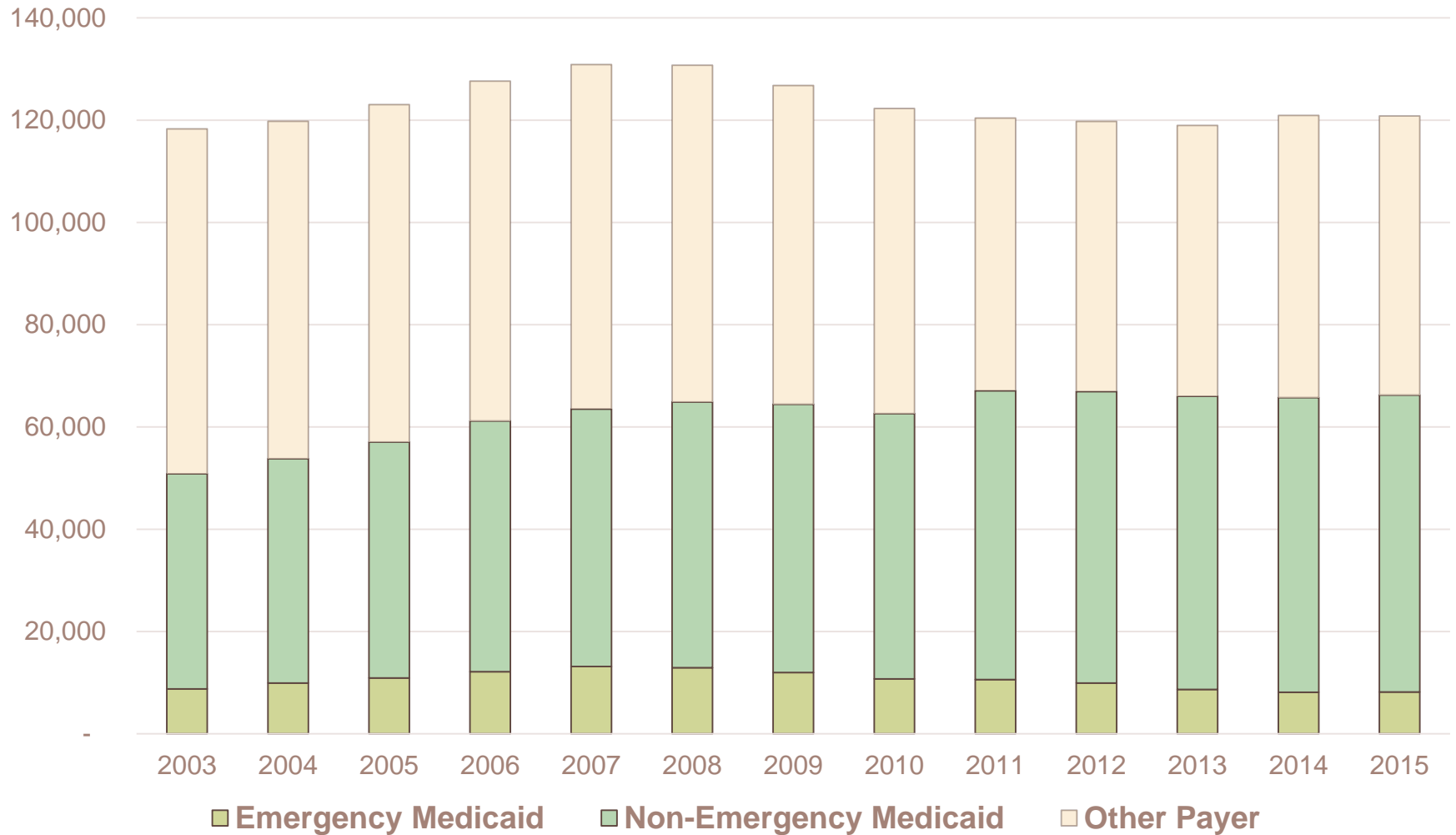


Measurement of Maternal Health Care Quality: Considerations for publicly funded health care in North Carolina



NC Births, 2003 - 2015

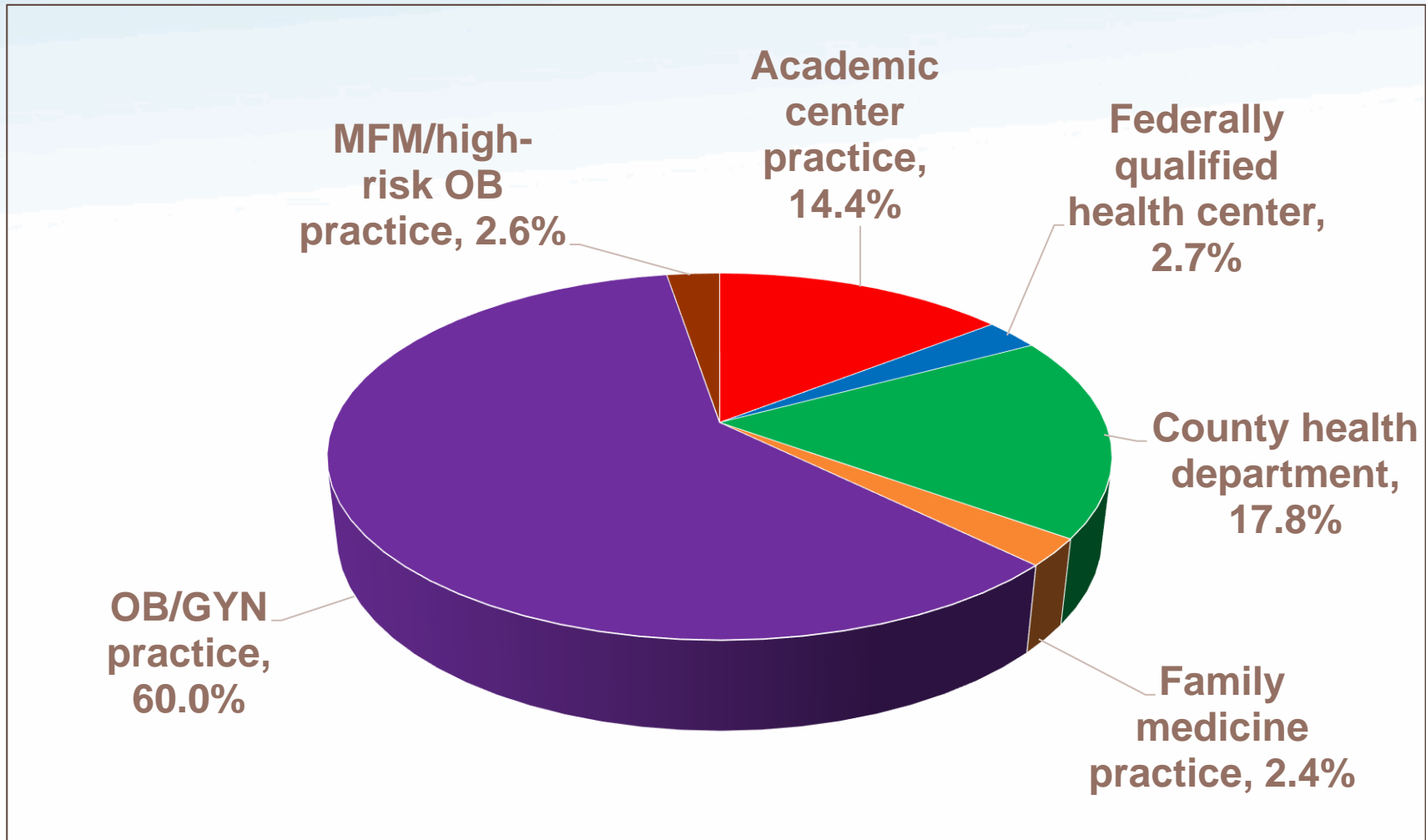


NC Births, 2003 - 2015



	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
% Emergency Medicaid	7.4%	8.3%	8.9%	9.5%	10.1%	9.9%	9.5%	8.8%	8.8%	8.3%	7.3%	6.7%	6.8%
% Medicaid during Pregnancy	35.6%	36.6%	37.5%	38.4%	38.5%	39.7%	41.4%	42.4%	46.9%	47.6%	48.2%	47.7%	48.1%
% All Medicaid	43.0%	44.9%	46.4%	47.9%	48.5%	49.6%	50.8%	51.2%	55.7%	55.9%	55.5%	54.4%	54.8%
% Other Payer	57.0%	55.1%	53.6%	52.1%	51.5%	50.4%	49.2%	48.8%	44.3%	44.1%	44.5%	45.6%	45.2%
Total Births	118,292	119,773	123,040	127,646	130,886	130,758	126,785	122,302	120,403	119,767	118,983	120,927	120,826

Who provides care to the pregnant Medicaid population?



Infant Mortality

- Infant deaths per 1,000 live births
- Indicator of population health at a community, state or national level
- **Causes:**
 - Birth defects
 - Preterm birth
 - Maternal complications of pregnancy
 - SIDS/SUID
 - Injuries
- **Racial/ethnic disparity**

<http://www.schs.state.nc.us/data/vital/ims/2015/ratesgraph.html>

Maternal Health Measurement Considerations



- **Measurement of maternal vs. infant health outcomes**
- **Ambulatory vs. inpatient measures**
- **Levels of influence:** prenatal care provider, intrapartum provider, primary care provider, OB office/health department/FQHC clinic, hospital, health system, MCO, public health
- **Racial/ethnic disparities – infant mortality, preterm birth, low birth weight, unintended pregnancy**
- **Economic disparities – access, infant mortality, cesarean**



Who Measures What: HEDIS

- **Timeliness of prenatal care** – first trimester or within 42 days of plan enrollment
- **Frequency of ongoing prenatal care** – number of prenatal visits as a function of number of expected visits
- **Postpartum Care** – postpartum visit on or between 21-56 days postpartum

Who Measures What: The Joint Commission

Perinatal Care Core Measure Set (mandatory for hospitals with >1,100 births/year):

- PC-01 Early Elective Delivery (<39 weeks)
- PC-02 Cesarean Section among Term, Singleton, Vertex Pregnancies (NTSV)
- PC-03 Antenatal Steroids
- PC-04 Health Care-Associated Blood Stream Infections in Newborns
- PC-05 Exclusive Breast Milk Feeding at Hospital Discharge
- PC-05a Exclusive Breast Milk Feeding Considering Mother's Choice



Who Measures What: CMS

Medicaid Adult Core

- Elective Delivery
- Antenatal Steroids
- Postpartum Care Rate
- Contraceptive Care – Postpartum

Medicaid Child Core

- Timeliness of Prenatal Care
- Frequency of Ongoing Prenatal Care
- Live Births Weighing <2500 grams
- Behavioral Health Risk Assessment for Pregnant Women
- Cesarean Section (NTSV)
- Contraceptive Care – Postpartum
- Central Line-Associated Bloodstream Infections – NICU/PICU

Who Measures What: Council on Patient Safety in Women's Health Care



Alliance for Innovation on Maternal Health (AIM)

- Severe maternal morbidity (CDC measure)
- Cesarean Delivery - NTSV
- Venous Thromboembolism during Pregnancy/
Postpartum



Who Measures What:

HRSA > Maternal & Child Health Bureau

Collaborative Improvement & Innovation Network (COIIN) to Reduce Infant Mortality:

- Early elective delivery
- Tobacco use among pregnant women
- Safe sleep practices
- Risk-appropriate care (very low birth weight born at appropriate level of care)
- Interconception care coverage (state-level policy)

Maternal Health COIIN:

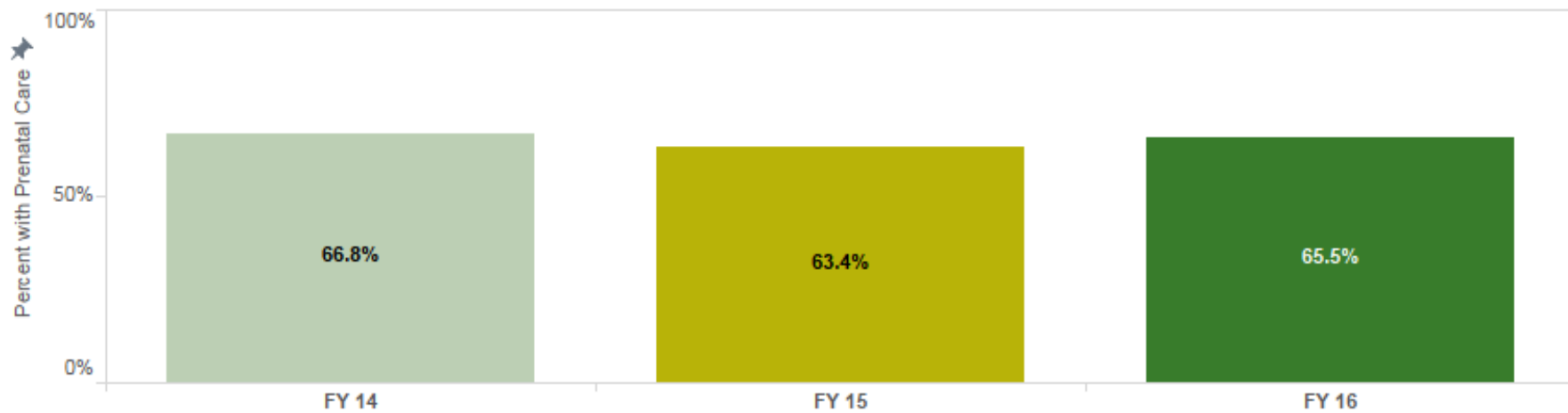
- Cesarean delivery (NTSV)
- Use of maternal safety bundles in delivery hospitals

CCNC Core OB Quality Measures

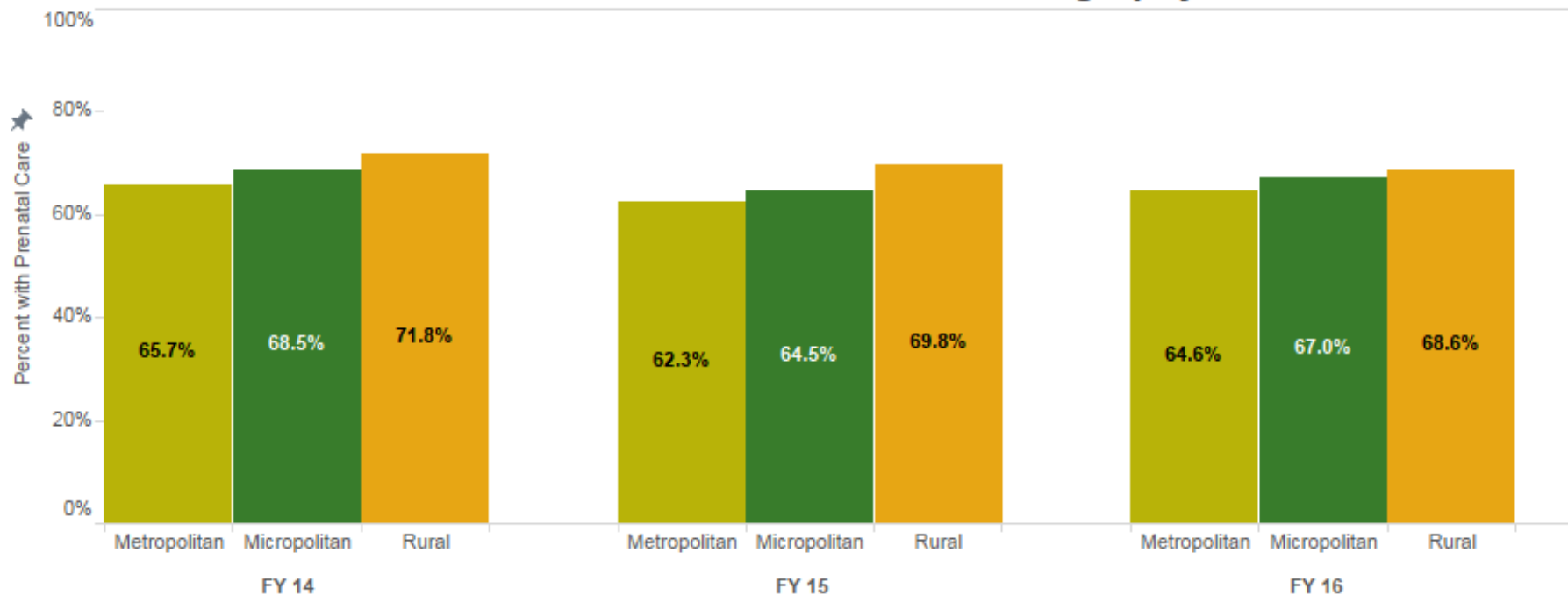


Name of Measure	Definition	Other use of measure (may not have same specifications)
Pregnancy Intendedness	Proportion of pregnancies that were intended based on responses to the PMH risk screen	PRAMS
First Trimester Care	Proportion of women receiving prenatal care in the first trimester (<14 weeks of gestation)	HEDIS; Medicaid Child Core
Risk Screening	Receipt of Pregnancy Medical Home risk screening during the pregnancy	Medicaid Child Core
Cesarean Delivery – overall	Proportion of live births delivered via cesarean	
Cesarean Delivery – NTSV	Cesarean delivery among nulliparous women with a term, singleton, vertex fetus (NTSV)	The Joint Commission; Medicaid Child Core
Early Elective Delivery	Induction of labor or scheduled cesarean delivery <39 weeks of gestation among births without a medical indication for early delivery and in the absence of spontaneous labor	The Joint Commission; Medicaid Adult Core
17p Treatment	Proportion of women with a history of spontaneous preterm birth who received progesterone therapy during pregnancy	
Tobacco Cessation Counseling	Proportion of pregnant women screened for tobacco use AND who received cessation counseling if identified as a tobacco user	Medicaid Adult Core
Receipt of Pregnancy Care Management	Proportion of women who received care management during the pregnancy	
Postpartum Visit	Proportion of women receiving a comprehensive postpartum visit within 14-60 days of delivery	HEDIS; CMS - developmental
Postpartum Contraception	Proportion of women with a paid claim for a contraceptive method or a sterilization procedure within 60 days of delivery	Medicaid Child Core

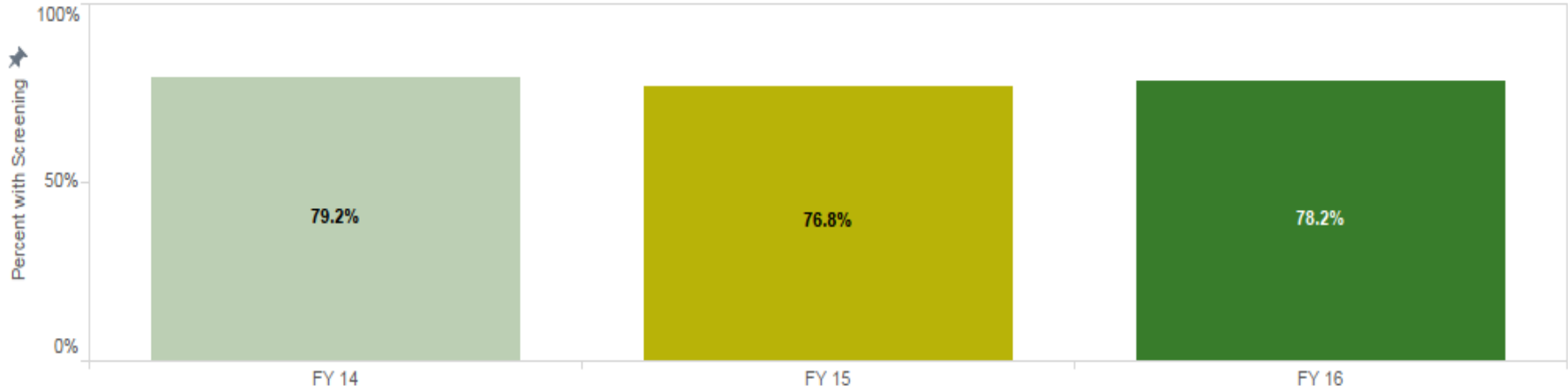
First Trimester Prenatal Care



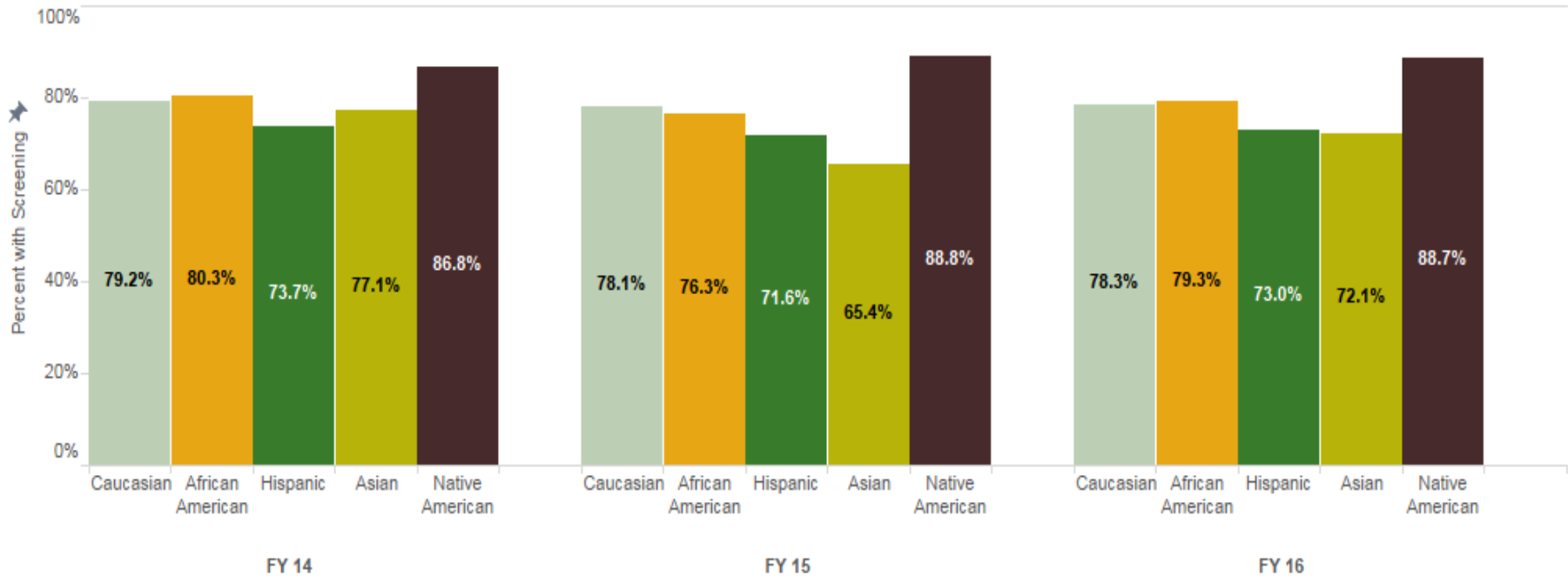
First Trimester Prenatal Care: Geography



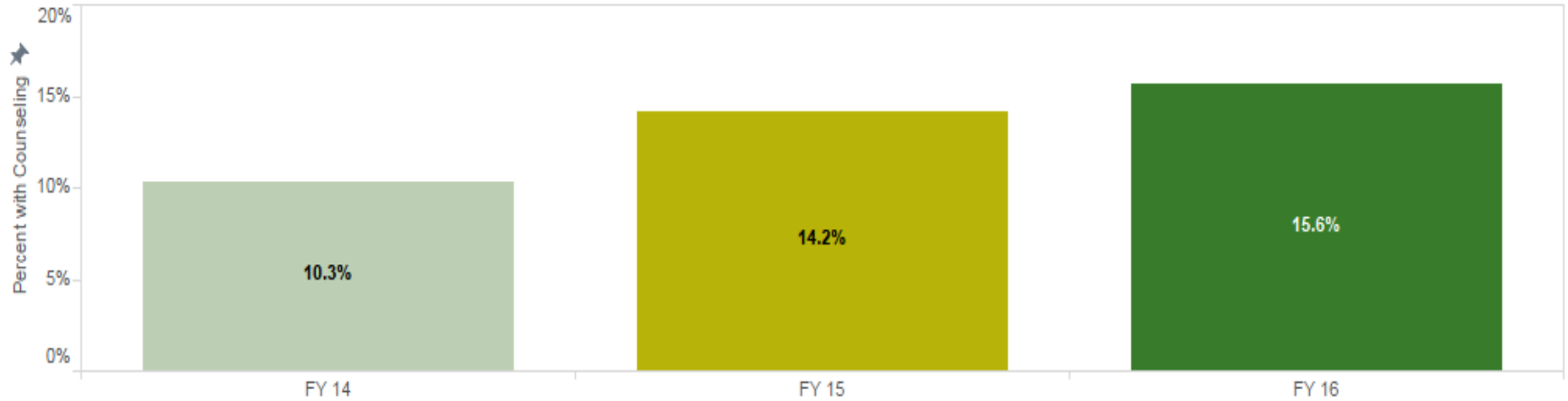
Risk Screening During Pregnancy



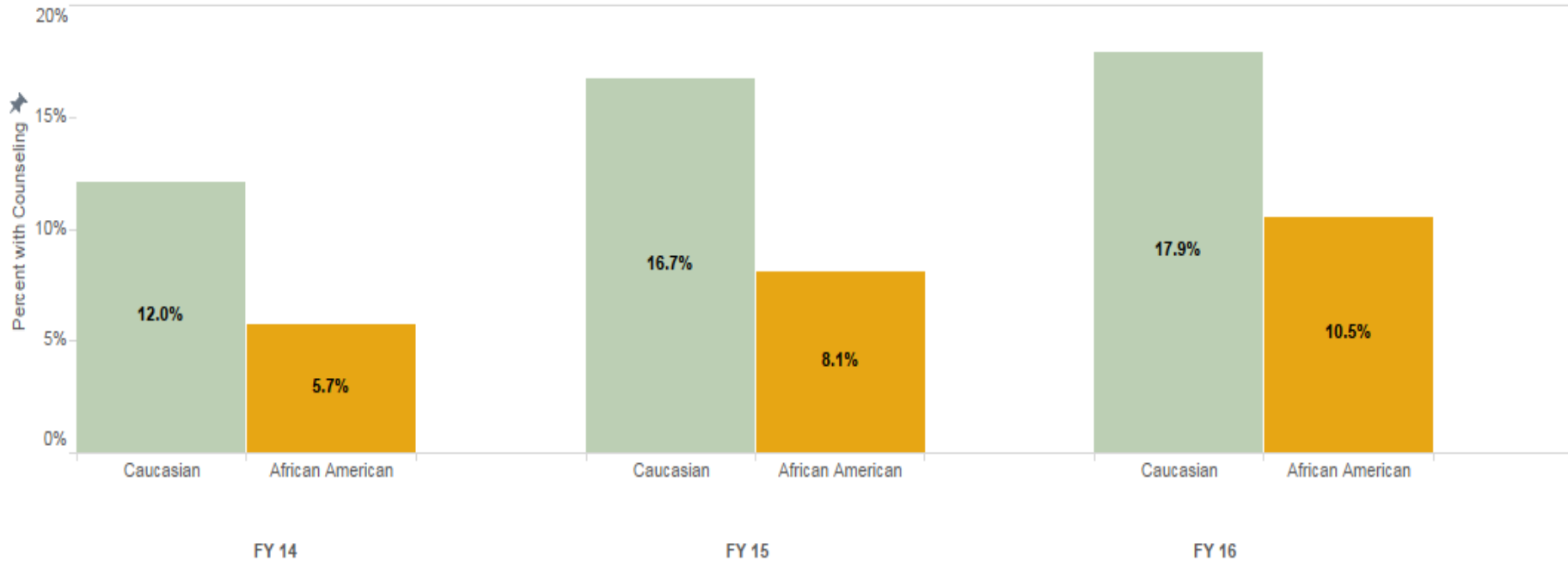
Risk Screening During Pregnancy: Race/Ethnicity



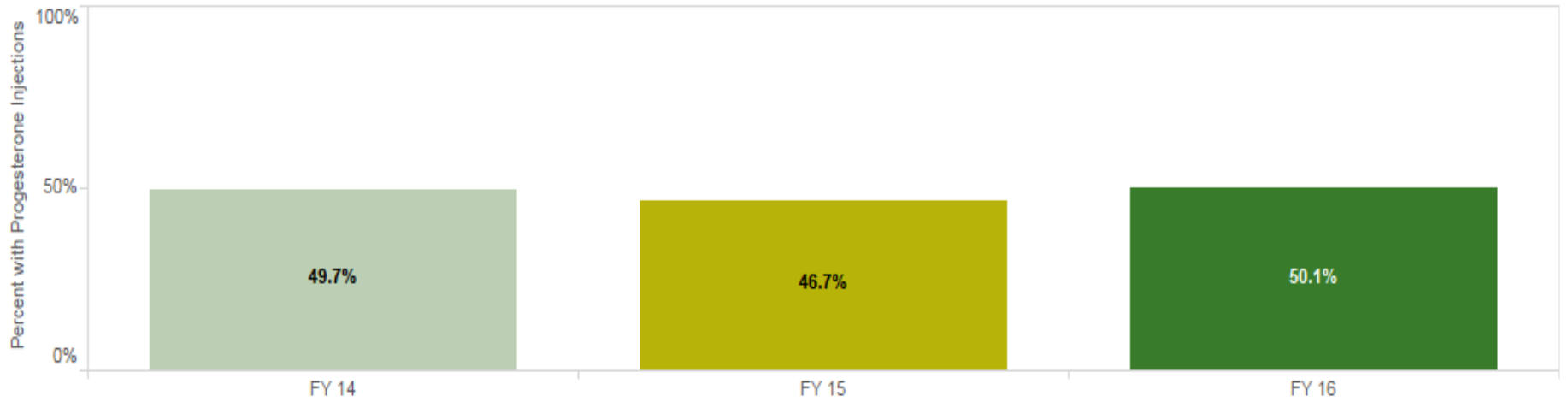
Tobacco Cessation Counseling Received During Pregnancy



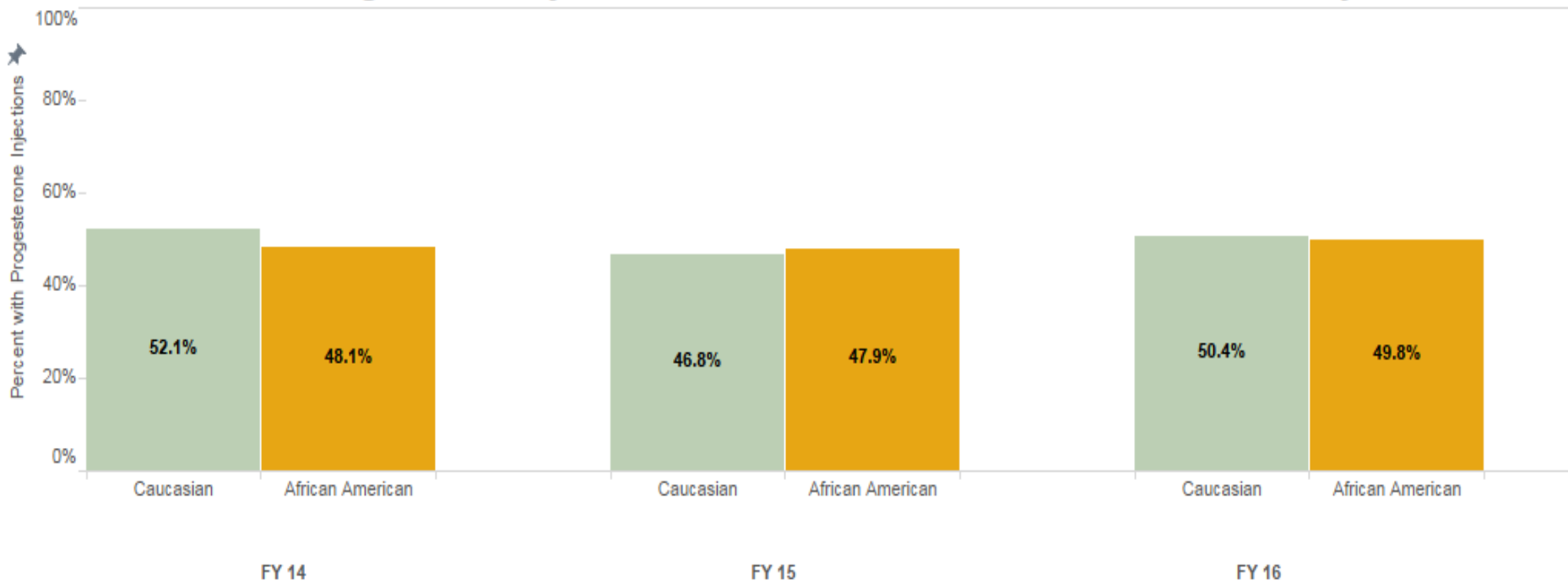
Tobacco Cessation Counseling Received During Pregnancy: Race/Ethnicity



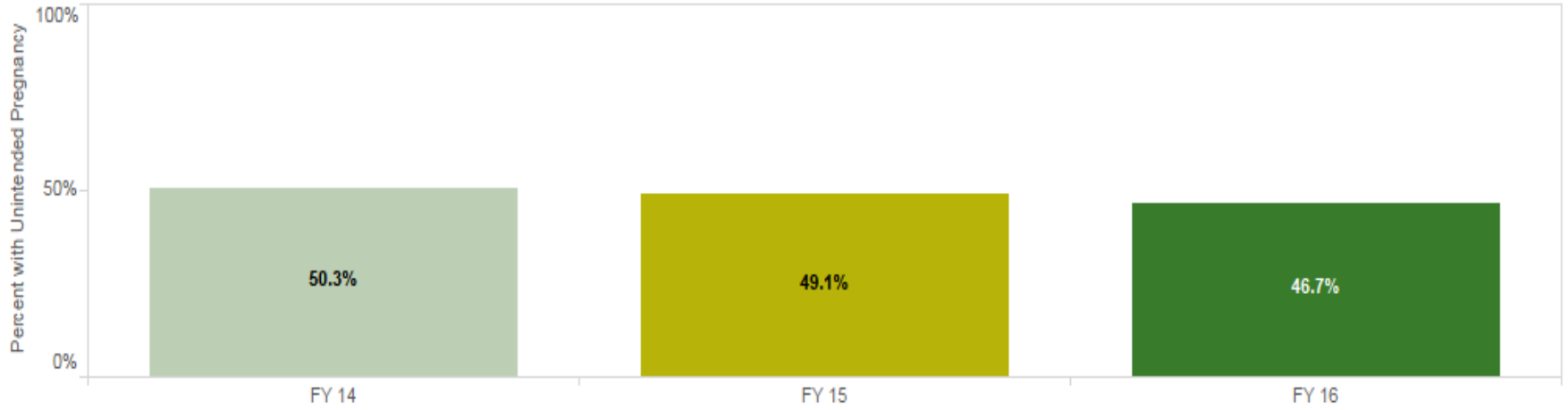
Progesterone Injections for Preterm Birth Prevention



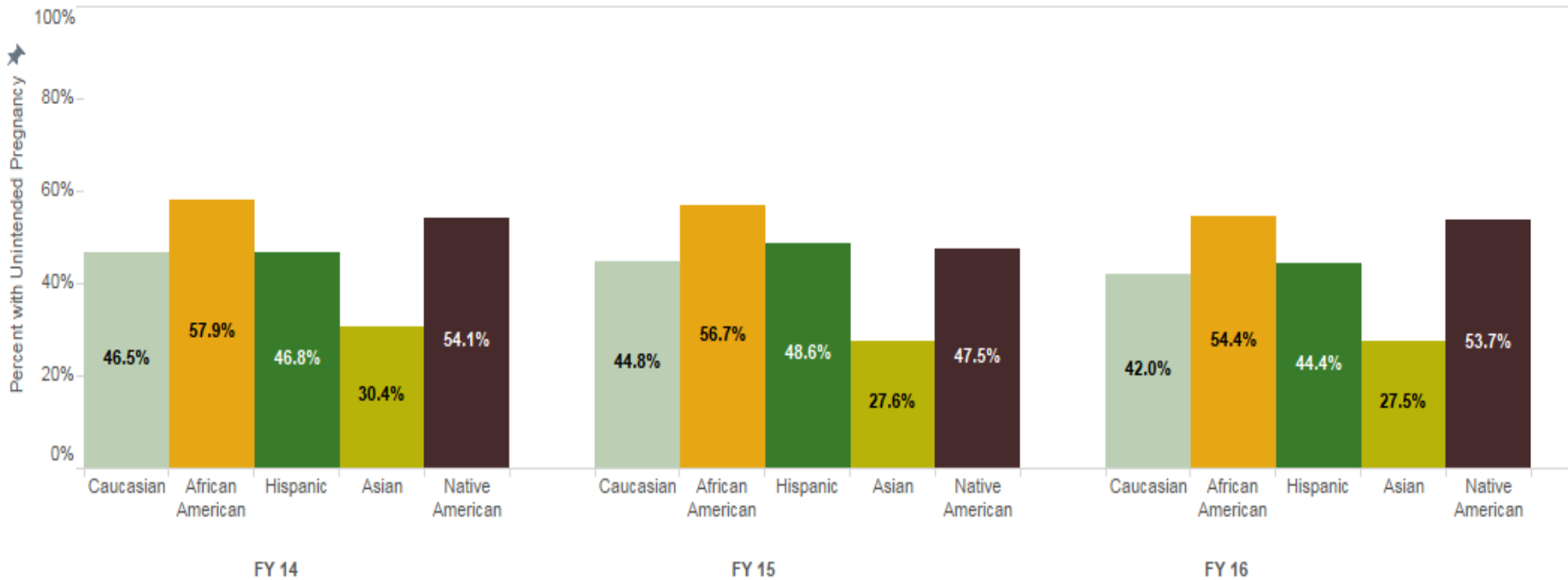
Progesterone Injections for Preterm Birth Prevention: Race/Ethnicity



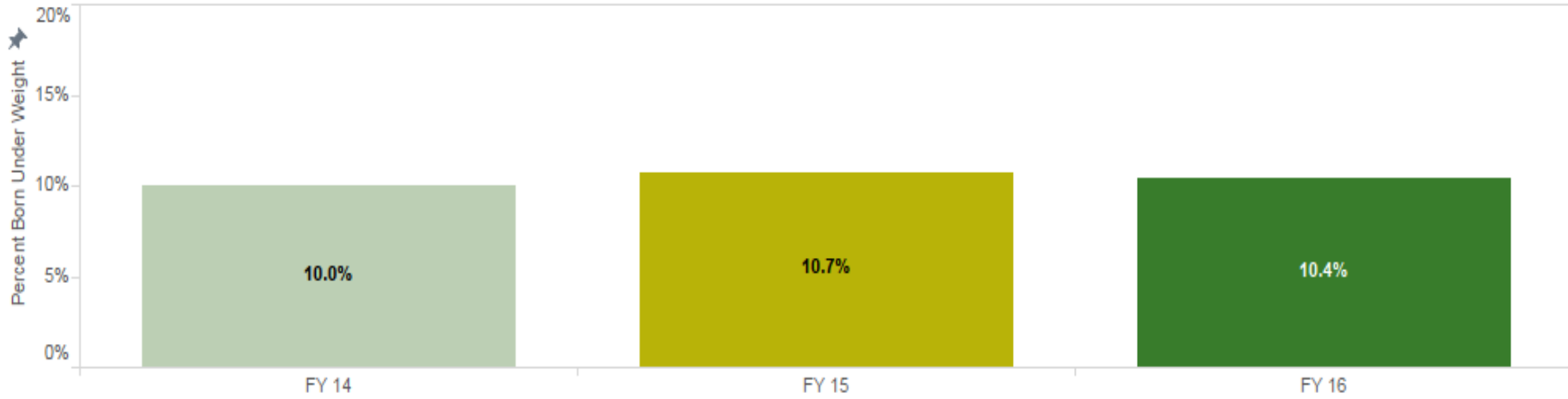
Unintended Pregnancy Rate



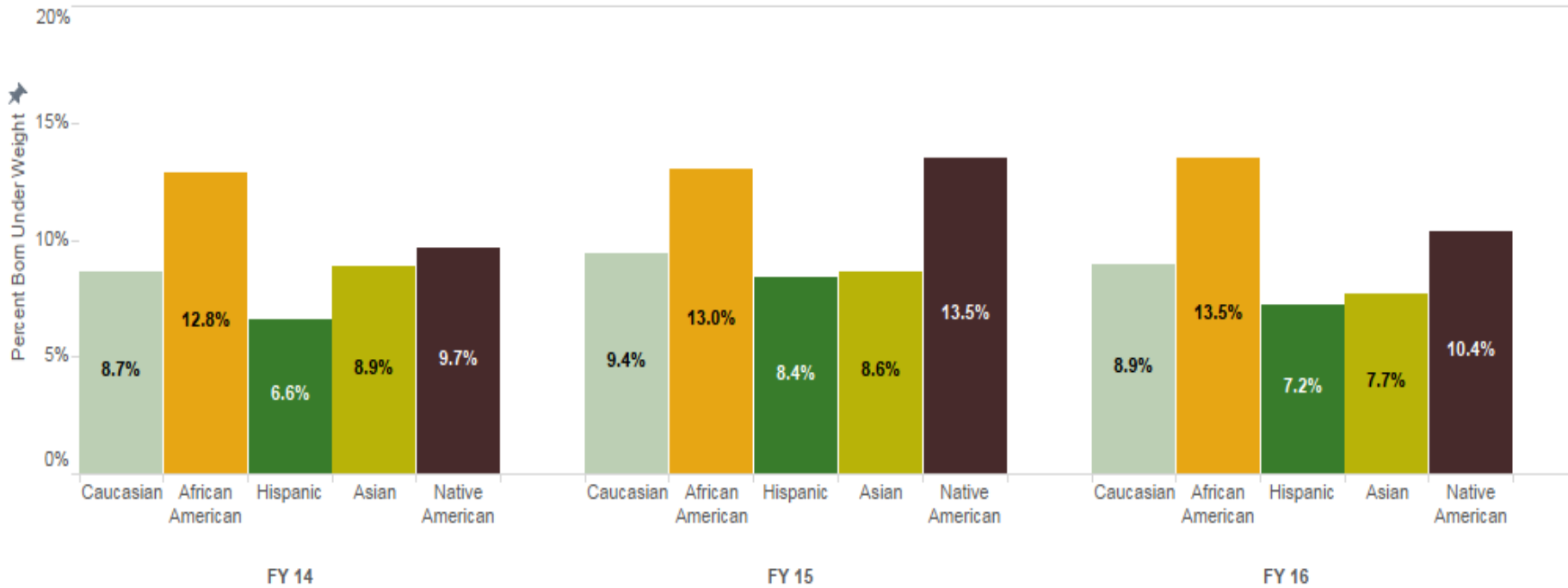
Unintended Pregnancy Rate: Race/Ethnicity



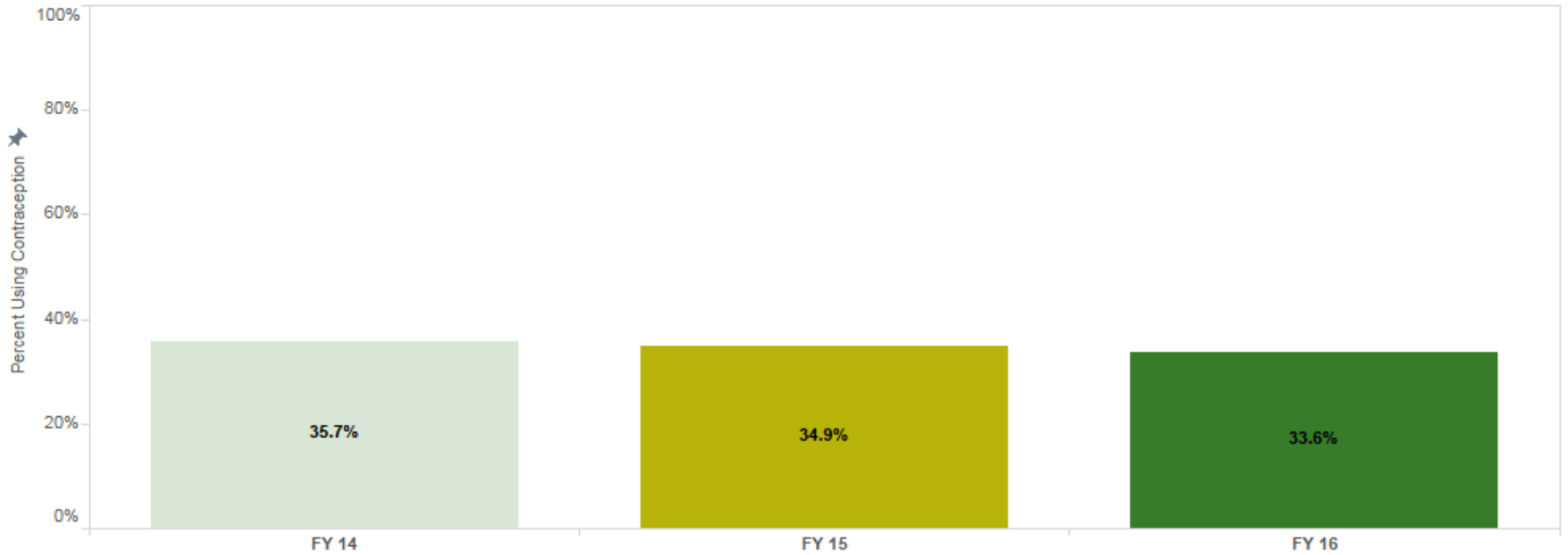
Low Birth Weight



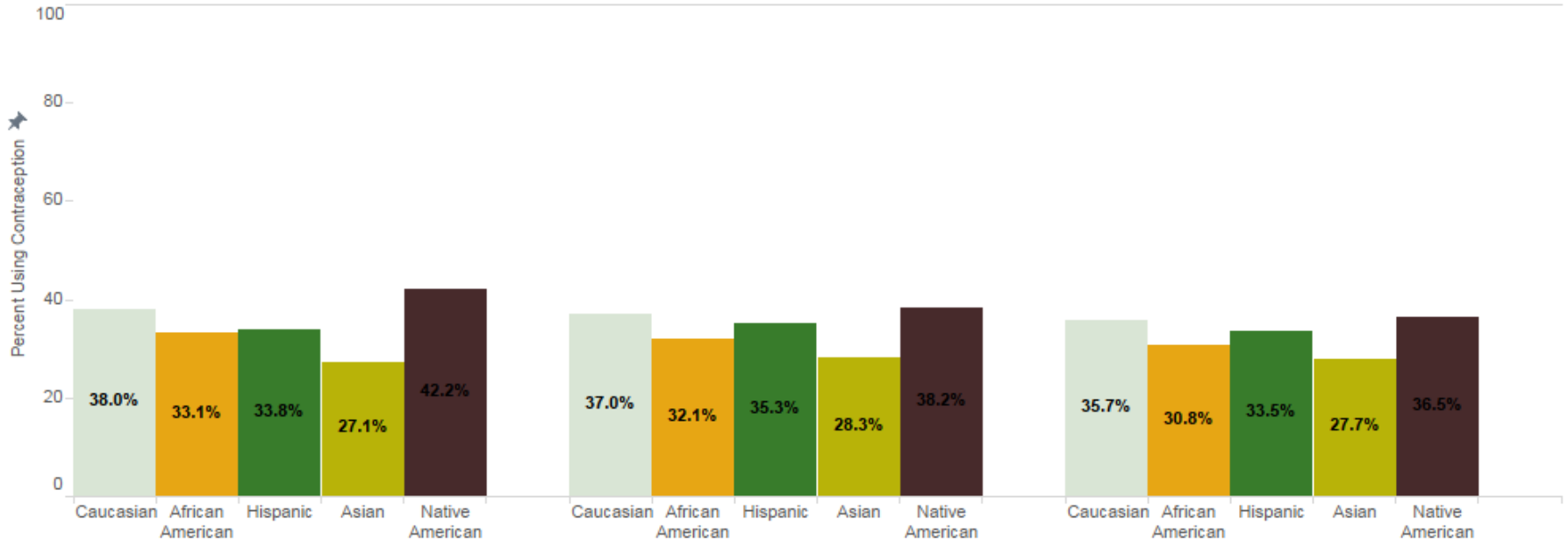
Low Birth Weight: Race/Ethnicity



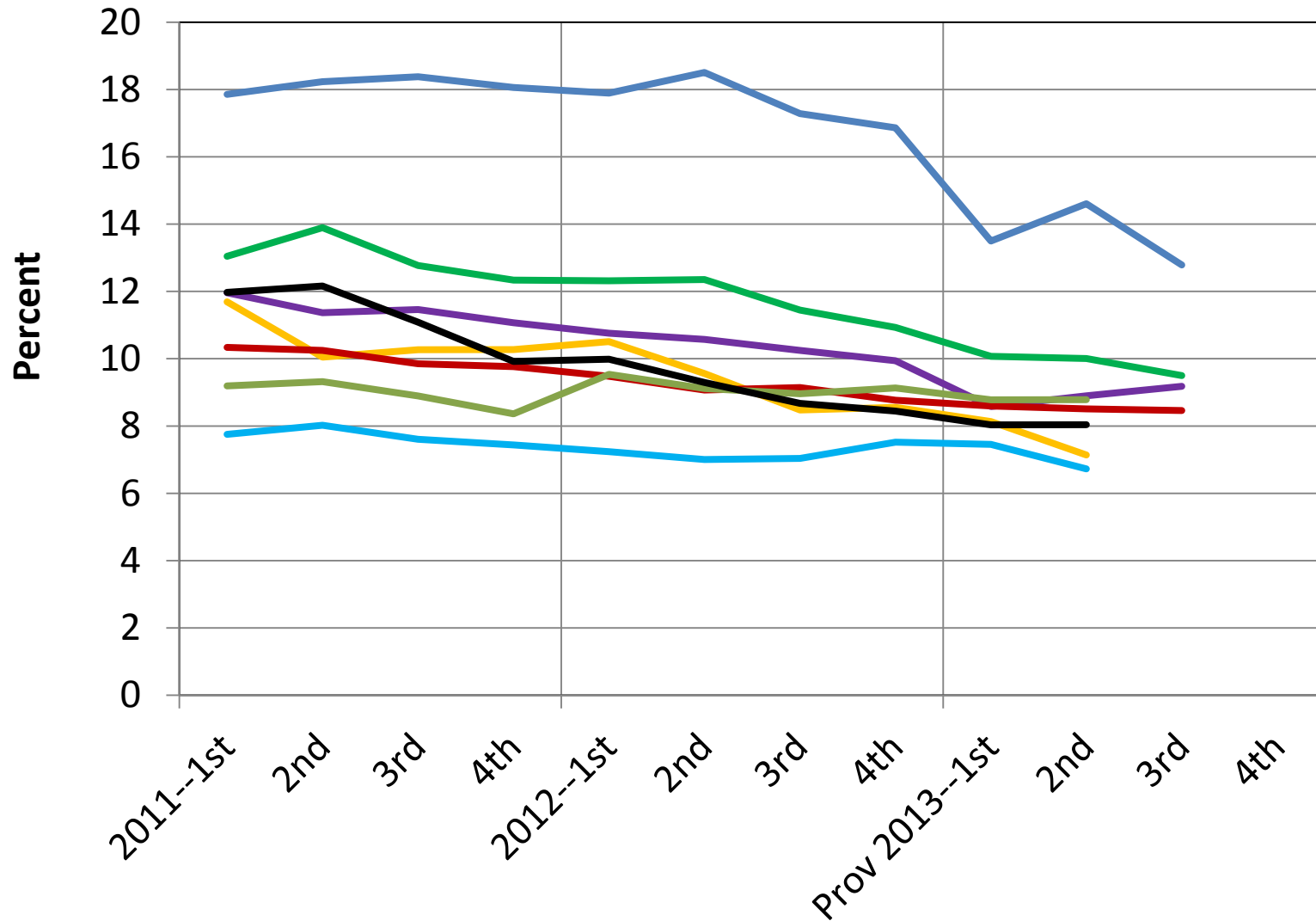
Postpartum Contraception



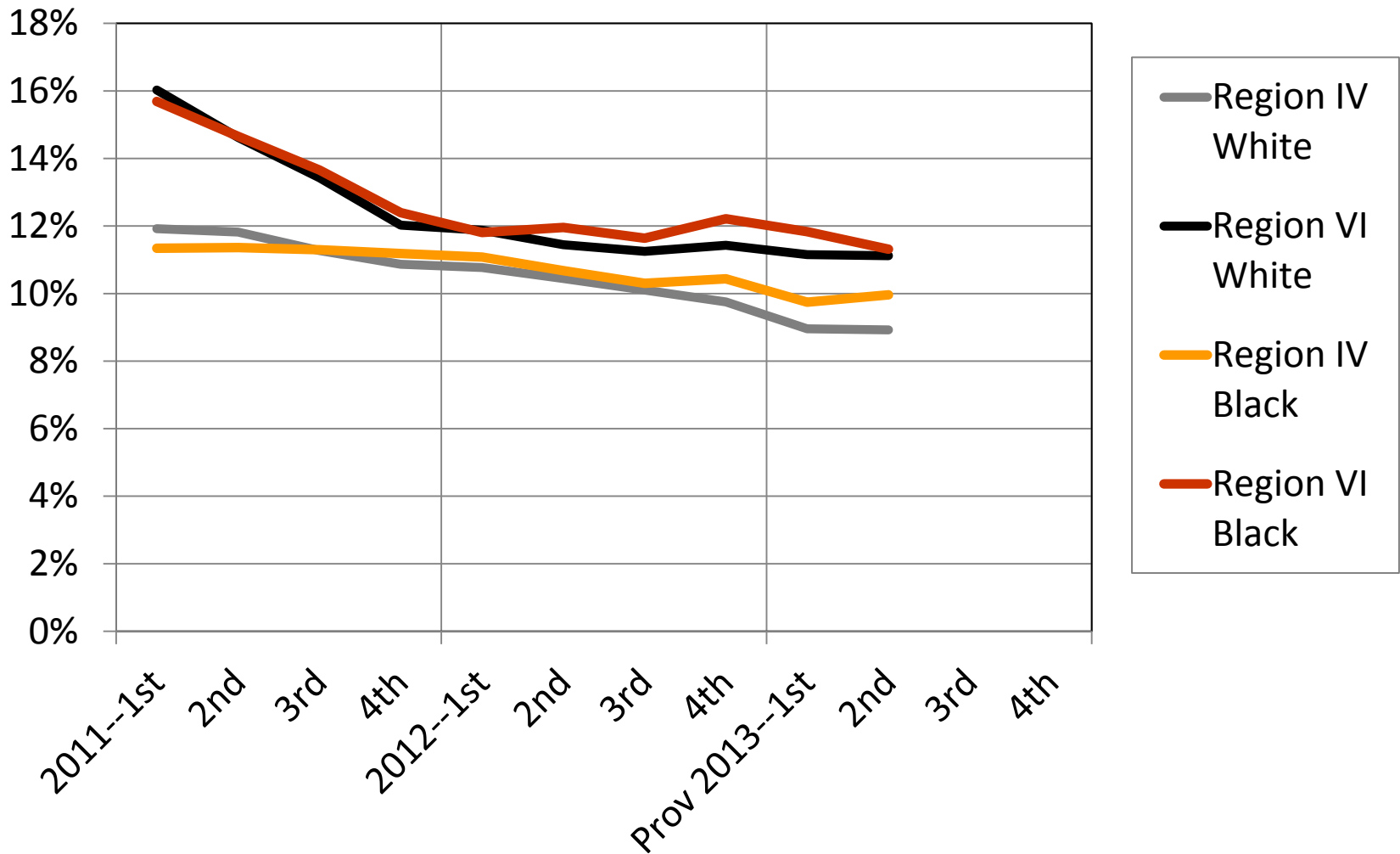
Postpartum Contraception: Race/Ethnicity



Non-Medically Indicated Early Term Deliveries Among Singleton Term Deliveries, Reg. IV



Non-Medically Indicated Early Term Deliveries Among Singleton Term Deliveries By Race, Reg. IV & VI



Data Sources – Birth Certificate



- **Some fields more reliable than others**
 - Less reliable fields tend to be under-reported, not inaccurate
- **The “matched file”:**
 - Birth certificates matched to Medicaid delivery claims to identify women with Medicaid coverage in pregnancy
 - “Baby Love file” also includes WIC, other data
- **Demographics**
- **Prenatal care**
- **Cigarette use**
- **Risk factors/infections**
- **Mode of delivery**
- **L&D characteristics**
- **Maternal morbidity**
- **Newborn abnormal conditions and congenital anomalies**

Data Sources – Pregnancy Risk Assessment Monitoring System (PRAMS)



- Survey of new mothers, 2-6+ months post-delivery
- Response rate issues, now improving
- Prenatal/postpartum care source and content
- Alcohol/tobacco use
- Physical abuse
- Pregnancy-related morbidity
- Infant care/status
- Safe sleep
- Breastfeeding
- Contraception

Variables:

- Preconception care/health status
- Pregnancy intendedness

Data Sources – CCNC Pregnancy Medical Home Risk Screening Form



- Standardized tool used for all Medicaid pregnancies
 - Medicaid Child Core Measure – Behavioral Health Risk Assessment (pregnant women)
 - Obstetric history (preterm birth, LBW, hypertensive disorders, depression)
 - Fetal complications
 - Pregnancy intendedness
 - Domestic violence
 - Tobacco use
 - Drug/alcohol use
 - Food insecurity
- Variables:**
- Demographics
 - Height/weight
 - Chronic disease