

Patient perspectives of gynecologists as their primary provider of routine vaccinations

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Summary

Background: Uptake of recommended adult vaccines is suboptimal; thus, every visit to a medical provider is a potential opportunity to vaccinate. Many women view their gynecologist as their primary care provider (PCP), yet little is known about women's attitudes towards receiving vaccines in this setting. **Objective:** The present authors' objectives were to determine women's use of their gynecologist as their primary provider of routinely recommended vaccinations, their desire and comfort to receive immunizations from them, and their perceptions of their gynecologist's care in delivery of vaccines. **Study Design:** A survey among women who sought gynecological care at one of nine obstetrics and gynecology practices in Colorado from February to April, 2014. **Results:** Among a sample of 518 women who sought gynecology care at one of nine obstetrics and gynecology practices, 87.4% of participants reported that if their gynecologist recommended a vaccine to them, they would get it, and 97.3% trusted their gynecologists as a source of information about the benefits and risks of vaccinations. Women responded that their gynecologist's office was not the only place they could receive vaccines, but that the majority would expect their gynecologist to inquire about their vaccination status, carry routinely recommended adult vaccines, and be able to answer their questions about immunizations. The survey also found that the majority of women had not been asked about their influenza or pertussis status at their most recent gynecologic visit. **Conclusion:** Most women trust their gynecologist to serve as their source of vaccines and vaccine education. Gynecologists should consider the cost- and risk-benefit of providing routinely recommended adult vaccines in their practices to both meet patient demand and fulfill their PCP role as part of the broad spectrum of gynecologic care.

Key words: Gynecologist; Immunization; Patient perspectives; Vaccine.

Introduction

Vaccines are essential for the health of adult women to protect individuals and the community at large. The Centers for Disease Control and Prevention (CDC) recommends all women over age 18 receive vaccinations for influenza, tetanus, diphtheria, and acellular pertussis (Tdap), measles, mumps, and rubella (until age 60), varicella, herpes zoster (over the age of 60), and human papilloma virus (through age 26) [1]. Women over the age of 65 are also recommended to receive pneumococcal conjugate and polysaccharide vaccines [1].

Nationally, women have lower than ideal rates of uptake for these recommended vaccinations, such as influenza, pertussis (Tdap), and human papillomavirus vaccine (HPV) [2-4]. Non-pregnant women frequently are not receiving recommended vaccinations, despite high utilization of healthcare services [5]. Studies suggest that many women identify their gynecologists as their primary care provider (PCP) [6]. Additionally, the American College of Obstetrics and Gynecology (ACOG) has set forth guidance for gynecologists to serve as public advocates and providers of routine vaccinations both during and outside of pregnancy [7].

Despite this, research demonstrates that, as a specialty, gynecologists face significant financial and workflow barriers to providing routinely recommended vaccines [8]. Ac-

cordingly, it is important to first understand if women would be likely to accept routine vaccines from their gynecologist, as opposed to other medical providers.

The objective of this survey was to understand women's perceptions and trust of gynecologists as providers of immunizations, and the availability and actual use of gynecologists as vaccinators among a population of gynecology patients. Therefore, the authors' objectives were to determine 1) women's use of their gynecologist as their primary provider of routinely recommended vaccinations, 2) their desire and comfort to receive immunizations from them, and 3) their perceptions of their gynecologist's care in delivery of vaccines.

Materials and Methods

The population studied was a convenience sample of 518 women who sought gynecology care at one of nine private practice obstetrics and gynecology offices in Colorado (three rural, six urban). Women were eligible to participate if they completed a paper-based survey (on a different topic) previously, and indicated that they were willing to be contacted for a follow-up survey. They also were required to have provided a working email address, be proficient in written English, and not be pregnant at

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Table 1. — *Respondent demographics.*

Patient characteristics	% or mean
Average age	42.0
Race/ethnicity	87.8
White	87.8
Hispanic/Latino	6.6
Asian	2.18
Black/African American	0.9
Other	2.6
Insurance	
Public	4.0
Private	86.4
None	1.3
Other	8.3
Yearly household income	
< \$75,000	36.7
> \$75,000	53.1
Unknown/declined	10.2
Education level	
High school or less	3.71
Some college	19
College degree	48.3
Advances degree	29.0
Recent Tdap vaccination	
Yes	43.7
No	41.1
I don't know	15.2
Recent influenza vaccination	
Yes	55.7
No	43.9
I don't know	0.4

Note: Results are presented as % or mean.

the time of the initial paper survey (i.e. presented for gynecology care). A web-based survey was administered via their contact email address beginning in February 2014 [9].

Eligible women were invited by email to participate in the survey and received up to eight reminder emails and one reminder phone call over a period of seven weeks if they did not complete the survey within one week of the initial e-mailing; the survey outreach was completed from February to April 2014. Women completing the survey received a five-dollar incentive. The Colorado Multiple Institutional Review Board approved all study activities, COMIRB #11-1149.

Respondents were provided with a standard definition of a gynecologist, which included a "gynecologist, nurse midwife, nurse practitioner, or physician assistant". Participants were queried about the type of PCP they used, their opinions of the safety and efficacy of vaccines in general, and whether they had received the influenza vaccine during that season (2013), or the Tdap vaccine since 2005 [10].

The perceived availability of and patients' comfort with receiving routine and reproductive health-related vaccines in a gynecologist's office, opinions about gynecologists' vaccination practices, and trust in different vaccine information sources (i.e. patients' "regular doctor", their "child's doctor" (if applicable), their "family", "friends" "websites" etc) were also assessed.

Trust was queried using a four-point Likert scale that included trusting "a lot" or "somewhat" versus trust "somewhat", "do not trust", or "do not use" based on the distribution of responses. Outcomes included opinions about gynecologists as immunizers and safety of vaccines in general, self-reported Influnza, and Tdap

vaccination status, comfort with, and opinions about, gynecologists as vaccinators, which were assessed with four-point Likert scales. The secondary outcome was patients' perceptions of their gynecologist as their PCP. The survey also collected demographic information including age, insurance status, education level, race, and income level. The authors also generated descriptive statistics for all survey questions.

Results

The survey response rate was 61.7% (518/840). Overall, the average age of participants was 42, 86.4% had private insurance, 77.3% had a college level education or advanced degree, 87.8% self-described as white, and 53.1% reported a yearly household income greater than \$75,000. Table 1 outlines demographic characteristics of respondents. To determine use of their gynecologist for vaccination, questions were asked regarding their recent vaccination status and where they received those vaccines; 55.7% of women received the influenza vaccine that season. Among these, 32.0% received it from a non-gynecologist medical provider's office, 31.4% at their workplace, and 24.6% from a retail pharmacy or grocery store. Of all respondents, 43.7% reported receiving Tdap since 2005 (41.1% had not and 15.2% did not know).

Almost half (45.9%) of the women received Tdap at a non-gynecologist medical provider's office, 19.8% received it at their gynecologist's office, 5.3% at a retail pharmacy or grocery store, 11.1% at their workplace, and 7.3% elsewhere. Of note, when asked about their opinion about the safety of vaccines, 37.0% of women were strongly or somewhat worried about the safety of vaccines in general.

Regarding objective one, women's use of their gynecologist as their primary provider of routinely recommended vaccinations, the results are shown in Table 2. The table reports how participants responded when asked more specific questions about their agreement or disagreement with gynecologists providing vaccines in the office. Women responded that their gynecologist's office was not the only place they could receive vaccines; however, the majority of patients expected their gynecologist to inquire about their vaccination status (75.1%), carry routinely recommended adult vaccines (56.5%), and be able to answer their questions about immunizations (93.9%).

To answer objective two, when respondents were asked how comfortable they would be receiving influenza and Tdap at their gynecologist's office, 66.5% reported they would be 'very comfortable' with Tdap and 69.7% would be 'very comfortable' with their gynecologist giving them the flu vaccine. Additionally, when asked about getting pneumococcal or shingles vaccines in their gynecologist's office, 61.8% reported they would be 'very comfortable'.

Women were asked about their perceptions of their gynecologist's care in delivery of vaccines, which assessed our final objective. When they were asked about their comfort level with an obstetricians/gynecologists providing im-

munizations, 87.4% reported that if their gynecologist recommended a vaccine to them, they would get it.

Table 3 shows levels of trust respondents reported for their gynecologist, as well as other sources of vaccine information, including both medical and non-medical sources. The majority of women trusted their gynecologists (97.3%), their family practice or internal medicine physician (88.0%), and their child's doctor if applicable (58.4%), while non-medical sources varied in how much patient's trusted them as a source of information about the benefits and risks of vaccinations.

Participants were also asked about their most recent visit to their gynecologist and whether or not they were asked about their immunization status. Respondents reported 44.2% of them had been asked if they received the influenza vaccine, 23.1% were asked about the Tdap vaccine, and 19.9% were asked about vaccines other than Tdap/influenza. Evaluation of the secondary outcome found a majority of women reported having a place they usually go when they are sick or need advice about their health (83.6%), having a doctor or place that knows them best as a person (72.4%), and having a doctor or place that is most responsible for their healthcare (77.6%). This place or doctor was an obstetrics and gynecology office for 9.0%, 41.5%, and 31.7% of respondents, respectively.

Discussion

Women largely trust and feel comfortable with their gynecologist stocking and administering all vaccines, not just reproductive health-related immunizations, in the office. This finding is consistent with prior studies that have shown that a substantial portion of women consider their obstetrician/gynecologist their PCP and do not visit another provider regularly (around 31%) [6].

The proportion of women that consider their obstetrician/gynecologist their pPCP is slightly higher in the present study (40%), suggesting that perhaps more women are moving towards seeing their gynecologist as their PCP [6]. Together, these results indicate that while gynecologists are considered specialists within the medical community, many women look to them specifically to provide preventive services, including vaccinations, and are unlikely to receive these services from other providers if their gynecologist does not provide them. Indeed, almost half of the present respondents agreed that if their gynecologist does not offer them a vaccine, including recommending it and having it available to receive in the office, it is unlikely that they would receive it elsewhere.

The present authors also found that a majority of women believed that gynecologists should be able to counsel patients on routine vaccinations, and that gynecologists are influential in their decision-making regarding the choice to receive a vaccine. This suggests that gynecologists have a responsibility to their patients to be able to counsel them

Table 2. — Women's comfort level with and expectations about gynecologists as vaccinators.

Survey question	Response, %
If my gynecologist doesn't offer me a vaccine, including recommending it and having it available to receive in the office, it is unlikely I will receive it elsewhere:	
Strongly agree	18.3
Somewhat agree	27.9
Somewhat disagree	32.6
Strongly disagree	21.3
It's okay if my gynecologist doesn't offer vaccines in the office, as I would likely get them elsewhere:	
Strongly agree	21.0
Somewhat agree	36.7
Somewhat disagree	29.5
Strongly disagree	12.7
Gynecologists should only provide vaccines that are related to women's reproductive issues (like HPV vaccine):	
Strongly agree	5.7
Somewhat agree	17.5
Somewhat disagree	34.7
Strongly disagree	42.1
I expect my gynecologist to ask me if I have gotten all of my vaccines:	
Strongly agree	37.9
Somewhat agree	37.2
Somewhat disagree	21.5
Strongly disagree	3.4
I expect my gynecologist to stock and administer all routinely recommended adult vaccines:	
Strongly agree	19.9
Somewhat agree	36.6
Somewhat disagree	34.3
Strongly disagree	9.2
I expect my gynecologist to be able to answer my questions about vaccines:	
Strongly agree	61.8
Somewhat agree	32.1
Somewhat disagree	5.8
Strongly disagree	0.4
I would be annoyed if my gynecologist recommended that I receive a vaccine, but told me to go elsewhere to get it because they did not have it at the office:	
Strongly agree	29.0
Somewhat agree	35.4
Somewhat disagree	24.9
Strongly disagree	10.7
Gynecologists should have the same vaccines available for their adult patients as other types of doctors:	
Strongly agree	33.0
Somewhat agree	38.8
Somewhat disagree	25.3
Strongly disagree	2.8
If I have already declined a vaccine in the past, I do not want my gynecologist to offer me the vaccine again:	
Strongly agree	6.2
Somewhat agree	22.0
Somewhat disagree	44.0
Strongly disagree	27.8

Table 3. — How much respondents trust sources of information about the risks and benefits of vaccines.

Survey question	Response, %
How much do you trust your gynecologist for information about the benefits and risks of vaccinations?	
Trust a lot	69.5
Trust somewhat	27.8
Distrust somewhat	1.3
Distrust a lot	0.2
Don't use this source	1.3
How much do you trust your regular doctor (if applicable) for information about the benefits and risks of vaccinations?	
Trust a lot	53.4
Trust somewhat	34.6
Distrust somewhat	2.1
Distrust a lot	1.3
Don't use this source	8.7
How much do you trust your child's doctor (if applicable) for information about the benefits and risks of vaccinations?	
Trust a lot	43.1
Trust somewhat	15.3
Distrust somewhat	0.9
Distrust a lot	0.5
Don't use this source	40.2
How much do you trust your family for information about the benefits and risks of vaccinations?	
Trust a lot	27.2
Trust somewhat	47.2
Distrust somewhat	11.9
Distrust a lot	1.7
Don't use this source	11.9
How much do you trust your friends for information about the benefits and risks of vaccinations?	
Trust a lot	15.3
Trust somewhat	51.2
Distrust somewhat	16.1
Distrust a lot	4.0
Don't use this source	13.4
How much do you trust people at work for information about the benefits and risks of vaccinations?	
Trust a lot	7.1
Trust somewhat	44.4
Distrust somewhat	19.0
Distrust a lot	4.3
Don't use this source	25.2
How much do you trust celebrities for information about the benefits and risks of vaccinations?	
Trust a lot	0
Trust somewhat	3.2
Distrust somewhat	17.8
Distrust a lot	28.9
Don't use this source	50.1
How much do you trust newspapers or magazines for information about the benefits and risks of vaccinations?	
Trust a lot	0.4
Trust somewhat	27.5
Distrust somewhat	33.0
Distrust a lot	12.1
Don't use this source	27.0

How much do you trust television programs for information about the benefits and risks of vaccinations?

Trust a lot	0
Trust somewhat	18.4
Distrust somewhat	31.5
Distrust a lot	16.3
Don't use this source	33.8
How much do you trust websites from doctor groups for information about the benefits and risks of vaccinations?	
Trust a lot	7.4
Trust somewhat	55.6
Distrust somewhat	14.2
Distrust a lot	3.0
Don't use this source	19.8
How much do you trust parenting websites or blogs for information about the benefits and risks of vaccinations?	
Trust a lot	1.7
Trust somewhat	24.5
Distrust somewhat	21.9
Distrust a lot	6.5
Don't use this source	45.5
How much do you trust websites from companies that make vaccines for information about the benefits and risks of vaccinations?	
Trust a lot	1.5
Trust somewhat	18.3
Distrust somewhat	25.1
Distrust a lot	17.9
Don't use this source	37.2
How much do you trust websites from groups that oppose vaccines for information about the benefits and risks of vaccinations?	
Trust a lot	0.2
Trust somewhat	7.3
Distrust somewhat	27.2
Distrust a lot	24.0
Don't use this source	41.3
How much do you trust websites friends or family told me about for information about the benefits and risks of vaccinations?	
Trust a lot	1.7
Trust somewhat	31.1
Distrust somewhat	23.2
Distrust a lot	7.3
Don't use this source	37.0

about preventive care, at least including, but potentially not limited to, routine vaccinations. The authors also found that 56% of respondents believe that gynecologists should stock and administer routinely recommended adult vaccinations. Of note, prior research has shown that 91% of gynecologists stock the human papillomavirus vaccine and 66.8% stock the influenza vaccine, but less than 30% stock any other routinely recommend vaccine [8].

This raises the concern that women may not be able to get the vaccination services they may want from their gynecologist's office. About 50% of the present study population reported adherence with Tdap and flu vaccine recommendations. During a typical flu season, nationally, around 40% of patients receive the influenza vaccine, far below the Healthy People 2020 goal suggests an optimal immunization rate of 70% [11, 12]. Therefore, this analysis

suggests that this particular patient population could benefit from interventions to increase uptake of seasonal vaccination and adherence to Tdap guidelines [13].

Gynecologists' offices may be an ideal place to increase the stocking and administration of routinely recommended adult vaccinations. The primary limitation of this study is the homogeneity of the surveyed population, which was majority white, educated, and high income, with access to private insurance. These characteristics limit the generalizability of the findings to the general population. The response rate was relatively high at 62%, although this is consistent with similar studies [14-16].

The present sample was also drawn from women seeking care within obstetrics/gynecology offices, and therefore may over-represent women who report their gynecologist as their PCP, although it is in line with other studies.

Performing this study within ob-gyn offices is also a strength of the study, as our findings may be considered more representative of those seeking care in ob-gyn offices, and thus more directly relevant to ob-gyn providers than a study among a general population of US women. Another strength of the study were the large sample size.

Conclusions

Not only does ACOG believe that gynecologists have an important public health role in the immunization of women, but so, it seems, do patients.

Most women trust their gynecologist to serve as their source of vaccines and vaccine education. Gynecologists should consider the cost- and risk-benefit of providing routinely recommended adult vaccines in their practices to both meet patient demand and fulfill their PCP role as part of the broad spectrum of gynecologic care. A substantial proportion of women utilize their gynecologist as their main PCP for sickness and routine care, and feel their gynecologist knows them best as a person.

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