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Surveillance Indicators for Women's Preconception Care

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Supplementary Materials

Supplementary Data

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Abstract

Background: Limited surveillance of preconception care (PCC) impedes states' ability to monitor access and provision of quality PCC. In response, we describe PCC indicators and the evaluation process used to identify a set of PCC indicators for state use.

Materials and Methods: The Surveillance and Research Workgroup and Clinical Workgroup of the National Preconception Health and Health Care Initiative used a systematic process to identify, evaluate, and prioritize PCC indicators from nationwide public health surveillance systems that Maternal and Child Health (MCH) programs can use for state-level surveillance using the Pregnancy Risk Assessment Monitoring System (PRAMS) and Behavioral Risk Factor Surveillance System (BRFSS). For each indicator, we assessed target population, prevalence, measurement simplicity, data availability, clinical utility, and whether it was related to the 10 prioritized preconception health indicators. We also assessed relevance to clinical recommendations, Healthy People (HP)2020 objectives, and the National Quality Forum measures. Lastly, we considered input from stakeholders and subject matter experts.

Results: Eighty potential PCC indicators were initially identified. After conducting evaluations, obtaining stakeholder input, and consulting with subject matter experts, the list was narrowed to 30 PCC indicators for states to consider using in their MCH programs to inform the need for new strategies and monitor programmatic activities. PRAMS is the data source for 27 of the indicators, and BRFSS is the data source for three indicators.

Conclusions: The identification and evaluation of population-based PCC indicators that are available at the state level increase opportunities for state MCH programs to document, monitor, and address PCC in their locales.

Keywords

preconception; health care; surveillance; indicators; women's health

Introduction

Preconception care (PCC) is clinical care that is provided before pregnancy to reduce the risk of future adverse birth-related outcomes, and to optimize the long-term health of individuals. Since fertility can return shortly after pregnancy, evidence suggests that maternal and pregnancy outcomes can be improved if women receive quality care and interventions, including health promotion and preventive screenings, during the prepregnancy, postpartum, and interconception periods.[1–3] Because evidence demonstrates PCC can improve women's health and prevent adverse birth outcomes,[4] and many, if not most, women do not receive PCC services before pregnancy,[5] experts and professional clinical organizations recommend PCC be integrated into all clinical visits for women of reproductive age (defined here as 18–44 years), regardless of pregnancy intentions.[3,4,6–9]

In 2008, experts from the Clinical Work Group of the National Preconception Health and Health Care (PCHHC) Initiative summarized the evidence for specific clinical content of PCC.[10] In December 2018, the American College of Obstetricians and Gynecologists and

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the American Society for Reproductive Medicine issued similar evidence-based recommendations on prepregnancy counseling.[11]

Despite the existence of evidence and recommendations for PCC, documented implementation of PCC remains sub-optimal.[12,13] Additionally standardized population-level PCC indicators have not been specified. Like many types of public health indicators, which are used to monitor the health status of a population (*e.g.*, Healthy People [HP]2020), PCC indicators can be used to monitor implementation of health care services at a population level. In the absence of standardized PCC indicators, the few state and national reports of PCC surveillance that exist have used a variety of measures.[14–17]

In 2014, the Reconvened Select Panel on PCHHC identified opportunities to accelerate improvements in preconception health (PCH) and PCC.[12] One crosscutting action that was recommended was to augment measurement and metrics of PCH and PCC, and increase accountability through development of process and outcome measures.[12] In response, the PCHHC's Surveillance and Research Workgroup, which was reorganizing at the time,[18] recruited subject matter experts from CDC to evaluate and identify a condensed set of population-level PCH indicators.[19]

Although PCH and PCC surveillance is relevant for people of any gender, the expressed charge of the Surveillance and Research Workgroup was to use the Behavioral Risk Factor Surveillance System (BRFSS) and Pregnancy Risk Assessment Monitoring System (PRAMS) data to improve and document measurement of PCH and PCC among reproductive aged women within states.[18] Accordingly, a condensed set of PCH indicators that rely on BRFSS and PRAMS was identified including measures of: depression, diabetes, heavy prepregnancy drinking, hypertension, current cigarette smoking, normal weight, recommended physical activity, recent unwanted pregnancy, prepregnancy multivitamin use, and postpartum use of a most or moderately effective contraceptive method.[19,20]

Meanwhile, the PCHHC's Clinical Workgroup was focused on quality improvement activities within health care systems that can improve provision of PCC. The Clinical Workgroup comprises health care providers, researchers, and public health practitioners with clinical interests who work in a variety of settings across the country, including academic medical centers, federally qualified health centers, health departments, and clinics. The goal of the Clinical Workgroup is to improve clinicians' capacity to provide evidence-based health care related to PCC.

In 2016, they identified nine consensus indicators of preconception wellness that can be used as quality metrics for improving health care delivery within health care systems.[13] These indicators are intended to be assessed at the initial prenatal care visit, providing a quality improvement tool for assessing how well a health care system is performing to help women optimize their prepregnancy health status.[13] The nine preconception wellness indicators include pregnancy intention, access to care, preconception multivitamin with folic acid use, tobacco avoidance, absence of uncontrolled depression, healthy weight, absence of sexually transmitted infections, optimal glycemic control in women with diagnosed pregestational diabetes, and teratogenic medication avoidance.[13]

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The PCH[19] and preconception wellness[13] indicators both focus on health status and well-being before pregnancy, but the PCH indicators are uniquely intended for public health (population) surveillance measures, and the preconception wellness indicators are intended to be used as quality improvement metrics to assess performance (clinic or health system level).

Once population-based PCH indicators and clinical measures of preconception wellness had been identified, the two National PCHHC's committees (*i.e.*, the Surveillance and Research Workgroup and the Clinical Workgroup), hereafter referred to as "the Work Group," worked together to improve population-level surveillance of PCC. The Work Group represents diverse perspectives that are informed by the participating individuals' educational training (*e.g.*, medical including maternal fetal medicine specialists, epidemiology, sociology, public health, and social work), current professions (*e.g.*, OB/GYNs, family practice physicians, and epidemiologists), current work settings (*e.g.*, private medical office, health department, state or federal government, and academia), and geographic residences.

Ideally, population-level PCC surveillance indicators would correlate with the preconception wellness indicators for quality improvement of health care systems[13] and also with the condensed set of population-level PCH status indicators.[19] Population-level PCC indicators and surveillance can inform state and national public health interventions and drive action to better assess care and provision of care across the country.[2,12] The absence of standardized PCC indicators for population-based surveillance can be a barrier to state-level monitoring, an activity that is integral to fulfilling the public health role of assuring access and provision of quality care. The lack of standardized PCC indicators also constrains opportunities for comparing service provision across states.

This report identifies population-level PCC indicators and describes their alignment with the nine preconception wellness indicators[13] and the condensed set of PCH indicators.[19] We describe our process of indicator selection, discuss gaps in the content of population-based PCC indicators, and establish the potential benefits of population-based PCC surveillance.

Materials and Methods

The Work Group used a systematic process to identify and evaluate potential PCC indicators. Stakeholder input was obtained through a collaboration with the Association with Maternal and Child Health (MCH) Programs. Institutional Review Board approval was not needed because this project was not human subjects' research.

Identification of potential PCC indicators

To identify potential PCC indicators available for state-level surveillance, the Work Group began with the original list of 45 core state PCHHC indicators identified by 7 states in 2007.[21] In accordance with the Work Group's charge,[18] we then reviewed the 2017 BRFSS* and the Phase 8 PRAMS† survey instruments (the most current versions available at the

*https://www.cdc.gov/brfss/annual_data/annual_2017.html
†2016 was the first year of the Phase 8 PRAMS (2016–2021).

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time). Next, three Work Group practicing clinicians (D.J.F., P.S.B., and D.V.C.) reviewed the potential PCC indicators, offered rationales for excluding indicators from the review, and identified specific PCC indicators that could be excluded. The clinicians' feedback informed the identification of exclusion criteria. After operationalizing exclusion criteria, the remaining indicators were reviewed again, evaluations were conducted, and additional exclusions were determined by Work Group consensus.

Exclusion criteria

The clinicians' feedback informed the identification of exclusion criteria, which were finalized by Work Group consensus (Table 1). The first exclusion criterion was "lack of specificity" (with regard to PCC) and it was used to exclude survey questions pertaining to medical home, insurance coverage, and chronic disease health care not specific to PCC. For example, we excluded measures of diabetes care related to having feet checked for sores or irritation.

The second exclusion criterion "measurement concern" was used for issues related to reliability, validity, reporting bias, missing data, or problems with the denominator. For example, the Work Group was concerned about the validity of an HIV testing indicator that was based on the number of women who received an HIV test in the year before pregnancy. Since HIV testing recommendations are risk based, additional information about individual's risk would be needed to identify an appropriate denominator, details that were not available in the data.

The third criterion relates to overlap between potential indicators. For example, we selected indicators that were based on core survey questions over those with similar content but based on survey questions that were not routinely asked of all reporting sites (*e.g.*, standard or optional survey questions). Of note, this exclusion criterion was not used to eliminate indicators with similar content when the only difference was timing of care (*i.e.*, prepregnancy versus postpartum). Similarly, it was not used to eliminate indicators that constituted different types of care (*e.g.*, screening versus counseling) related to the same content (*e.g.*, smoking).

A fourth exclusion criterion "barriers to care" was identified for indicators that are not actual measures of care. For example, we excluded survey questions that asked about reasons for delaying needed medical care based on this criterion. The final exclusion criterion ("not evidence based") was used when an indicator reflected care that is not recommended for the majority of women of reproductive age (*e.g.*, clinical breast examinations).

Evaluation criteria

Evaluation criteria were also established by Work Group consensus (Table 2). The evaluation criteria closely mapped to the criteria used to propose the 45 core PCHHC indicators,[21] and to identify the condensed set of PCH indicators.[19] We operationalized scoring criteria by Work Group consensus, and weighted those criteria as follows: (1) clinical utility from the clinical practice perspective (30%), (2) inclusion in national clinical recommendations (25%), (3) data availability (20%), (4) related to HP2020 objectives or

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National Quality Forum (NQF) measures (10%), (5) related to the condensed set of PCH indicators (10%), and (6) target population (5%).

Since prevalence data were not available for all of the indicators at the time of the evaluation, it was assessed (when available) but unscored. Simplicity (*i.e.*, difficulty in calculating estimates of the indicator) was assessed by identifying whether or not indicators could be estimated using online query systems. However, this criterion was unscored because many of the evaluated PCC indicators are based on newly available survey questions and had not yet been incorporated into interactive data systems.

Evaluation process

Two medical officers from the Work Group (E.M.O. and C.K.O.) assessed clinical utility for all of the indicators using the operationalized criterion (Table 2). A primary and secondary evaluator (from the Work Group) independently evaluated each indicator using the agreed-upon evaluation criteria. The primary evaluator created a summary document for each reviewed indicator.

The summary document described the indicator (*i.e.*, demographic group, data source, and definitions of numerators and denominators), addressed the evaluation criteria, and specified comparable data availability for states that do not participate in PRAMS. After review of the summary documents and deliberations by the Work Group, a list of proposed PCC indicators was developed and presented to stakeholders to get their feedback. The Work Group reconvened to consider stakeholder input, reached out to additional subject matter experts such as the state MCH epidemiology assignees, and finalized the list of PCC indicators.

Stakeholder input

The purpose of stakeholder input was to clarify how the PCC indicators might be used, to understand stakeholders' potential concerns about specific PCC indicators, and to identify gaps in the proposed list of PCC indicators. Stakeholder input was facilitated through a collaboration with the Association of Maternal and Child Health Programs (AMCHP) and obtained during question-and-answer sessions after a presentation at their national conference for city, county, and state public health providers. Input was also obtained during a national webinar with the Infant Mortality Collaborative Improvement & Innovation Networks stakeholders.

Results

Evaluation process

In total, 80 potential indicators were identified. Three Work Group clinicians independently reviewed the potential PCC indicators and proposed 32 for exclusion. The full Work Group agreed with the recommended exclusions for 29/32 indicators, leaving 51 indicators. During deliberations and the evaluation process, 21 additional indicators were excluded based on Work Group consensus. In total, we excluded 50 indicators (63%). Reasons for exclusions included lack of specificity ($n = 17$), measurement concerns ($n = 15$), overlap ($n = 8$),

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barriers to care (n = 6), and "not evidence-based" for a majority of women of reproductive age (n = 4). The remaining 30 PCC indicators are described.

Description of PCC indicators

Supplementary Data includes summaries of all 30 PCC indicators (*i.e.*, demographic group, data source, clinical utility assessment, definitions of numerators and denominators, and clinical recommendations). Evaluated PCC indicators include 27 that rely on PRAMS (Table 3, nos. 1–8, 10–17, 20–30) and 3 that rely on BRFSS data (Table 3, nos. 9, 18–19). The study population for indicators that rely on PRAMS is postpartum women aged 18–44 years with recent live births, whereas BRFSS includes all women aged 18–44 years.

The majority of indicators (24/30) received top scores on the clinical utility evaluation criterion, meaning that those indicators potentially improve *both* pregnancy and long-term women's health outcomes (Table 3, nos. 1–13, 15–16, 18, 20–24, 26, 28–29). All evaluated indicators related to at least one clinical recommendation. All but seven indicators (Table 3, nos. 14, 17–19, 25, 27, 30) are available every year in all reporting areas. One indicator (Table 3, no. 25) did not relate to HP2020 objectives or NQF measures, 14 indicators relate to either an HP2020 objective or an NQF measure (Table 3, nos. 1, 8–9, 11–14, 17–18, 22, 26, 28–30), and the remaining 15 indicators relate to both HP2020 objectives and NQF measures.

Regarding the target population evaluation criterion, only one indicator pertains to all women of reproductive age (Table 3, no. 9). One indicator was relevant for all women with live births (Table 3, no. 10), and all other indicators pertained to a subset of their respective data sources due to skip patterns in the surveys. At the time of the evaluation, prevalence estimates were unavailable for 14 indicators (Table 3, nos. 1, 5–9, 13, 16, 18–19, 22–23, 28–29). Regarding simplicity, only three indicators (Table 3, nos. 9–11) could be estimated using online query systems.

Among the indicators that rely on PRAMS data, over half (n = 16 of 27) measure care that was received prepregnancy. Of the remaining 11 PRAMS indicators that measured care in the postpartum period, 4 (Table 3, nos. 13, 16, 21, 29) measure postpartum care that corresponds with an identical prepregnancy measure (Table 3, nos. 12, 15, 20, 28).

Alignment of PCC indicators with PCH indicators and preconception wellness indicators

At least 1 PCC indicator aligns with each preconception wellness indicator,[13] and at least 1 PCC indicator aligns with 9 of 10 indictors in the condensed set of PCH indictors.[19] Hypertension is the only PCH indicator that lacks a PCC indicator counterpart (Table 3). Eleven of the PCC indicators do not align with the PCH indicators (Table 3, nos. 8–11, 23, 25–30), eight do not align with the preconception wellness indicators (Table 3, nos. 17–19, 26–30), and five PCC indicators align with neither the PCH indicators nor preconception wellness indicators (Table 3, nos. 26–30)

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Discussion

The Surveillance and Research Workgroup and Clinical Workgroup of the National PCHHC Initiative collaborated on a systematic evaluation of potential PCC indicators for use in population-based public health surveillance. The Work Group identified 30 PCC indicators, most of which (27/30) rely on data from PRAMS, and 3 rely on BRFSS. Of the 30 PCC indicators, 22 align with the content of the 9 preconception wellness indicators[13] and 19 align with the content of the 10 prioritized PCH indictors.[19]

The identification of population-based PCC indicators that align with the preconception wellness indicators[13] and PCH indicators[19] can support the integration of clinical care and public health. The complementary study of Frayne et al.[13] on preconception wellness indicators addresses the clinical need for individual-level indicators of appropriate PCC measured at the health care system level. The PCC indicators suggested here are measured at the population level. Surveillance of these indicators can improve understanding of disparities in women's receipt of evidence-based PCC. Finally, the public health PCH indicators[19] can provide a snapshot of the health status of women of reproductive age. The corresponding content between the PCC indicators, preconception wellness indicators,[13] and PCH indicators[19] can facilitate the translation of data into actions for improving women's health.

Together, the triad of metrics mentioned in this report (*i.e.*, PCC indicators, PCH indicators, [19] and preconception wellness indicators[13]) can yield helpful information for public health professionals, clinical care providers, and patients. For instance, systematic barriers to accessing care can be identified by examining prevalence estimates of prenatal care initiation during the first trimester (preconception wellness indicators[13]) and receipt of postpartum visits (PCC indicator).

Examining prevalence estimates of postpartum use of most- or moderately effective contraception (PCH indicator[19]) and PCC indicators for postpartum receipt of long acting reversible contraception (LARC) and other contraceptive methods, indicators nos. 6–7; Table 3) can reveal gaps in health care access (*i.e.*, access to the full range of contraceptive methods), or alternatively, such analyses may suggest possible provider bias and valorization of LARC over other methods. When these indicators are stratified by demographic characteristics, they can highlight differences in access to and receipt of care among subpopulations of women.

When examining disparities related to preconception wellness, PCH, and PCC, it is important to consider social determinants and their impact on women's health and health care seeking behaviors over the life course.[22] This includes thoughtful interpretation of the indicator data that does not blame women for poor prepregnancy health or low estimates of received health care. We underscore the importance of considering the woman in her lived context and acknowledging unequal access to quality medical care.[23] Surveillance data on patient experiences can help public health professionals understand barriers to care and social determinants that may contribute to disparities in receipt of care.[24,25]

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The identification of the 30 PCC indicators is the first step toward state-based surveillance of PCC. Stakeholders need time to explore the utility of the 30 identified PCC indicators for aligning with and addressing state priorities. For example, although the PCC indicators are not currently included elements in routine state-level data collection efforts for needs assessments and annual reports for federal grants, it is possible that MCH program leaders will identify some PCC indicators that would be useful for benchmarking in those documents.

In addition, the reviewed PCC indicators were limited to the BRFSS and PRAMS data sources since most state public health agencies use those data, thus enabling comparisons across states. However, a condensed set of PCC indicators would facilitate such comparisons, and even with stakeholder input, the Work Group was unable to further narrow the list of PCC indicators. Estimates of the PCC indicators are needed to inform selection of a condensed set of PCC indicators and will be examined in the future.

It is possible that gaps in the list of evaluated PCC indicators may become evident as state and local health department staff members use the proposed indicators to describe the delivery of PCC in their communities, and as public health priorities evolve. For example, some stakeholders expressed the need for improved understanding about men's PCC and suggested that most of the same PCC indicators are relevant for men. Numerous PCC indicators are available for assessment, counseling, and treatment related to smoking, alcohol use, and depression, but similarly worded questions related to screening and counseling for specific chronic diseases (*e.g.*, high blood pressure) are unavailable in PRAMS or BRFSS.

Clinical assessment and counseling related to prior adverse pregnancy outcomes are also not captured in these data. Although some national surveillance systems do capture details about women's reproductive histories (*e.g.*, National Vital Statistics System), neither PRAMS nor BRFSS ask women whether health care providers asked them about their reproductive histories and provided relevant counseling. Finally, a medical review of vaccinations and assessment of reproductive goals are important components of PCC for which we did not identify valid corresponding PCC indicators.[2,11]

This evaluation is subject to several limitations. Although it was predetermined that the evaluation would only include PCC indicators that are available in state-level survey data typically used by public health agencies, the inclusion parameters (*i.e.*, only PRAMS and BRFSS items) are a limitation. As previously noted, most of the PCC indicators rely on PRAMS data; thus they can only describe a subset of the women in need of PCC, namely postpartum women who recently delivered a live birth.

People at different places in their reproductive life course may have unique PCC needs that are not captured by survey questions in PRAMS (or BRFSS). For example, PRAMS is not the ideal data source for documenting prepregnancy birth control services (*i.e.*, indicators nos. 4–5; Table 3), since one might not expect women who desire pregnancy to seek a family planning visit, yet the majority of women who deliver a live birth say their most recent pregnancy was wanted when it occurred or even sooner.[26] Thus, people's PCC needs at

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different points of the reproductive life course will vary and population-level measures are needed to comprehensively assess PCC access and provision of PCC across the reproductive life course continuum. States may have access to administrative data sources such as Medicaid or Healthcare Cost and Utilization Project, which can potentially fill gaps in understanding about women's receipt of PCC.

Another limitation relates to use of the HP2020 objectives in the evaluation criterion. HP2020 is currently reducing the number of objectives, and this can potentially impact how some of the included indicators were scored. Finally, this evaluation focused only on PCC surveillance for women, although PCC surveillance is relevant for people of any gender.[27] While PRAMS is limited to postpartum women, a 2018 PRAMS pilot project in Georgia (*i.e.*, PRAMS for dads) collected information about fathers before and after the birth of their child (*e.g.*, involvement in the pregnancy and birth, relationship status, birth control use, safe sleep practices, and health care visits). Of note, all three of the PCC indicators that rely on the BRFSS (Table 3, no. 9, 18–19) are available for surveillance of men's PCC.

Conclusions

Optimizing women's health is important—for overall well-being and quality of life, and to improve maternal and infant outcomes for any pregnancies a woman may have. Building on previous work by the PCHHC, the evaluation of PCC indicators was a successful collaboration between the PCHHC's Surveillance and Research Work Group and Clinical Work Group, in partnership with AMCHP. The Work Group members represent a diversity of perspectives with regard to profession, training, work setting, and geography. They reached consensus on 30 PCC indicators that were vetted through a systematic evaluation process that emphasizes clinical importance.

This work increases opportunities for states to document, examine, and monitor PCC in their locales. Surveillance that uses the proposed indicators may facilitate a data-driven shift from what has largely been a conversation focused on infant health to a more complete conversation about what is needed to support women's health over the reproductive life course. This work can inform future development of a condensed set of PCC indicators, and improve provision of PCC for all women of reproductive age.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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TABLE 1.

Exclusion Criteria For Evaluation of Preconception Care Indicators

Exclusion criteria	Sample indicator that was excluded based on the criteria
Lack of specificity to PCC	Percentage of women who report having any kind of health insurance
Measurement concerns (*i.e.*, reliability, validity, reporting bias, missing data, or problems with the denominator)	Percentage of women who had an HIV test in past year
Overlap (*e.g.*, similar content is captured by an optional survey question indicator and a core survey question indicator)	Percentage of women having a live birth who reported that before they got pregnant, a doctor, nurse, or other health care worker talked with them about visiting a dentist or dental hygienist (standard PRAMS question) (see Table 3, indicator no. 11)
Barriers to care as opposed to actual measures of care	Percentage of women who report delaying needed medical care due to being unable to get through on the telephone
Not evidence based for the majority of women of reproductive age	Percentage of women who have ever had a clinical breast examination

HIV, human immunodeficiency virus; PCC, preconception care; PRAMS, Pregnancy Risk Assessment Monitoring System.

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TABLE 2.

Evaluation Criteria and Scoring for Preconception Care Indicators

Criterion (weight)	Description of criterion	Scoring	
Clinical utility (30%)	This criterion assessed whether the indicator could improve pregnancy health and/or improve long-term health. This criterion was independently assessed by two CDC medical officers.	**1**	Not likely to improve *either* pregnancy outcomes or long-term women's health outcomes
		2	Potentially improves pregnancy outcomes *or* long-term women's health outcomes
		3	Potentially improves both pregnancy outcomes *and* long-term women's health outcomes
Included in clinical recommendations (25%)	Determine whether or not the indicator is included in or addressed by professional recommendations.	**1**	Not related to any of the listed recommendations
		2	Related to at least one group's recommendation
		3	Related to 2+ group's recommendations
Data availability (20%)	This criterion assesses the availability of data for the indicator.	**1**	Available in select reporting areas
		2	Available every other year in all reporting areas
		3	Available every year in all reporting areas
Related to a HP2020 objective or NQF measure (10%)	Determine whether or not the indicator is included in or addressed by HP2020 objectives or NQF measures.	**1**	Not a HP2020 objective or NQF measure
		2	HP2020 or NQF measure
		3	HP2020 and NQF measure
Related to the condensed set preconception health indicators (10%)	Inclusion in the condensed set of preconception health indicators was considered to be evidence of relevance and indicators with such evidence received higher scores.	**1**	Not related to any of the condensed set of preconception health indicators
		2	Related to one or more of indicators in the condensed set of preconception health indicators
Target population (*i.e.*, proportion of women who need the service) (5%)	State whether the target population that the indicator pertains to is the entire population of the data source or a subset of women for the data source.	**1**	Subset of either data source
		2	All women with live births
		3	All women of reproductive age
Prevalence	Prevalence estimate of the PCC indicator in all available reporting areas.	Unscored	
Simplicity—calculating the indicator	Level of difficulty in calculating estimates of the indicator.	Unscored	

HP, healthy people; NQF, National Quality Forum.

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TABLE 3.

Alignment of Preconception Care Indicators with Preconception Health Indicators and Preconception Wellness Indicators

No.	Preconception care indicator	Preconception health indicator[19]	Preconception wellness measure[13]
1	Received counseling about the desire to have or not have children from a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	Unwanted pregnancy	Pregnancy intention
2	Received counseling about how long to wait before getting pregnant again from a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Unwanted pregnancy	Pregnancy intention
3	Received counseling about birth control methods to use after giving birth from a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Most or moderately effective contraception	Pregnancy intention
4	Received counseling about using birth control to prevent pregnancy from a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	Most or moderately effective contraception	Pregnancy intention
5	Had a health care visit during the 12 months before pregnancy for family planning or birth control (PRAMS)	Most or moderately effective contraception	Access to care
6	Had an intrauterine device or a contraceptive implant inserted by a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Most or moderately effective contraception	Access to care
7	Were given or prescribed a contraceptive method such as the pill, patch, shot, NuvaRing, or condoms by a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Most or moderately effective contraception	Access to care
8	Had a health care visit during the 12 months before pregnancy for a regular checkup at family doctor's or OB/GYN's office (PRAMS)	—	Access to care
9	Had a routine checkup within the past year (BRFSS)	—	Access to care
10	Had a postpartum checkup (PRAMS)	—	Access to care
11	Had their teeth cleaned by a dentist or dental hygienist during the 12 months before pregnancy (PRAMS)	—	Access to care
12	Received advice to take a vitamin with folic acid from a doctor, nurse or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	Multivitamin use with folic acid	Preconception vitamin with folic acid use
13	Received advice to take a vitamin with folic acid from a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Multivitamin use with folic acid	Preconception vitamin with folic acid use
14	Before pregnancy, a doctor, nurse, or other health care worker talked with them about how smoking during pregnancy can affect a baby (PRAMS)[a]	Smoking	Tobacco avoidance
15	Asked about smoking cigarettes by a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	Smoking	Tobacco avoidance
16	Asked about smoking cigarettes by a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Smoking	Tobacco avoidance
17	Before pregnancy, a doctor, nurse, or other health care worker talked with them about how drinking alcohol during pregnancy can affect a baby (PRAMS)[a]	Alcohol	—
18	Offered advice about harm/risk to health from alcohol misuse at last routine checkup (BRFSS)[a]	Alcohol	—
19	Asked whether they drank four or more alcoholic drinks on an occasion at their last routine checkup (BRFSS)[a]	Alcohol	—

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No.	Preconception care indicator	Preconception health indicator[19]	Preconception wellness measure[13]
20	Asked about feeling down or depressed by a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	Depression	Absence of uncontrolled depression
21	Asked about feeling down or depressed by a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Depression	Absence of uncontrolled depression
22	Received counseling about healthy eating, exercise, and losing weight gained during pregnancy from a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	Normal weight Physical activity	Healthy weight
23	Received counseling about sexually transmitted infections such as chlamydia, gonorrhea, or syphilis from a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	—	Absence of sexually transmitted infections
24	Tested for diabetes at the postpartum checkup (among women with gestational diabetes) (PRAMS)	Diabetes	Optimal glycemic control
25	Before pregnancy, a doctor, nurse, or other health care worker talked with them about the safety of using prescription or over-the-counter medicines during pregnancy (PRAMS)[a]	—	Teratogenic medication avoidance
26	Received counseling about how to improve health before a pregnancy from a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	—	—
27	Before pregnancy, a doctor, nurse, or other health care worker talked with them about how using illegal drugs during pregnancy can affect a baby (PRAMS)[a]	—	—
28	Asked about emotional or physical harm by a doctor, nurse, or other health care worker at a health care visit during the 12 months before pregnancy (PRAMS)	—	—
29	Asked about emotional or physical harm by a doctor, nurse, or other health care worker at their postpartum checkup (PRAMS)	—	—
30	Before pregnancy, a doctor, nurse, or other health care worker talked with them about getting counseling for any genetic diseases that run in the family (PRAMS)[a]	—	—

[a]Available in select reporting areas.

BRFSS, Behavioral Risk Factor Surveillance System.

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