Interpreting Rates for Contraceptive Care Measures

The Office of Population Affairs (OPA), with support from the Centers for Disease Control and Prevention (CDC), developed performance measures for contraceptive care for health care providers, payers, purchasers, health plans, and policy makers to assess access to and the quality of contraceptive services. This describes how to interpret rates for the ***claims-based version*** of the performance measures.

The measures assess the percentage of women ages 15 through 44 provided a most or moderately effective method of contraception and the percentage provided a long-acting reversible method of contraception (LARC) (Table 1).

- *Most effective* methods include female sterilization, implants, or intrauterine devices or systems (IUD or IUS).

- *Moderately effective* methods include injectables, oral pills, patch, ring, or diaphragm. LARC methods include contraceptive implants, IUD, or IUS. The first set of measures have a denominator that includes all women of reproductive age who are at risk of unintended pregnancy and the second set of measures have a denominator that includes postpartum women with a recent live birth.

Table 1. Contraceptive Care Measures

All Women Among women ages 15 through 44 at risk of unintended pregnancy (defined as those that have ever had sex, are not pregnant or seeking pregnancy, and are fecund), the percentage that is provided: 1) A most effective or moderately effective method of contraception. 2) A long-acting reversible method of contraception (LARC).
Postpartum Women Among women ages 15 through 44 who had a live birth, the percentage that is provided within 3 and 60 days of delivery: 1) A most effective or moderately effective method of contraception. 2) A long-acting reversible method of contraception (LARC).

There are some differences in how to interpret the measure rates. Examples for each are provided below.

- EXAMPLE 1: Provision of Most and Moderately Effective Methods Among All Women at Risk of Unintended Pregnancy
- EXAMPLE 2: Provision of LARC Methods among All Women at Risk of Unintended Pregnancy
- EXAMPLE 3: Provision of Contraceptive Methods to Postpartum Women

EXAMPLE 1: Provision of Most and Moderately Effective Methods Among All Women at Risk of Unintended Pregnancy

Table 2 illustrates the process for interpreting the provision of most and moderately effective methods of contraception among all women at risk of unintended pregnancy. The example is based on Iowa Medicaid claims data from 2013 and data from the National Survey of Family Growth (NSFG). The table shows the rates for women by age and type of benefit, that is, the family planning waiver versus general Medicaid.

Table 2. Provision of most and moderately effective contraceptive methods among women, by type of Medicaid benefit in Iowa, 2013

Type of benefit	Women ages 15 through 20 (n=11,699)	Women ages 21 through 44 (n=33,051)
General Medicaid	40.4%	28.0%
Family Planning Waiver	79.3%	72.7%

Source: Iowa Department of Public Health

The fact that the measures are calculated using claims data affects how to interpret the rates. Claims data have several advantages: they are relatively accessible and easy to collect and compile, document the actual services provided, and can readily be used to identify pregnant women.

However, claims data also have some limitations when used to assess the quality of contraceptive care. One key limitation is that claims data do not capture several aspects of women's risk of unintended pregnancy: sexual experience, pregnancy intention, sterilization, or LARC insertion in a year preceding the measurement year, and infecundity for non-contraceptive reasons (unless the woman had a procedure during the measurement year).

These limitations have implications for one of the four measures, that is, the provision of most or moderately effective methods among all women at risk. The limitations can be partially addressed by using data from the National Survey of Family Growth (NSFG) to help interpret the performance measure rates for provision of most and moderately effective methods of contraception.

NSFG estimates were used (Tables 3 and 4) to adjust the rates obtained from Iowa Medicaid claims data:

- The rate from the Iowa Medicaid Enterprise data show that 40.4 percent of adolescent women enrolled in the general Medicaid program were using a most or moderately effective method of contraception. NSFG estimates indicate that about 53 percent of the adolescent Medicaid clients are not in need of contraceptive services because they have never had sex (51.6 percent) or received LARC in a year preceding the measurement year (1.1 percent). To adjust for the limitations of claims data, Iowa Medicaid might sum the measure rate (40.4 percent) with the NSFG estimate of adolescents not in need of contraceptive services (53 percent). This gives an adjusted estimate of 93 percent of adolescents whose contraceptive needs are met, and leaves about a 7 percentage point opportunity for improvement.

- The measurement rates also show that 28.0 percent of adult women enrolled in the general Medicaid program were using a most or moderately effective method of contraception. NSFG estimates suggest that about 44 percent of the adult Medicaid sample described above are not in need of contraceptive services because they have never had sex (3.4 percent), are seeking pregnancy (4.4 percent), are infecund for non-contraceptive reasons (3.5 percent), received LARC in a year preceding the measurement year (9.7 percent), or have been sterilized for contraceptive reasons in a year preceding the measurement year (23.3 percent). To adjust for the limitations of claims data, Iowa Medicaid might sum the measure rate (28 percent) with the NSFG estimate of adults not in need of contraceptive services (44 percent). This gives an adjusted estimate of 72 percent of adults whose contraceptive needs are met, and leaves about a 28 percentage point opportunity for improvement.

Table 3. Use of NSFG data to interpret provision of most and moderately effective contraceptive methods: An example from Medicaid

		15 20 yrs	21 44 yrs
NSFG	*Have never had sex*	*51.6%*	*3.4%*
	Seeking pregnancy	*0.0%*	*4.4%*
	Infecund for non-contraceptive reasons	*0.0%*	*3.5%*
	Received LARC in a year preceding the measurement year	*1.1%*	*9.7%*
	Sterilized for contraceptive reasons in a year preceding the measurement year	*0.0%*	*23.3%*
	Not in need of contraceptive services	52.7%	44.3%
	Women enrolled in general Medicaid using a most or moderately effective method of contraception	+ 40.4%	+ 28.0%
	Contraceptive needs are met	93.1%	72.3%
	Opportunity for improvement	**6.9%**	**27.7%**

For Iowa Medicaid's family planning waiver program, no adjustment with NSFG data is needed. The rates show that 79.3 percent of adolescent and 72.7 percent of adult Iowa Medicaid Enterprise clients who participated in the family planning waiver program were provided a most or moderately effective method of contraception (Table 2). Since the purpose of Iowa's family planning waiver program is pregnancy prevention and birth spacing, clients who receive services from this program are seeking contraceptive services and can therefore be considered at risk of unintended pregnancy.

Table 4. Provision of contraception among selected women[a] ages 15 through 44 whose current insurance is Medicaid, National Survey of Family Growth, 2013-2015

		Most effective methods					Moderately effective methods % (SE)	Least effective methods % (SE)	No method % (SE)	Never had sex % (SE)	Seeking pregnancy % (SE)	Sterile % (SE)
			Female sterilization		LARC							
		Vasectomy % (SE)	Procedure within past 12 months % (SE)	Procedure prior to last 12 months % (SE)	Received in past 12 months % (SE)	Received prior to last 12 months % (SE)						
Total	**100%**	**1.0 (0.3)**	**2.0 (0.6)**	**16.8 (1.9)**	**3.9 (1.0)**	**7.4 (1.0)**	**17.6 (1.3)**	**14.2 (1.4)**	**15.8 (1.3)**	**15.2 (1.3)**	**3.5 (0.7)**	**2.5 (0.6)**
Age												
15-20	100%	--	--	--	1.6 (0.7)	1.1 (0.5)	21.7 (3.1)	11.2 (3.0)	12.6 (1.9)	51.6 (3.3)	*	*
21-44	100%	1.3 (0.5)	2.8 (0.8)	23.3 (2.3)	4.7 (1.3)	9.7 (1.4)	15.5 (1.4)	14.7 (1.6)	16.7 (1.6)	3.4 (0.9)	4.4 (0.9)	3.5 (0.8)
Race/Ethnicity												
Hispanic	100%	*	2.0 (1.1)	14.4 (3.7)	4.3 (2.4)	6.9 (1.4)	14.6 (2.9)	14.0 (2.8)	18.7 (2.9)	20.4 (2.9)	2.7 (0.8)	*
NH White	100%	1.1 (0.4)	3.0 (1.1)	19.7 (2.6)	4.6 (1.8)	7.5 (1.8)	18.1 (1.9)	15.6 (2.5)	11.1 (1.3)	11.8 (1.7)	4.2 (1.5)	3.3 (0.9)
NH Black	100%	*	*	14.5 (2.0)	2.5 (1.0)	7.3 (2.1)	22.3 (2.5)	14.4 (2.5)	19.6 (2.2)	12.1 (1.6)	3.2 (1.2)	2.4 (0.8)
Marital status												
Married	100%	*	5.4 (2.4)	24.9 (4.2)	4.6 (2.2)	8.8 (2.3)	17.5 (3.7)	14.8 (2.9)	8.2 (2.3)	--	9.0 (2.8)	4.6 (1.6)
Cohabitating	100%	2.1 (0.9)	3.5 (1.5)	21.7 (3.8)	8.3 (4.2)	13.8 (3.5)	16.6 (2.6)	17.4 (3.6)	8.8 (2.0)	--	5.3 (1.6)	2.6 (2.2)
Widowed, divorced, or separated	100%	--	*	38.5 (5.3)	1.8 (1.0)	4.4 (1.5)	10.8 (3.1)	10.6 (3.5)	27.5 (6.6)	--	*	4.3 (1.5)
Never Married	100%	*	0.4 (0.2)	7.1 (1.1)	2.5 (1.0)	5.3 (0.9)	19.6 (1.8)	13.7 (1.8)	18.5 (1.5)	29.9 (2.2)	1.3 (0.5)	1.4 (0.5)

Source: Office of Population Affairs analysis of National Survey of Family Growth 2013-15 data

[a] Women whose pregnancy ended within 2 months of the interview or who were pregnant at the time of the interview are not included so that the NSFG sample most closely matches the denominator obtained with claims data

SE= standard error; -- indicates no cases in that category; * data statistically not reliable due to low number of cases in that category

Table 5. Provision of contraception among all women[a] ages 15 through 44, National Survey of Family Growth, 2013-2015

		Most effective methods										
			Female sterilization		LARC							
		Vasectomy % (SE)	Procedure within past 12 months % (SE)	Procedure prior to last 12 months % (SE)	Received past 12 months % (SE)	Received prior to last 12 months % (SE)	Moderately effective methods % (SE)	Least effective methods % (SE)	No method % (SE)	Never had sex % (SE)	Seeking pregnancy % (SE)	Sterile % (SE)
Total	**100%**	**3.9 (0.4)**	**1.6 (0.3)**	**12.6 (0.9)**	**2.6 (0.4)**	**7.0 (0.5)**	**21.3 (0.8)**	**16.4 (1.0)**	**15.8 (0.8)**	**11.9 (0.6)**	**5.1 (0.4)**	**2.0 (0.3)**
Age												
15-20	100%	--	--	--	2.4 (0.8)	0.8 (0.3)	22.9 (1.9)	8.2 (1.2)	12.0 (1.5)	53.3 (2.4)	*	0.5 (0.2)
21-44	100%	4.8 (0.5)	2.0 (0.3)	15.5 (1.1)	2.6 (0.4)	8.3 (0.6)	20.3 (0.9)	18.0 (1.1)	16.5 (0.8)	3.8 (0.5)	6.1 (0.5)	2.2 (0.3)
Race/ethnicity												
Hispanic	100%	2.8 (0.7)	0.7 (0.3)	14.7 (1.6)	3.4 (0.8)	7.9 (1.0)	16.4 (1.4)	16.7 (1.5)	16.3 (1.6)	14.8 (1.3)	4.3 (0.6)	2.1 (0.5)
NH White	100%	7.9 (0.9)	2.3 (0.4)	12.0 (1.3)	2.5 (0.6)	7.0 (0.7)	24.9 (1.3)	15.7 (1.4)	13.5 (0.9)	10.2 (0.8)	5.2 (0.6)	2.0 (0.4)
NH Black	100%	0.9 (0.2)	1.0 (0.4)	13.4 (1.4)	2.3 (0.5)	6.6 (1.1)	18.5 (2.0)	15.3 (1.6)	24.3 (1.8)	11.0 (1.2)	4.7 (1.1)	1.7 (0.4)
Marital status												
Married	100%	8.8 (0.9)	3.0 (0.6)	18.8 (1.5)	2.0 (0.5)	9.2 (1.0)	15.5 (1.2)	21.6 (1.8)	9.1 (0.9)		9.3 (0.9)	2.8 (0.6)
Cohabitating	100%	1.8 (0.6)	1.4 (0.5)	14.3 (1.7)	5.5 (1.6)	9.0 (1.4)	26.1 (2.0)	22.6 (2.1)	9.0 (1.5)	-- --	8.8 (1.8)	1.4 (0.4)
Widowed, divorced, or separated	100%	2.2 (1.2)	2.2 (1.2)	28.6 (3.2)	3.1 (1.6)	6.6 (1.9)	16.9 (2.3)	8.4 (2.0)	28.2 (3.4)	*	1.1 (0.5)	3.3 (0.8)
Never Married	100%	0.5 (0.3)	0.4 (0.1)	3.4 (0.5)	2.0 (0.6)	4.4 (0.5)	25.7 (1.3)	11.1 (0.9)	21.9 (1.3)	28.8 (1.4)	0.8 (0.2)	1.1 (0.3)

Source: Office of Population Affairs analysis of National Survey of Family Growth 2013-15 data

[a] Women whose pregnancy ended within 2 months of the interview or who were pregnant at the time of the interview are not included so that the NSFG sample most closely matches the denominator obtained with claims data

SE= standard error; -- indicates no cases in that category; * data statistically not reliable due to low number of cases in that category

EXAMPLE 2: Provision of LARC Methods among All Women at Risk of Unintended Pregnancy

The primary intent of the LARC measure is to identify very low rates of LARC provision (less than 1-2%) or where rates of LARC provision are well below the median or mean of several reporting units (for example, clinics or counties) which could be an indicator of barriers to LARC access that may be explored. The LARC measure should not be used to encourage high rates of use or provision. For this same reason, it is not appropriate to use the LARC measure in a pay-for-performance context. Accordingly, NSFG data are not used to interpret the LARC rates.

To illustrate this process, Iowa Medicaid claims data from 2013 were used to calculate the performance measures for all women by public health region (Table 6).

Table 6. Provision of LARC among women, overall and by public health region in Iowa, 2013

	Women ages 15 through 20 (n=5,254)	Women ages 21 through 44 (n=9,483)
Public Health Regions	**LARC**	**LARC**
Overall	**4.7%**	**5.1%**
PHR1	4.7%	4.8%
PHR2	5.4%	5.8%
PHR3	3.5%	6.3%
PHR4	4.7%	4.9%
PHR5	5.3%	4.9%
PHR6	4.6%	5.1%

Source: Iowa Department of Public Health

In the Iowa general Medicaid population, provision of LARC methods to adolescents is 4.7 percent and among adults it is 5.1 percent. The provision of LARC does not fall below 1 to 2 percent in any public health region and there do not appear to be substantial differences in LARC access across public health regions. These data suggest that there is some access to LARC in the state overall and in each region of the state. Public health regions with percentages lower than the state average may indicate barriers to providing most and moderately effective contraceptive methods that could be addressed.

EXAMPLE 3: Provision of Contraceptive Methods to Postpartum Women

Providing contraception in the postpartum period can help women space pregnancies to their desired inter-pregnancy interval. Healthy People 2020 and the World Health Organization recommend an inter-pregnancy interval of at least 18 months, therefore, providing contraception in the postpartum period can be considered an indicator of quality care. All postpartum women may be considered generally at risk of unintended pregnancy for that period of time. As a result, no adjustment using NSFG data is needed to interpret the rates.

To illustrate how to interpret the postpartum rates, Iowa Medicaid data were used from 2013 to calculate the measure statewide and by Iowa public health region (Table 7).

Table 7. Provision of postpartum contraception among female Medicaid enrollees ages 15 through 44, overall and by public health region in Iowa, 2013

Postpartum (n = 12,369)	**Ages 15 through 20 (n = 2,290)**		**Ages 21 through 44 (n = 10,079)**	
3 days postpartum	**Most/moderate**	**LARC**	**Most/moderate**	**LARC**
Overall	**3.5%**	**0.6%**	**12.0%**	**0.3%**
Public Health Region 1	1.2%	0.0%	9.8%	0.0%
Public Health Region 2	4.5%	0.0%	13.0%	0.1%
Public Health Region 3	2.1%	0.6%	11.9%	0.1%
Public Health Region 4	3.1%	0.0%	11.7%	0.0%
Public Health Region 5	6.5%	0.8%	13.7%	0.7%
Public Health Region 6	5.2%	1.5%	13.5%	0.8%
60 days postpartum				
Overall	**40.8%**	**13.9%**	**41.2%**	**9.5%**
Public Health Region 1	39.3%	13.8%	38.0%	8.8%
Public Health Region 2	43.8%	13.7%	46.2%	11.5%
Public Health Region 3	36.0%	10.2%	37.0%	7.8%
Public Health Region 4	42.0%	13.3%	45.2%	8.5%
Public Health Region 5	44.2%	14.9%	45.4%	10.2%
Public Health Region 6	41.8%	15.8%	42.3%	10.7%

Source: Iowa Department of Public Health

Provision of most and moderately effective methods

The percentage of women provided a most or moderately effective method in the immediate postpartum period was 3.5 percent for adolescents and 12 percent for adult women. By 60 days postpartum, approximately 41 percent of adolescent and adult women were using a most or moderately effective method of contraception. Consequently, there is about a 59 percentage point opportunity for improvement.

Provision of LARC methods

Immediate postpartum LARC provision (within 3 days) among postpartum women is very low, less than 1 percent overall, and there is very little difference across public health regions. This result is not surprising given that Iowa Medicaid had only recently begun reimbursing for this service. By 60 days postpartum, no public health region has a rate less than 2 percent. These data suggest that there is some access to LARC in the state overall and in each region of the state.