
CBE ID

4655e

Title

The percentage of patients assigned female at birth ages 15-44 who were asked the Self-Identified Need for Contraception (SINC) question with a recorded response, among patients with a qualifying encounter. (Contraceptive Care Screening eCQM)

Project

Primary Prevention

Endorsement Status

Endorsed

Is Under Review

No

Next Maintenance Cycle

Fall 2029

Previous Endorsement Cycle

Fall 2024

Initial Endorsement

Fri, 03/14/2025 - 12:21

Steward

University of California, San Francisco

1.0 New or Maintenance

New

1.1 Measure Structure

Single Measure

1.3 Electronic Clinical Quality Measure (eCQM)

Yes

1.6 Measure Description

Percentage of patients assigned female at birth and ages 15-44 who were asked if they wanted to talk about contraception or pregnancy prevention and had their response recorded during the measurement period (which is a calendar year), among patients with a qualifying encounter; to focus on the population of non-postpartum women, the measure excludes those individuals who had a live birth making them eligible for postpartum contraceptive services, and also excludes those who are anatomically infecund or have had female sterilization from the denominator.

1.7 Composite Measure

No

1.7 Measure Type

Process

1.8 Level of Analysis

Clinician: Group/Practice, Facility

1.9 Care Setting

Ambulatory Care: Clinic, Ambulatory Care: Clinician Office, Ambulatory Care: Office, Clinician Office/Clinic, Other

1.9b Other Care Setting

Community Health Center

1.10 Measure Rationale

Supporting patients to prevent pregnancy when they wish to do so has social and health benefits for individuals and their families (1-3). Contraception is a highly effective clinical preventive service that can assist patients in reaching their reproductive health goals (4,5). In order to support patients to achieve their reproductive goals, facilities at which individuals receive care must ensure that their patients' contraceptive needs are assessed and met. In the care pathway to meeting patients' contraceptive service needs, healthcare systems and facilities must first identify that the individual desires contraceptive services (see logic model). Building on previous work to optimize contraceptive care and promote positive reproductive health outcomes through the use of performance measures (6-8), the University of California, San Francisco (UCSF) designed the Contraceptive Care Screening eCQM as a process measure to give health care organizations and facilities the ability to monitor and address the provision of screening as a critical part of the contraceptive care pathway that enables those in need of contraceptive services to receive this care.

This measure is aligned with evidence and serves to address a gap in care. Integration of proactive screening for need for pregnancy prevention has been promoted by the Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG) (9,10). However, only 14% of ambulatory visits in the United States include any care related to achieving or preventing pregnancy (11) and only 54% of women report receiving family planning care during the prior 12 months (12). In an analytic sample published this year that included 53,489 patient visits of reproductive age individuals at outpatient care visits, only 8% of visits included family planning services (13). These data indicate that there is a sizeable opportunity to improve integration of contraceptive counseling services into ambulatory care settings. Challenges to providing reproductive health services in primary care have been explored in the research and include uncertainty about patient interest in these conversations and

assumptions about patient pregnancy risk and/or desire to discuss pregnancy prevention (14-17). Providers report relying on patients to initiate conversations about contraception (14). This is particularly salient in primary care settings, where many people of reproductive age receive care but where there are many competing priorities that can result in neglect of reproductive health care (18,19).

Implementation of standardized screening for contraceptive care need can address many of these key challenges by overriding provider assumptions about patient preferences and needs and instead asking them directly about their service needs in the care pathway. One study found that after introducing a standardized reproductive health screening tool and training staff on its use, contraceptive counseling increased 24% (20). Implementation of standardized screening can work with other systems-level efforts, including provider training and use of patient decision support tools, to optimize contraceptive care (21). Together training and screening can center reproductive health integration into routine care and can result in increased provision of contraception to those who want the service. A study in a primary care setting found that patients who received contraceptive counseling were more likely to report use of hormonal contraception seven to thirty days post-visit compared to those who did not (22). Moreover, a study of adolescent care delivery found that it took on average three visits for providers to initiate contraceptive counseling, however, once they did, among patients who were not using contraception, 39% left the visit on a method (23).

The Contraceptive Care Screening eCQM complements existing performance measures related to contraceptive care. Currently endorsed measures evaluate provision of contraceptive methods and whether or not counseling was person-centered. The proposed measure adds an additional dimension in the quality care pathway by identifying whether or not people have their needs for contraceptive care evaluated. In addition, this measure is aligned with the endorsed eCQMs of contraceptive use (CBE #3699e and #3682e). Specified for EHR system data, these measures utilize SINC to exclude those from the denominator not interested in contraceptive care in order to focus the measure on the population of patients interested in contraceptive services. Implementing the Contraceptive Care Screening eCQM alone or in combination with other contraceptive care performance measures will result in quality improvement initiatives that help health care organizations better meet clients' needs by increasing person-centered access to contraception in a wider range of settings, a step towards the goal of reproductive autonomy and well-being for all.

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1.11 Measure Webpage

<https://pcrhp.ucsf.edu/SINC>

1.13 Data Dictionary

Not attached. I attest that all information will be provided where codes and/or value sets are needed (1.14a - 1.15c).

1.13a Attach Data Dictionary

[4655e VSAC Value Sets_508.xlsx](#)

1.14 Numerator

The numerator includes patients in the denominator who were asked the SINC question during the measurement period and had at least one documented response.

1.14a Numerator Details

The numerator includes patients in the denominator who were asked the SINC question during the measurement period and had at least one documented response. All data elements necessary to calculate the numerator are defined within the value set named Self Identified Need for Contraception (SINC, OID 2.16.840.1.113883.6.1) in the Value Set Authority Center (VSAC). The measure's specification was developed in CMS' Measure Authoring Development Integrated Environment (MADiE) system and uses direct reference codes for the SINC Screening question and its multiple response options. This eCQM specification utilizes Clinical Quality Language (CQL) and Quality Data Model (QDM 5.6).

1.15 Denominator

Patients assigned female at birth aged 15-44 years who had a qualifying encounter during the measurement period; includes patients who have not had a live birth delivery and are not eligible for postpartum contraception, who are not anatomically infecund, and who have not undergone female sterilization.

1.15a Denominator Details

The measure denominator includes patients assigned female at birth aged 15-44 who had a qualifying encounter (QE) during the measurement period. Age is calculated with the start of the measurement period as an anchor date.

The measurement period is a single calendar year. The measure is patient-based and calculated at the facility level of analysis. All data elements necessary to calculate this denominator are defined within the active value sets in the Value Set Authority Center (VSAC) and listed below:

- Assigned female at birth is defined with a direct reference code for Female in the value set ONC Administrative Sex (OID 2.16.840.1.113762.1.4.1)
- QEs are defined by the following value sets:
 - Home Healthcare Services (OID: 2.16.840.1.113883.3.464.1003.101.12.1016)
 - Office Visit (OID 2.16.840.1.113883.3.464.1003.101.12.1001)
 - Preventive Care Services Established Office Visit, 18 and Up (OID: 2.16.840.1.113883.3.464.1003.101.12.1025)
 - Preventive Care Services Initial Office Visit, 18 and Up (OID 2.16.840.1.113883.3.464.1003.101.12.1023)
 - Preventive Care Services, Initial Office Visit, 0 to 17 (OID 2.16.840.1.113883.3.464.1003.101.12.1022)
 - Preventive Care, Established Office Visit, 0 to 17 (OID 2.16.840.1.113883.3.464.1003.101.12.1024)
 - Telephone Visits (OID 2.16.840.1.113883.3.464.1003.101.12.1080)
 - Virtual Encounter (OID 2.16.840.1.113883.3.464.1003.101.12.1089)

A single code from the QE value sets documented during the measurement period counts as a QE.

1.15b Denominator Exclusions

Patients are excluded from the denominator if they had a live birth and are eligible for postpartum contraception during the measurement period (i.e., had a prenatal care visit plus a documented live birth delivery date or documented estimated delivery date without a non-live birth event between 3 months prior to the measurement period and 9 months into the measurement period), are anatomically infecund (i.e., due to removal of uterus and/or both ovaries), or have had female sterilization (i.e., use permanent contraception).

1.15c Denominator Exclusions Details

The measurement period is one calendar year, and this measure uses two years of data: the year prior to the measurement period, and the measurement period.

Patients who are excluded from the denominator meet one of the following criteria:

- 1) Had a live birth making them eligible for postpartum contraception in the measurement period: Those who had a prenatal care visit in the year prior to the measurement period through the first 9 months of the measurement period (i.e., 1/1/XX-1 through 9/30/XX) with a documented live birth delivery date, or a documented estimated delivery date (EDD) between 3 months prior to the measurement period and 9 months into the measurement period (i.e., 10/1/XX-1 through 9/30/XX), provided that those with EDD only did not have a documented ectopic pregnancy, intrauterine fetal demise, early pregnancy loss, or abortion (i.e., non-live birth event)
- 2) Are anatomically infecund: those with documentation of anatomical infecundity due to removal of uterus and/or bilateral ovaries during year prior to the measurement period and through the measurement period (i.e., 1/1/XX-1 through 12/31/XX)
- 3) Have had female sterilization or had a sterilization during the measurement period: those with a bilateral tubal ligation or bilateral salpingectomy in year prior to measurement period through measurement period (i.e., 1/1/XX-1 through 12/31/XX)

All data elements necessary to calculate the denominator exclusions are defined within value sets active in the Value Set Authority Center (VSAC) and listed below:

Patients eligible for postpartum contraception are represented by

- Live Birth Delivery Procedures (OID 2.16.840.1.113762.1.4.1166.177);
- Direct reference code "Date and time of obstetric delivery" (LOINC Code 93857-1);
- Direct reference code "Delivery date Estimated" (LOINC Code 11778-8);
- Prenatal Care Bundle Visits (OID 2.16.840.1.113762.1.4.1166.205);
- Prenatal Care Specific Visits (OID 2.16.840.1.113762.1.4.1166.114);
- General Prenatal Care Visits (OID 2.16.840.1.113762.1.4.1166.135);
- Telephone Visits (OID 2.16.840.1.113883.3.464.1003.101.12.1080);

- Virtual Encounter (OID 2.16.840.1.113883.3.464.1003.101.12.1089);
- Pregnancy Related Diagnoses (OID 2.16.840.1.113762.1.4.1166.133)
- Non Live Birth Procedures (OID 2.16.840.1.113762.1.4.1166.137)
- Non Live Birth Diagnoses (OID 2.16.840.1.113762.1.4.1166.136)

Patients who are anatomically infecund are represented by:

- Infecund Not for Contraceptive Reasons ICD10CM (OID 2.16.840.1.113762.1.4.1166.97)
- Infecund Not for Contraceptive Reasons Procedures (OID 2.16.840.1.113762.1.4.1166.151)
- Infecund Not for Contraceptive Reasons SNOMED Findings (OID 2.16.840.1.113762.1.4.1166.96)

Patients who have had female sterilization are represented by:

- Female Sterilization Provision Procedures (OID 2.16.840.1.113762.1.4.1166.142)
- Sterilization SNOMED Findings (OID 2.16.840.1.113762.1.4.1166.109)
- Direct reference code “Encounter for female sterilization” (ICD-10-CM Code Z30.2)
- Direct reference code “Female sterilization” (LOINC Code LA27905-1)
- Direct reference code “Permanent implantable contraceptive intratubal occlusion device(s) and delivery system” (HCPCS Code A4264)
- Direct reference code “Tubal ligation status” (ICD-10-CM Code Z98.51)

1.15d Age Group

Other

1.15e Age Range in Years

ages 15-44 years

1.16 Type of Score

Rate/proportion

1.17 Measure Score Interpretation

Better performance = Higher score

1.18 Calculation of Measure Score

Step 1. Identify all patients who are female assigned at birth, ages 15-44 years who had a qualifying encounter at the specified facility during the measurement period (calendar year)

Step 2. Define the denominator by excluding patients assigned female at birth who:

- Had a live birth making them eligible for postpartum contraception in the measurement period: Those who had a prenatal care visit in the year prior to the measurement period through the first 9 months of the measurement period (i.e., 1/1/XX-1 through 9/30/XX) with a documented live birth delivery date, or a documented estimated delivery date (EDD) between 3 months prior to the measurement period and 9 months into the measurement period (i.e., 10/1/XX-1 through 9/30/XX), provided that those with EDD only did not have a documented ectopic pregnancy, intrauterine fetal demise, early pregnancy loss, or abortion (i.e., non-live birth event);
- Are anatomically infecund: those with documentation of anatomical infecundity due to removal of uterus and/or bilateral ovaries during year prior to the measurement period and through the measurement period (i.e., 1/1/XX-1 through 12/31/XX)
- Have had female sterilization (e.g., bilateral tubal ligation, or bilateral salpingectomy): Those with documentation of a bilateral tubal ligation or bilateral salpingectomy for female sterilization during the year prior to the measurement period and through the measurement period (i.e., 1/1/XX-1 through 12/31/XX)

Step 3. Define the numerator by identifying patients in the denominator who were asked the Self-Identified Need for Contraception (SINC) question and had at least one documented response during the measurement period

Step 4: Calculate the measure rate by dividing the numerator by the denominator, which gives the percentage who were asked the SINC question

1.18a Attach measure score calculation diagram

[Item 1.18a 4655e Measure Score Calculation Diagram.jpg](#)

1.19 Measure Stratification Details

The measure is not stratified.

1.20 Types of Data Sources

Electronic Health Records

1.25 Data Source Details

The Contraceptive Care Screening eCQM uses Electronic Health Record (EHR) data collected from ambulatory, outpatient clinical encounters and entered into the EHR system. The SINC question and its response options are specified in the LOINC code system (see <https://loinc.org/98076-3/>) and published online as a value set named “Self Identified Need for Contraception (SINC)” (OID: 2.16.840.1.113762.1.4.1166.115) in the National Library of Medicine (NLM) Value Set Authority Center (VSAC, <https://vsac.nlm.nih.gov/> - registration required). This element defines the numerator.

We implemented and tested the Contraceptive Care Screening eCQM in primary care settings through a quality improvement learning collaborative among federally qualified health centers (FQHCs). All value sets utilized in our measure rely on standardized coding systems and are published on VSAC.

For more information on the feasibility of the Contraceptive Care Screening eCQM, see Section 3 Feasibility. To review our reliability and validity analyses methods and results, see Section 4, Scientific Acceptability.

1.26 Minimum Sample Size

Not applicable – not based on sample

2.1 Attach Logic Model

[4655e Logic Model 2.1.pdf](#)

2.2 Evidence of Measure Importance

Access to high quality, patient-centered contraceptive care is essential for people to achieve their reproductive goals.

Achieving individual reproductive goals depends on being able to achieve or prevent pregnancy when and how a person wants (1). In 2015, based on National Survey of Family Growth (NSFG) data, only 47.9% of pregnancies were categorized as occurring as desired at the time for the individual (2). Contraceptive technology is key for those who want to prevent pregnancy, and the most commonly used contraceptive methods in the United States require contact with a health care provider (3). Moreover, access to sexual and reproductive healthcare has been associated with use of prescription contraceptive methods and contraceptive counseling has been linked to ongoing contraceptive use (4,5).

Barriers to access to contraceptive care exist.

Despite this need for contraceptive services, many people who do not want to become pregnant do not use contraception. Data from the NSFG, for example, found that of those at risk of an unintended pregnancy and who were sexually active, 18% were not using any form of contraception, and, of those, 84% did not want to become pregnant in the following two years (6). One contributor to these statistics is lack of access to contraceptive care. Within this analysis, among those who wanted to prevent pregnancy for at least 5 years, 19% reported that they were not using contraception because they could not access a method (6). More broadly, NSFG analyses find that only 46% of women at risk of unintended pregnancy receive contraceptive services in a year, with disparities by both race/ethnicity and age (with younger patients being less likely to receive contraceptive services) (7). Further, among ambulatory encounters with women of reproductive age in the United States, only 14% include any reproductive health services, including contraception (8).

Gaps in care access are not equitably experienced across demographic groups.

In one NSFG analysis of the 2006-2017 waves of data collection found that overall 18.3% of women of reproductive age received contraceptive counseling, and when looking at subgroups, found the Black and Latina heterosexual women had lower odds of receiving contraceptive counseling compared to white heterosexual women (with Latina sexual minority women having the lowest odds) (9). Additionally, changing policy environments have led to a decrease in contraceptive care access and increased barriers to care. A recent study used four waves of cross-sectional study data to look at changes in contraceptive care access in four states between 2021 and 2023 and found a four-percentage point increase in reported barriers to accessing contraceptive care between the time points (10). Moreover, ten percent of respondents who were not using a preferred contraceptive method named access barriers, including difficulty accessing a facility, as a reason (11). These barriers infringe upon individuals' ability to access and use contraception, compromising their ability to achieve their reproductive goals.

Screening for contraceptive need can enhance access. One evidence-based strategy to enhance the ability of those who want contraceptive care to receive it is to ensure that patients accessing care for any reason are screened for contraceptive need, with integration of proactive screening for pregnancy prevention need being promoted by the Centers for Disease Control and Prevention and the American College of Obstetricians and Gynecologists (12,13). This is particularly relevant in the primary care context, in which many reproductive age women receive care (14) and in which competing priorities, including preventive health screening and chronic disease management, can interfere with attention to reproductive health needs. Standardized screening for contraceptive need can aid in ensuring that individual's reproductive health needs are being met alongside these other key health needs; implementation of standardized reproductive needs screening has been shown to increase documentation of contraceptive care screening in health center settings (15). Additionally, ensuring contraceptive care screening is incorporated into diverse healthcare settings, including primary care, could help increase access to contraceptive counseling, as reported challenges to integrating contraceptive care into primary care include lack of provider counseling initiation due to factors including assumption about patient need and interest, and relying on the patient to initiate provision (16-19). Thus,

implementation of standardized screening can complement other systems-level efforts, including provider training and use of patient decision support tools, to optimize contraceptive care (20). One study showed that standardized integration of reproductive health screening in a community health center setting led to a 24% increase in clinician counseling about contraception (8), ultimately expanding access to wanted contraceptive services.

Standardized screening for desire for contraceptive care must be implemented in a patient-centered manner with attention to the history and context of contraceptive care delivery. Standardized screening approaches must be patient-centered in order to ensure they optimize patient care experience. This is particularly true in the context of reproductive health care, which encompasses sensitive services that require attention to patient comfort in discussing personal issues. Further, it is essential to recognize that the provision of contraception care services has a fraught history in the United States, marked by targeted marketing of birth control to and forced sterilization of Black and Indigenous people of color, as well as people living on low-incomes and people with disabilities, motivated by the desire to curb the reproduction of these groups (21,22). Asking about contraception and pregnancy prevention in the healthcare setting carries the weight of this history. It is therefore critical that screening for contraceptive need is done in a manner that does not inadvertently reproduce harm by communicating a sense of expectation or pressure to use pregnancy prevention methods. This is particularly critical as even in current clinical practice, Black and Latina women have been documented to be more likely to be subjected to directive, non-patient-centered contraceptive and reproductive health care services (23-27). Several evidence-informed commentaries have highlighted the ways in which structures of power in health systems and care delivery, including how we ask individuals about their pregnancy prevention needs, entrenches inequities by stigmatizing the reproduction of certain groups, such as people living on low incomes and people of color, and titrating their care and de-centering their needs (1,28,29). Person-centered approaches to contraceptive care screening must therefore work to re-center individual preferences, needs and values.

Literature on patient preferences for screening has highlighted that patients prefer to be asked about their reproductive health needs through service-bound questions. In one qualitative study, patients desired contraceptive counseling availability in primary care, provided that they engage in a manner that respects their autonomy and reproductive desires. To achieve this, they preferred a contraceptive care screening question that was open-ended, inclusive, and promoted autonomy, with a preference for a service-bound question akin to SINC (30). This finding was further tested and reinforced in a survey of over 1,000 federally qualified health center patients in New York (31).

The SINC screening question is therefore an evidence-based, person-centered approach to screening for contraceptive need. The SINC screening question was developed in response to this evidence for patient-centered approaches to screening and consists of a standardized question and response options in the LOINC code system. Developed through our engagement with Reproductive Justice consultants and industry stakeholders, this screening question asks patients for their desire for contraceptive services on the day of their visit. Building on the literature assessing how patients want to be asked about their reproductive needs, SINC takes a

person-centered, service-bound approach that does not rely on assumptions about why patients are seeking contraception (28). SINC is aligned with the increasing attention to the need for respectful reproductive care by focusing on patients' own assessment of their pregnancy prevention needs instead of basing assessment of contraceptive on assumptions about when and how people should become pregnant or use contraception. A standardized measure of self-identified contraceptive need provides an opportunity to hardwire patient-centered and reproductive autonomy focused workflows into the EHR that can facilitate patients getting their needs met. Throughout the development of this question and the response options, attention was paid to ensure that people's own preferences and needs related to reproduction are recognized and respected. For example, by initiating the screening with a reference to the standardized nature of the question, we sought to prevent any perceived or real targeting of the reproductive choices of certain individuals or individuals from certain groups. We also carefully considered the ordering of the answer options so as not to infer that the most or only acceptable response was "I am already using contraception". Implementation of this screening is designed to support reproductive autonomy and patient privacy, as well as decrease inequities in the provision of contraception services. For this reason, guidance is to ask patients of reproductive age SINC annually, creating access opportunity without undue pressure. Guidance also includes asking SINC to current prescription contraceptive users, recognizing that these individuals may want to switch or discontinue methods and should be provided with opportunity to discuss their contraceptive needs. Service-bound screening through the use of SINC therefore helps center patients in their own decision at the time of visit and enables them to meet their long-term reproductive goals, including using pregnancy prevention when desired, while protecting against provider and health system bias.

We emphasize that we have intentionally defined the specifications for this measure to be aligned with principles of patient-centeredness, as delineated in *Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Population Affairs*. (32). First, we have included patients who are currently using methods, as current users should still be screened annually, as they may be interested in changing or stopping methods or have questions about their method. This is particularly salient for individuals using long-acting reversible contraceptive (LARC), where removal is provider-dependent. The measure excludes individuals who receive prenatal care for a pregnancy that would make them eligible for postpartum contraception during the measurement period. Individuals who receive peripartum care have reproductive health needs that are distinct and temporally bound to the timing of their pregnancy and delivery (e.g., most pregnant individuals receive contraceptive counseling at visits occurring between 24 and 32 weeks of their pregnancy). Screening for contraceptive need during and directly following pregnancy is already well-incorporated into workflows and systems of care. One PRAMS assessment found that majority of women received prenatal (78%) and postpartum (86%) contraceptive counseling; 72% received both (33). As a result, the quality gap is not whether individuals are being screened for contraceptive need, but rather the quality of the contraceptive counseling itself. Therefore, standardized screening through SINC does not address a gap in care for these individuals. Utilizing SINC in place of current planning-based screening tools common in peripartum contraceptive counseling would increase the person-centeredness of screening and be aligned with reproductive autonomy, but requiring reporting of SINC in this time period has the potential to communicate undue pressure on the individual in the peripartum period, particularly

among those who already formulated decisions early in pregnancy about their postpartum contraceptive use.

Before SINC no measure of patient desire for contraceptive services existed for consistent implementation across electronic health record (EHR) systems (note that One Key Question® (34), a proprietary question that assess desire for pregnancy in the next year, does not fulfill this need, in that it assesses future desires, rather than immediate need for services). Alternative approaches commonly used in assessing for contraceptive need use indirect methods of assessment, such as asking about future pregnancy desires. We recently published an evidence-informed commentary in *Contraception* that highlights that this approach is not patient-centered and does not reflect how many people think about pregnancy and pregnancy prevention. Namely, a pregnancy intention-based approach ignores the complexity of lived experience and feelings toward pregnancy and pregnancy prevention (28). Additionally, two studies tested one such approach, One Key Question®, alongside a measure of current desire for pregnancy prevention. These studies found that desire for future pregnancy or ambivalence about future pregnancy and desire for pregnancy prevention now were not always aligned – a sizable minority of those surveyed who wanted pregnancy in the next year wanted to prevent pregnancy now (35,36). Pragmatically that means that if employed as a screening tool, this or similar screening approaches will miss individuals who desire contraceptive services.

Measurement of SINC utilization will identify gaps in meeting patient needs and serve as the basis for quality improvement to enhance contraceptive care provision. Multiple commentaries have detailed how the use of performance measures related to contraceptive provision can improve the quality of contraceptive care and promote positive reproductive health outcomes (37–39). A measure of contraceptive screening is an essential addition to the ecosystem of contraceptive measures, providing a critical step in the pathway to contraceptive provision and use, as currently measured in CBE #2902, #2903, #2904, #3699e, and #3682e. Having SINC as the basis of this screening measures aligns with quality as defined by National Academy of Medicine (40) and is an effective and patient-centered approach to identifying those with a contraceptive need that is responsive to individual perspectives on reproduction and the history of harm enacted in the reproductive health care delivery system. The promise of this measure was recently emphasized in the CMS bulletin on family planning services, which stated that states could consider including SINC in their standard data collection to assess whether individuals are receiving respectful care and the family planning services and supplies they need (41). In addition, earlier this year the Human Resources and Services Administration (HRSA) announced a new requirement for federally qualified health centers to report the number of patients screened for contraception need using a standardized screening instrument (31). HRSA named SINC explicitly as an instrument to use to meet this requirement. The Office of Population Affairs also included SINC as an optional reporting element in FPAR 2.0 (data element 41) (32).

We emphasize that we have intentionally defined the specifications for this measure to be aligned with principles of patient-centeredness, as delineated in *Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Population Affairs*. (32). First, we have included patients who are currently using methods, as current users should still be screened annually, as they may be interested in changing or stopping methods or have questions about their method. This is particularly salient for individuals using long-acting reversible contraceptive

(LARC), where removal is provider-dependent. The measure excludes individuals who receive prenatal care for a pregnancy that would make them eligible for postpartum contraception during the measurement period. Individuals who receive peripartum care have reproductive health needs that are distinct and temporally bound to the timing of their pregnancy and delivery (e.g., most pregnant individuals receive contraceptive counseling at visits occurring between 24 and 32 weeks of their pregnancy). Screening for contraceptive need during and directly following pregnancy is already well-incorporated into workflows and systems of care. One PRAMS assessment found that majority of women received prenatal (78%) and postpartum (86%) contraceptive counseling; 72% received both (33). As a result, the quality gap is not whether individuals are being screened for contraceptive need, but rather the quality of the contraceptive counseling itself. Therefore, standardized screening through SINC does not address a gap in care for these individuals. Utilizing SINC in place of current planning-based screening tools common in peripartum contraceptive counseling would increase the person-centeredness of screening and be aligned with reproductive autonomy, but requiring reporting of SINC in this time period has the potential to communicate undue pressure on the individual in the peripartum period, particularly among those who already formulated decisions early in pregnancy about their postpartum contraceptive use.

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2.3 Anticipated Impact

If implemented, we anticipate an increase in contraceptive need screening in diverse healthcare settings. There are gaps in the provision of contraceptive care, despite recommendations from multiple professional organizations for universal screening (6-8). As a result of increased screening, individuals will face decreased barriers and greater access opportunities to desired contraceptive methods, including access in their preferred settings, such as primary care. Ultimately, this will mean more individuals who want contraception will use their preferred method (intermediate outcome). Uptake and implementation of SINC also serves to optimize the currently endorsed Contraceptive Use eQMs (3699e) and LARC provision eQM (sub-measure 3699e). SINC is used to define the denominator of those measures by excluding those patients who have a recorded “No” response to SINC in a calendar year. By defining the denominator as people who self-identify as needing contraceptive services, CBE #3682e shifts focus to people’s reproductive health needs as they define them. Implementing the Contraceptive Care Screening eQM process measure will optimize the intermediate outcome measure of contraceptive use, resulting in quality improvement initiatives that help health care organizations better meet patients’ needs by increasing patient-centered access to contraception in a wider range of settings, a step towards the goal of reproductive autonomy and well-being for all.

Implementation of the Contraceptive Care Screening eQCM will also promote use of SINC as the preferred screening tool for contraceptive care need, increasing effectiveness, patient-centeredness, and efficiency of screening. Other commonly used screening approaches rely on future pregnancy planning desires, which can miss individuals who want contraception at the time of visit (62,63). SINC, in contrast, directly asks patients about their contraceptive service needs. This also is aligned with how patients want to be asked about their reproductive health needs (16,61). Implementing the Contraceptive Care Screening eQCM would thus lead to more patient-centered, effective, and thus higher quality, contraceptive care workflows.

Screening for contraceptive need presents little risk of adverse events. The primary risk of contraceptive screening is generating undue pressure on individuals to use contraception, especially given the long history of forced or coerced reproductive control of people of color and people living on low incomes in the U.S. (9,56,60). However, the wording of the SINC screening tool was developed in collaboration with Reproductive Justice experts to ensure its phrasing was not coercive and aligned with literature from patients about how they want to be asked about their reproductive health needs, and it was collectively determined that annual screening met the balance of screening for need without over-screening in a way that could induce pressure (31). Additionally a universal, standardized approach to contraceptive care screening protects against targeting of specific populations. Thus, risk of coercion was intentionally considered and minimized in the creation of SINC and its associated implementation guidance and the risk is extremely low. Given the minimal risks and the benefit of addressing a key health services gap, net impact of implementation is positive and justified.

We recognize that sustainability matters and that efforts to implement new measures should be cognizant of increased resource burden on the system. As the SINC question is designed to be implemented in standard clinical workflows and can be extracted from the EHR, we do not anticipate a cost burden from the implementation of this measure. In addition, we note that the measure should not be evaluated based on its potential to decrease costs. Rather, the goal is to center people's positive reproductive outcomes as defined by individuals themselves and to advance care pathways that meet their needs. Evaluating from a cost-saving lens would suggest that the healthcare system has a stake in whether individuals become pregnant or not, compromising person-centeredness and reproductive autonomy.

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2.4 Performance Gap

To assess variation of our proposed eCQM in the ambulatory primary care setting, we implemented and tested the Contraceptive Care Screening eCQM in nine Community Health Centers (CHCs) within two health care-controlled networks (HCCNs): HCCN 1 and HealthEfficient. HCCN 1 CHCs operate in states in the Midwest and West coast of the United States, while HealthEfficient CHCs are in the Northeast region of the country. We used the following data sets from each HCCN to provide measure scores and descriptive statistics for the scores at the facility (CHC) and clinician group/practice (site) levels of analysis in the most recent measurement period (2023).

(1) HCCN 1. The HCCN 1 dataset comprised all female clients aged 15-44 years from 17 outpatient sites nested in 6 CHCs in 2023.

(2) HealthEfficient. The HealthEfficient dataset comprised all female clients aged 15-44 years from 6 outpatient sites nested in 3 CHCs in 2023.

For the purposes of this application, UCSF suggests that the CHC and outpatient site be considered proxies for the facility and clinician group/practice levels of analysis respectively, since the outpatient sites operate as different locations of the same CHC.

Across the 6 facilities within HCCN 1, the overall performance score was 38.8%. The highest performing facility asked 82.1% of its eligible patients (n=19,723) the SINC Screening question; the lowest performing facility only asked 0.1% of eligible patients SINC. The overall performance score among the 3 facilities within HealthEfficient was 30.1%, while the percentage of eligible patients (n=4,405) asked the SINC question with a documented response ranged from 16.9 to 49.0%.

At the clinician group/practice (nested within CHC) level of analysis in both HCCN 1 and HealthEfficient, the lowest performing group/practice did not ask SINC of any eligible patients (0.0%) during the measurement period. The highest performing HCCN 1 group/practice asked 98.9% of eligible patients the SINC Screening question. Among HealthEfficient clinician groups/practices, the maximum measure score was 51.2%.

Our implementation and testing of the Contraceptive Care Screening eCQM in these nine facilities provide evidence of an existing performance gap for this measure in the primary care setting, given the variation in performance scores across facilities and clinician groups/practices within each HCCN. The facilities included in our analysis also participated in Innovating Contraceptive Care in Community Health Centers (ICC in CHCs), which was a quality improvement (QI) initiative to improve the contraceptive services they offer. This project provided CHCs with resources to effectively incorporate the Contraceptive Care Screening eCQM for the first time, including customized technical assistance sessions with UCSF and monthly learning community (LC) videoconference meetings for clinical and health information technology (HIT) staff. Our two HCCN partners first used the Contraceptive Care Screening question in early 2021. In both HCCNs, the percentage of encounters with a recorded SINC response increased during the active QI project period (which ended in summer 2023), indicating that room for improvement for this eCQM exists and that there is responsiveness to quality improvement efforts. In HCCN 1, the percentage of encounters with a documented SINC response was 0.3% across ICC-participating groups/practices in May 2021; in June 2023, this percentage increased to 9.9%. In HealthEfficient

ICC participating groups/practices, the percentage of encounters with a recorded SINC response was 7.8% May 2021; in June 2023, it was 23.6%.

All tables contained in attachments uploaded under 2.4a

2.4a Attach Performance Gap Results

[2.4a. Additional Performance Gap Results_508.docx](#)

2.5 Health Care Quality Landscape

There are very few validated measures pertaining to reproductive healthcare, and even fewer for contraceptive care specifically. As such, there are no existing measures which address the healthcare need that our proposed eCQM does: whether patients are screened for contraceptive needs at least once per year. Existing contraceptive care measures, such as the OPA-stewarded Contraceptive Care measures (CBE #2902, #2903, and #2904) estimate the percentage of women ages 15-44 years provided a most or moderately effective method of contraception in two populations in this age range: postpartum women and all fecund women. These claims-based measures do not measure whether people who actually want contraception are receiving it. In response to this shortcoming, UCSF created the Contraceptive Use eCQMs for postpartum (#3682e) and non-postpartum (#3699e) patients. These measures evaluate contraceptive use among patients who express interest in receiving services, as identified through the SINC screening question, offering a clearer assessment of access for those desiring services. UCSF's contraceptive use eCQMs were endorsed by NQF in December 2022 and will be due for maintenance with PQM in 2026.

While the claims-based Contraceptive Care measures and the Contraceptive Use eCQMs assess contraceptive use and provision, they do not provide data on the percentage of patients screened within a year for contraceptive need, which is a critical process measure on the pathway to meeting people's reproductive needs. The Contraceptive Care Screening eCQM therefore adds an additional dimension in the measure of quality in the care pathway. These measures are further augmented by the CBE patient-reported outcome performance measure, the Person-Centered Contraceptive Counseling measure (CBE #3543), that assesses the quality of contraceptive counseling received. Ideally these measures would be used together, as part of an ecosystem of contraceptive care quality measures.

2.6 Meaningfulness to Target Population

Contraception is a reproductive health technology relevant to many individuals and families throughout the life course. It can help enable individuals to build families and exercise reproductive autonomy aligned with their desires, preferences, values, and circumstances. Further, use of this technology is widespread; many patients who want to prevent pregnancy use contraceptive services to do so. Research shows desire to avoid pregnancy is strongly associated

with contraceptive use (1-3) and use is prevalent; from 2015-2019, 26 million women received a contraceptive service in the United States (4). The most commonly used contraceptive methods in the United States require contact with a health care provider (5). Increased screening for contraceptive need (process outcome) resulting in increased access to and use of preferred contraceptive methods (intermediate outcome) will better meet patients' needs by increasing patient-centered access to contraception, a step towards the goal of reproductive autonomy and well-being for all (long-term outcome).

The SINC was designed as a patient-centered approach responsive to patient preferences of how they would like to be asked about reproductive health service needs. Studies have highlighted that patients prefer to be asked about their reproductive health needs through service-bound questions. In one qualitative study, patients desired contraceptive counseling availability in primary care, provided that their care team engaged in a manner that respects their autonomy and reproductive desires. To achieve this, they preferred a contraceptive care screening question that was open-ended, inclusive, and promoted autonomy, in particular a service-bound question akin to SINC (6). This finding was further tested and reinforced in a survey of over 1,000 federally qualified health center patients in New York (7). SINC was developed through our engagement with Reproductive Justice thought leaders, patient advisors, and industry stakeholders to ensure the phrasing and approach resonated with patients and would not inadvertently pressure patients (8). The screening question language and response options were crafted intentionally and iteratively with patient and community input. These groups overall supported the development and utilization of this measure in clinical care and provided critical input for optimization of the SINC. PCRHP's Patient Stakeholder Group – a group of young people of reproductive age who have accessed reproductive health services – uplifted the importance of the ability to opt out of receiving counseling through intentional inclusion of answer options such as “I am here for something else”. Further, they supported efforts to ensure the phrasing was succinct and interpretable for patients. Similarly, review by community groups, including the National Birth Equity Collaborative, provided input into wording and implementation guidance. Ultimately, the SINC screening tool takes a person-centered, service-bound approach that does not rely on assumptions about why patients are seeking contraception.

Moreover, research has shown that patients support integration of reproductive health screening into routine healthcare screenings as it streamlines access to contraceptive services and fulfills their reproductive health needs in the context of their whole health care (7,9,10). Implementing this performance measure will better meet patients' needs by increasing patient-centered access to contraception in a wider range of settings.

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3.1 Contributions Towards Closing Care Gaps

The Self-Identified Need for Contraception screening question (SINC) was intentionally developed using a racial justice and health equity lens. The question was created to meet patients' reproductive health needs while centering their autonomy and preferences (1). Our team collaborated with reproductive justice experts, Drs. Joia Crear-Perry and Jamila Perritt, to ensure this screening tool was patient-centered and did not replicate systems of oppression. Preconceived notions or stigma around reproductive healthcare can be reduced by normalizing screening all eligible patients for their contraceptive needs.

Routine screening for contraceptive needs has the potential to close barriers to accessing contraceptive care, particularly among groups who may have limited access to healthcare. Black and Latinx patients report lower utilization of prescription contraceptive methods than their white counterparts (2,3). Therefore, the use of the Contraceptive Care Screening eCQM, which assesses the extent to which SINC is being utilized, provides an assessment of how frequently patients are having their contraceptive needs assessed. This will allow for the identification and improvement of gaps and inequities in this care.

While facing barriers to access, people of color and low-income communities also report experiencing pressure from clinicians to use contraception, particularly long-acting reversible contraception (LARC) (4–7). SINC gives agency back to patients, to choose whether they'd like to discuss contraception that day, whether they'd like to talk about it at their next visit, or if they never want to talk about it with this care team. Further, other methods of screening for contraceptive need triangulate need through a pregnancy intention framework. Studies show pregnancy intention-focused screening questions are not relevant to all patients (8), as a planning paradigm does not resonate with many patients. Use of a service needs question can help patients meet their needs at the time of their visit, rather than making assumptions about what a person wants. Therefore, the Contraceptive Care Screening eCQM accomplishes the goal of assessing the extent of screening for contraceptive need in a manner that is patient-centered and responsive to existing inequities.

In addition to racial/ethnic inequities, it is important to consider the health care experiences of LGBTQIA+ patients, who may want to use contraception but are missed due to underlying assumptions about sexual activity and/or risk of pregnancy. LGBTQIA+ patients are less likely to receive contraceptive counseling (9). Asking a service needs question of all eligible patients could help correct this disparity by not making assumptions about sexual behavior or family formation context, ultimately connecting people who want contraception with the services they desire. Thus, the Contraceptive Care Screening eCQM also has the potential to advance equity in care for LGBTQIA+ patients.

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4.1 Feasibility Assessment

Background

In our Innovating Contraceptive Care in Community Health Centers (ICC in CHCs) quality improvement (QI) initiative from 2020-2023, we implemented and measured the Contraceptive Care Screening eQCM in the EHR for 23 locations within nine Community Health Centers (CHCs), nested within two health-center controlled networks (HCCNs). Thus, the eQCM was tested and implemented in two different electronic health records (EHR) systems: HCCN 1 utilizes its customized version of Epic, and HealthEfficient uses eClinicalWorks (eCW). Our QI initiative also included one additional CHC that implemented the data element into their AthenaOne EHR system. We excluded this additional CHC from measure testing because we do not have access to their data.

Availability of data elements

The Contraceptive Care Screening eQCM requires availability of the SINC data element (aka Contraceptive Care Screening question) in EHR systems to allow for identification of client's desire for contraceptive services in a patient-centered way.

With respect to implementation of the SINC data element, as described UCSF has worked with ten

CHCs using three different EHR systems (eCW, Epic, AthenaOne). In these instances, EHR changes were able to be implemented in about three months in collaboration with clinical and vendor teams. The implementation burden depends on the change process for the EHR at the health system to embed the SINC data element into the relevant EHR template so that care teams can use SINC. HCCN 1 uses its customized version of Epic, a centrally managed EHR system, and easily implemented the Contraceptive Care Screening question across the ICC-participating CHCs. In HealthEfficient, each CHC uses eCW and implemented SINC at the individual ICC-participating sites; this de-centralized process required more coordination and time. During the final meeting for ICC in CHCs, one CHC using Epic stated, “(HCCN 1) did a phenomenal job with our SINC question (and) made it so user-friendly for our clinicians”. A CHC in HealthEfficient at the same meeting reported, “It was challenging to get the SINC implemented into our EMR; we use eCW and also train the staff, and (it was) more so a resource challenge, finding the time and staff to distribute the information about the changes.” In contrast, a different CHC in HealthEfficient, noted that implementing SINC screening into their EHR system facilitated their QI activities and stated, “I think that what made it easy for me ... is that [the HIT staff] had already incorporated the [SINC] questions into our eCW. So it was something that was already running.” Most systems, from our experience, are able to implement the EHR template changes in about 3 months, with some systems requiring less time. We note that, in addition to the systems that implemented SINC as part of QI learning collaborative, clinical sites across the country have begun to implement and use this data element since it was made available as a LOINC code in August 2021, indicating the feasibility of this implementation. This includes Planned Parenthood Federation of America, which includes SINC as its Medical Standard and Guidelines as an approach to assessing reproductive needs, and sites affiliated with Upstream USA, including Cambridge Health Alliance.

Feasibility scorecard results

Our HCCN data partners completed the feasibility scorecards for the Contraceptive Care Screening eQDM to provide feedback on the measure and its calculation in their respective EHR systems (see the attached file named 4655e_PQM_ecqm_feasibility_scorecard_HCCNs_508.xlsx”). The HCCNs evaluated a total of 40 data elements specified in our measure.

HealthEfficient indicated that 15% of the eQDM data elements scored 0 in the Data Availability feasibility domain (i.e., data are readily available in a structured format), 20% scored 0 in the Data Accuracy domain (i.e., information contained in the data is correct), 30% scored 0 in the Data Standards domain (i.e., data element is coded using a nationally accepted terminology standard and mapped to the QDM), and 38% scored 0 in the Workflow domain (i.e., extent to which data element capture impacts the workflow for the user). In contrast, HCCN 1 reported that 5-10% of eQDM data elements scored 0 for availability, accuracy, and standards, while 13% scored 0 for workflow. The HCCN data partners provided their solutions to address the Contraceptive Care Screening eQDM elements that did not achieve 100% across the four feasibility domains (see the tabs named, “Feasibility Plan” in the attached scorecard).

Recognizing that different EHR systems use multiple combinations of code systems, the Contraceptive Care Screening eQCM includes several terminologies that define the measure's data elements to facilitate measure use and calculation, even if one code system is excluded. For example, the value sets that define anatomically infecund (i.e., infecundity due to removal of a patient's uterus and/or both ovaries) include codes from ICD-10-CM, CPT, and SNOMED CT; thus, a CHC using at least one of these three value sets can still provide this data element. Both HCCNs had data elements that scored 0 in at least one of the four feasibility domains because the participating CHCs do not routinely offer services related to the data elements for live birth delivery, even if the partners' EHR systems contain structured fields in which the information can reside. HealthEfficient had 15 data elements scoring 0 for the Workflow domain while HCCN 1 had five elements scoring 0 for Workflow, indicating that these elements are not routinely collected during clinical care. Furthermore, neither HCCN uses SNOMED CT code system in their EHR, which resulted in 0s for the Data Availability and Data Standards domains for SNOMED eQCM data elements.

Our proposed eQCM also utilizes definitions that include more than one type of health care service variable or field, allowing flexibility to primary care CHCs that do not offer all health care services but want to implement the measure. For example, the Contraceptive Care Screening eQCM defines qualifying encounters (QEs) as having a single code among eight different value sets. HealthEfficient does not offer the services defined by one QE code set (Home Healthcare Services) but offers the others as part of its primary care services; thus, HealthEfficient can still identify eligible patients who have QEs. Another example is that the eQCM allows for use of Estimated Delivery Date (EDD) when Live Birth Delivery Date is unavailable or missing from a patient's record. Although our partners reported in the feasibility scorecard that Live Birth Delivery Date may not often be reported (because CHCs do not offer labor and delivery services), the EDD data element may be recorded for patients visiting CHCs for prenatal care services, making it available in both HCCNs' EHR systems and for eQCM calculation.

Finally, the new SINC data element was initially not integrated into the EHR systems of the nine CHCs, but all facilities ultimately implemented it to assess contraceptive needs and to calculate the Contraceptive Care Screening eQCM. Unlike HCCN 1, which easily implemented SINC in its centrally-managed EHR system across their ICC-participating CHCs, HealthEfficient had to implement the SINC question and response options in their EHR for each participating CHC as separate processes over a longer time period. Thus, HealthEfficient reported in its scorecard that SINC is not routinely collected as part of regular clinical workflow. While one HealthEfficient CHC reported a smooth implementation of SINC use, the other CHCs found it more challenging to add the new element. Both HCCN 1 and HealthEfficient CHCs have maintained their use of SINC in primary care visits after the end of ICC in CHCs and expanded SINC use to additional clinician groups/practices that did not originally participate in our QI initiative.

Estimates of the costs or burden of Contraceptive Care Screening eQCM implementation

To implement SINC in partner EHR systems, our partner HCCNs changed their primary care EHR template to include the SINC question and its response options as structured fields. The EHR system programmers and analysts bore the burden of mapping EHR data required for the measure to the eQCM concepts according to the CHCs' regular clinical workflows for the purposes of calculating and reporting the measure rates. After implementation, we estimate that data entry by clinical staff will require a minute or less to conduct. The SINC question and its response options are also specified in the LOINC code system and can be mapped as such for EHR systems that include LOINC.

With respect to clinical implementation, UCSF advocates for SINC to be included as part of a patient-centered primary care workflow, enhancing access to reproductive health services for those who need it. Therefore, the added time burden on the clinical workflow will be offset by enhanced quality of care. The SINC Screening question is estimated to require a minute or less to implement within the primary care workflow.

Data abstraction and measure reporting

The SINC data element resides within the clinical agency's secure EHR system server. Each HCCN upholds the normal requirements to ensure that its EHR data elements, including SINC, are shared only with entities that have active data use agreements and the infrastructure to securely exchange Protected Health Information / Potentially Identifiable Information (PHI/PII).

During the ICC in CHCs project period, we worked with HCCN 1 and HealthEfficient to provide quality assurance (QA) checks of their datasets to calculate the Contraceptive Care Screening eQCM. Our QA involved confirming that the analysis datasets included both the required elements for measure calculation and all encounters occurring in two consecutive calendar years for patients assigned female at birth, ages 15-44. When questions about calculation arose, UCSF collaborated with the HCCN HIT staff to investigate and agree on a solution. One partner implemented a new EHR system in CHCs working on the QI initiative; in our QA, we helped the partner troubleshoot their new query system to obtain accurate encounter records to calculate the Contraceptive Care Screening eQCM.

UCSF's two HCCN partners each completed chart reviews among a random sample of patients for the data element validity analysis (see Section 4.3 for full methodology and results). The partners encountered challenges extracting EHR data for a small number of Contraceptive Care Screening eQCM data elements: female sterilization, live birth delivery date, and estimated delivery date, which all refine the eQCM denominator. In our discussions with the partners about these elements, we learned that these elements may not be found in structured fields within the CHCs EHR in patients' histories, in part because these events occurred in the past or at a different facility that delivers those services. The facilities and clinician groups/practices that participated

in the chart reviews do not provide labor and delivery services and tubal ligation procedures. Furthermore, the internal means used to record these elements are not often mapped to standard terminologies, like SNOMED CT, LOINC, or other commonly used code systems like CPT or ICD-10-CM. For example, one HCCN partner utilizes custom, internal codes for female sterilization (e.g., tubal ligation) in their EHR system when this condition is reported by the patient, noted by a provider, and then entered into the patient's record. Ideally, health systems that deliver inpatient health care services and connect patients' inpatient and outpatient encounter records would document the prevalence of these conditions and services using standardized nomenclatures to inform providers and improve quality of care for patients.

Potential unintended consequences of availability of SINC Screening question in EHR systems

Availability of the SINC data element in EHR has the desired goal of facilitating patient-centered screening for contraceptive needs in a way that helps people receiving desired care and achieving their reproductive goals, as described in our logic model. To facilitate this practice change, UCSF developed a detailed implementation guide for the SINC Screening question into clinical workflows and corresponding EHR templates to identify patients' preferences for reproductive health care in a person-centered manner. One possible unintended consequence with SINC implementation into their clinical workflow and EHR system is that primary care providers might feel compelled to ask their patients SINC more often. Asking the SINC Screening question too frequently might cause patients to feel pressure related to use of contraception, which results in care not centered on the person. For the ICC in CHCs initiative, we developed materials to support participating sites to have all the information they needed to implement SINC to provide person-centered health care services. During our monthly learning sessions, we also gave feedback to QI teams on their activities and results to re-emphasize our implementation guide and help participating sites. These resources will continue to be made available and best practices related to using SINC in a patient-centered manner will be emphasized in all dissemination activities.

4.2 Attach Feasibility Scorecard

[4655e_PQM_ecqm_feasibility_scorecard_HCCNs_508.xlsx](#)

4.3 Feasibility Informed Final Measure

Updates to value sets utilized in specification

To define live birth delivery, UCSF utilized an existing value set to draft the Contraceptive Care Screening eCQM in CMS's Measure Authoring Development Integrated Environment (MADiE) website. In preparing for the feasibility assessment with our HCCN partners, we discovered that the value sets we initially selected for live birth delivery changed its status in the National Library of Medicine (NLM) Value Set Authority Center (VSAC) to "Not Maintained". This status indicates that the value set is a previously published version meant for use in production systems at the time of its publication that has not been reviewed by its author or steward. To address this issue, we used a direct reference code to an active LOINC code and published our own value set that is actively maintained (Live Birth Delivery Procedures, OID 2.16.840.1.113762.1.4.1166.177).

4.4 Proprietary Information

Not a proprietary measure and no proprietary components

5.1.1 Data Used for Testing

Electronic health records (EHR) data from two networks were used for reliability and validity testing:

(1) Health-center controlled network (HCCN) 1. The HCCN 1 uses its customized Epic system and the dataset comprised all female clients aged 15-44 years from 17 outpatient sites (clinician groups/practices) nested in 6 Community Health Centers (facilities) located in Washington, Ohio, California, and Oregon in 2023.

(2) HealthEfficient. The HealthEfficient uses the eCW system and the dataset comprised all female clients aged 15-44 years from 6 outpatient sites (clinician groups/practices) nested in 3 Community Health Centers (facilities) located in Connecticut, New York, and New Jersey in 2023.

5.1.2 Differences in Data

(1) HCCN 1. For reliability testing, the full dataset was used. For data element validity testing, we utilized data from a random sample of 150 female clients ages 15-44 who visited 8 sites in calendar year 2023. As it was not feasible for HCCN1 to do data element validity testing at all sites, these 8 sites were randomly selected to provide an overall assessment of the data validity in the network. The age distribution is comparable between the sample and the full dataset.

(2) HealthEfficient. For reliability testing, the full dataset was used. For data element validity testing, we utilized data from a random sample of 144 female clients ages 15-44 who visited 5 sites in calendar year 2023. One additional site was not selected because their data was not available for chart review. The age distribution is comparable between the sample and the full dataset.

5.1.3 Characteristics of Measured Entities

Accountable Entity-Level Reliability

The measure was tested at the clinician group/practice-level and the facility-level for both data partners. Reliability testing used full denominator population in the datasets from HCCN 1 and HealthEfficient networks described above.

HCCN 1 includes 17 outpatient sites (clinician groups/practices) nested in 6 Community Health Centers (facilities) located in Washington, Ohio, California, and Oregon. HealthEfficient includes 6 outpatient sites (clinician groups/practices) nested in 3 Community Health Centers (facilities) located in Connecticut, New York, and New Jersey.

Data Element Validity

Eight sites from HCCN 1 and five sites from HealthEfficient provided data and the analysis was conducted using aggregated numbers across all sites for each network. A sample of 150 patients were randomly selected from the eight sites in HCCN 1 and 144 patients were randomly selected from the five sites in HealthEfficient.

5.1.4 Characteristics of Units of the Eligible Population

See Section 4.2.3a. Tables 1-4 for tables of characteristics.

5.2.1 Level(s) of Reliability Testing Conducted

Accountable entity level (i.e., measure score) (e.g., signal-to-noise analysis)

5.2.2 Method(s) of Reliability Testing

Several methods have been suggested to assess the reliability of provider-level performance measures (1-3). These methods may focus on different facets of reliability such as consistency across time, consistency across raters or units, or variability at different levels of aggregation. The PQM has suggested a signal-to-noise approach as one way to evaluate measure reliability (4). For this application, reliability was estimated from a Beta-binomial model using parametric empirical Bayes methods. This method is better able to produce reliability estimates when the performance measures fall in the extreme ranges of the distribution (below 10% or above 90%), whereas the signal-to-noise approach may produce unstable results under those conditions, especially when the patient size is small. Two distributional shape parameters (alpha and beta) were estimated from the observed quality scores, and reliability was then calculated as a function of alpha, beta, and total patient count for each unit of analysis. Overall reliability in this context represents the ability of the proposed measure to confidently distinguish the performance of one entity (e.g., site) from another. A detailed description of this method is demonstrated in Section 4.2.3a. Appendix A, where we lay out the formulation of the method and describe how it improves upon the Beta-binomial approach applied in previous studies (4-8). It is commonly advised that reliability should be ≥ 0.9 for making high-stakes decisions,

and ≥ 0.7 for general reporting/monitoring (Eijkenaar, 2013; Adams, 2010).

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5.2.3 Reliability Testing Results

Reliability analyses were conducted at two levels (facility and clinician group/practice), stratified by three age categories (15-20, 21-44, and 15-44 years). More detailed information including reliability estimates for each unit at each level can be found in Section 4.2.3a. Tables 5-9.

At the facility level, reliability ranges from 0.998 to 1 for HCCN 1 and 0.976 to 0.996 for HealthEfficient for the 15-44 years age group. At the clinician group/practice level, reliability ranges from 0.998 to 1 for HCCN 1 and 0.800 to 0.999 for HealthEfficient for the 15-44 years age group. We have a small number of entities (range: 3-17) at these levels for these data partners.

See Section 4.2.3a Tables 10-13 for reliability tables by decile.

5.2.3a Attach Additional Reliability Testing Results

[4.2.3a. Characteristics, Reliability Test Results and Method_508.docx](#)

5.2.4 Interpretation of Reliability Results

Our tested reliability is consistently greater than .90 at the facility and clinician group/practice levels for the 15-44 years age group, showing high reliability at these levels. While some entities had low overall rates on the measure, the sufficient number of patients within these entities still results in high reliability.

Overall, testing results showed that the Contraceptive Care Screening eQIM, as currently specified, can distinguish the true Contraceptive Care Screening performance in health centers and sites from one entity to another.

5.3.1 Level(s) of Validity Testing Conducted

[Person or encounter level \(i.e., data element\) \(e.g., sensitivity and specificity\)](#)

5.3.3 Method(s) of Validity Testing

For HCCN 1, a total of 150 female patients aged 15-44 years in 2023 were randomly sampled from 8 sites. For HealthEfficient, a total of 144 female patients aged 15-44 years in 2023 were randomly sampled from 5 sites. For each of these patients, data elements used for the Contraceptive Care Screening measure calculation were compared between the EHR records and the patient charts, and agreement numbers were summarized in a 2 by 2 table (yes/yes, yes/no, no/yes, and no/no) for each element. We compared all 8 data elements that are required to calculate the Contraceptive Care Screening measure: had a SINC response, female sterilization, infecundity, had a qualifying encounter, had a prenatal care, had a live birth delivery date, had an estimated delivery date, and had a non-live birth. Using the patient chart as the authoritative source, we calculated sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) for each data element.

5.3.4 Validity Testing Results

Results of the data element level validity analyses are shown in Section 4.3.4a Tables 1-2. We calculated sensitivity, specificity, PPV, and NPV for each data element.

5.3.4a Attach Additional Validity Testing Results

[4.3.4a Additional Validity Testing Results_508.docx](#)

5.3.5 Interpretation of Validity Results

Among both HCCNs, sensitivity was at least 0.7 for the majority of the data elements, whereas specificity, PPV, and NPV were above 0.7 for all data elements.

For both HCCNs, we found that the patient charts captured a small number of sterilization cases (5 in HCCN 1 and 3 in HealthEfficient), whereas standardized medical codes for sterilization were not found in the EHR data extract. This is largely because the CHCs from where the data was extracted are outpatient centers and do not provide sterilization procedure themselves. When documenting sterilization that has occurred in other sites, this can be documented in the surgical history section of their EHR systems using unstructured fields (as opposed to using ICD-10 codes to document this in the problem list).

For HCCN 1, we also found 3 live birth dates, 3 estimated delivery dates, and 1 non-live birth that were observed in the patient charts but not in the EHR data extract. This is due to the same reason as sterilization in that pregnancy outcome information was often entered into the system as history records, instead of standardized medical terminologies such as CPT or ICD codes. This level of discrepancy for these elements is expected in outpatient settings.

Overall, our data provide fairly strong evidence for validity of the Contraceptive Care Screening measure at the data element level.

5.3.2 Type of Accountable Entity Level Validity Testing Conducted (derived)

Not applicable/accountable entity level validity testing not conducted

5.4.1 Methods Used to Address Risk Factors

No risk adjustment or stratification

6.1.1 Current Status

Not in use

6.1.2 Current or Planned Use(s)

Public Reporting, Payment Program, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization)

6.1.3 Program Details

Name of the program and sponsor
Lindsey Gibson

6.2.1 Actions of Measured Entities to Improve Performance

Health center agencies and networks can use the measure to assess whether eligible patients of reproductive age are being screened for contraceptive need. To enhance performance, entities must enact workflows that standardize annual Self-Identified Need for Contraception (SINC) screening, including patient identification, defining when, how, and by whom the patient will be asked SINC, and electronic health record (EHR) documentation.

We tested usability in pilot application of this measure in community health centers (CHCs) across the U.S. Common barriers to improvement included staff and clinician turnover, suboptimal integration into the EHR and to clinical workflows and provider resistance to SINC usage based on lack of training or comfort with contraceptive counseling or competing priorities. Despite these barriers, as documented in Section 2.4, participating CHCs were able to improve their scores through the use of quality improvement strategies, including one CHC that reached 82.1% for their Contraceptive Care Screening eCQM measure score. Another participating clinician group/practice site that achieved a screening percentage score of 98.9%. These findings indicate that this measure is responsive to change.

To enhance performance on this measure, entities would prioritize comprehensive clinician and staff training both on the importance of routine contraceptive care, contraceptive counseling skills as appropriate, and on integration of the screening tool itself, proactive leadership involvement, and the structured onboarding of new medical residents and nonclinical staff. It is also crucial to develop clear and standard workflows adapted to optimize SINC screening in the health care setting, including how to identify eligible patients for routine screening, identifying at which point and by whom SINC will be asked, working with EHR vendor to optimize SINC location in the health record.

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