Measuring Contraception Use in Medicaid and CHIP

November 5, 2014

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Measuring Contraception Use in Medicaid and CHIP

November 5, 2014
2:00-3:30pm ET

JudyAnn Bigby, MD, Mathematica Policy Research
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Debra J. Kane, PhD, RN, CDC Assignee to the Iowa Department of Public Health
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Measuring Contraception Use in Medicaid and CHIP

• Welcome and Introduction
• Developmental Contraceptive Measure
• Calculating Performance Measures for Contraceptive Use in Iowa
• CARTS Data Submission Process
• Moving Forward
Welcome and Introduction

Lekisha Daniel-Robinson, MSPH
Coordinator, CMCS Maternal and Infant Health Initiative
Health Impact of Unintended Pregnancy and Poorly Spaced Births

- Infant health
  - Preterm birth
  - Low birth weight
  - Infant mortality
  - Birth defects
  - Child maltreatment and behavior

- Maternal health
  - Obstetrical complications

- Life course trajectory
  - Complete education
  - Establish career
  - Income level
  - Live in safer neighborhoods with more recreational opportunities and food security
  - Develop social cohesion
  - Greater access to care
U.S. Prevalence
Unintended Pregnancy and Birth Spacing

• Approximately 700,000 teens ages 15 to 19 become pregnant each year (Ventura 2012)
• More than one-half of pregnancies are unintended (> 3 million per year) (Finer 2014)
• Interpregnancy intervals (Gemmill 2013):
  • 35% <18 months
  • 50% 18 to 59 months
  • 15% ≥ 60 months
Developmental Measures for Tracking Contraceptive Use

Lorrie Gavin, MPH, PhD
CDC’s Division of Reproductive Health
Office of Population Affairs
Specifications for Contraceptive Use Measures

Disclaimer

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the views of the Office of Population Affairs.
Acknowledgments

- Iowa Health and Human Services
  - Iowa Medicaid Enterprise
  - Department of Public Health
- Florida
  - Division of Community Health Promotion
  - Family Planning Program
- State Medicaid programs
- Centers for Disease Control and Prevention
- Office of Population Affairs
- Council of State and Territorial Epidemiologists (CSTE)
- The Guttmacher Institute
Objectives

During this session, we will describe:

1. Two clinical performance measures for contraceptive use (developmental)
   - How they were selected
   - Comparison to NQF criteria

2. How they are computed, using Iowa Medicaid data

3. Plans for supporting use of the performance measures in state Medicaid programs over the coming year
Proposed Clinical Performance Measures for Contraceptive Use

Percentage of female clients ages 15 to 44 who are at risk of unintended pregnancy, that adopt or continue use of FDA-approved methods of contraception that are:

<table>
<thead>
<tr>
<th></th>
<th>MOST effective or MODERATELY effective</th>
<th>Long-acting reversible contraception</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>• Male or female sterilization</td>
<td>• Contraceptive implants</td>
</tr>
<tr>
<td></td>
<td>• Contraceptive implants</td>
<td>• IUD/IUS</td>
</tr>
<tr>
<td></td>
<td>• Intrauterine device (IUD)/intrauterine system (IUS)</td>
<td>• Injectables</td>
</tr>
<tr>
<td></td>
<td>• Oral pills, patch, ring</td>
<td>• Diaphragm</td>
</tr>
<tr>
<td></td>
<td>• Diaphragm</td>
<td></td>
</tr>
</tbody>
</table>

2. Long-acting reversible contraception

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Contraceptive implants</td>
</tr>
<tr>
<td></td>
<td>• IUD/IUS</td>
</tr>
</tbody>
</table>
Elements Not Included in the Measure

• Postpartum contraception
• Male sterilization/vasectomy
NQF Criteria

- Importance to report
  - Evidence, performance gap, priority
- Scientific acceptability
  - Reliability and validity
- Feasibility
- Usability and use
- Comparison to related or competing measures
Evidence to Support the Measure Focus

CONDOMS SHOULD ALWAYS BE USED TO REDUCE THE RISK OF SEXUALLY TRANSMITTED INFECTIONS.

Other Methods of Contraception
Lactational Amenorrhea Method: LAM is a highly effective, temporary method of contraception.
Emergency Contraception: Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.


Centers for Medicare & Medicaid Services
MATERNAL & INFANT HEALTH Initiative
Performance Gap

The National Survey of Family Growth (NSFG) provides nationally representative data about women’s and men’s use of contraception and other aspects of reproductive health. The NSFG also includes information about the respondent’s source of health insurance.

Among women who report being continuously enrolled in Medicaid over the past 12 months, preliminary NSFG estimates from 2006 to 2010 show that approximately:

• One-half of women ages 15 to 20 who are at risk of unintended pregnancy are using a most or moderately effective method of contraception.
• Two-thirds of women ages 21 to 44 who are at risk of unintended pregnancy are using a most or moderately effective method of contraception.
High Priority

• Healthy People 2020 objectives
  • FP-1: Increase the proportion of pregnancies that are intended
  • FP-5: Reduce the proportion of pregnancies conceived within 18 months of a previous birth
  • FP-8: Reduce pregnancies among adolescent females

• National Prevention Strategy

• President and CDC Director have identified teen pregnancy as a national health priority
Scientific Acceptability

- **Reliability**
  - Chart review: The kappa for agreement was excellent for the final scores computed for both measures
    - First performance measure (use of most or moderately effective methods): 0.87 (95% CI: 0.79, 0.95)
    - Second performance measure (LARCs): 0.94 (95% CI: 0.87, 1.00)
  - Provider profiling

- **Validity**
  - Face validity: experts asked to rate the extent to which the measure will provide an accurate reflection of quality in contraceptive services, and can be used to distinguish good vs. poor quality
Feasibility

- Billing/claims data
  - Population of women of reproductive age 15 to 44 years
  - Exclusions: pregnant, sterile for non-contraceptive reasons
  - Contraceptive method used
  - Removal or insertion of IUD or implant

- National Survey of Family Growth (NSFG)
  - At risk of unintended pregnancy (ever had sex, fecund, not seeking pregnancy)
  - Permanently sterilized or received a long-acting reversible contraception in the year(s) preceding the measurement year
Usability and Use

• Compare patterns of performance
  • Providers
  • Type of clinics
  • Geographic areas
  • Others
• Encourage providers to consider their own performance and how they might improve (e.g., by using the Plan, Do, Study, Act model for improvement at service sites)
• Examine factors associated with low and high performance, identify needs, and provide support to those with low performance
• Other potential uses
  • Set a benchmark?
  • Ask for regular reports on steps taken to improve performance?
  • Implement Pay for Performance?
• We will describe an example from Iowa later in today’s presentation
Comparison to Related or Competing Measures

• There are currently no NQF-endorsed measures of contraceptive services
• Hence, no need to harmonize with existing measures
• However, future efforts to develop other measures (e.g., postpartum contraception) will be harmonized
Questions?

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Calculation of Performance Measures for Contraceptive Use in Iowa

Debra J. Kane, PhD, RN  
CDC Assignee to the Iowa Department of Public Health

Brittni Frederiksen, PhD, MPH  
CDC/CSTE Applied Epidemiology Fellow, Iowa Department of Public Health
Medicaid in Iowa

• Iowa Department of Human Services
  • Iowa Medicaid Enterprise
    • Policy staff
    • Provider services
    • Member services

• Iowa Health and Wellness Plan
  • Iowa Wellness Plan
    • Adults ages 19 to 64
    • Income at or below 100 percent FPL
  • Iowa Market Place Choice Plan
    • Adults ages 19 to 64
    • Income from 101 percent through 133 percent FPL
Iowa Family Planning Network
(1115 Waiver)

• Who is eligible?
  • Without family planning coverage by another insurance carrier
  • Family income at or below 300 percent FPL
  • Men and women ages 12 to 54
  • Women whose pregnancy and delivery was covered by Medicaid
    • 12 additional months without eligibility recertification

• Covered services
  • Contraceptive counseling and exams
  • Contraceptive supplies
  • Testing and treatment for STIs (some restrictions)
  • Pap tests

• Service delivery sites
  • Family planning clinics
  • Medical clinics, FQHCs, and rural health clinics
Contraceptive Services for Women

• Women of reproductive age – *enrolled*
  • 166,410 women ages 15 to 44
  • 41,774 women ages 15 to 20
  • 124,636 women ages 21 to 44

• Women who received any contraceptive method – *paid claim*
  • All ages 15 to 44 = 38,393
    • Ages 15 to 20 = 12,344
    • Ages 21 to 44 = 26,049

• Provider types include
  • Family planning clinics
  • Private physicians
  • Rural health clinics
Performance Measures for Contraceptive Use

- Percentage of female clients ages 15 to 44 at risk of unintended pregnancy, that adopt or continue use of:
  1. the most effective or moderately effective FDA-approved methods of contraception
  2. an FDA-approved, long-acting reversible method of contraception (LARC)
Calculating the Denominator

• Total number of women enrolled in Medicaid in Iowa
  • Requested total number of women ages 15 to 44 enrolled in Medicaid in Iowa in 2012
    • 166,410 women ages 15 to 44
      • 41,774 women ages 15 to 20
      • 124,636 women ages 21 to 44
Omissions from the Dataset

• Use billing codes from Tables 1, 2, and 3 to remove women who are not capable of getting pregnant due to:
  • Infertility due to non-contraceptive reasons
    • Ages 15 to 20: 54 women omitted
    • Ages 21 to 44: 823 women omitted
  • Pregnancy
    • Ages 15 to 20: 4,989 women omitted
    • Ages 21 to 44: 20,017 women omitted
Notes About Special Coding Needs

ICD-9 and CPT codes for infertility due to non-contraceptive reasons and pregnancy were coded using “or” statements for the CPT code field and four ICD-9 code fields.
Denominators for Both Measures

- Women ages 15 to 20:
  41,774 eligible women
  - 54 infertile women
  - 4,989 pregnant women
  = **36,731** women

- Women ages 21 to 44:
  124,636 eligible women
  - 823 infertile women
  - 20,017 pregnant women
  = **103,796** women
Calculating the Numerator – Measure 1

Use billing codes from Table 4 to identify women who adopted or continued use of a most or moderately effective method in measurement year.

- Women ages 15 to 20: **12,265** women who adopted or continued use of a most or moderately effective method in measurement year
- Women ages 21 to 44: **25,852** women who adopted or continued use of a most or moderately effective method in measurement year
Notes About Special Coding Needs

- ICD-9, CPT, and HCPCS codes were used connected with “or” statements for the following:
  - Female sterilization, intrauterine devices (IUD/IUS), hormonal implants, and oral contraceptives

- Only CPT and HCPCS codes were used connected with “or” statements for the following because of non-specific ICD-9 codes:
  - Injectables, patches, vaginal rings, diaphragms, condoms, spermicide

- Non-specific counseling and surveillance codes that could not be linked to a specific method were not used (V25.9 and V25.40)
Use NSFG estimates to reassign most effective method to a percentage of women using a least effective or no method of contraception:

- 1.4% for women ages 15 to 20: $36,731 - 12,265 = 24,466 \times 0.014 = 342$ reassigned most effective method
- 29.7% for women ages 21 to 44: $103,796 - 25,852 = 77,944 \times 0.297 = 23,149$ reassigned most effective method
### Adjustment for LARC Removals in the Measurement Year

<table>
<thead>
<tr>
<th>Category</th>
<th>Women ages 15 to 20</th>
<th>Women ages 21 to 44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women with LARC removed</td>
<td>715</td>
<td>2,545</td>
</tr>
<tr>
<td>Women with LARC reinserted on same or subsequent day</td>
<td>97</td>
<td>557</td>
</tr>
<tr>
<td>Women without LARC reinsertion reassigned to next most/moderately effective method reported</td>
<td>295</td>
<td>826</td>
</tr>
<tr>
<td>Women without LARC reinsertion reassigned to least effective/no method</td>
<td>323</td>
<td>1,162</td>
</tr>
</tbody>
</table>
Adjustment for LARC Removals (Ages 15 to 20)

Women who had LARC removed (n=715)

- Women who did not have LARC reinserted (n=618)
  - Used another most/moderately effective method (n=295)
  - Used a least effective or no method (n=323)
- Women who had LARC reinserted (n=97)

Section D Number 2b on Page 4 of Specifications
Adjustment for LARC Removals (Ages 21 to 44)

Women who had LARC removed (n=2,545)

- Women who did not have LARC reinserted (n=1,988)
  - Used another most/moderately effective method (n=826)
  - Used a least effective or no method (n=1,162)

- Women who had LARC reinserted (n=557)

Section D Number 2b on Page 4 of Specifications
Notes About Special Coding Needs

- Use Table 5 to identify removal/discontinued use of LARC and Table 6 to identify LARC reinsertions
- Flag LARC removal and only look for reinsertion on or after removal date
- If no reinsertion code identified, identify most/moderately effective method on or after removal date
- If a subsequent most/moderately effective method cannot be identified, remove these women from the numerator
- CPT and HCPCS codes are helpful in identifying most/moderately effective method received at removal visit because ICD-9 codes often reflect removal and not always new method
SUMMARY: Measure 1 (Ages 15 to 20)

Numerator

12,265 women with most/moderately effective method
+ 342 women with previous most/moderate method
- 715 women had a LARC removed
+ 97 women with a LARC removal had it reinserted
+ 295 women had a subsequent most/moderate method

= 12,284 women ages 15 to 20

Rate Calculation

• 12,284/36,731 x 100 = 33.4 percent of women ages 15 to 20 adopted or continued use of a most or moderately effective FDA-approved method of contraception
SUMMARY: Measure 1 (Ages 21 to 44)

Numerator

25,852  women with most/moderately effective method
+ 23,149  women with previous most/moderate method
- 2,545  women had a LARC removed
  + 557  women with a LARC removal had it reinserted
  + 826  women had a subsequent most/moderate method
= 47,839  women ages 21 to 44

Rate Calculation

• 47,839/103,796 x 100 = **46.1 percent of women ages 21 to 44** adopted or continued use of a most or moderately effective FDA-approved method of contraception
Performance Ceiling Based on NSFG Estimates

Women ages 15 to 20

Women ages 21 to 44
Use billing codes from Table 6 to identify women who adopted or continued use of a LARC in the measurement year:

- Women ages 15 to 20: 2,630 women adopted or continued use of a LARC
- Women ages 21 to 44: 6,462 women adopted or continued use of a LARC
Notes About Special Coding Needs

ICD-9, CPT, and HCPCS codes for intrauterine devices (IUD/IUS) and hormonal implants from Table 6 were coded using “or” statements for the CPT code field and four ICD-9 code fields.
Adjustment for Receipt of Most Effective Method in Year(s) Preceding Measurement Year

Use NSFG estimates to reassign as using a LARC method to a percentage of women using a least effective or no method of contraception:

• 1.4% for women ages 15 to 20: $36,731 - 12,265 = 24,466 \times 0.014 = 342$ women reassigned as using a LARC

• 3.5% for women ages 21 to 44: $103,796 - 25,852 = 77,944 \times 0.035 = 2,728$ women reassigned as using a LARC
Adjustment for LARC Removals (Ages 15 to 20)

Women who had LARC removed (n=715)

- Women who did **not** have LARC reinserted (n=618)
- Women who had LARC reinserted (n=97)
Adjustment for LARC Removals (Ages 21 to 44)

Women who had LARC removed (n=2,545)

- Women who did not have LARC reinserted (n=1,988)
- Women who had LARC reinserted (n=557)
Notes About Special Coding Needs

- Use Table 5 to identify removal/discontinued use of LARC
  - Removal codes: V25.12, 58301, 11976, and 11982
- Use Table 6 to identify LARC reinsertions
  - Removal and reinsertion codes: V25.13 and 11983
  - Insertion codes: V25.11, 58300, S4981, V25.5, and 11981
- Flag LARC removal and only look for reinsertion on or after removal date
- If no reinsertion code identified, remove these women from the numerator
SUMMARY: Measure 2 (Ages 15 to 20)

Numerator:
Use billing codes in Tables 5 and 6 to identify:

- 2,630 women had a LARC
- 715 women had a LARC removed
- 97 women with a LARC removal had it reinserted
+ 342 women with LARC insertion in previous year(s)

= 2,354 women ages 15 to 20

Rate Calculation:

- \( \frac{2,354}{36,731} \times 100 = 6.4\text{ percent of women ages 15 to 20} \) adopted or continued use of a LARC
SUMMARY: Measure 2 (Ages 21-44)

Numerator:
Use billing codes in Tables 5 and 6 to identify:

- 6,462 women had a LARC
- 2,545 women had a LARC removed
+ 557 women with a LARC removal had it reinserted
+ 2,728 women with LARC insertion in previous year(s)

= 7,202 women ages 21 to 44

Rate Calculation:

- $\frac{7,202}{103,796} \times 100 = 6.9 \text{ percent of women ages 21 to 44}$ adopted or continued use of a LARC

Section D Number 3 on Page 5 of Specifications
Measure 2 Can Be Used to Compare LARC Use Across States

Women ages 15 to 20

<table>
<thead>
<tr>
<th>State</th>
<th>Percent Using LARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>State 1</td>
<td>2</td>
</tr>
<tr>
<td>State 2</td>
<td>3</td>
</tr>
<tr>
<td>State 3</td>
<td>4</td>
</tr>
<tr>
<td>State 4</td>
<td>5</td>
</tr>
<tr>
<td>State 5</td>
<td>6.4</td>
</tr>
<tr>
<td>Iowa</td>
<td>6.4</td>
</tr>
<tr>
<td>State 7</td>
<td>7</td>
</tr>
<tr>
<td>State 8</td>
<td>8</td>
</tr>
<tr>
<td>State 9</td>
<td>9</td>
</tr>
</tbody>
</table>

Women ages 21 to 44

<table>
<thead>
<tr>
<th>State</th>
<th>Percent Using LARC</th>
</tr>
</thead>
<tbody>
<tr>
<td>State 1</td>
<td>2</td>
</tr>
<tr>
<td>State 2</td>
<td>3</td>
</tr>
<tr>
<td>State 3</td>
<td>4</td>
</tr>
<tr>
<td>State 4</td>
<td>5</td>
</tr>
<tr>
<td>State 5</td>
<td>6.9</td>
</tr>
<tr>
<td>Iowa</td>
<td>6.9</td>
</tr>
<tr>
<td>State 7</td>
<td>7</td>
</tr>
<tr>
<td>State 8</td>
<td>8</td>
</tr>
<tr>
<td>State 9</td>
<td>9</td>
</tr>
</tbody>
</table>
Women ages 15 to 20 who adopt or continue use of the most or moderately effective FDA-approved methods of contraception, Iowa 2012
Women ages 21 to 44 who adopt or continue use of the most or moderately effective FDA-approved methods of contraception, Iowa 2012
Iowa: Next Steps

- Incorporate NDC codes into calculation
  - What is the added value of NDC codes?
- Explore other configurations
  - Waiver clients compared to Medicaid clients
  - Rural – Urban
- Explore results by provider and clinic
  - May need to use National Provider Identification (NPI)
- Revise data request based on feedback
Maternal and Infant Health Initiative: Next Steps

Over the first year of use:
- Ongoing support to state Medicaid programs as they apply the measure
- Invited discussions about each state’s experience using the measure (optional)
- Possible refinements based on states’ experiences
Additional Data Explorations

- Finalize NSFG estimates and update with 2011-2012 data
- Use of claims vs. NSFG data to identify previous insertion of LARC
  - Feasibility of looking back 5 to 10 years
  - Bias introduced by women who move on/off Medicaid program in previous years?
- Reliability assessments
- Others, as needs emerge
Questions?

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CARTS Data Submission

Megan Thomas
Division of Quality, Evaluation and Health Outcomes, CMCS
CARTS Data Submission

- URL for CARTS: http://carts.medicaid.gov
- Logging into CARTS
- Overview of the CARTS system
- Entering measurement data
- Certifying data
- Making changes to submitted data
Contacts for CARTS Questions

• For TA related to the developmental measures for tracking use of contraceptive services:
  • Contact the TA mailbox at MACqualityTA@cms.hhs.gov

• For questions about the CARTS system:
  • Contact Jason Williams at Jason.Williams1@cms.hhs.gov
Moving Forward

Lekisha Daniel-Robinson, MSPH
Coordinator, CMCS Maternal and Infant Health Initiative
Maternal and Infant Health Initiative: Moving Forward

- Update on the Improving Postpartum Care Action Learning Series
- Planned funding opportunity
- Quarterly quality improvement webinar series
- Tools and best practices
Thank you for participating in today’s webinar!

• Your opinion counts! Please complete the survey as you exit the webinar. The survey will appear in your browser window once the webinar ends.