

Standing Orders Programs for Adult Immunization

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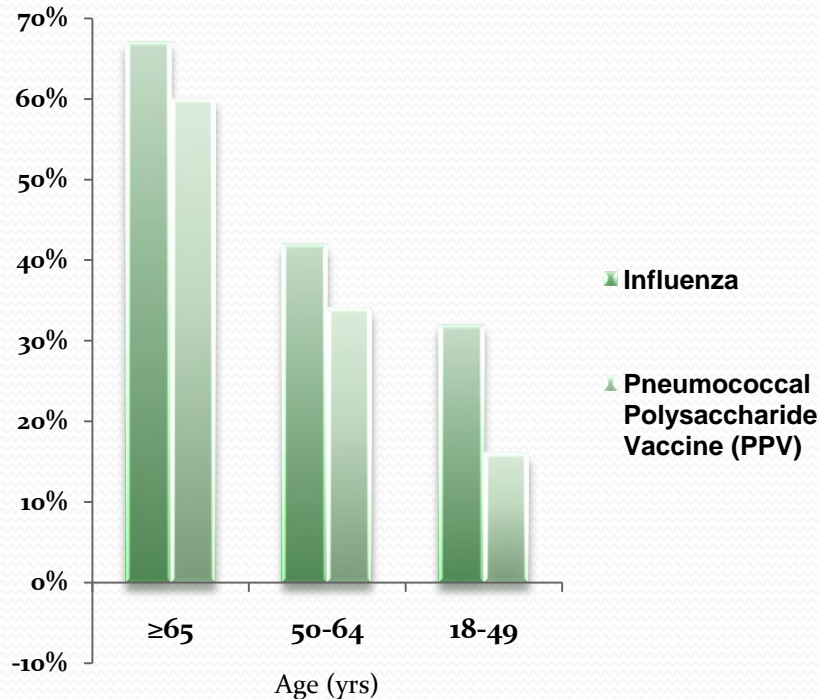
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High Burden of Vaccine Preventable Disease (VPD)

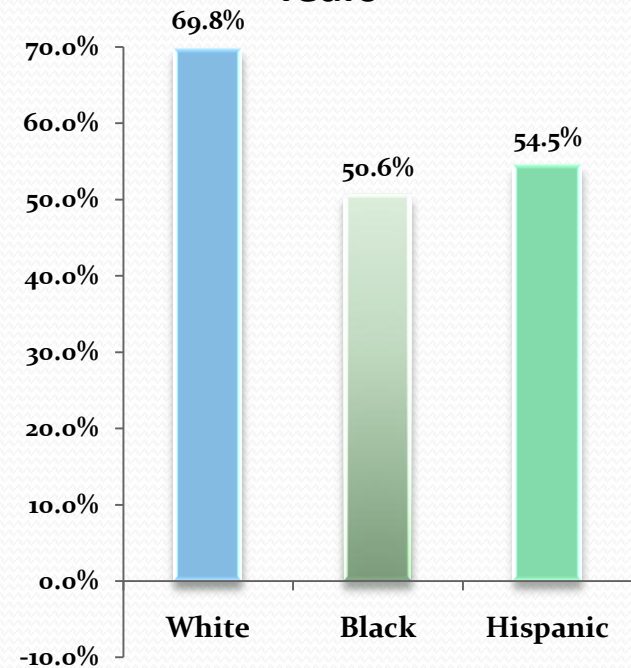
- 24,000 estimated annual deaths due to influenza
- 2009-2010 influenza pandemic
- 6,000 deaths annually due to pneumococcus
- Case-fatality rate for pneumococcal bacteremia
7%-28% despite antibiotics

One cause of VPD – modest to low adult vaccination rates in US

Adult Influenza and PPV Vaccination Rates for Those with High Risk Conditions

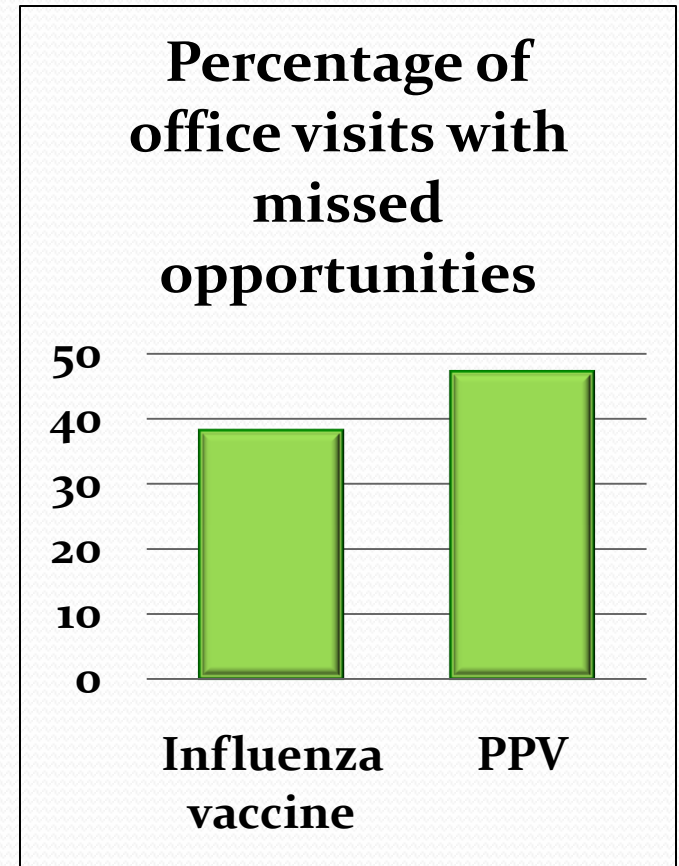


Racial Disparities in Influenza Vaccination Rates for Adults ≥65 Years



Are “missed opportunities” a major cause of low vaccination rates?

- In a study of primary care medical records over 3.25 years, missed opportunities at medical visits occurred:
 - 3.4 times for influenza vaccine
 - 10.7 times for PPV
 - 10.8 times for tetanus toxoid
- *J Am Board Fam Pract* 2005;18: 20–7
- Examples
 - Chronic care visits without needed vaccinations
 - Acute care visits without needed vaccinations



Vaccine 2004; 22:3457-63

Standing Orders Protocols (SOPs) are a solution to missed opportunities

- SOPs empower non-physician medical personnel to assess each patient's immunization status and administer vaccines without direct physician involvement at the time of the interaction
- Not a pre-printed individual patient order but a clinician-approved protocol that applies to all eligible patients

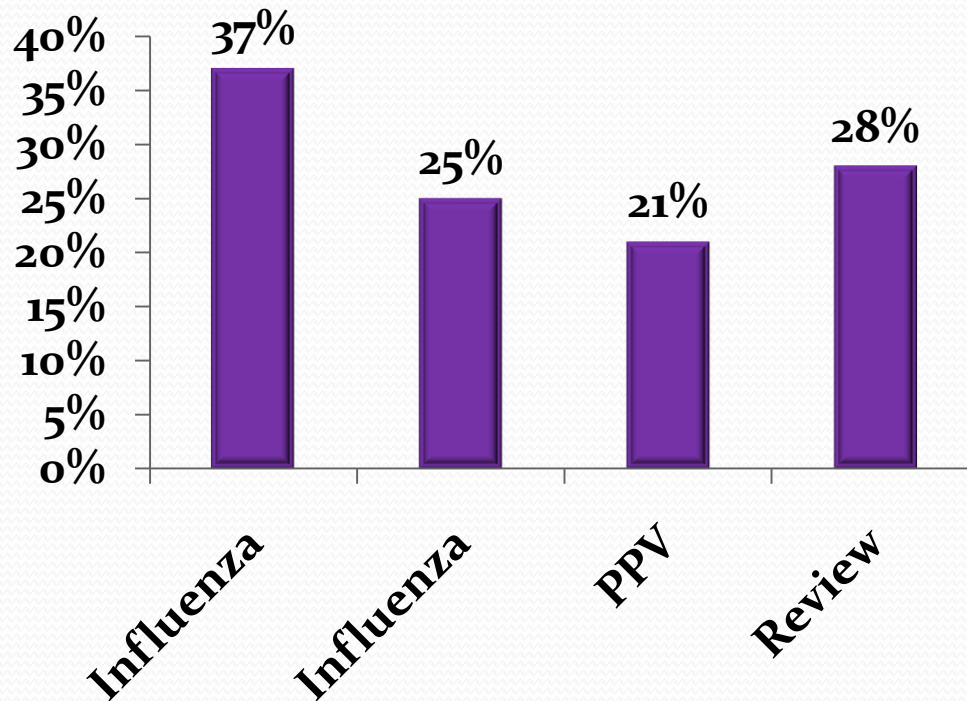
Who Recommends Standing Orders Programs?

- Advisory Committee on Immunization Practices of CDC
- Task Force on Community Preventive Services
 - SOPs resulted a median percentage point increase in vaccination rates of 28% (range 6% to 81%).
 - *Am J Prev Med* 2000;18(1S):92-6
- Southern California Evidence-Based Practice Center- RAND



Impact of Standing Orders Programs (SOPs)

Percentage increases in vaccination rates due to SOPs from the scientific literature

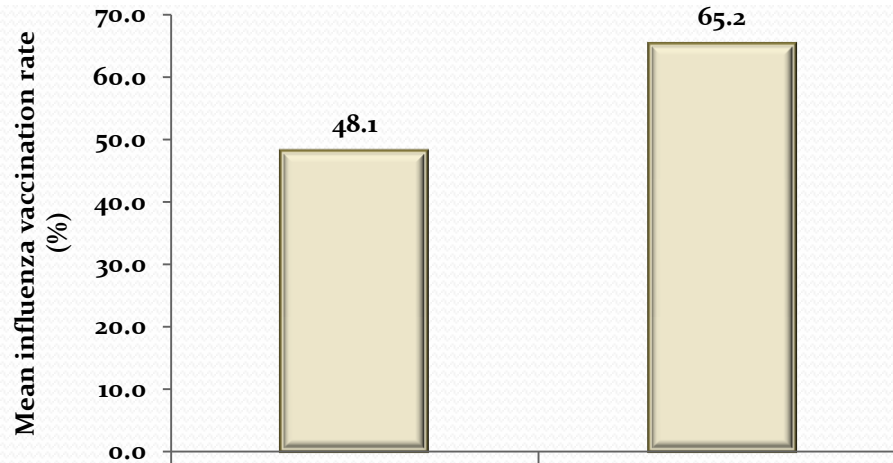


References in order:

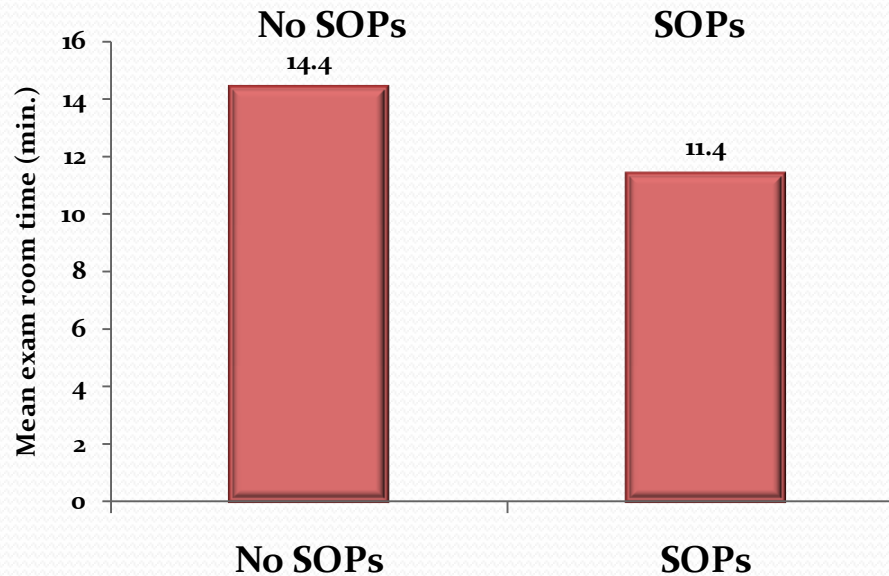
- *Pharmacotherapy* 2007;27:729-733
- *Journal of American Geriatric Society* 2005;53:1008-1010
- *American Journal of Kidney Diseases* 2009;54:6-9
- *American Journal of Preventive Medicine* 2000;18(1S):92-6

Practices Using SOPs associated with Higher Vaccination Rates Despite Less Physician Time in Exam Room

Vaccination Rates

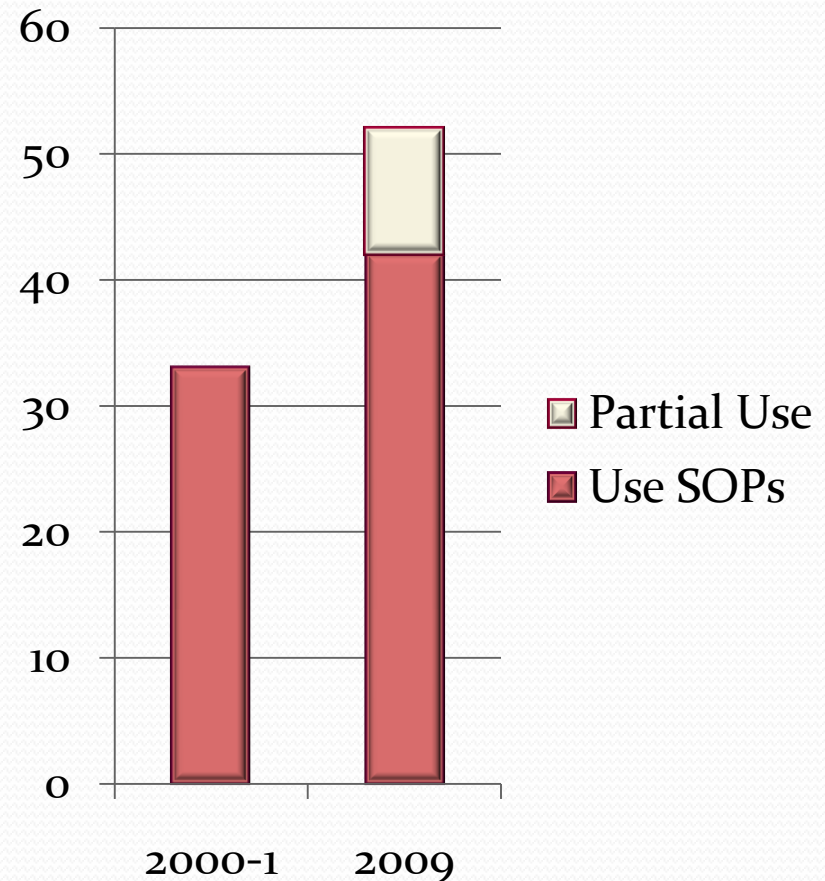


Exam Room Time



Medical Practices' Use of SOPs over Time

- In national surveys, SOP use has increased over time
- Adult immunizations are now a quality measure with pay-for-performance implications



Lessons Learned - Motivation is a critical element

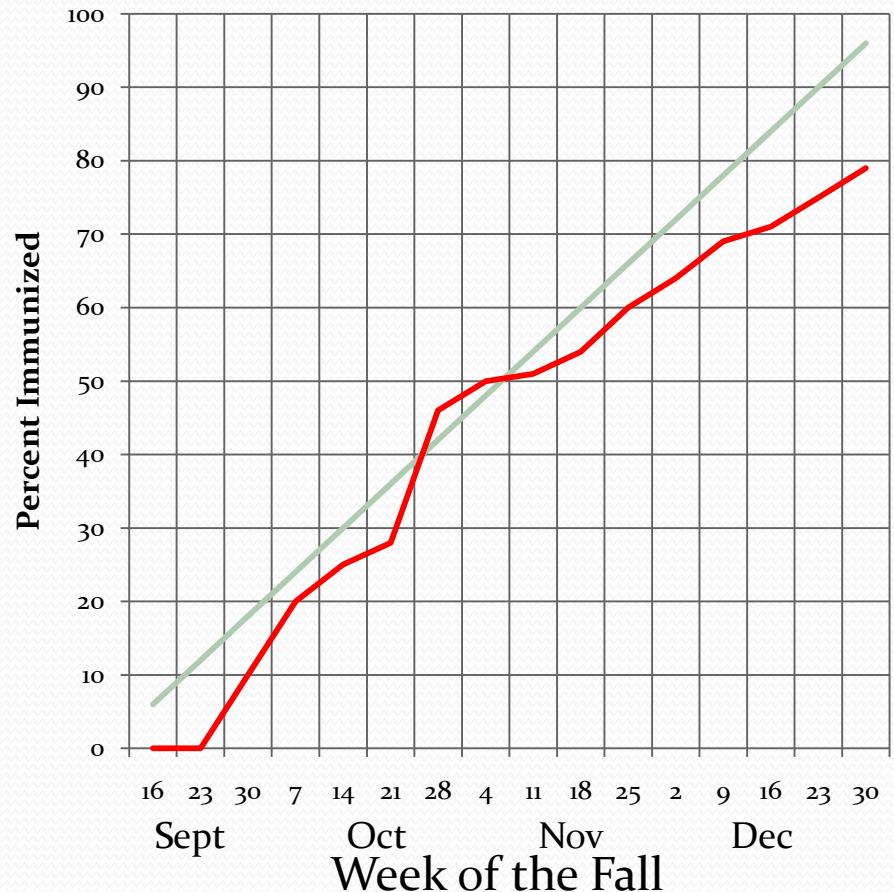
- Possible sources of motivation:
 - Immunization champion
 - Empowerment of staff
 - Competition/goal achievement
 - Rewards or profit
 - Enhanced patient care/prevention of suffering



Lessons Learned - Feedback on immunization rates is a key to success

**Influenza Immunization
Target (Blue) vs. Actual (Red)**

- Set target (blue line)
- Track progress (red line)
- Feedback evaluates progress:
 - Satisfaction or reward achievement if good
 - Motivation to change if lacking
- Allows competition



Barriers and Solutions to Implementing SOPs

Barrier	Suggested Solution
Insufficient staff	<p>SOPs increase efficiency:</p> <ul style="list-style-type: none">- Enable non-physician staff to assess and vaccinate- Reimbursement from Medicare for vaccine administration <p>www.cms.gov/AdultImmunizations/02_Providerresources.asp</p>
Lack of resources	<ul style="list-style-type: none">• SOPs are inexpensive and increase efficiency• SOP materials are available free of charge at: <p>www.immunizationed.org/standingorders www.immunize.org/standingorders/ www.immunize.org/catg.d/p3046.pdf</p>

Barriers and Solutions to Implementing SOPs

Barrier	Suggested Solution
Workflow pattern not conducive to SOPs	<ul style="list-style-type: none">• See Best Practices examples• Practice enhancement training• Teamwork to establish SOPs
Inadequate training	<ul style="list-style-type: none">• Training materials are available free of charge at: www.immunizationed.org/standingorders www.immunize.org/standingorders/• <i>Shots</i> software for Smartphones, PDAs and online use www.immunizationed.org/AnyPage.aspx?pgid=2

Barriers and Solutions to Implementing SOPs

Barrier	Suggested Solution
Patient preference for physician management of their care	<ul style="list-style-type: none">• Staff can inform patients that SOPs were approved by leadership and clinicians
Fear of malpractice	<ul style="list-style-type: none">• Influenza vaccine covered by federal no fault Vaccine Injury Compensation Program• Protocols for management of vaccine reactions <p>www.immunize.org/catg.d/p3082.pdf</p>
Physician preference for management of patient care	<ul style="list-style-type: none">• SOPs crafted initially by clinicians/ leadership team• Physicians have more time to address more difficult clinical issues

Barriers and Solutions to Implementing SOPs

Barrier	Suggested Solution
Uncertainty about vaccination status	<ul style="list-style-type: none">• CDC accepts self-report for influenza vaccine & PPV• Patient report correct for <i>receiving</i> influenza vaccine 94%-100% and for PPV 80%-97% of time• Patient report correct for <i>no</i> influenza vaccine 38%-80% and <i>no</i> PPV 46%-77% of time.• State vaccine registries or EMR
Lack of tracking system	<ul style="list-style-type: none">• State vaccine registries or EMR• Paper medical record systems – samples are available at www.cdc.gov/vaccines/recs/immuniz-records.htm

Billing and Medicare Coverage

- Centers for Medicare and Medicaid Services allows SOPs www.cdc.gov/mmwr/preview/mmwrhtml/mm5204a4.htm
- Administration fees important part of payment for vaccination
www.cms.gov/AdultImmunizations/02_Providerresources.asp
- Potential to increase income by fees and quality incentives

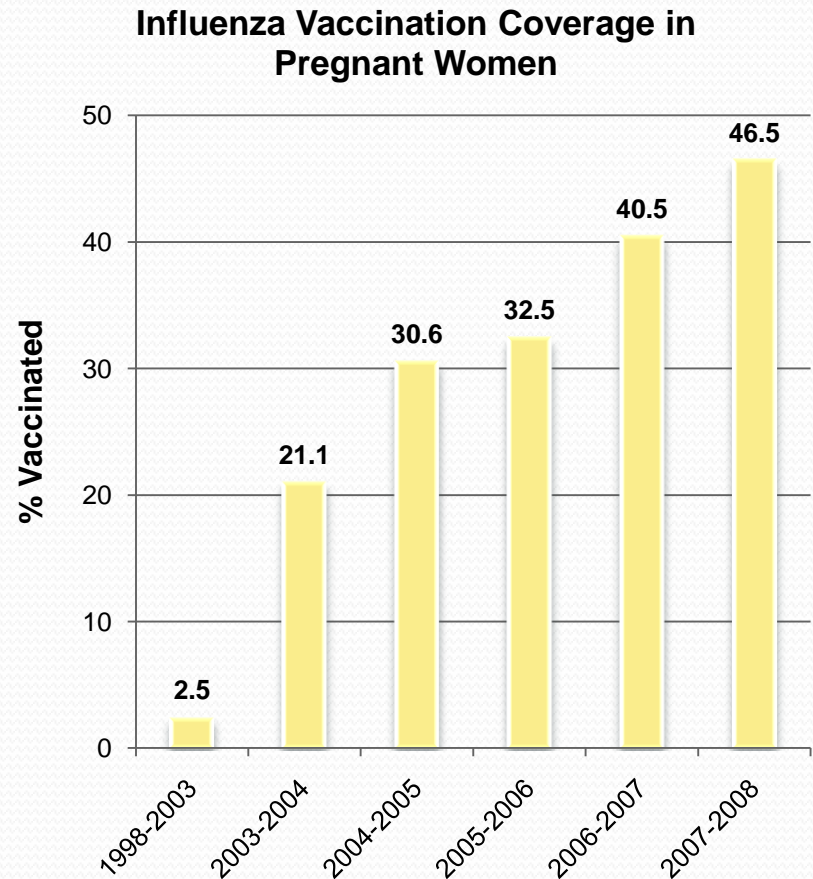


Toolkit Contents

- This PowerPoint Slide Presentation on SOPs
- Learning Objectives
- Sample protocols for influenza vaccine and PPV
- Best Practices Document
- Recommended References
- Links to Useful SOP Resources
- Links to Adult Immunization Resources
- Video about this Toolkit
- www.immunizationed.org/standingorders

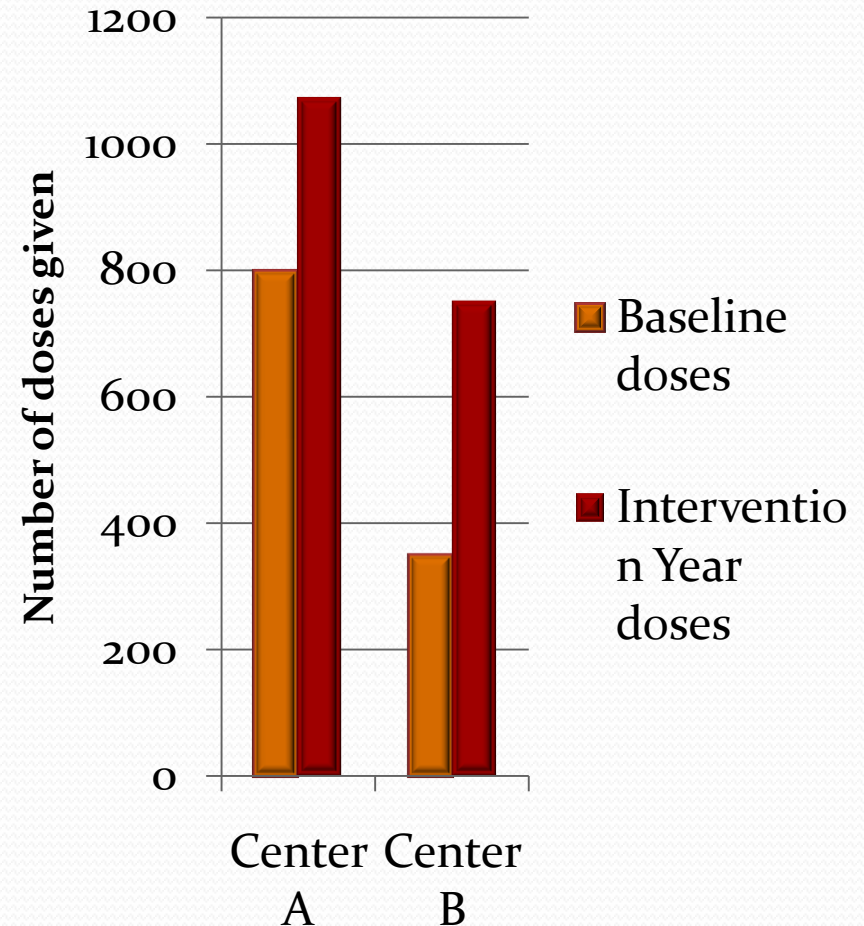
Best Practices Case Study – Kelsey-Seybold Clinic

- 29 obstetricians delivering 2500 infants annually
- Vaccination program components:
 - Immunization champion
 - Educational updates for physicians, nurses, and staff
 - Standing orders implemented for influenza vaccination in pregnancy
 - Obstetric nurses encouraged to take the initiative in vaccinating patients
 - Regular vaccination rate assessments provided at quarterly meetings
- *American Journal of Managed Care* 2010;16:209-216.



Best Practices Case Study - Inner-city, faith-based neighborhood health centers in Pittsburgh

- Components:
 - Standing orders
 - Provider reminders
 - Reduced-fee or free vaccines for needy patients
 - patient education posters
 - staff education
- Center A also enhanced its electronic medical record :
 - Vaccination status electronically placed in the nursing note for easy review
 - Nursing prompt to assess vaccination status as part of vital signs
- *Am J Pub Health* 2003; 93:1699-1705



Testimonial on SOPs

“Standing orders are effective - they facilitate quality without being intrusive. They also engage your clinical team by giving them a share of patient responsibility.”

-- Francis X. Solano Jr., MD FACP,
VP, Physician Services Division and
Medical Director, UPMC Donald D. Wolff, Jr. Center for Quality
Improvement and Innovation

Rationale for SOPs - Summary

- Saves lives and time
- Empowers nursing by a standard protocol
- Improves immunization rates
- Allows physicians more time to manage other issues
- Payments for administration fees and quality bonuses



Supplemental slides: Links to Resources

Links to Key Resources

- Examples of SOPs

- www.immunize.org/standingorders/
- www.mass.gov/Eeohhs2/docs/dph/cdc/immunization/mso_protocols_general.pdf
- www.nyc.gov/html/doh/html/imm/flu-ptk6.shtml

- Medical Management of Vaccine Reactions

- www.immunize.org/catg.d/p3082.pdf
- www.mass.gov/Eeohhs2/docs/dph/cdc/immunization/mso_emergency_treatment.pdf
- <http://pediatrics.aappublications.org/cgi/reprint/122/3/e771.pdf>

Links to Key Resources

- Supplies for an Adult Immunization Service
 - www.immunize.org/catg.d/p3047.pdf
 - www.immunize.org/catg.d/p3046.pdf
- State laws on standing orders
 - www.gwumc.edu/sphhs/departments/healthpolicy/immunization/epidemiology_of_US_immunization_law.pdf
- Medicare information, including billing
 - www.cms.gov/MLNProducts/downloads/adult_Immunization.pdf
 - www.cms.gov/Adultimmunizations/02_Providerresources.asp

Links to Key Resources

- Keeping up-to-date with vaccines
 - Recommended Adult Immunization Schedule, U.S.
 - www.cdc.gov/vaccines/recs/schedules/default.htm#adult
 - *Shots* software for Smartphones, PDAs and online use
 - www.immunizationed.org/AnyPage.aspx?pgid=2
- Vaccine Information Statements
 - www.cdc.gov/vaccines/pubs/vis/default.htm
 - www.immunize.org/vis/ (many translations)

Links to Key Resources

- Guide to Vaccine Contraindications and Precautions
 - www.cdc.gov/vaccines/recs/vacadmin/contraindications.htm
- Vaccine Administration
 - www.cdc.gov/vaccines/recs/vac-admin/default.htm
 - www.immunize.org/handouts/administering-vaccines.asp