

Adult Immunization Delivery Services and Practices in Los Angeles County: A Preliminary Assessment



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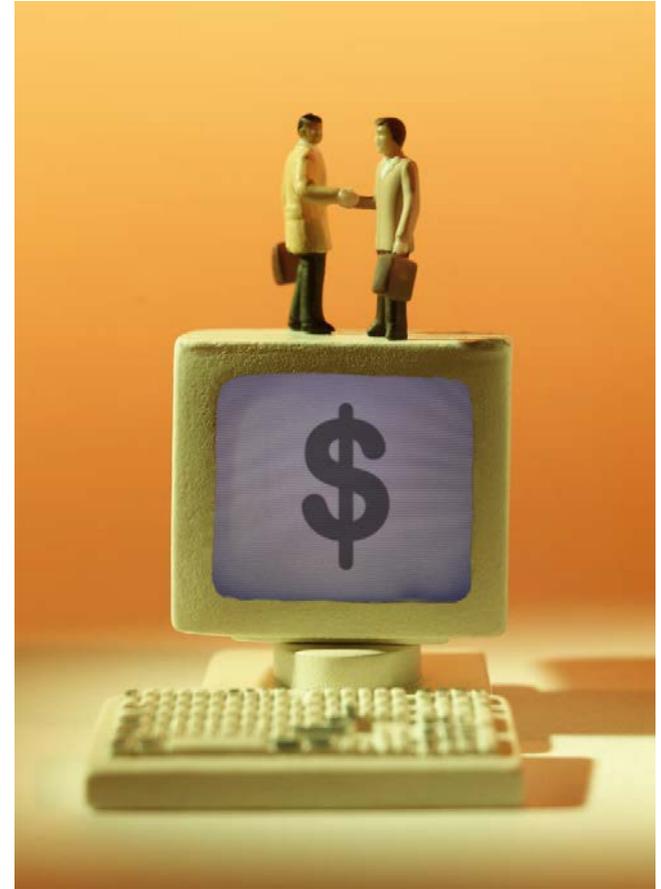
Presentation Objectives

- Discuss the rationale for assessing immunization practices and vaccine service delivery barriers among adult immunization providers
- Discuss the methods, implementation, data collection, and results of a physician survey
- Discuss the implications of the survey results
- Offer future strategies that will improve adult immunization coverage levels in LA County



Partners

- Immunization Coalition of Los Angeles County (ICLAC)
- Los Angeles County Department of Public Health, Immunization Program (LACIP)
- The California Medical Association Foundation/Network of Ethnic Physician Organizations (CMAF/NEPO)



Rationale for Study

- LA County adult vaccination rates are far **below** the Healthy People (HP) 2020 objectives
- Low adult vaccine rates = costly illnesses
- A complexity of factors contribute to low coverage levels, especially for high risk adults who are between 19-64 years of age
- **No local data (LA County) on adult immunization delivery services and/or practices**



Annual U.S. Disease Burden

Influenza

- 226,000 hospitalizations¹
- Up to 49,000 deaths¹
- \$87 billion health and productivity costs²

Pneumococcal Disease³

- 400,000 hospitalizations
- 22,000 deaths
- \$3.5 billion medical expenses



¹CDC, MMWR, Sept. 20, 2013; ²RAND, A Blueprint for Improving the Promotion and Delivery of Adult Vaccination in the United States; ³CDC, Pneumococcal Disease Fast Facts, June 2013.



Adult Immunization Coverage

Los Angeles County

Vaccine	Age	Coverage Level ¹	HP 2020 Objectives
Influenza	18-64 (Healthy)	29%	80%
	18-64 (High Risk) ²	30%	
	65 years and up	64%	
Pneumococcal PPSV23 or PCV13	18-64 (High Risk) ²	17%	60%
	65 years and up	61%	90%

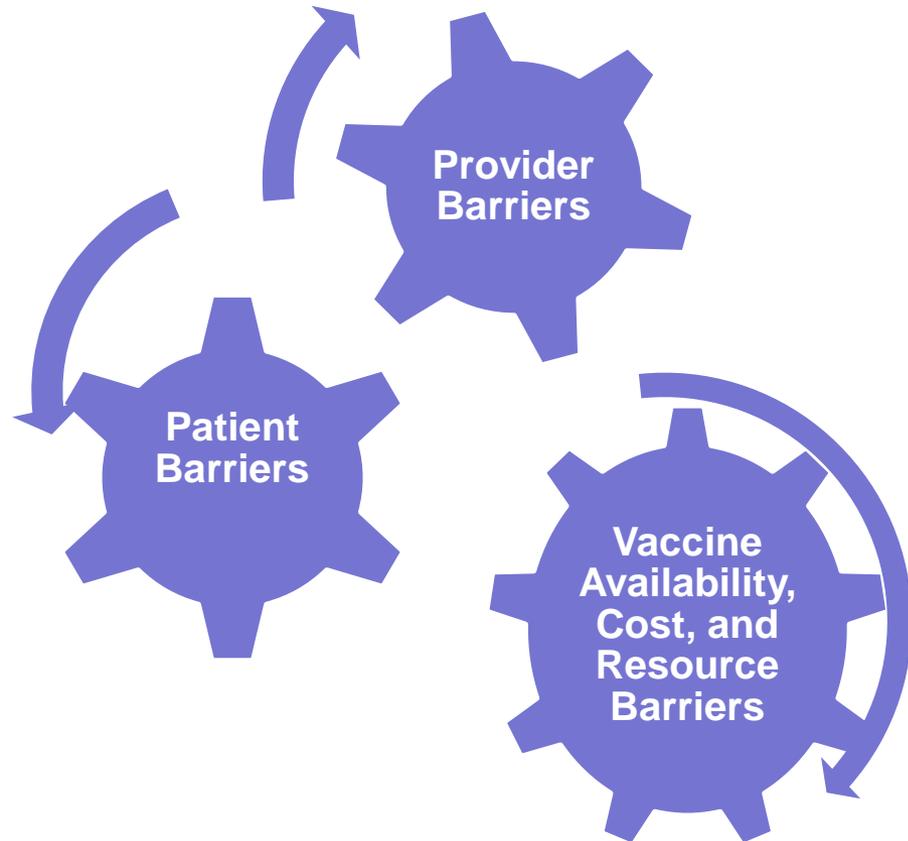
¹LA County Health Survey, 2011

² Immune compromised (e.g., chronic disease, pregnancy, etc.)



Survey Objectives

- Describe
- Identify



Survey Methods

- Simple random sample from the CMAF/NEPO provider database (N=2,694)
- Mixed methods recruitment approach
 - ✓ 1,000 physicians with a fax number only
 - ✓ 1,000 physicians with an email address
- Five raffle prizes: iPad mini and four \$50 gift cards



Inclusion/Exclusion Criteria

Inclusion

- Physicians practicing in LA County who serve adult patients
- CMAF/NEPO Members and Non-Members

Exclusion

- Retired
- Did not Provide Adult Vaccines
- Medical Residents
- Physicians in U.S. Territories



Survey Design

- 51 item survey
- Predominately closed-ended questions
 - ✓ Yes/No
 - ✓ Multiple choice
 - ✓ Likert scale (Major, Moderate, Minor)
- Variables of interest adapted from previous adult immunization provider surveys
- Instrument validated through a pilot survey and physician key informants



Constructs and Variables

Construct(s)	Variable(s)
Medical Practice Characteristics	<ul style="list-style-type: none">• Institutional affiliation (HMO, IPA)• Monthly patient encounters• Practice size (# of physicians)
Respondent characteristics	<ul style="list-style-type: none">• Age of physician• Gender• Flu shot in last year
Barriers to Adult Vaccine Services	<ul style="list-style-type: none">• Patient• Provider• Cost/Resources
Immunization Delivery Practices	<ul style="list-style-type: none">• Use of immunization registry• Use of reminder/recall



Response Rates

- 6 week data collection period (including F/U)
- Two weeks of F/U reminders
- 97 surveys received
 - ✓ 28 ineligible (based on exclusion criteria)
- n=69 eligible respondents
- ~9% response rate



Respondent Characteristics and Demographics (n=69)

Specialty

- Family Medicine (n=28)
- Internal Medicine (n=23)
- Internal Medicine Subspecialists (n=5)
- OB-GYN (n=13)

Practice Characteristics

- ≤ 600 patients encountered
- 86% of respondents had a flu shot in the past year
- $>25\%$ of patients 19-64 years old



Demographics

- 57% White
- 73% 45-64 years
- 61% Male



Availability of Adult Vaccine by Specialty (n=69)

Vaccine Type	Overall (n= 69)	FM (n=28)	IM (n=23)	IM Sub (n=5)	OB-GYN (n=13)
	(%)	(%)	(%)	(%)	(%)
Intranasal Influenza	36	39	35	40	31
High Dose Influenza	45	50	48	20	39
Meningococcal (MCV4)	58	75	52	40	39
PCV13*	59	68	70	40	31
Zoster*	61	54	87	40	39
Varicella	64	79	61	40	46
PPSV23*	70	79	78	60	39
MMR	73	82	78	40	54
Hepatitis A*	75	86	87	60	39
HPV*	75	82	61	40	100
Td*	80	96	83	40	54
Hepatitis B*	83	93	96	40	54
Tdap*	83	96	91	40	54
Injectable Influenza	94	96	100	80	85

* Statistically significant differences by specialty



Referral Patterns

Referral Site	Yes (%)
Community Clinic	33
Public Health Center	49
Private Practitioner	28
Local pharmacies	54



Patient Barriers

Moderate to Major Barrier (combined)

Barrier Type	Overall (n=69) %	FM (n=28) %	IM (n=23) %	IM sub (n=5) %	OB-GYN (n=13) %
Lack of perceived threat of a VPD	62	57	57	80	77
Patient refusal due to vaccine safety	65	54	70	60	85
Patient refusal due to financial reasons	45	46	52	20	39
Patient refusal due to lack of knowledge	38	50	22	40	39



Provider Barriers

Moderate to Major Barrier (combined)

Barrier type	Overall (n=69) %	FM (n=28) %	IM (n=23) %	IM Sub (n=5) %	OB-GYN (n=13) %
Unable to determine vaccine history	38	36	26	40	62
Acute problems take precedence over routine care	33	25	39	20	46
Other preventive services as priority	26	21	26	20	39
Not remembering to take vaccine history	16	11	13	0	39
Lack access to proper refrigeration	10	4	9	0	24
Lack availability of trained staff	4	4	0	0	15



Resource/Cost Barriers

Moderate to Major Barrier (combined)

Barrier Type	Overall (n=69) %	FM (n=28) %	IM (n=23) %	IM Sub (n=5) %	OB-GYN (n=13) %
Upfront costs to purchase vaccines	46	46	35	60	62
Potential financial loss due to expiring vaccine	45	57	26	60	46
Lack of insurance coverage for vaccine	42	46	30	60	46
Lack of adequate reimbursement	42	43	30	60	54
Uncertainty about reimbursement	42	43	30	60	54
Minimal reimbursement for vaccine administration	41	43	30	60	46



Evidence-based Strategies

Strategy Type	Overall (n=69) %	FM (n=28) %	IM (n=23) %	IM Sub (n=5) %	OB-GYN (n=13) %
Counseling during visits	96	100	94	80	92
Educational materials	75	79	65	100	77
Reminders in charts	65	75	57	80	54
Standing Orders	44	61	35	40	23
Telephone/mail reminders	39	46	22	60	45
Designated IZ clinics	32	39	26	40	23
Immunization Registry (CAIR)	35	57	22	40	15

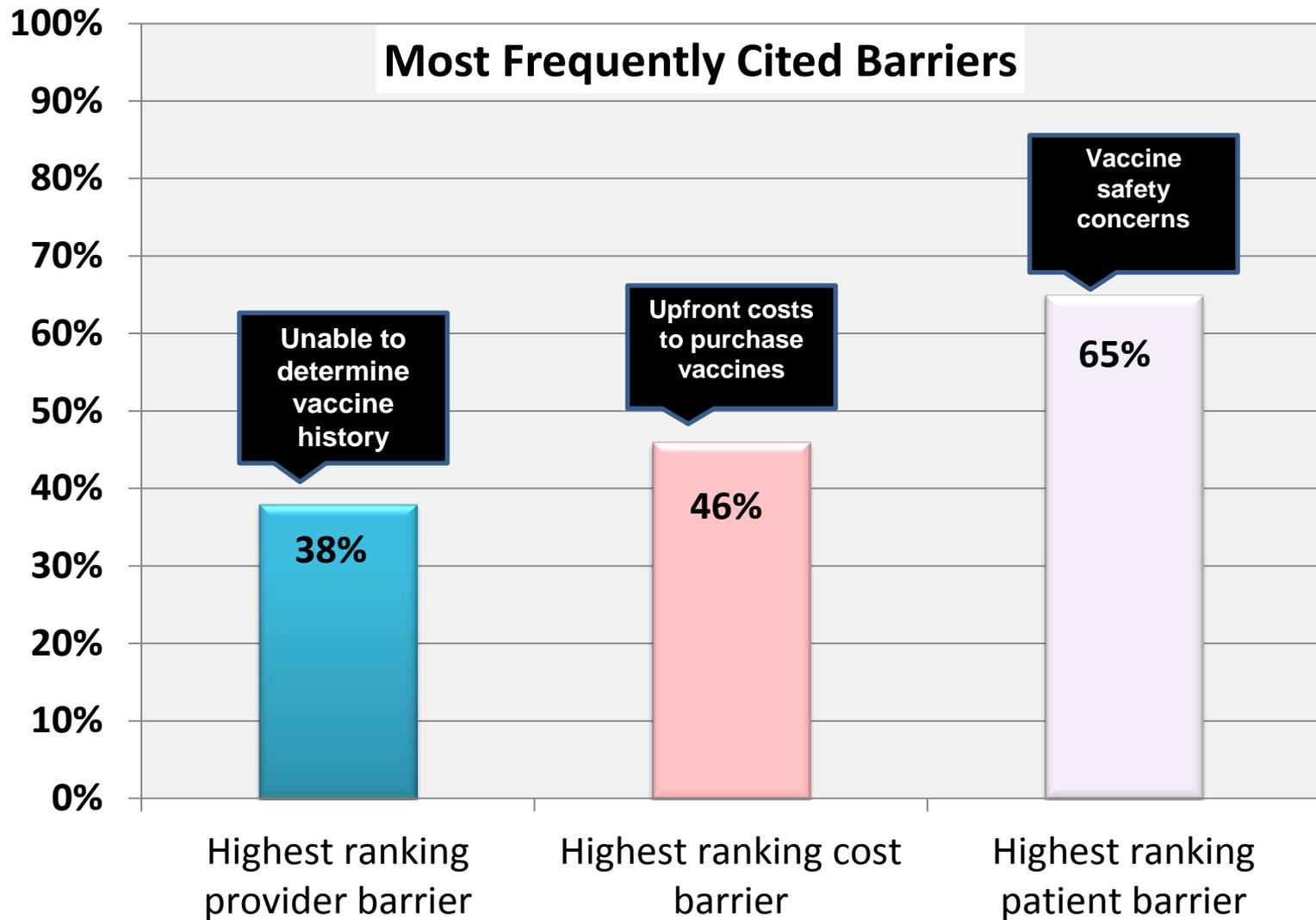


Summary of Findings

- Most providers did not stock all recommended adult vaccines.
 - ✓ Only 14% stocked 11 of the 14 recommended adult vaccines.
 - ✓ Most Common: Injectable influenza, Hepatitis A&B, HPV, Td, and Tdap.
 - ✓ Least Common: Pneumococcal (PCV 13), Meningococcal (MCV4), Intranasal influenza, and High dose influenza.
- Adult immunization inventory patterns varied by specialty.
 - ✓ Family Medicine and Internal Medicine providers stocked more adult vaccines than other medical specialists.
 - ✓ OB-GYNs were more likely to stock HPV vaccine, but less likely to stock Tdap, compared to Family Medicine and Internal Medicine providers.



Summary of Findings (con't)



Summary of Findings (con't)

- Immunization registries, standing orders, and telephone patient reminders were not widely utilized despite evidence that they are most effective at improving rates.
- The majority of respondents use only three evidence-based strategies:
 - ✓ Chart reminders
 - ✓ Educational materials
 - ✓ Vaccine counseling during visits
- Many providers refer patients to local pharmacies and public health centers for vaccines they recommended but do not offer.



Implications

- Few providers stock all of the recommended adult immunizations
- Reinforce evidence-based strategies for improving adult immunization uptake
- Address patient concerns with effective messaging
- Promote and advocate for policies related to adult immunization practice and delivery



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