

**National Influenza Vaccine Summit
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Ob/Gyn Provider Barriers
and Best Practices**

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Reason to Examine HCP Barriers

- Pregnancy Risk Assessment Monitoring System (PRAMS) Georgia: 2006 data on reasons women did not receive flu vaccine in pregnancy
 - Second most common reason (45%): “My physician didn’t offer it.”
- Most important factor for pregnant women to decide to be immunized **is a clear recommendation from their healthcare provider**
 - Ahluwalia IB, et al. *Obstet Gynecol.* 2010;116(4):949-955
 - Tong A, et al. *J Obstet Gynaecol Can.* 2008;30(5):404-410
 - CDC. *MMWR.* 2012;61(7):113-8

CDC Internet Patient Survey

- HCP vaccine recommendation in pregnancy led to
 - Higher vaccine rates (71% vs 14%)
 - Positive attitude/effectiveness (82% vs 54%)
 - Positive attitude/maternal safety (78% vs 53%)
 - Positive attitude/infant safety (75% vs 47%)
- Most pregnant women received flu vaccine from
 - Ob (61%) vs non-Ob (22%)
 - Pharmacy (8%)
 - Health Dept (5%)
 - Work/School (5%)

Walker DK, et al. *MMWR*. 2011;60(32):1078-1082.

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Ob/Gyn Practice, Knowledge, Attitudes

- Michigan ob/gyn general vaccine survey
- Despite most (62%) acknowledging within scope of care, did not screen or give vaccines in most patients because
 - Not usual practice 60%
 - Reimbursement issues 50%
 - Don't stock 43%
 - Uncertain indications 30%
 - Patient doesn't desire 30%
- General vaccine knowledge limited
- More likely to give if
 - Female
 - Newer in practice
 - Better knowledge
 - Primary care mantle
 - Performs office assessment of vaccine status

Gonik B, et al. *Obstet Gynecol*. 2000;96(1):81-84.

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Ob/Gyn Vaccine Practices

- **National ob/gyn vaccine survey**
- **With regard to flu vaccine, not offered because**
 - Reimbursement 52%
 - No patient education materials 46%
 - Liability 45%
 - Ambiguous guidelines 30%
 - Questionable efficacy 25%
 - No time 20%
 - Safety 17%
- **Higher vaccine rates if**
 - PCP designation
 - Group/multispecialty practice
- **Expressed interest/positive attitudes for vaccines more specific to ob/gyn (ie, HPV, HSV, maternal/newborn morbidities)**
- **Placed very high value on ACOG-derived recommendations and educational tools**

Schrag SJ, et al. *Obstet Gynecol.* 2003;101(4):704-710.

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Evidence of Ob/Gyn Progress

- Updated vaccine survey re-examining Michigan ob/gyn attitudes, knowledge, and practice patterns
- Despite poor marks for knowledge in previous Year 2000 survey, with regard to flu vaccine more recent data suggest significant improvement
 - 85% acknowledged need in pregnancy
 - Few (1%) expressed concerns for teratogenicity
 - Few (3.3%) said it couldn't be given when breast-feeding
 - 90% indicated flu vaccine considered safe in pregnancy
- Improved general vaccine knowledge
- More ob/gyns assessed patient vaccine needs in office
- More disagree that vaccines are outside the scope of ob/gyn practice
- Now more concern that finances are a deterrent (may also be a marker of advanced knowledge!)

Leddy MA, et al. *Mich J Public Health.* 2009;3(1):20-32.

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CDC Pregnancy/Flu Focused Expert Opinion Review after 2009 H1N1 Events

- Remaining barriers based on HCP surveys
 - Inadequate reimbursement
 - Logistical barriers
 - Liability concerns
 - Knowledge deficits
 - Risks of flu
 - Benefits of vaccine
 - Safety

Rasmussen SA et al. AJOG. 10.1016/j.ajog.2011.01.048

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Adult Vaccine Barriers

- Healthcare provider survey (n=200)
- Most believe adults need immunizations
 - 90% discuss at WELL CARE visits; 29% at ACUTE CARE visit;
 - >50% did not discuss missed vaccine consequences
 - 60% used “official” guidelines
 - 33% perform objectives in-office
 - >66% incorrectly assumed patients avoid vaccines because of fear of needles or vaccines will make them sick (not true when patients asked)
- For all adults, only 39% recommended flu vaccine

Johnson DR, et al. *Am J Med.* 2008;121(7 suppl 2):S28-S35.

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Non-physician Attitudes Regarding Flu Vaccine in Pregnancy

- Survey (n=267 non-physician HCPs)
- Almost 1/3 questioned vaccine efficacy
- <50% believed vaccines safe in pregnancy
- Although most (78%) know to recommend flu vaccine in pregnancy, only:
 - 57% knew of increased flu risk in pregnancy
 - 46% knew flu symptoms
 - 65% would recommend in pregnancy
- **Only 65% would themselves receive flu vaccine in pregnancy**
- Training level was not necessarily associated with improved response

Broughton DE, et al. *Obstet Gynecol.* 2009;114(5):981-987.

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What Recommendation Was Heard?

- Patient/physician survey re: flu vaccine discussion during pregnancy¹
- The vaccine was offered if physicians
 - Knew guidelines, pregnancy risk, baby protected, stocked vaccine, *they received flu vaccine (85% vs 45%)*
 - Associated with a 2-4 fold higher discussion rates
- Physicians reported offering vaccine 74% of time (vs. 22% according to patients)
- 56% of patients would have received vaccine if they “heard” the HCP recommendation
 - 86% vs 28%²

1. Silverman NS, et al. *J Repro Med.* 2001;46(11):989-994.
2. Panda B, et al. *J Matern Fetal Neonatal Med.* 2011;24(3):402-406.

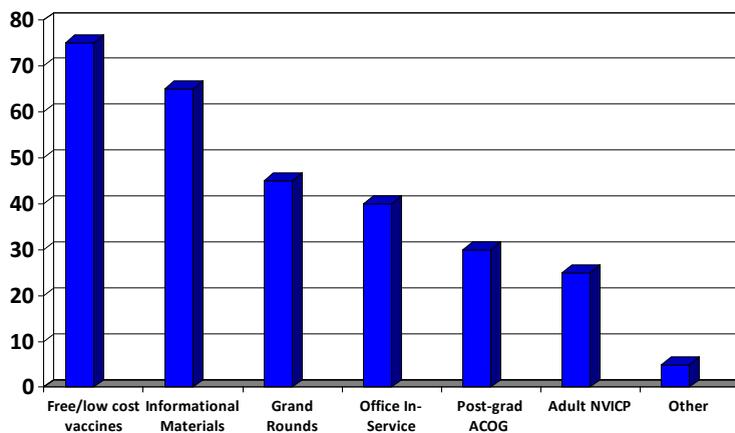
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Recent ACOG Influenza Vaccine Activities

- ACOG Committee Opinion (No. 468; Oct 2010)
 - Provides clinician education and practice guidance
 - Makes clear statement advocating flu vaccination
 - Addresses benefits, safety
 - Promotes “provider education with simple chart prompts” for office intervention to improve vaccine rates
 - Lacks a more detailed list of recommendations to improve office vaccine efficiencies
- Influenza Immunization During Pregnancy Mailing
 - During 2011-12 season
 - Included affirmative letter, CO, physician sample script, FAQ, VIS, immunizationforwomen.org website reference, suggestion for standing order usage

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Resources Ob/gyns Want to Improve Office Vaccination Rates



Leddy MA, et al. *Obstet Gynecol Surv.* 2009;64(12):823-829.

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Infectious Diseases Society of America (IDSA) Guidelines for Improving Office Vaccination Rates

- Reminder/recall systems
- Vaccine registries
- Standing orders
- Review immunization status at each visit/provide immunization record
- HCP education
- Regular assessment and feedback of office vaccine coverage rates

Pickering LK, et al. *Clin Infect Dis.* 2009;49(6):817-840.

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Intervention: Education

- Pre-intervention Ob physician survey: highest (86%) rated suggestion to improve flu vaccination was develop information campaign
- Intervention
 - Physician education program
 - Office posters
- Post intervention outcomes
 - Patients reported improved offering of vaccine (28% vs 51%)
 - Vaccine administration rate improvement (19% vs 31%)
 - Clinic service vs private service patients, were more likely to be
 - Offered vaccine (66% vs 41%)
 - Receive vaccine (38% vs 27%)

Panda B, et al. *J Matern Fetal Neonatal Med.* 2011;24(3):402-406.

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Intervention: Education/Logistics

- Educational sessions, confirm flu vaccine availability, specific screening protocol, standing orders
- Retrospective chart review
- Improvement in vaccine rates
 - 2002/2003 (pre-intervention) <1%
 - 2003/2004 3%
 - 2004/2005 (standing orders added) 37%

Ogburn T, et al. *J Repro Med.* 2007;52(9):753-756.

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Intervention: Education/Chart Reminder

- Ob population
 - Family medicine and ob/gyn physicians
 - Flu season
- Education
 - 5 minutes
 - Indications
 - Contraindications
 - Background info on flu
- Reminder: “Think Flu Vaccine”
- Used historical control data
- Discussion rates
 - Family medicine 3.2% to 44.9%
 - Obstetrics 1.2% to 19.4%

Wallis DH, et al. *J Am Board Fam Med.* 2006;19(4):345-349.

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Strategies for Increasing Adult Vaccination Rates

- Standing orders
 - Most consistently effective method
 - Outpatient flu vaccine 81% vs 29%¹
 - ACIP recommendation for use²
- Computerized record reminders
 - Outpatient pneumococcal vaccine 86% vs 29%³
- Chart reminders
 - Outpatient flu vaccine 40% vs 18%⁴

1. Margolis KL, et al. *Arch Intern Med.* 1988;148(10):2205-2207.
2. CDC. *MMWR.* 2000;49(RR-1):15-26.
3. Payne TH, et al. *HMO Pract.* 1995;9:101-110.
4. Davidson RA, et al. *Arch Intern Med.* 1984;144(11):2167-2170.

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Strategies for Increasing Adult Vaccination Rates

- Expanding access
 - Includes walk-ins, special clinics, etc.
 - Outpatient UK flu vaccine center 26% vs 19%¹
- Office-based patient education
 - Pre-discharge flu information 78% vs 0%²
- Personal health records
 - Pneumococcal vaccine rates 21% vs 5%³

1. Nicholson KG, et al. *Vaccine.* 1987;5(4):302-306.
2. Bloom HG, et al. *J Am Geriatrics Soc.* 1988;36(10):897-901.
3. Dickey LL, et al. *J Fam Pract.* 1992;34(4):457-463.

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Strategies for Increasing Adult Vaccination Rates

- Performance feedback
 - Comparing individual performance to established standard
 - Retrospective process
 - Outpatient flu vaccine 50% vs 34%¹
- Mailed/telephone reminders
 - Outpatient flu vaccine 37% vs 9.8%^{2,3}

1. Buffington J, et al. *J Gen Intern Med.* 1991;6(3):204-209.
 2. McDowell I, et al. *CMAJ.* 1986;135(9):991-997.
 3. Jacobson Vann JC, et al. *Cochrane Rev.* 2005(3):CD003941.

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Effectiveness of Adult Immunization Interventions: Meta-Analysis

Intervention	Adjusted Odds Ratio (95% CI)
Organizational change	16.0 (11.2-22.8)
Provider reminder	3.80 (3.3-4.4)
Provider education	3.21 (2.2-4.6)
Patient reminder	2.52 (2.2-2.8)
Patient education	1.29 (1.1-1.5)
Feedback	1.23 (1.0-1.6)

Stone EG, et al. *Ann Intern Med.* 2002;136(9):541-551.

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Underutilization of Office Strategies (non-Ob)

- Counseling routine visits 93%
- Posters/patient information 52%
- Patient reminders 24%
- Provider/chart reminders 39%
- Vaccine clinics 27%
- Standing orders 29%
- Monitoring performance (high risk) 31%

Nichol KL, et al. *Arch Intern Med.* 2001;161(22):2702-2708.

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Immunization Registries

- Paucity of data regarding adult vaccination
- Most programs pediatric-focused
- Anticipation that registries can improve vaccination rates, reduce excess vaccinations
- Primary barriers include lack of familiarity, perception of increased office cost/complexity, confidentiality issues, and inconsistency of data

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Final Thoughts

- Need to learn the art of being a vaccinator
 - When is a vaccine “recommendation” real?
 - How do the office logistics work?
- Office vaccine champion
- Easy and reliable access to vaccine documentation
- Clear, strong endorsements from ACOG with postgraduate educational initiatives

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Final, Final Thoughts...really

- Continue to strengthen vaccines in “report card” assessments of quality
- Address pregnancy/fetus in national VICP materials; educate providers
- FDA approval for vaccines in pregnancy
- Need to address federal funding issues (VFC, Title 317)

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