

Birth Certificate-Medicaid Record Linkage in Washington State

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Legislative and Policy Background

- Maternity Care Access Act of 1989 created the First Steps Program
 - Aug 1989: Medicaid eligibility for pregnant women was expanded to 185% FPL; enhanced prenatal care services were implemented.
 - From the outset, linkage of birth certificates (BCs) and Medicaid claims was envisioned as a key component of program evaluation.
 - Jan 1990: initial linkage of BCs and Medicaid claims and eligibility was performed.
- Tobacco Cessation performance measure (response to high smoking rates among Medicaid women)
- Family Planning performance measure (response to high rates of unintended pregnancy among Medicaid women)
- BC-Medicaid linkage facilitated evaluation of Washington's family planning waiver (2001-ongoing)

Steps in Accomplishing Data Linkage

- **Administrative**
 - Understanding organizational relationships between State Medicaid agency, vital records agency, and staff that perform record linkage
 - Obtaining agency and end-user/stakeholder support
 - Obtaining legal authorization (Institutional Review Board, or IRB)
 - Obtaining data sets
- **Technical (conceptual)**
 - Unduplication
 - Standardization
 - Matching (merging by keys)
 - Creation of final data sets

Sustaining Partnerships and Support: Value-Added

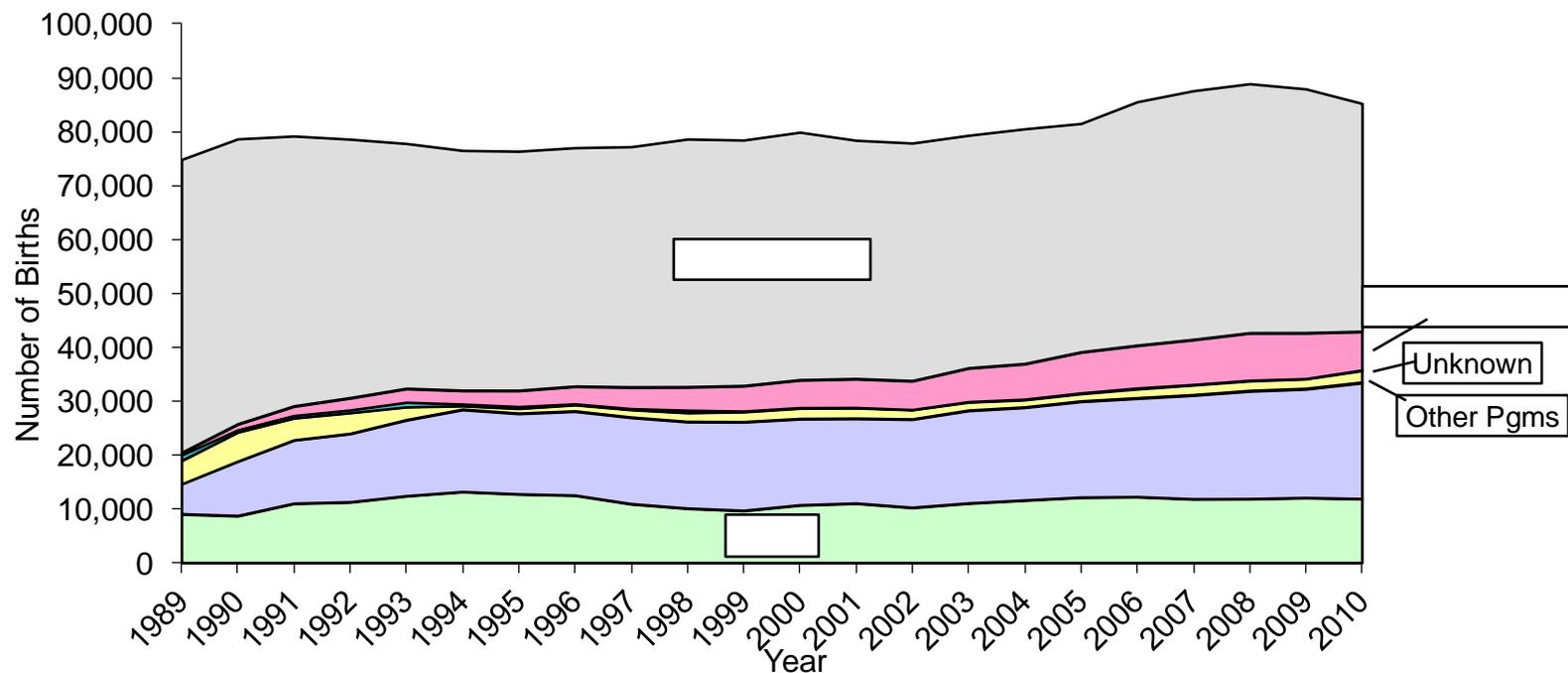
- Reinforce partnership with Center for Health Statistics by improving quality of BCs (especially resolving duplicates and twin fixes)
- Identify modifiable risk factors with high prevalence in Medicaid population (smoking, unintended pregnancy, late or no prenatal care)
- Identify potential gaps in program services: Nutritional assessment and counseling focused on food insecurity and insufficient weight gain; with data on 2003 BC to compute BMI, scope was expanded to include obesity and exercise.

How many deliveries in Washington are reimbursed by Medicaid (2010)?

Source of Data	Number of Deliveries Medicaid / Total	Percent Medicaid of Total Deliveries
BC question (alone): “Principal Source of payment for this Delivery”	31,852 / 85,143	39%
Medicaid-paid claims linked to BCs	42,891 / 85,143	50%

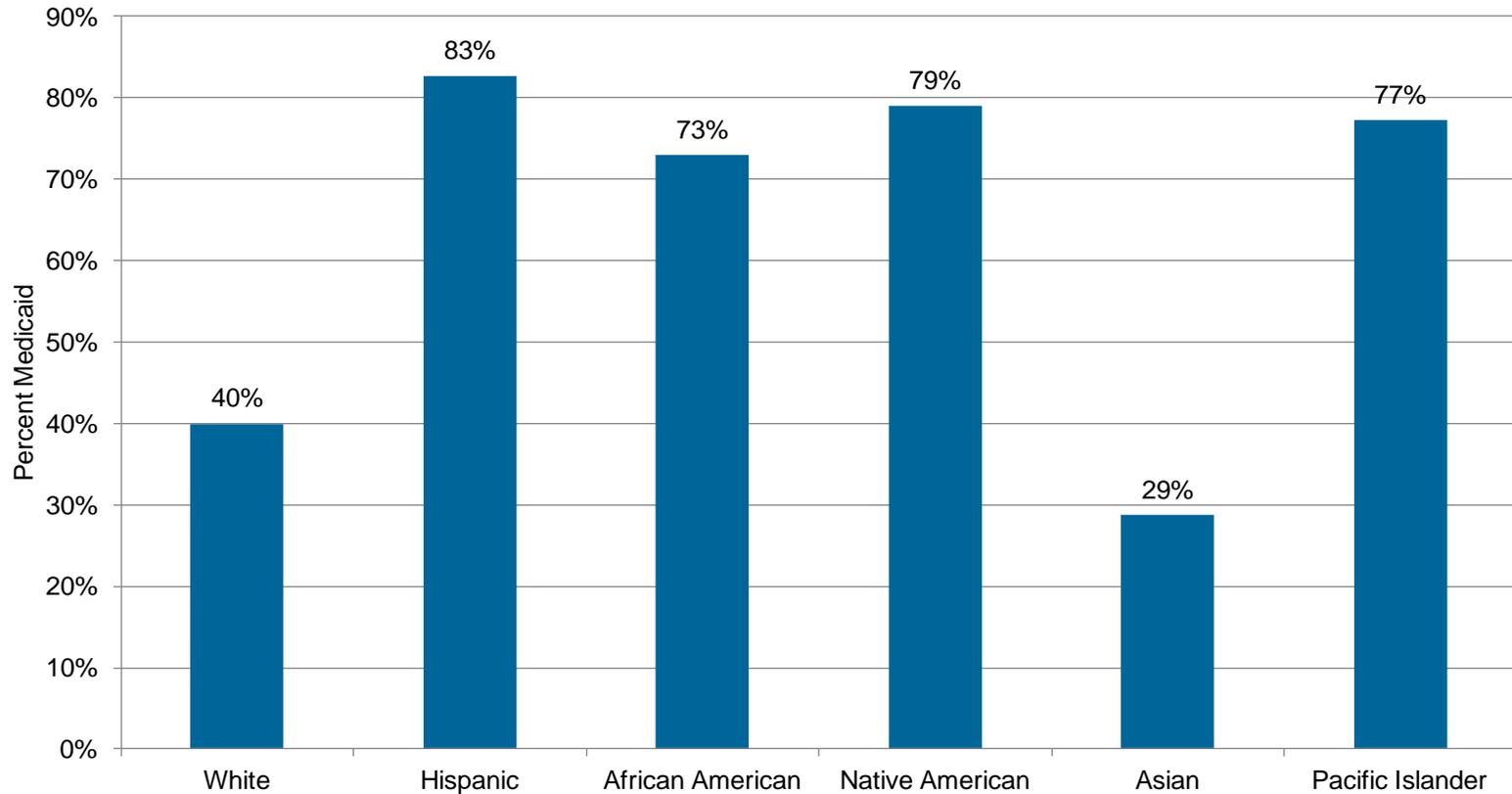
Source: First Steps Database, 2010 Washington deliveries

What eligibility groups account for growth in Medicaid deliveries in WA over time?



Source: First Steps Database

How does Medicaid eligibility for pregnant women vary by race/ethnicity in WA State?



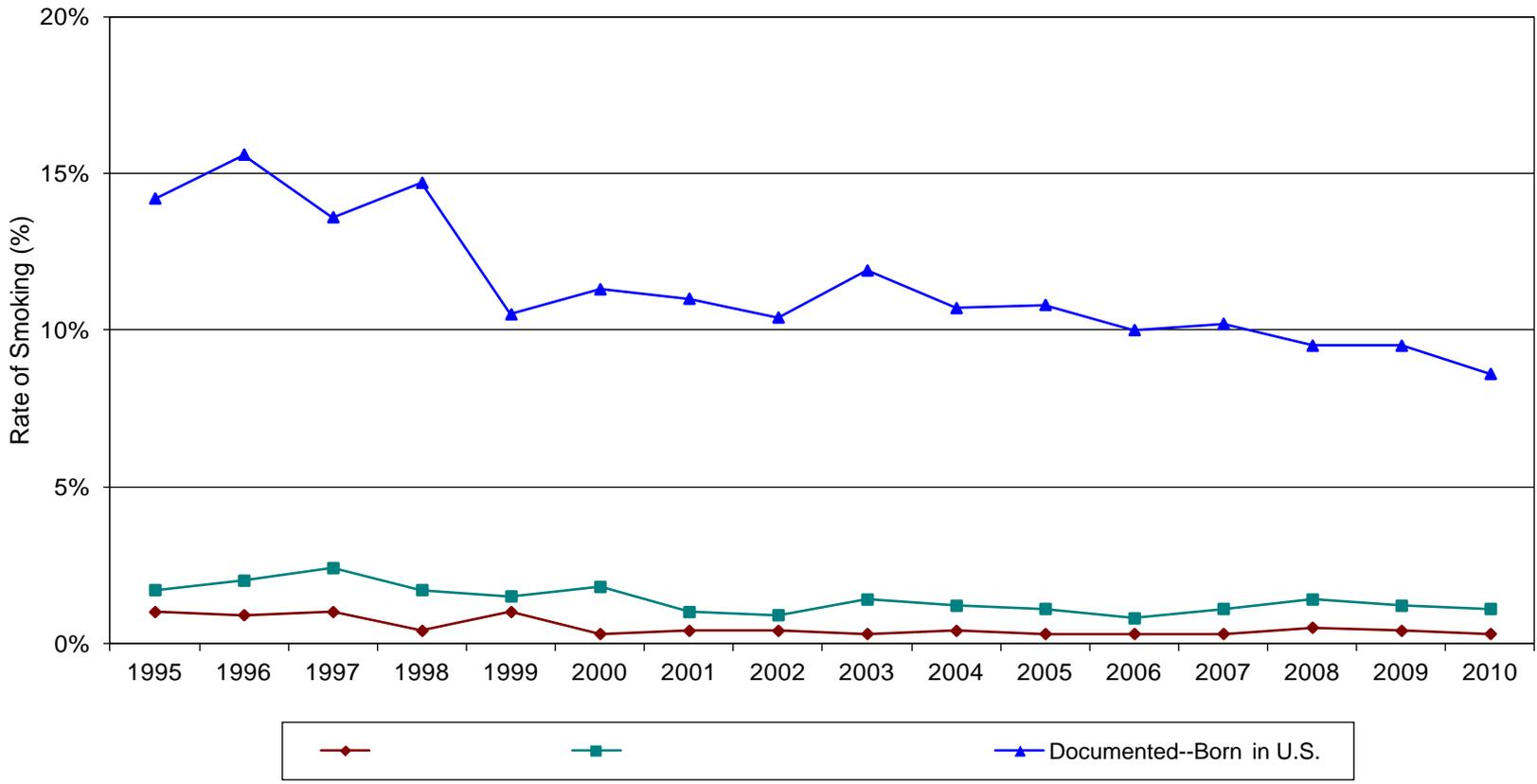
Source: First Steps Database, 2010 Washington deliveries

How do birth outcomes in WA State vary by Medicaid eligibility group?

Outcome	Undocu-mented	Pregnancy Medical	TANF
Low Birth Weight	4.3%	4.9%	6.3%
Infant Mortality (per 1000)	3.8	6.2	7.9
SIDS Postneonatal mortality (per 1000)	0.04	0.8	1.5
Child Mortality (per 10,000)	5.9	6.3	14.3
Child Protective Services (1 st yr of life)	0.9%	2.9%	12.6%
Foster Placement (1 st year of life)	0.2%	1.3%	5.7%

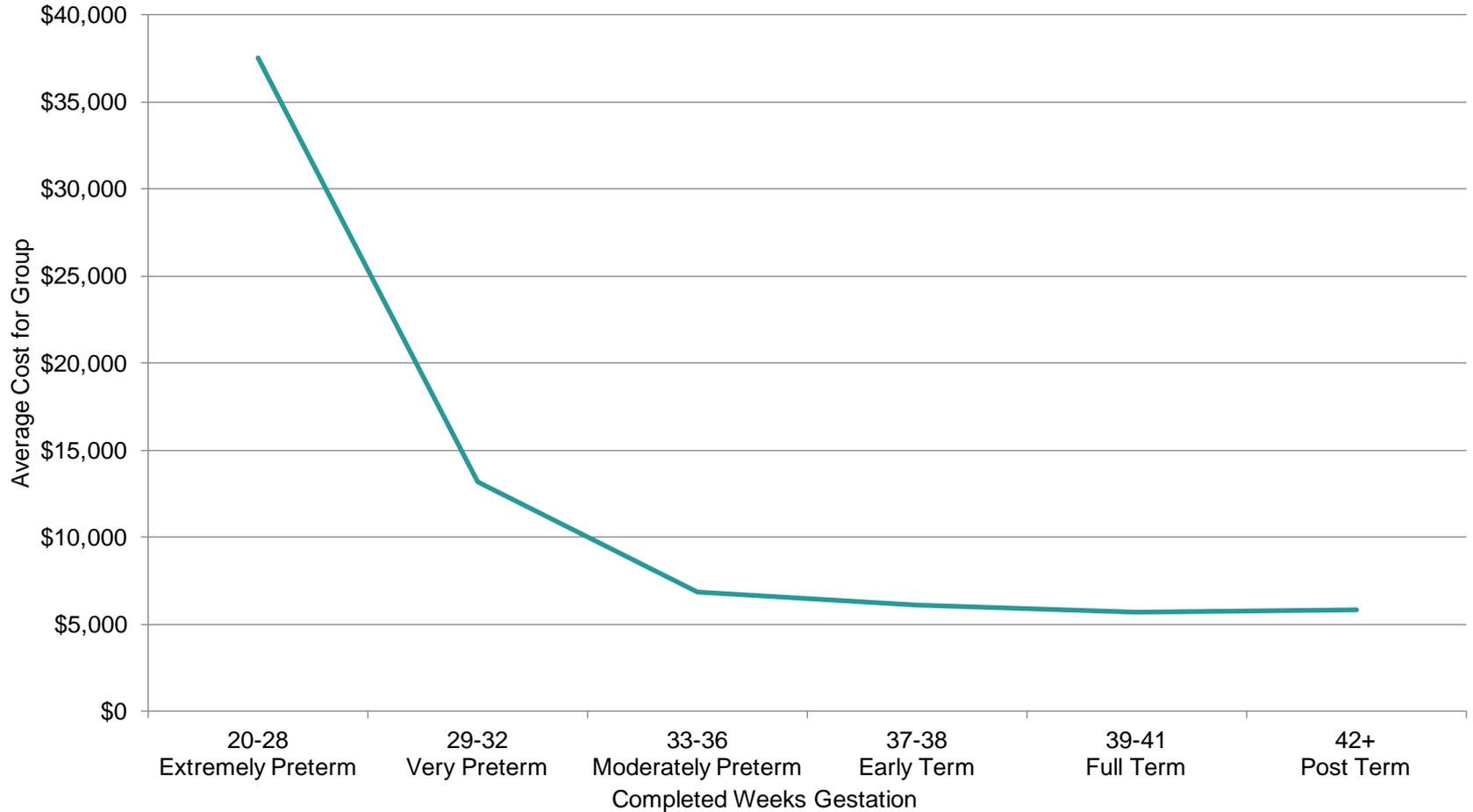
Source: First Steps Database, 2002-2005 Washington births

Smoking Rates Among Hispanic Medicaid Women in WA By Place of Birth and Citizenship Status



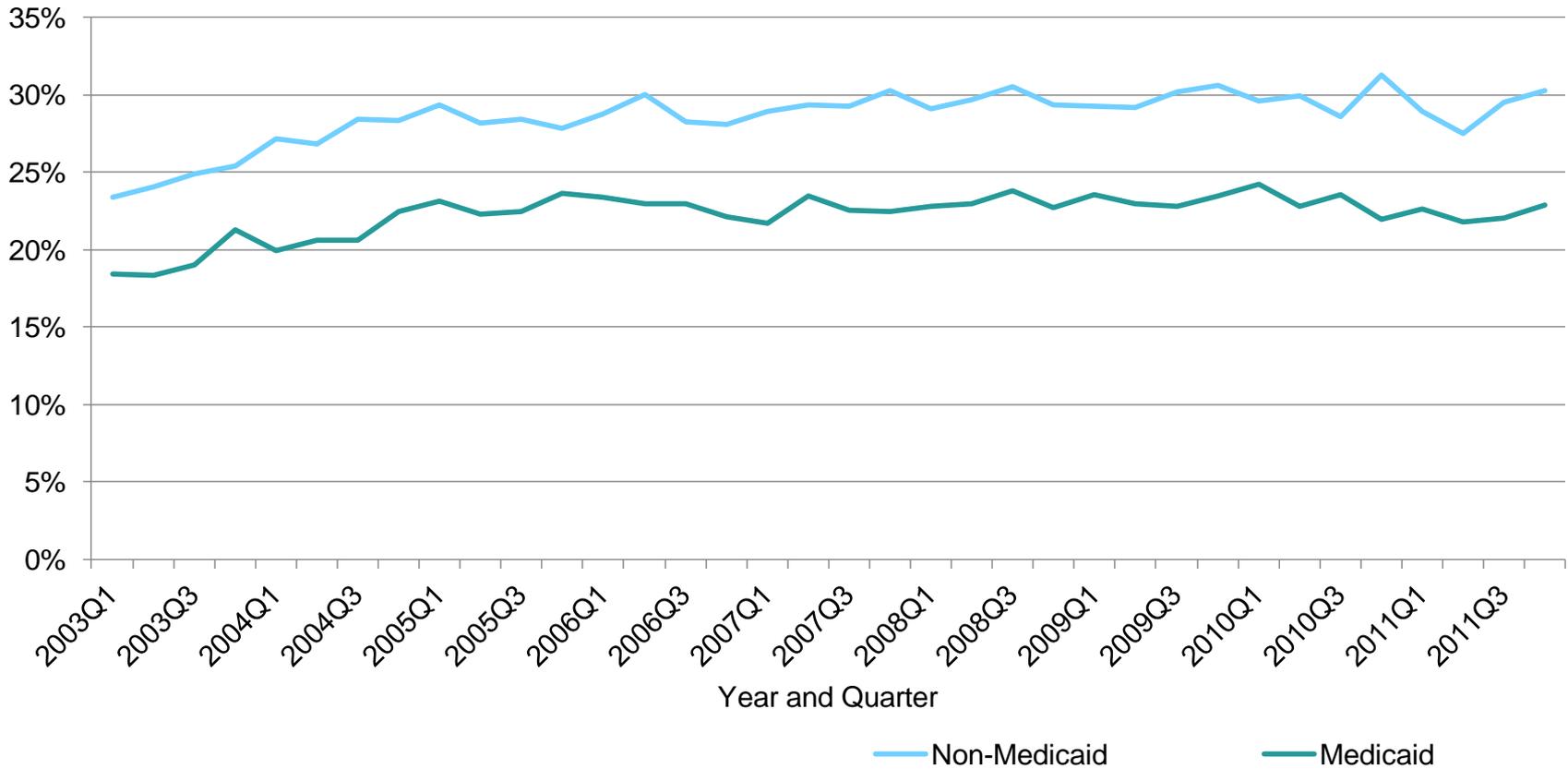
Source: First Steps Database. Citizenship status determined from Medicaid eligibility records.

First Year of Life Medicaid Expenditures By Gestational Age, Washington State 2010



Source: First Steps Database. Data subject to change as claims are paid.

Cesarean Delivery Rates (NTSV) Washington State 2003-2011



Source: First Steps Database. NTSV = nulliparous, term, singleton, vertex

Linked BC-Medicaid Data May Help To Improve:

- Access:
 - Measure prenatal care entry and utilization (BCs) by Medicaid status and managed care plan
 - Measure use and effects of enhanced PNC services (Medicaid)