Original Research

Documentation of Contraception and Pregnancy Intention In Medicaid Managed Care

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and Denis Hulett[4]

Abstract

Context: Clinical guidelines recommend the documentation of pregnancy intention and family planning needs during primary care visits. Prior to the 2014 Medicaid expansion and release of these guidelines, the documentation practices of Medicaid managed care providers are unknown.

Methods: We performed a chart review of 1054 Medicaid managed care visits of women aged 13 to 49 to explore client, provider, and visit characteristics associated with documentation of immediate or future plans for having children and contraceptive method use. Five managed care plans used Current Procedural Terminology and *International Classification of Diseases, Ninth Revision* codes to identify providers with at least 15 women who had received family planning or well-woman care in 2013. We conducted multilevel logistic regression analyses with documentation of contraceptive method and pregnancy intention as outcome variables and clinic site as the level 2 random effect.

Results: Only 12% of charts had documentation of pregnancy intention and 59% documented contraceptive use. Compared to women with a family planning visit reason, women with an annual, reproductive health, or primary care reason for their visit were significantly less likely to have contraception documented (odds ratio [OR] = 11.0; 95% confidence interval [CI] = 6.8-17.7). Age was also a significant predictor with women aged 30 to 49 (OR = 0.6; 95% CI = 0.4-0.9), and women aged 13 to 19 (OR = 0.2; 95% CI = 0.1-0.6) being less likely to have a note about pregnancy intention in their chart. Pregnancy intention was more likely to be documented in multispecialty clinics (OR = 15.5; 95% CI = 2.7-89.2).

Conclusions: Interventions to improve routine medical record documentation of contraception and pregnancy intention regardless of patient age and visit characteristics are needed to facilitate the provision of family planning in managed care visits and, ultimately, achieving better maternal infant health outcomes and reduced costs.

Consistent use of contraception has the potential to prevent unintended pregnancies, short inter-pregnancy intervals, and negative maternal and infant health outcomes.[1,2] Multiple studies have demonstrated the return on investment of quality reproductive health services.[3] With the expansion of Medicaid eligibility in 2014, many women of reproductive age enrolled in managed care plans and their first contact may be a primary care provider.[4] These primary care visits are good opportunities to identify and address contraceptive need.

However, little is known about the extent to which family planning needs are identified during managed care visits. We conducted a medical record review of primary care providers

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affiliated with Medicaid managed care plans in 2013. We assessed the documentation of contraceptive method use and pregnancy intentions and associated client, provider, and visit variables.

Methods

Sampling

This study was approved by the University of California, San Francisco Committee of Human Research, California's Health and Human Services Committee of Human Subjects Protection, and the Department of Health Care Services Data Research Committee.

Five Medicaid managed care plans with provider networks in 18 California counties identified all primary care providers who were not enrolled in California's Family Planning, Access, Care, and Treatment program (Family PACT) and used Common Procedural Terminology (CPT) and *International classification of Diseases, Ninth Revision* (*ICD-9*) codes on selected visits of women aged 13 to 49 for annual checkups, well-woman care, or contraceptive counseling, method provision, and negative pregnancy tests in 2013. Visits of the first 15 to 30 unique women seen in 2013 were selected for abstraction.

The abstraction tool was based on a validated tool of a Family PACT medical record review.[5] Trained nurse abstractors entered data on encrypted iPads (iOS 10.0) and uploaded them to University of California San Francisco's Research Electronic Data Capture (REDCap) LTS version 7 server.

Variables

The outcome variables were documentation of *contraceptive use* including seeking pregnancy and nonuse of contraception, and pregnancy intention, defined as chart documentation (in checklist or narrative formats) of a client's immediate or future plans for children. We controlled for provider, clinic, visit, and client demographics listed below.

Provider/clinic characteristics. Clinics self-reported their specialties as primary care (eg, family, internal, or adolescent medicine), Obstetrics/Gynecology (OB/GYN) or women's health, and multispecialty (any combination of 2 or more specialties). Abstractors indicated whether charts were kept as electronic health records (EHRs) or partially/exclusively as paper charts.

Client demographics. Patient age at time of visit was assigned to 3 categories: 13 to 19 years, 20 to 29 years, and 30 to 49 years.

Visit characteristics. A dichotomous variable assessed whether the reason for the visit was family planning (alone or combined with other reasons) or any combination of new patient or annual well-woman visits, reproductive health (eg, testing for sexually transmitted infections or cervical cancer), or primary care (eg, chronic or acute disease management) visit reasons.

Four dichotomous variables measured the presence of medical, family, contraceptive, and sexual history in a checklist or narrative format. Noncontraceptive services provided included immunizations, treatment of acute or chronic illnesses, and prescription of noncontraceptive drugs.

SAS 9.4 Proc GLIMMIX was used to perform a multilevel logistic regression analysis with clinic site as the level 2 random effect. The statistical significance level was set at .05.

Results

We abstracted 1244 charts at 63 clinics. After exclusion of 190 charts (clients with past sterilization or hysterectomy, current pregnancy, or coding error), we kept 1054 charts for analysis.

Provider, Clinic, Client, and Visit Characteristics

The majority (60%) of providers were private group or solo practitioners. Public sector providers included Federally Qualified Health Centers, community/free clinics, and hospital outpatient clinics. Most (75%) of the clinics described themselves as having a primary care specialty. Nearly half of the charts (47%) were recorded in an electronic format, and the remainder were paper charts or a combination of paper charts and electronic charts. About half of the visits were attended by a medical doctor (55%) and the remainder by an advanced practice provider (see Table 1).

Forty-two percentage of women were aged 20 to 29, 21 % were aged 13 to 19, and 37% aged 30 to 49. Forty-six percentage of the charts had a *family planning reason* for the visit, and the remainder had any combination of reproductive health, annual, or primary care visit reasons. Overall, a high percentage of providers documented medical and family histories (87% and 69%, respectively). However, fewer charts contained contraceptive (44%) or sexual histories (35%). Nearly half (47%) of the visits included nonfamily planning related care.

Documentation of Contraceptive Methods and Pregnancy Intention

Overall, the documentation of contraceptive use or desire to become pregnant was missing in 41% of the charts. Only 12% of charts had documentation of pregnancy intention. A higher proportion of charts had a documented pregnancy intention with a family planning visit reason (21%) than with a nonfamily planning visit (4%; Table 1).

Multivariable Analysis

Documentation of contraception. In the multilevel logistic regression model, provider specialty and having an EHR system were not significantly associated with documentation of contraception (see Table 2).

The likelihood of a documented contraceptive method decreased with age. Although women aged 30 to 49 were less likely to have a documented contraceptive method than women aged 20 to 29 (odds ratio [OR] = 0.6; 95% confidence interval

Table 1. Characteristics of Abstracted Visits.[a,b,c]

Visit Characteristics	Number of Abstracted Visits (%)
Clinic specialty	
OB/GYN and women's health specialty	105 (10)
Primary care specialty	791 (75)
Multispecialty specialty	158 (15)
EHR	491 (47)
Paper chart or mixed EHR/paper	563 (53)
Reason of visit	
Had a family planning reason of visit (alone or in combination with other reasons)	482 (46)
Had any combination of reproductive health, annual, or primary care visit reasons without family planning reason	572 (54)
Service provision	
Received nonfamily planning-related care at the visit	492 (47)
Chart documentation	
Documented medical history	913 (87)
Documented family history	731 (69)
Documented contraceptive history	461 (44)
Documented sexual history	369 (35)
Documented contraceptive use	620 (59)
With a family planning visit reason (n = 482)	375 (91)
With a non-family planning visit reason (n = 572)	41 (34)
Pregnancy intention documented	125 (12)
With a family planning visit reason (n = 482)	102 (21)
With a non-family planning visit reason (n = 572)	23 (4)

Abbreviation: EHR, electronic health record.
[a]n = 1054.
[b]Physician degrees include MD and DO.
[c]Advanced practice provider (including physician assistant, Doctor of Nursing Practice, nurse practitioner, Master of Science in Nursing, certified nurse midwife, registered nurse, or other).

Table 2. Model 1: Association Between Provider, Client, and Visit Characteristics and Documentation of (1) Contraceptive Methods[a] and (2) Pregnancy Intention.[b]

Provider, Patient and Visit Characerics	Model 1: Documented Contraception[a] (n = 1054) OR (95% CI)	Model 2: Pregnancy Intention (n = 1054) OR (95% CI)
Provider characteristics		
Family planning specialty	Reference	Reference
Primary care specialty	0.3 (0.1-1.0)	0.7 (0.1-3.7)
Multispecialty specialty	1.7 (0.4-8.1)	15.5 (2.7-89.2)
EHR	1.1 (0.6-2.1)	1.1 (0.4-2.8)
Client demographics		
Age 20-29	Reference	Reference
Age 13-19	1.8 (1.1-3.1)	0.2 (0.1-0.6)
Age 30-49	0.6 (0.4-0.9)	1.4 (0.7-2.5)
Visit characteristics		
Visit reason: family planning	Reference	Reference
Visit reason: all other	0.09 (0.06-0.1)	0.4 (0.2-0.8)
Medical history present	1.6 (0.8-3.1)	3.3 (0.4-29.6)
Family history present	0.8 (0.5-1.3)	2.7 (1.1-6.5)
Contraceptive history present	6.7 (3.9-11.2)	2.8 (1.3-6.2)
Sexual history present	1.6 (1.0-2.8)	1.0 (0.5-2.3)
Nonfamily planning care at visit	0.5 (0.4-0.8)	0.7 (0.4-1.4)

Abbreviations: CI, confidence interval; EHR, electronic health record; OR, odds ratio.
[a]Includes documentation of all contraceptive methods, as well as contraceptive nonuse and natural family planning methods.
[b]n = 1054.

[CI] = 0.4-0.9), and women aged 13 to 19 had almost twice the odds of documented contraception (OR = 1.8; 95% CI = 1.1-3.1).

Women with a reproductive health and annual/new or primary care reason for visit had significantly lower odds (OR = 0.09; 95% CI = 0.06-0.1) of having a documented method of contraception than women with a family planning visit reason. Having a documented contraceptive history (OR = 6.7; 95% CI = 3.9-11.2) was associated with increased odds of contraceptive method documentation. If a woman received a nonfamily planning procedure, she was less likely to have contraceptive method documentation (OR = 0.5; 95% CI = 0.4-0.8).

Pregnancy intention. Women who visited a multispecialty clinic had 15.5 times the odds of pregnancy intention documented (95% CI = 2.7-89.2). Use of EHRs was not associated with documentation of pregnancy intention.

Women aged 13 to 19 were less likely to have a documented pregnancy intention (OR = 0.2; 95% CI = 0.1-0.6), but there was no difference between women 20 to 29 years old and

women aged 30 to 49. Compared to women with a family planning reason for their visit, those with other visit reasons were less likely to have a documented pregnancy intention in their chart (OR = 0.4; 95% CI = 0.2-0.8). Likewise, documentation of family (OR = 2.7; 95% CI = 1.1-6.5) and contraceptive histories (OR = 2.8; 95% CI = 1.3-6.2) was associated with higher odds of documented pregnancy intention. If a woman received a nonfamily planning *procedure* at the visit, she was less likely to have pregnancy intention documented.

Discussion

In this chart review, we identified large gaps in the documentation of pregnancy intention, contraceptive use, and patient histories among Medicaid-managed care providers prior to the Medicaid expansion in 2014. More than half of the charts lacked documentation of contraceptive and sexual histories, which should be part of routine assessments during family planning or annual well-woman visits. If a high proportion of charts lack information about women's contraceptive use, it will not be possible to calculate accurate and meaningful metrics much less assess for value-based payment. In November 2016, the National Quality Forum endorsed 3 developmental contraceptive use measures that may become performance metrics for managed care plans.[6] In order to calculate these metrics, providers must maintain a detailed medical record.

Complete chart documentation allows doctors to ensure patient safety, keep track of patient histories, and make informed clinical decisions.[7-10] Although EHRs may prompt doctors to assess their patients' risk factors, medication use, and existing conditions,[11] we did not find any impact of EHRs on the completeness of documentation of contraception or pregnancy intention. The EHR systems of clinics with primary care specialties may not have included mandatory fields or screens for contraceptive usage. To improve chart documentation and encourage contraceptive and preventive counseling in primary care settings,[12] managed care plans could promote the use of templates that prompt discussion of future pregnancy plans with their patients such as the One Key Question ("Do you want to get pregnant in the next 12 months?") in primary care visits.[13]

Assessments of pregnancy intention and contraceptive use are important initial steps in the provision of quality primary and reproductive health care. We found that adolescents were less likely to have a documented pregnancy intention, suggesting missed opportunities to engage sexually active adolescents in conversations about contraception and preconception care.[14] Documentation of contraception, including contraceptive nonuse, decreased with age, suggesting that clinicians may underestimate the risk of unintended pregnancies and likelihood of maternal comorbidities among women aged 30 and older.[15,16]

As we identified only visits with a CPT or *ICD-9* family planning or annual well-woman visit code, this study underestimates the number of missed opportunities to provide contraception in the primary care setting. An additional limitation of our analysis is that we could not include race/ethnicity, parity, or gravidity data in the analysis because they were missing in the charts or kept in enrollment files.

In 2014, the Office of Population Affairs released clinical guidelines recommending primary care providers to assess pregnancy intention and family planning needs even if the visit reason is not related to family planning.[17,18] Our baseline assessment is a first step to improving family planning documentation in managed care visits. Effective use of contraception facilitates healthy and intended pregnancies leading to better maternal infant health outcomes and reduced costs for managed care plans.

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