Prematurity Prevention & Louisiana Medicaid: Progress to date and a path forward

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Objectives

- Model potential format and forum for future Quality Committee meetings
- Present plan-stratified data/action on Quality strategy measures, emphasizing incentivized measures (process)
- Present and collect feedback on preliminary evaluation of population health impact (outcomes)
- Present subcommittee/Committee feedback obtained prior to this meeting
- Facilitate discussion on optimizing improvement in next Performance Improvement Project cycle, providing medical provider input to plans

Louisiana Medicaid Prematurity Prevention Performance Improvement Project

BACKGROUND

Why focus on preterm birth? Why 17-hydroxyprogesterone (17-P)?

- Half of infant mortality occurs in babies born at <32 weeks, significant racial disparities
- Preterm neonates = half annual infant hospitalization costs
- 17-P is one of few evidence-based interventions for prevention:
 - 2 2003 RCTs inform recommendations
 - 33% reduction in those with a prior spontaneous preterm birth (weekly admin 16–36w)
 - Works best in women w/ prior PTB before 34w



Data source: Louisiana Vital Records, courtesy Lyn Kieltyka

Louisiana Medicaid Quality Strategy: Opportunities for Impact

- Quality strategy in 2014 contract included shared targets for population health improvement
- 16 incentivized measures in contract extension effective 2/1/18
- Medicaid expansion 7/1/2016
- Commitment to broader payment and system transformation
- Provider/public health champions focused on infant mortality
- All managed care plans participate in a collaborative Prematurity Performance Improvement Project

Medicaid Performance Improvement Projects (PIPs)

- Purpose: achieve and sustain demonstrable improvement in quality and appropriateness of care services over time
- Required of managed care organizations (MCOs) by CMS
- Plans engaged in PIPs with support from an External Quality Review Organization
- Collaborative PIP process: all plans work on same measures
- 2 PIPs: 1) prematurity prevention, 2) ADHD
- 3rd PIP: in development with goal to focus on behavioral health

Financial incentives for quality improvement

For CY 2017 reported in 2018

- 9 financially-incentivized quality measures
 - Some HEDIS/CMS/CHIPRA
 - 1 homegrown
- Some measures subject to a \$250,000 penalty for failure to meet performance target

For CY 2018 reported in 2019

- 16 financially-incentivized quality measures
 - 13 HEDIS, 2 CAHPS
 - 1 homegrown
- 1% of gross revenue withheld for quality outcomes (1/16 per measure)
- Plans must meet target (national 50th percentile or LDH established target) or 2 points over the plan's prior year performance to "earn back" the 1%

Incentivized measure selection

 Contract extension: continuation of a "home-grown" measure for initiation of injectable progesterone (17-P) for recurrent preterm birth prevention

Incentive-Based Performance Measures						
#01 (PTB) \$\$	Initiation of Injectable Progesterone for Preterm Birth Prevention	The percentage of women 15-45 years of age with evidence of a previous preterm singleton birth event (24-36 weeks completed gestation) who received one or more progesterone injections between the 16 th and 24 th week of gestation for deliveries during the measurement year	State- Section V	None	Children's and Maternal Health	Perinatal and Reproductive Health

What have we achieved?

2010: Coverage of compo	unded progesterone	N	
2014: Coverage of Maken 2015	a 5-16: Addressing barriers	to 17-P	
 2014-15 PIP launch Baseline measurement period 	 Interim PIP 2017-19: measurement Intervention period 	 Data-driven improvement PIP re-measurement period PIP report submission 6/2018 	
 Birth Outcomes Initiative focused on 39w delivery LAMMICO CME March of Dimes CME in high risk regions Coverage of Alere/Optum home administration High Risk Pregnancy Registry made available to MCOs 	 LA ACOG engagement Medicaid Ordering & Billing Guide Reimbursement rate increase compounded 17P 	 Perinatal Commission contacted outlier providers Launch of Perinatal Quality Collaborative Institute of Healthcare Improvement style QI training Final reports 6/2019 	

"The Collaborative PIP aims..."

"...to decrease the preterm birth rate by implementing a robust set of health plan, member and provider interventions to improve rates of the following performance indicators:"

- Progesterone measure: women with a prior preterm birth who receive 1 or more progesterone injections between 16-21 weeks gestation (changed to 16-24 in 2016)
- 2. STI screening during pregnancy for: a) Chlamydiab) HIV c) Syphilis
- 3. Postpartum visit attendance

- 4. **Contraceptive Measure-**% of postpartum women who:
- Adopt use of a most effective method, (i) female sterilization or (ii) Long-Acting Reversible Contraception (LARC)
- Adopt use of a moderately effective method of contraception, i.e., use of injectables, oral pills, patch, ring or diaphragm.

Components of a 17-P centered prematurity prevention strategy

• Selection of target population

- Currently pregnant members with any prior preterm birth <37w
- Maternal age from 11y to 50 years

Identification of members

- Vital record information on gestational age and matched with all women and children ever enrolled in Medicaid via agreement between Medicaid and Office of Public Health
- Registry provided to Medicaid fiscal intermediary: parses list according to plan enrollment and distributes to MCOs
- Providers submit "Notification of Pregnancy" to MCOs

Components of a 17-P centered prematurity prevention strategy

Measure validation

- MCOs report most Quality Performance Measures to the National Committee for Quality Assurance (NCQA)
- "Home grown" measure validated by ULM and External Quality Review Organization

Setting of targets

- Contractual target of 20.65% (reported in 2018 for CY 2018) initiation rate in women with prior preterm birth, based on best performance reported to LDH by any MCO for the prior measurement year
- PIP can set different target for collaborative goal
- Evaluation
 - Primary data from MCOs shared in plan Performance Improvement Project, validated where possible
 - Global evaluation data from Medicaid claims data

Example plan interventions to date

- High risk pregnancy registry paired with internal registries to identify high-risk members (5)
- Case management contact and support for high-risk members (5)
- Provider financial incentives for notification of pregnancy forms, administering 17P injections (1)
- Patient financial incentives for receiving 17P injections (1)
- Home administration of 17P via Optum (5)
- High-risk members get a phone to promote communication (1)
- Community case management/CHW support for members who drop out of care (2)
- Provider visits to review quality outcomes and personal metrics
 (2)

PROCESS OUTCOMES ON KEY MEASURES

Louisiana Medicaid Prematurity Prevention Performance Improvement Project

Louisiana Medicaid Initiation of Injectable Progesterone Measure 2013-2016—Total



Louisiana Medicaid Initiation of Injectable Progesterone Measure 2013-2016 – By Plan



	CY 2013	CY 2014	CY 2015	CY 2016
Aetna			9.0%	14.3% (19/133)
AmeriHealth Caritas of Louisiana	5.9%	8.6%	11.2%	20.7% (83/402)
Healthy Blue	4.9%	8.2%	12.3%	17.6% (109/621)
Louisiana Healthcare Connections	3.8%	7.4%	8.6%	13.8% (142/1028)
United Healthcare of Louisiana	5.1%	7.4%	9.3%	18.0% (168/933)

Louisiana Medicaid Initiation of Injectable Progesterone Measure 2013-2016 – By Plan



Louisiana Medicaid Initiation of Injectable Progesterone Measure 2016 – By Region (n=3,249)

Regional Rates (MCO+FFS) calculated by ULM.



Louisiana Medicaid Initiation of Injectable Progesterone Measure 2013-2016 – By Region



Louisiana Medicaid Initiation of Injectable Progesterone Measure 2013-2016 – By Race

By-Race Rates (MCO+FFS) calculated by ULM.



Hispanic	6.4%	4.3%	8.9%	11.5% (9/78)
Other	5.0%	6.3%	10.8%	18.5% (15/81)
Unknown	4.7%	7.6%	7.6%	17.7% (17/96)

Chlamydia Screening During Pregnancy for 2016 Measurement Year – By Plan



Syphilis Screening During Pregnancy for 2016 Measurement Year – By Plan



Louisiana Medicaid Postpartum Care Rates During 2013-2016 Measurement Years



Louisiana Medicaid Postpartum Care Rate 2013-2016 – By Plan



Louisiana Medicaid Most/Moderately Effective Contraceptive Care Rates for 2016 Measurement Year – 60 Days, By Plan

Healthy Louisiana Rates calculated by ULM for women aged 15-44 years. Based on CMS Adult and CHIPRA Core Set Specifications. Rates are reported as within 60 days post-delivery



Louisiana Medicaid LARC Contraceptive Care Rates for 2016 Measurement Year – 3 Days and 60 Days, By Plan

Healthy Louisiana Rates calculated by ULM for women aged 15-44 years. Based on CMS Adult and CHIPRA Core Set Specifications.



Louisiana Medicaid Most/Moderately Effective Contraceptive Care Rates for 2016 Measurement Year – 60 Days, By Race



Louisiana Medicaid LARC Contraceptive Care Rates for 2016 Measurement Year – 3 Days and 60 Days, By Race



Louisiana Medicaid Prematurity Prevention Performance Improvement Project

IMPACT ON POPULATION HEALTH?

Louisiana Medicaid Prematurity Rates <37 Weeks During 2013-2016 Among Total Medicaid Singleton Births



So...has anyone succeeded? Yes!



How did they achieve this? Do we need to revisit our approach...to our aim?

Ohio Perinatal Quality Collaborative (providers)

- Early access to prenatal care (postpartum education on progesterone in prior pregnancy)
- Early recognition of prior preterm birth
- CL screening protocols
- Expedite progesterone supplementation
- Customize care to start and maintain progesterone

- Ohio Medicaid Managed Care
 Performance Improvement
 Project
 - Continuous insurance coverage
 - Timely & accurate identification of progesterone candidate thru meaningful use of data
 - Timely access to progesterone (progesterone point person in MCO, no prior authorizations, reimbursement clarity)
 - Patient engagement & education
 - Build trust with payers, providers, patients (common communication materials branded through OPQC)
 - Social and administrative barriers

Louisiana Medicaid Prematurity Rates <32 Weeks During 2013-2016 for Women Having a Previous Preterm Birth <37 Weeks



CY2016 Louisiana Medicaid Prematurity Rates <37 Weeks Among All Medicaid Births and <32 Weeks for Women Having a Previous Preterm Birth –By Region



Louisiana Medicaid Prematurity Prevention Performance Improvement Project

REFRAMING FOR A YEAR OF COLLABORATIVE IMPROVEMENT

Proposed Driver Diagram DRAFT 05/15/18

GLOBAL AIM: REDUCE PRETERM BIRTH & INFANT MORTALITY IN LA

Possible <u>SMART AIM</u> statements for MCO Consideration

By July 2019 (?):

Reduce Preterm Birth <37w by x% in women with a prior preterm birth and Preterm Birth <32w by x% in women with a prior preterm birth in LA Medicaid population

a) Improve the initiation of progesterone between 16-24 weeks gestational age for the high risk maternity Medicaid population (prior spontaneous preterm birth) from 16% to y%



(x) 20% reduction in recurrent preterm birth <32w = **37 fewer preterm births <32w** = **111**/3249 women more on progesterone if prior PTB (or ASA if they delivered early because of preeclampsia!

Feedback from Maternity Care (OB/MFM) Subcommittee



Feedback from Maternity Care (OB/MFM) Subcommittee

- Can we explicitly aim to reduce disparities as well as improve outcomes?
- Can next round of interventions involve more direct involvement with providers?
 - High risk pregnancy navigators at practice level with MCO financial support? Consistent risk stratification?
 - Assistance with provider tracking of clients/members eligible for intervention?
 - Can MCOs support integrated education campaigns for providers and community members?
 - Integrated MCO approach to "outlier" providers and regions?

Further questions for discussion

- Which interventions have been most and least useful to date?
- PIP as an opportunity for partnered improvement work between plans and providers...What do plans and providers need from each other?
 - Mixed quality reports
 - Practice engagement and transformation
 - Management of outliers
- What is the role of **member engagement** in this effort– how, when, by whom?

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THANK YOU! FEEDBACK?

APPENDIX: SUPPLEMENTARY MATERIAL PRESENTED TO PREMATURITY PIP

Louisiana Medicaid Prematurity Prevention Performance Improvement Project

Provider Outlier Report Run by ULM 2015-2016

- Providers who provided care for >5 pregnant woman with a prior preterm, singleton live birth at least once between 16-24 weeks gestation, with <10% of linked patients with prior preterm birth receiving at least one progesterone injection
 - Average # eligible women served by provider: 11 (range 6 45 women)
 - Median # patient visits among women with prior preterm birth: 20 (range 14-162 visits)
 - If women have seen multiple providers during that timeframe, the 1 with the most visits is considered "linked"
- Resulted in 44 providers and each was called by chair of LA Perinatal Commission

Findings on progesterone

- Two randomized controlled trials in 2003 found that women with prior preterm birth who were randomized to receive progesterone (17 P) had decreased recurrent preterm births by 33% as well as decreased neonatal morbidity.
- Randomized controlled trials also have found that universal transvaginal cervical length screening at 18-24 weeks of gestation and administration of vaginal progesterone for those with a cervical length ≤25 mm has shown a significant reduction in preterm births (Romero et al 2016).
- Retrospective cohort studies do not address confounders.

Findings on risk stratification for case management

 Modifiable risk factors that closely predicted preterm birth were studied in a retrospective cohort of the North Carolina Medicaid population between September 2011–September 2012 (N = 15,428).

Str	ongest Risk Factors	Other Significant Risk Factors		
• • • •	previous preterm birth hypertension cervical insufficiency diabetes renal disease multi fotal gostation	 smoking during pregnancy asthma other chronic conditions (e.g., thyroid disease and anemia) history of a low birth weight infant or fotal doath (second trimester loss) 		
• •	diabetes renal disease multi-fetal gestation	 thyroid disease and anemia) history of a low birth weight infant or fetal death/second trimester loss 		

Further findings on risk for preterm birth

 In a retrospective cohort study using vital statistics birth records from 2006 to 2011 in Ohio (N=393,441), low pre-pregnancy BMI, short inter-pregnancy intervals of <6/< 12 months (from birth of last pregnancy to conception in current pregnancy), and inadequate pregnancy weight gain (according to Institute of Medicine guidelines), predicted preterm birth, comprising 25% of preterm births in this cohort (Lengyel 2017)

Findings on "case management"

- Studies of telephonic case management showed no impact on preterm birth (Boehm 1996; Hodnett 2010; Lavender et al 2013)
- Review articles and meta-analyses of case management to prevent preterm birth using RNs, social workers, nutritionists, and other health professionals showed no impact on preterm birth (Lu 2010; Hodnett 2010)
- Different study methodology showed a reduction of preterm birth when members enrolled in CM early in pregnancy (by the end of the 2nd trimester) and when at least 3 to 8 face-toface visits were completed by RNs and social workers (Roman 2013; Goyal 2013; possible selection bias)
- Practice-based "progesterone navigators" an important component of Ohio's driver diagram and theory of change

Findings on low dose aspirin for preeclampsia prevention

- A randomized controlled trial of 1,620 women at high risk for preterm preeclampsia showed that using low dose aspirin significantly prevented preterm births (Rolnick 2017)
- ACOG <u>recommends daily low dose aspirin</u> between 12 and 28 weeks if:
 - history of early-onset preeclampsia and preterm delivery at less than 34 0/7 weeks of gestation
 - women with more than one prior pregnancy complicated by preeclampsia.
 - Multifetal gestation
 - Chronic hypertension

Findings on birth spacing

- Pregnancy intervals of < 6 months between the previous delivery and last menstrual period of index pregnancy resulted in higher rates of preterm birth <34 weeks, compared to term births (Conde-Agudelo 2006; Rodrigues 2008)
- Interconception care is an opportunity for management of chronic disease risk between pregnancies

References

Boehm FH, Glass CA, Reed GW. Prevention of preterm birth. Role of daily telephone contact. J Reprod Med, 1996 Aug;41(8):595-601.

Conde-Agudelo, A., Rosas-Bermudez, A., & Kafury-Goeta, A. C. Birth spacing and risk of adverse perinatal outcomes: A meta-analysis. JAMA, 2006, 295(15), 1809–1823.

de Weger, F. J., Hukkelhoven, C. W., Serroyen, J., te Velde, E. R., & Smits, L. J. Advanced maternal age, short interpregnancy interval, and perinatal outcome. American Journal of Obstetrics and Gynecology, 2011, 204(5), e421–e429

Goyal NK, Hall ES, Meinzen-Derr JK, et al. Dosage effect of prenatal home visiting on pregnancy outcomes in at-risk, first-time mothers. Pediatrics 2013;132(Suppl 2):S118–S125.

Hodnett ED, Fredericks S, Weston J. Support during pregnancy for women at increased risk of low birthweight babies. Cochrane Database of Systematic Reviews 2010, Issue 6. Art. No.: CD000198.

lams et al. A Statewide Progestogen Promotion Program in Ohio. Obstet Gynecol 129(2): 337-346.

Lavender T, Richens Y, Milan SJ, Smyth RMD, Dowswell T. *Telephone support for women during pregnancy and the first six weeks postpartum*. Cochrane Database of Systematic Reviews 2013, Issue 7. Art. No.: CD009338.

Lengyel CS, Ehrlich S, Iams JD, Muglia LJ, DeFranco EA. *Effect of Modifiable Risk Factors on Preterm Birth: A Population Based-Cohort*. Matern Child Health J, 2017; 21:777–785.

Lu MC, Kotelchuch M, Hogan VK, Johnson K, Reyes, C. Innovative Strategies to Reduce Disparities in the Quality of Prenatal Care in Underresourced Settings. Medical Care Research and Review Supplement to 67(5) 1985–2305, 2010.

Meis PJ, Klebanoff M, Thom E, Dombrowski MP et al. *Prevention of recurrent preterm delivery by* 17 *alpha-hydroxyprogesterone caproate*. N Engl J Med. 2003 Jun 12; 348(24):2379-85.

Rodrigues T, Barros H. Short interpregnancy interval and risk of spontaneous preterm delivery. European Journal of Obstetrics & Gynecology and Reproductive Biology, Vol 136 (2). February 2008, Pages 184-188

Rolnick, et al. Aspirin versus Placebo in Pregnancies at High Risk for Preterm Preeclampsia. NEJM. August 17, 2017 vol. 377 no. 7, 613-622

Roman LA, Raffo JE, Zhu Q, Meghea CI. Statewide Medicaid Enhanced Prenatal Care Program Impact on Birth Outcomes. JAMA Pediatr. 2014;168(3):220-227.

Romero R, Conde-Agudelo A, Da Fonseca E, O'Brien JM, Cetingoz E, Creasy GW, Hassan SS, Nicolaides KH. Vaginal Progesterone for Preventing Preterm Birth and Adverse Perinatal Outcomes in Singleton Gestations with a Short Cervix: A Meta-Analysis of Individual Patient Data. Am J Obstet Gynecol. 2017 Nov 16.

Rutledge RI, Domino ME, Hillemeier MM, Wells R. The Effect of Maternity Care Coordination Services On Utilization of Postpartum Contraceptive Services. Contraception 2016, 94, 541-547.

Tucker CM, Berrien K, Menard MK, Herring AH, Daniels J, Rowley DL, Halpern CT. *Predicting Preterm Birth Among Women Screened by North Carolina's Pregnancy Medical Home Program.* Matern Child Health J, 2015, 19:2438–2452.

Mestad R et al., Acceptance of long-acting reversible contraceptive methods by adolescent participants in the Contraceptive CHOICE Project, Contraception, 2011, 84(5):493-498)