

Where U.S. Women Receive Primary Care: A Cross-Sectional Analysis



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ABSTRACT

BACKGROUND: Despite national primary care access challenges, some women receive primary care from both general medicine and obstetrics-gynecology (ob/gyn). The extent and potential implications of this phenomenon are unclear.

OBJECTIVE: To evaluate primary care use among US women and identify characteristics and service receipt associated with visits to both general medicine (e.g., general internal medicine, family medicine, pediatrics, geriatrics) and ob/gyn.

DESIGN: Retrospective descriptive study using 2012, 2017 and 2022 data from the nationally representative Medical Expenditure Panel Survey.

PARTICIPANTS: Non-pregnant women aged 19–85 years.

MAIN MEASURES: Visit pattern (visits to general medicine only, ob/gyn only, both, another specialty only, no visits), usual source of care, service receipt.

KEY RESULTS: Of 9,297 respondents (weighted = 125,485,789), 29.2% reported no usual source of care in 2022; 20.3% had no visits in 2022, an increase from 18.9% and 18.2% in 2012 and 2017, respectively (p-value = 0.03). Most 2022 respondents (53.8%) saw general medicine only, 3.4% saw ob/gyn only, 10.4% saw both, and 12.0% saw another specialty only. Among women who saw both specialties, 65.4% reported a general medicine clinician and 2.1% reported an ob/gyn clinician as their usual source of care. In multivariable models, compared to those with other visit patterns, women who saw both specialties had higher education levels (adjusted relative risk (aRR) 2.48 (95% CI 1.49, 4.13) for master's/doctorate degree vs. no degree) and were more likely to have insurance (private, public, Medicare) vs. no insurance (aRR 4.89 (2.47, 9.67), 4.21 (2.00, 8.88), 3.81 (1.61, 9.02), respectively). Seeing both specialties was associated with higher rates of potentially low-value lab testing and imaging, and both guideline-discordant and guideline-concordant Pap smears and mammograms.

CONCLUSIONS: One-fifth of nonpregnant adult women had no visits in 2022, while 10% received primary care from two sources, suggesting gaps and redundancies in primary care that could exacerbate access limitations and widen health inequities.

KEY WORDS: primary care; women's health

J Gen Intern Med

DOI: 10.1007/s11606-025-10038-2

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INTRODUCTION

Primary care—comprehensive, longitudinal care that includes health maintenance, disease prevention, and management of acute and chronic conditions—is associated with improved health outcomes and reduced health care spending.^{1,2} While adult primary care is most often provided by clinicians specializing in family medicine or general internal medicine (hereafter, “general medicine”), many adult women may also or instead see an obstetrics-gynecology (ob/gyn) clinician for both reproductive care and for non-reproductive primary care needs.³ These women may seek primary care from both general medicine and ob/gyn outside of pregnancy or without need for specialized gynecologic care, for example by having routine annual check-ups with both sources. This may result from perceived societal norms, personal preferences, or perceived or actual lack of provision of routine gynecologic or reproductive health services from general medicine clinicians.^{3–5}

Women's sources of primary care, in turn, influence the services they receive and have broader implications for primary care access in the United States.^{6–11} Women who see both general medicine and ob/gyn for primary care may experience care fragmentation, redundant services, and increased out-of-pocket costs (e.g., if their insurance is billed for two annual visits/year but only covers one/year).^{12–17} Duplicate routine visits also consume limited capacity in primary care as well as for specialized ob/gyn services.^{18–24} This is concerning given the declining number of clinicians entering and remaining in primary care specialties,^{25,26} the growing shares of Americans without a primary care physician,^{27,28} and increasing wait times for both general medicine and ob/gyn.²⁹ Studies using data from the 1990s through 2015, largely inclusive of pregnant women, found that up to a third of women received regular care from both general medicine and ob/gyn clinicians,^{13,30–32} and that this choice was associated with factors such as patient age, educational attainment, geographic location, and health insurance. But the extent of this phenomenon among nonpregnant women and in recent years remains unclear.

Received June 3, 2025

Accepted November 3, 2025

Published online: 20 November 2025

We used nationally representative survey data to determine primary care use patterns among nonpregnant adult women in the United States and identify patient characteristics that may be associated with having visits to both general medicine and ob/gyn clinicians. We also examined services received by visit pattern (i.e. the types of specialties seen in the year) to understand differences in use of potentially high and low-value care.

METHODS

Review for this study was waived by the Mass General Brigham institutional review board because patient data were non-identifiable.

Data Source

We used data from the 2012, 2017, and 2022 Medical Expenditure Panel Survey (MEPS), a large, annual, nationally representative sample of the US civilian nonincarcerated population. The survey is conducted by the Agency for Healthcare Research and Quality and captures individuals' and households' use of health services, insurance coverage, and medical expenditures in the US from five rounds of interviews over a two-year period.³³ We used the survey file for patient sociodemographic variables and health conditions, and the MEPS outpatient visit and office-based provider visit event files for self-reported in-person and telehealth visits (Appendix 1).

Study Cohort

We included women (self-reported sex "female" in MEPS) who were ages 19–85 as of December 31 st of the survey year. We excluded women who were pregnant in the calendar year (i.e., > 0 pregnancy-related visits).

Measures

Our primary measure was visit pattern in the study year, defined by provider specialty. We first grouped visits into three specialty categories: "General medicine visits" included those with family physicians, general practitioners, general internists, pediatricians, and geriatricians. Because MEPS does not include specialty information for osteopathic physicians (DOs), nurse practitioners (NPs), or physician assistants (PAs), and these clinicians are much more likely to work in general medicine specialties than in ob/gyn,^{34–36} they were also included in this category. "Ob/gyn visits" included those by ob/gyn physicians and midwives. In a sensitivity analysis, we included visits with DOs, NPs, and PAs in the ob/gyn category. "Other visits" included those by all other specialties and visits for which the patient did not identify a specialty. In an additional sensitivity analysis, we

examined internal medicine and family medicine clinicians separately.

We then grouped respondents into one of five mutually exclusive and comprehensively exhaustive visit patterns: 1) visits with general medicine but not ob/gyn, 2) visits with ob/gyn but not general medicine, 3) visits with both general medicine and ob/gyn, 4) visits with other provider types only (but none to general medicine or ob/gyn), and 5) no visits.

We considered limiting analyses to the self-reported "general check-up" visit type, which theoretically typifies routine primary care. However, validation checks suggested that this visit type was neither sensitive nor specific for routine primary care (i.e., services such as vaccinations and mammograms were offered across visit types) (Appendix 2, Table S1). Therefore, we included all outpatient and office-based visits in our main analyses and then limited to "general check-up" visits in a sensitivity analysis.

Secondary measures included respondents' usual source of care and the specialties of usual source of care providers. Finally, we examined four categories of services received: "Potentially low-value services," with low-value defined as offering limited/no clinical benefit despite potential for harm:³⁷ lab testing, imaging (MRI, CT, ultrasound, and x-ray), and EKG offered at a visit. While MEPS does not include clinical details to adjudicate appropriateness of these tests, evidence-based guidelines recommend against certain routine lab tests (e.g. CBC, CMP),³⁸ imaging (MRI, CT, ultrasound, and x-ray, in specific clinical scenarios),^{39–41} and screening EKGs in healthy, asymptomatic patients.⁴² "Likely high-value services" were vaccinations offered at a visit. "Guideline-concordant cancer screening" included self-reported receipt of Pap smear in the past 5 years among women ages 26–69 and mammogram in the past two years among women ages 40–74.^{43,44} "Guideline discordant cancer screening" included Pap smear receipt in the last 5 years among women aged ≥ 70 without prior cervical cancer and mammogram receipt among women aged ≥ 75 without prior breast cancer.^{43,44}

Patient characteristics included age, race and ethnicity, census region of residence, marital status, highest degree of education, family income as a percent of federal poverty level, insurance coverage, perceived health status, and multimorbidity.

Statistical Analysis

For 2022 survey respondents, we described the number and survey-weighted proportion of women with each visit pattern overall and stratified by age group. We compared the proportions with those responding to the 2012 and 2017 surveys using chi-squared tests to assess trends over time. We reported the survey-weighted percentage of patients who reported a usual source of care and the specialty of their usual source of care provider overall and among those with visits to both general medicine and ob/gyn.

We examined visit patterns across patient characteristics and performed chi-squared tests to determine whether each characteristic was associated with having visits with both ob/gyn and general medicine vs. other visit patterns. We used a multivariable log-binomial regression including the above characteristics to estimate the adjusted relative risk of seeing both specialties (primary model). We used chi-squared tests to compare the previously described categories of services received among respondents with each visit pattern. For likely high-value and potentially low-value services, we stratified by age group. We also examined potentially low-value services among women aged 19–44 without chronic conditions, for whom the examined services had even higher potential to be of low-value (given fewer testing indications).

Using survey analysis in R(v4.3.1), we weighted the analyses at the respondent level and accounted for MEPS survey stratification and clustering such that the results were nationally representative. We used complete case analysis since missingness was rare (< 1.3% across variables). We accounted for multiple comparisons in primary model results using Holm-Bonferroni correction. All other statistical tests were conducted at the two-sided 0.05 significance level.

RESULTS

Primary Care Visit Pattern

In 2022, 9,297 non-pregnant adult women ages 19–85 were surveyed, representing 125,485,789 US women in weighted analyses. Of these, 1,787 (20.3%) had no visits in 2022, an increase from 18.9% and 18.2% in 2012 and 2017, respectively (Table 1). Among younger women (aged 19–44), 31.4% had no visits in 2022, an increase from 27.8% in 2012 and 27.8% in 2017, respectively (Table S2).

In 2022, 7,510 survey respondents (weighted 79.7%) had ≥ 1 visit. Ten percent (10.4%, 896) of all respondents had visits with both general medicine and ob/gyn, 5,281 (53.8%) saw general medicine only, 251 (3.4%) saw ob/gyn, and 1,082 (12.0%) saw another specialty only (Table 1). Among women who saw a general internist, 20.7% also saw ob/gyn; among those who saw a family practice physician, 13.9% also saw ob/gyn. Compared to 2012 and 2017, the proportion

of women seeing both specialties declined slightly, the proportion seeing ob/gyn declined, and the proportion seeing other specialties only increased.

In the sensitivity analysis treating all DOs, NPs, and PAs as ob/gyn, we found an upper bound of 23.7% of women seeing both general medicine and ob/gyn in 2022, with slightly lower shares in 2012 and 2017 (Table S3). In the sensitivity analysis limited to self-reported general check-up visits, 5,687 (59.1%) of women reported at least one general check-up in 2022; 467 (5.3%) had a general check-up with both general medicine and ob/gyn (Figure S1; Table S4).

Usual Source of Care

Among all women in the 2022 cohort, 29.2% did not report a usual source of care, as compared to 21.8% in 2017 and 20.2% in 2012. In 2022, among the 70.8% who reported a usual source of care, these included general medicine (50.9%), ob/gyn (0.7%), and other or unspecified specialties (19.2%). Among women with a male general medicine provider as their usual source of care, 12.5% had visits with both specialties; among women with a female general medicine provider as their usual source of care, 14.1% had visits with both specialties.

Of women who had visits with both general medicine and ob/gyn in 2022 ($n=896$), 15.1% did not report a usual source of care, 65.4% reported a general medicine provider, 2.1% reported an ob/gyn provider, and 17.4% reported another specialty or did not specify.

Patient Characteristics by Visit Pattern

In unadjusted analyses, women who saw both specialties were more likely to be younger, non-Hispanic White or non-Hispanic Black, live in the Northeast, be married, have a bachelor's degree or higher, have higher income, and have private health insurance (Table 2). In multivariable analysis, significant predictors of seeing both specialties were having a master's/doctorate degree vs. no degree (adjusted Relative Risk (aRR) 2.48 [95% CI 1.49, 4.13]), and having health insurance (including private insurance, public insurance, and Medicare) vs. no insurance (aRR 4.89 [95% CI 2.47, 9.67], 4.21 [95% CI 2.00, 8.88], and 3.81 [95% CI 1.61,

Table 1 Primary Care Visit Pattern by Physician Specialty in 2012, 2017 and 2022

Physician specialty	2012 <i>n</i> = 13977 (%) [*]	2017 <i>n</i> = 11944 (%) [*]	2022 <i>N</i> = 9297 (%) [*]	<i>P</i> -value [†]
Both general medicine and ob/gyn	1219 (11.8)	1213 (11.9)	896 (10.4)	0.03
General medicine only	6695 (54.1)	6438 (55.1)	5281 (53.8)	0.40
Ob/gyn only	673 (5.2)	445 (4.2)	251 (3.4)	<0.001
Other provider only	1318 (9.9)	1194 (10.7)	1082 (12.0)	0.002
No visits	4072 (18.9)	2654 (18.2)	1787 (20.3)	0.03

^{*} Absolute number and weighted percent of survey participants within each visit pattern

[†] *p*-values from chi-squared tests with Rao & Scott's second-order correction

Table 2 Patient Characteristics by 2022 Visit Pattern

	Both general medicine and ob/gyn (%) [†]	General medi- cine only (%) [†]	Ob/gyn only (%) [†]	Other provider only (%) [†]	No visits (%) [†]	Total (%) [‡]	P-value [§]	Multivariate aRR of seeing both general medicine and ob/gyn (95% CI)
	N = 12,948,225	N = 67,701,198	N = 4,087,471	N = 15,235,089	N = 25,513,806	N = 125,485,789		
Age							<0.001	
Age 19–44	11.8	38.2	5.0	13.6	31.4	43.4		1.81 (1.02, 3.22)
Age 45–64	11.6	57.7	2.9	12.3	15.5	33.0		1.51 (0.88, 2.60)
Age ≥ 65	6.3	77.2	1.1	8.7	6.6	23.6		Ref
Race/ ethnicity							0.02	
Non- Hispanic White	11.4	59.7	3.3	11.9	13.6	61.0		1.16 (0.89, 1.50)
Non-His- panic Black	11.1	48.0	4.1	10.0	26.7	12.6		1.25 (0.94, 1.67)
Non-His- panic Asian	7.3	46.6	2.1	18.8	25.3	6.9		0.62 (0.39, 0.99)
Non-His- panic other	8.6	51.9	3.6	15.2	20.6	2.8		0.97 (0.49, 1.93)
Hispanic	7.9	40.0	3.6	10.6	37.9	16.7		Ref
Region							0.004	
Northeast	13.5	50.7	4.7	11.6	19.5	17.6		1.35 (1.08, 1.68)
Midwest	11.0	60.1	2.7	11.6	14.6	20.2		1.16 (0.95, 1.42)
West	9.5	52.8	3.0	14.2	20.5	23.2		1.04 (0.83, 1.30)
South	9.3	52.6	3.4	11.1	23.6	39.0		Ref
Marital status							0.005	
Married	11.9	55.0	4.3	11.7	17.0	48.3		0.93 (0.75, 1.14)
Never mar- ried	9.2	39.3	3.5	14.0	34.1	26.3		0.80 (0.60, 1.07)
Widowed, divorced or separated	8.9	66.7	1.5	10.5	12.4	25.4		Ref
Highest degree of education							<0.001	
High school diploma/ GED	7.4	54.8	2.5	11.7	23.6	41.6		1.22 (0.75, 1.99)
Bachelor's degree	14.3	53.6	5.2	11.9	15.0	23.0		2.03 (1.24, 3.33)
Master's/ doctorate degree	17.9	53.1	5.7	10.7	12.6	14.5		2.48 (1.49, 4.13)*
Other degree	9.4	59.3	2.2	12.6	16.4	12.0		1.41 (0.84, 2.39)
No degree	4.9	45.8	1.2	13.6	34.5	8.9		Ref
Missing (n) [¶]	56,902	578,107	13,872	330,490	550,975	1,530,346		
Family income as % of pov- erty line							<0.001	
< 100%	6.6	52.2	2.9	12.1	26.1	11.7		Ref
100%–199%	6.5	56.9	3.0	10.6	23.0	15.6		0.93 (0.66, 1.31)
200%–399%	9.7	53.3	2.4	11.6	23.0	29.3		1.13 (0.79, 1.62)
≥ 400%	13.3	53.5	4.3	12.8	16.0	43.3		1.24 (0.85, 1.81)

Table 2 (continued)

	Both general medicine and ob/gyn (%) [†]	General medicine only (%) [†]	Ob/gyn only (%) [†]	Other provider only (%) [†]	No visits (%) [†]	Total (%) [‡]	P-value [§]	Multivariate aRR of seeing both general medicine and ob/gyn (95% CI)
	N = 12,948,225	N = 67,701,198	N = 4,087,471	N = 15,235,089	N = 25,513,806	N = 125,485,789		
Insurance coverage							< 0.001	
Age < 65 with private insurance or age ≥ 65 with non-Medicare insurance	13.7	49.1	4.5	13.4	19.4	55.1		4.89 (2.47, 9.67)*
Age < 65 public insurance	8.2	46.7	3.7	11.2	30.1	13.8		4.21 (2.00, 8.88)*
Age ≥ 65 Medicare	6.6	76.7	1.1	8.9	6.7	25.0		3.81 (1.61, 9.02)*
Uninsured	2.0	19.0	2.0	14.4	62.6	6.1		Ref
Perceived health status								
Excellent/very good/good	10.7	51.4	3.6	12.5	21.8	86.6	0.20	0.94 (0.71, 1.26)
Fair/poor	9.0	69.2	2.0	8.9	10.9	13.4		Ref
Missing (n) [¶]	8,280	335,328	0	60,169	45,982	449,759		
Multimorbidity							0.08	
≥ 2 chronic conditions	9.6	73.9	1.4	8.5	6.7	33.1		1.14 (0.96, 1.35)
< 2 chronic conditions	10.9	43.9	4.4	13.7	27.0	66.9		Ref
Missing (n) [¶]	0	51,917	0	5,702	102,749	160,367		

Abbreviations: aRR, adjusted relative risk; GED, general education development

*Significant with Holm-Bonferroni correction

[†]Weighted row percentages

[‡]Weighted column percentages

[§]P-values for the association between each patient characteristic and the “Both general medicine and ob/gyn” pattern vs. all other visit patterns using chi-squared test with Rao & Scott’s second-order correction

^{||}aRR with 95% CI were calculated from a multivariable log binomial regression model, with outcome variables of visits with both general medicine and ob/gyn providers. Regression included age, race/ethnicity, region, marital status, family income as a percent of the poverty line, insurance coverage, perceived health status, and an indicator for multimorbidity (≥ 2 chronic conditions including heart disease, high cholesterol, hypertension, stroke, cancer, diabetes, asthma, emphysema)

[¶]Weighted number of missing observations

9.02], respectively). In the sensitivity analysis limited to self-reported general check-up visits, women who saw both general medicine and ob/gyn were more likely to live in the Northeast vs. South (aRR 1.68 [95% CI 1.26, 2.25]) and to have private health insurance vs. no insurance (aRR 6.40 [95% CI 2.23, 18.35]) (Table S5).

Services Received by Visit Pattern

Women who had visits to both general medicine and ob/gyn in 2022 were generally more likely to receive lab testing and imaging overall (Table 3), across all age groups, and specifically among younger women without chronic conditions

(Table S6). Women who saw both specialties and those who saw general medicine alone had higher rates of EKGs and vaccinations than others. Women who saw both specialties or ob/gyn alone were more likely to receive guideline-concordant cervical cancer screening (96.0% and 90.5%, respectively) and mammograms (95.9% and 95.3%, respectively) than others. Women who saw both specialties or ob/gyn alone were also more likely to receive guideline-discordant cervical cancer screening (77.7% and 88.3% respectively, vs 31.3% for general medicine alone) and guideline-discordant breast cancer screening (95.0% and 81.3% respectively vs. 51.4% for general medicine alone) (Table 3). Results for

Table 3 Service Receipt by 2022 Visit Pattern

Service Receipt (%)	Both general medicine and ob/gyn	General medicine only	Ob/gyn only	Other provider only	P-value*
Potentially low-value services[†]					
Lab test	88.0	73.3	61.2	27.7	<0.001
Imaging	46.2	35.8	25.8	18.5	<0.001
EKG	12.5	12.9	3.9	5.4	0.30
Likely high-value services[†]					
Vaccines	30.3	29.6	10.3	16.6	0.02
Guideline-concordant cancer screening					
Pap smear [‡]	96.0	74.1	90.5	73.3	<0.001
Mammogram [§]	95.9	82.2	95.3	66.7	<0.001
Guideline-discordant cancer screening					
Pap smear [‡]	77.7	31.3	88.3	22.7	<0.001
Mammogram [§]	95.0	51.4	81.3	38.1	<0.001

* p-values for the association between each service provided and the “Both general medicine and ob/gyn” pattern vs. all other visit patterns using a chi-squared test. Individuals who did not have any visits in 2022 were excluded from the analysis

[†]Percent of women who received a given service in at least one visit in 2022

[‡]Percent of women who received a Pap smear in the last 5 years

[§]Percent of women who received a mammogram in the last 2 years

lab testing, guideline-concordant screening, and guideline-discordant screening were similar in a sensitivity analysis of general check-ups alone (Tables S7 and S8).

DISCUSSION

In this nationally representative study, 20% of nonpregnant adult women had no medical visits in 2022, while 10% received visits from both general medicine and ob/gyn. Women with visits to both specialties had higher rates of guideline-concordant cancer screening, but also received more guideline-discordant screening and potentially low-value services.

Taken together with prior work, our results suggest that the share of adult women seeing both general medicine and ob/gyn clinicians for non-pregnancy related needs has declined slightly over time. In other national survey studies from 1993 to 2015 that largely included pregnant women, 16% to 33% of women received care from both a general medicine and ob/gyn clinician.^{13,30–32} Among women aged 19–39 surveyed in the 2011 MEPS, Petterson et al. reported that 21.5% sought care from both a family or internal medicine physician and ob/gyn, with pregnancy-related visits accounting for a majority of visits to ob/gyn providers;³⁰ similarly, using the 2012 MEPS, Raffoul et al. reported that 16% of women aged 45–64 saw both specialties.³¹ Among all nonpregnant adult women participating in the National Health Interview Survey in 2015, Simon et al. found that 29.8% saw both an ob/gyn and a general physician, a decline from 35.2% in 2003.³² Factors including wider recommended cervical cancer screening intervals³² and worsening capacity limitations in primary care and ob/gyn may have contributed to a decreased share of women seeking care from both specialties. However, as our sensitivity analysis

suggests, if nurse practitioners and physician assistants are playing a larger role in ob/gyn care,^{45,46} the proportion of women receiving care from both general medicine and ob/gyn may be higher or even increasing over time.

Potential redundancies in primary care are particularly concerning given our findings supporting limited primary care access that substantiate prior reports. We found that 29% of women in 2022 did not report a usual source of care, similar to the estimate for all adults without primary care using 2015 MEPS data²⁷ and a 2022 estimate from the National Association of Community Health Centers.²⁸ The share of women without medical visits grew since 2012 and was larger among women in lower-income groups and those who identified as racial/ethnic minorities. These trends may reflect post-pandemic changes in health-seeking behavior⁴⁷ as well as supply constraints that warrant efforts to expand the primary care workforce, reduce financial and geographic barriers, and employ community-based approaches to facilitate primary care delivery to target populations.⁴⁸

The substantial proportion of women who see both specialties outside of pregnancy may do so for a variety of reasons. While a small share may require specialized care of gynecologic conditions (estimated prevalence 97 per 1,000 women),⁴⁹ many women see both general medicine and ob/gyn for annual check-ups, as supported by our sensitivity analysis of self-reported general check-ups alone. Factors such as perceived social expectations, patient preference, and perceived or actual lack of availability of Pap smears, sexually transmitted infection screening, or contraception at general medicine providers visits may contribute to these patterns.^{3–5} Supporting the role of cultural norms that often track with geography and sociodemographic factors, and consistent with a 1993 survey,^{13,30} we found that women who saw both specialties were more likely to live in the northeast,

have health insurance coverage, have higher income, and have higher education attainment. Patient age and reproductive status also play a role, as women of active childbearing age may prefer to continue with their obstetric clinician. Finally, while some women with male (vs. female) general medicine clinicians may prefer to also see ob/gyn, we found the opposite, suggesting that women who seek both specialties may not simply do so for provider gender-concordance.

Women may also seek care from both specialties to fill care gaps. Although the Society for General Internal Medicine has emphasized specific core competencies in women's health,⁵⁰ the American Board of Internal Medicine has removed pap smear requirements for medical trainees,^{51,52} and prior studies suggest limited provision of services like long-acting contraceptives and menopause management by internal medicine clinicians.^{5,53,54} Women's health services are more often included in family practice training and care,⁵⁵ and our findings demonstrate that patients who see family practice clinicians were less likely to seek ob/gyn care. On the other hand, while the American College of Obstetricians and Gynecologists promotes ob/gyn clinicians providing primary care, they also note that well-woman care within this specialty has largely been limited to reproductive health services.⁵⁶ Studies using 1985 to 2018 national survey data have found that ob/gyn visits are more likely to include screening for cervical cancer, breast cancer, and sexually transmitted infections than general medicine visits while general medicine visits are more likely to screen for conditions such as high cholesterol or diabetes.⁶⁻¹¹ Visit time limitations, patient complexity, and an expanding list of recommended preventive services may further exacerbate care gaps.⁵⁷⁻⁵⁹ To address these gaps, recent multidisciplinary efforts to identify core preventive care services across a woman's lifespan⁶⁰ may facilitate delivery of comprehensive care of women from a single primary care clinician, regardless of specialty.

We also found that women with visits to both general medicine and ob/gyn were more likely to receive both guideline-concordant and discordant cancer screening as well as potentially low-value lab and imaging tests across age groups. This is consistent with studies from the 1990s and 2000s showing that women who saw both specialties received more tests (including screening for cervical, breast and colorectal cancer, hypertension, hyperlipidemia, and sexually transmitted infections, that were largely guideline-concordant at that time) as well as more counseling (e.g., on physical fitness, nutrition, and menopause) compared to women who saw general medicine providers alone.^{13,14,61} These findings may be explained in part by selection effects: women who seek care from both specialties are likely more inclined to seek preventive and other services. To the extent these findings are clinician-driven, women receiving routine care from both clinicians may benefit from more of some recommended services but also face greater risk of guideline-discordant and potentially low-value services. For example, annual ob/gyn visits commonly include screening

pelvic exams, which are invasive and categorized as grade "I" by the USPSTF.⁶²⁻⁶⁵ Prior studies have found guideline-discordant cervical cancer screening is also most often provided by ob/gyn providers while low-value screening EKGs and blood testing are more common among general medicine providers.^{66,67} These lab and imaging tests, in turn, can trigger cascades of downstream services of uncertain value.⁶⁸⁻⁷⁰

This study's strengths include use of a nationally representative survey and examination of women's primary care sources across the lifespan. We also acknowledge limitations. Health care utilization may be underreported in MEPS, although recall error is decreased by the survey's use of short recall period, diaries, and probes.⁷¹ Distinguishing primary care visits from other outpatient and office-based visits is also difficult, as visit types are classified based on patient description. However, our analysis examining self-reported general check-up visits alone showed a smaller but still substantial share of women seeing both types of providers. MEPS does not collect data on gender identity (only self-reported sex), limiting our ability to understand how visit patterns may be informed by gender vs. biologic sex. Finally, we could not observe clinical details relevant to the examined services to assess their appropriateness (e.g., screening vs diagnostic EKG), including among younger women without documented comorbidities. As no prior studies have assessed overuse in routine visits to both general medicine and ob/gyn clinicians, future studies should examine potentially duplicative and/or low-value services among adults in this group.

CONCLUSIONS

Our study demonstrates that in 2022, one-fifth of women had no primary care visits, while 10% received primary care from general medicine and ob/gyn, with service receipt patterns suggesting potential gaps, redundancies, and overuse of care. Our findings underscore the importance of ensuring that all women have access to primary care and allocating limited primary care resources toward this goal.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11606-025-10038-2>.

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Author Contributions N. Thakore had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Conception and design: All authors.

Analysis & interpretation of data: All authors.

Drafting of the manuscript: N. Thakore.

Critical revision of the manuscript for important intellectual content: All authors.

Final approval of the article: All authors.

Statistical expertise: All authors.

Administrative, technical, or logistic support: All authors.

Supervision: I. Ganguli.

Funding No other authors report funding for this work.

Data Availability Datasets analyzed for this study are readily available from the Medical Expenditure Panel Survey public data repository, available at: https://meps.ahrq.gov/data_stats/download_data_files.jsp.

Declarations

Human Ethics and Consent to Participate Not applicable.

Competing interest No authors have relevant competing interests to report.

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