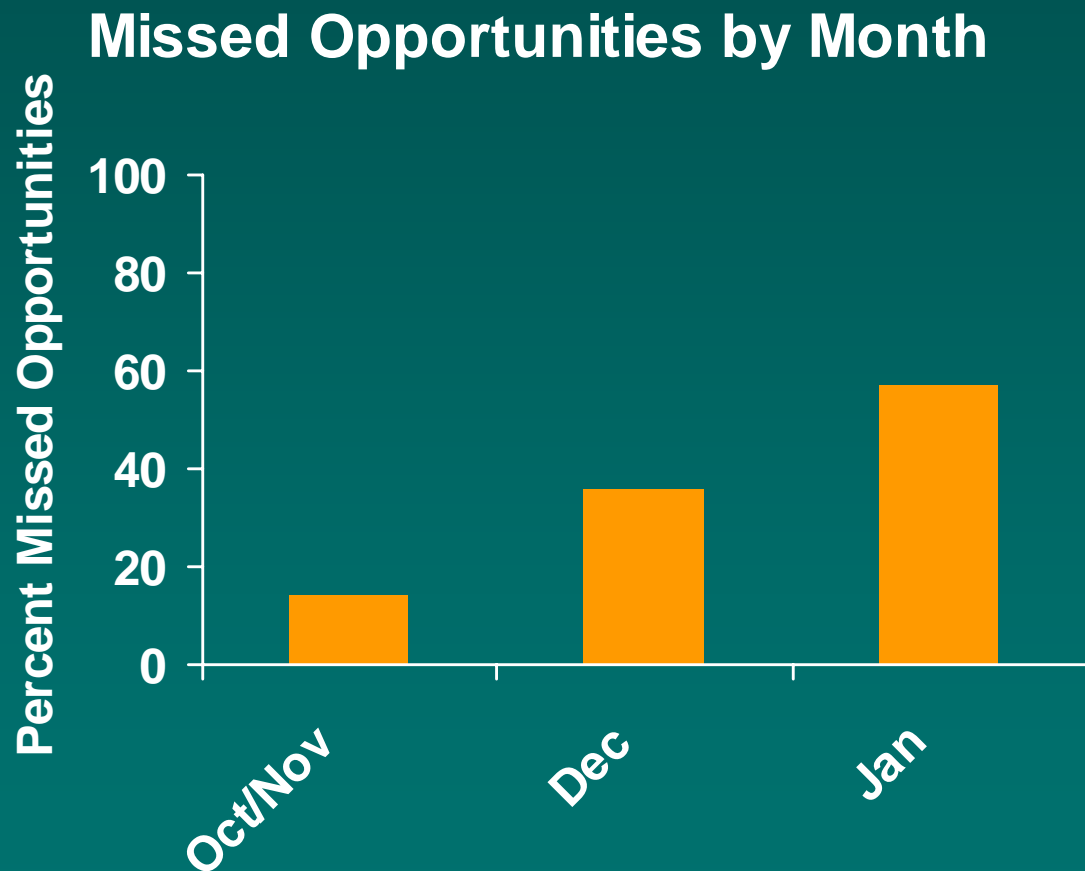


Improving vaccination coverage for HR adults < 65 years

Report on Task Force on Community Preventive Services

- **Single interventions**
 - Provider recommendations
- **Combinations of interventions**
 - Enhanced access +
 - Provider/systems-based interventions &/or
 - Client reminders / educations

Missed Opportunities Are Common and More Frequent Later in the Flu Season

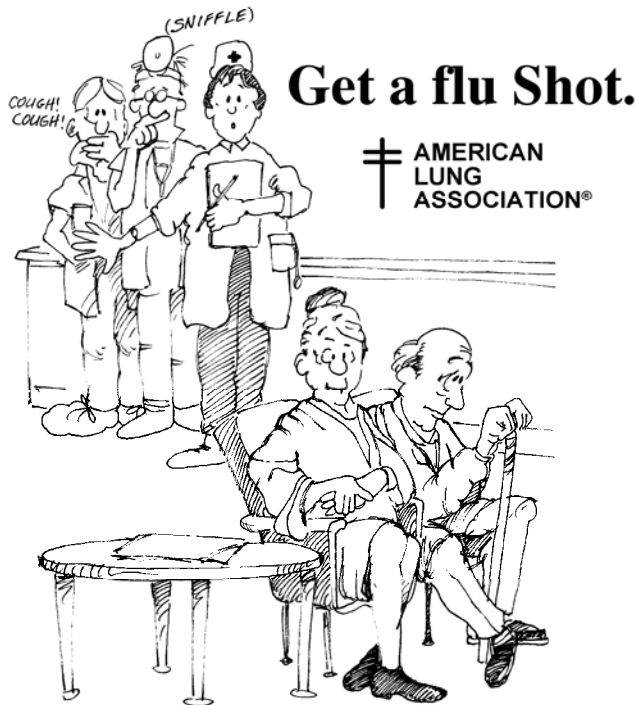


Interventions that Improve Vaccination Rates for Adults

<u>COMPONENT</u>	<u>OR</u>
Organizational change:	16.0
Provider reminder:	3.8
Pt financial incentive:	3.4
Provider education:	3.2
Pt reminder:	2.5
Pt education:	1.3

Practicing What We Preach – Influenza Vaccinations are for HCW's, Too

You give them love,
You give them care,
Don't give them the flu.



New England Printing and Graphic Design, Inc.
for the American Lung Association of Connecticut

HCW Influenza Vaccination Rates NHIS, 2003

