

Assessing Costs of Births in Varied Settings

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Births in Washington State

- ▶ **How many?** 86,956 in 2011
- ▶ **Where?** 3.1% at home or in free-standing birth centers
- ▶ **From 2004 to 2011:** number of home births increased nearly two-fold; proportion increased from 1.1% to 1.9% of total births
- ▶ **From 2000 to 2011:** number of births in birth centers also increased nearly two-fold; proportion increased from 0.7% to 1.2%
- ▶ Medicaid covers 50% of total Washington births.
- ▶ Washington is one of approximately 11 states with Medicaid reimbursement for direct-entry midwives



Out of Hospital Births in Washington State

Background

1981	Midwifery licensing law revised (education & practice standards)
1986	Birth center licensing law enacted
1987	WA Medicaid reimburses for birth center births
1989	Maternity Care Access Act (First Steps) implemented
1990	First Steps Database created for program monitoring & evaluation
1995	Every Category of Provider Law enacted (re. health plan contracts)
1996	Planned Home Births (HB) report published
1997	Home Birth Task Force report published
2001	HB Pilot Project allowed Medicaid reimbursement
2006	HMA publishes Midwifery Economic Costs and Benefits study



Required Data Elements

Birth Certificate	Birth Certificate	Medicaid Claims
Attendant At Birth	Birth Place Type	Maternal & Infant Claims
Certifier Name & Title	Hospital	ICD-9 codes
MD/DO	Freestanding Birth Ctr.	CPT codes
Hospital Administrator	Home Birth	Providers' NPI
CNM/CM	Clinic/Doctor's Office	Expenditures
Other Midwife	Other (specify)	
Other (specify)		

- Medicaid claims (fee for service) and vital records are linked at the individual level for Medicaid mothers and their infants.
- Vital Records also provide: maternal risk factors, birth weight, method of delivery, fetal and infant deaths.
- Birth Attendants' licensure/specialty was verified and typical delivery location determined.

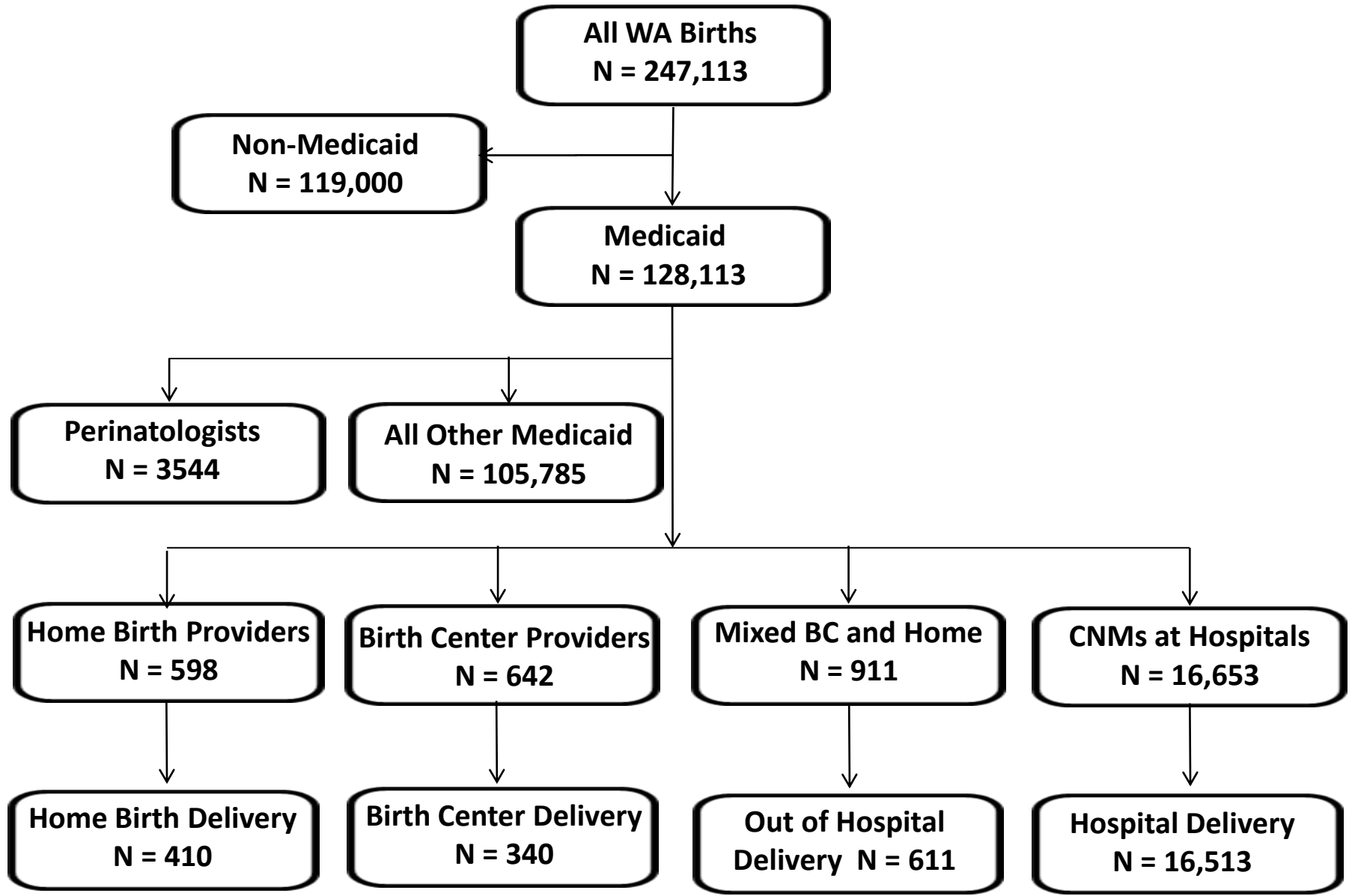


Licensure and Typical Delivery Location For WA Providers of Out of Hospital Births

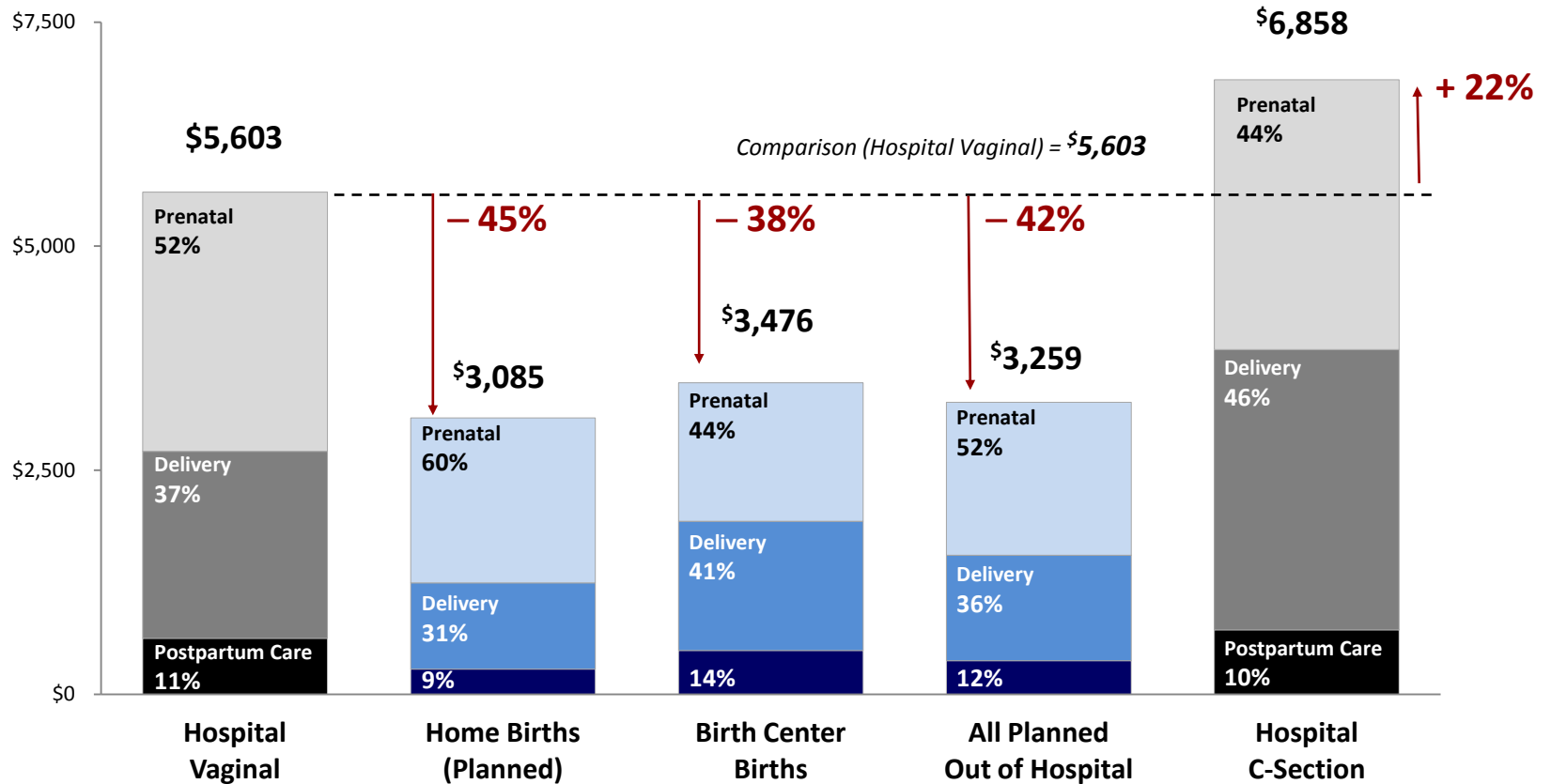
Typical Delivery Location	Licensed Midwife (LM)	Certified Nurse Midwife (CNM)
Home	72	8
Birthing Center	16	1
Mixed (Home and Birth Center)	33	5
All Out of Hospital	121	14



Prenatal Care Providers and Achieved Birth Place for Washington State Women Who Gave Birth 2010-2012



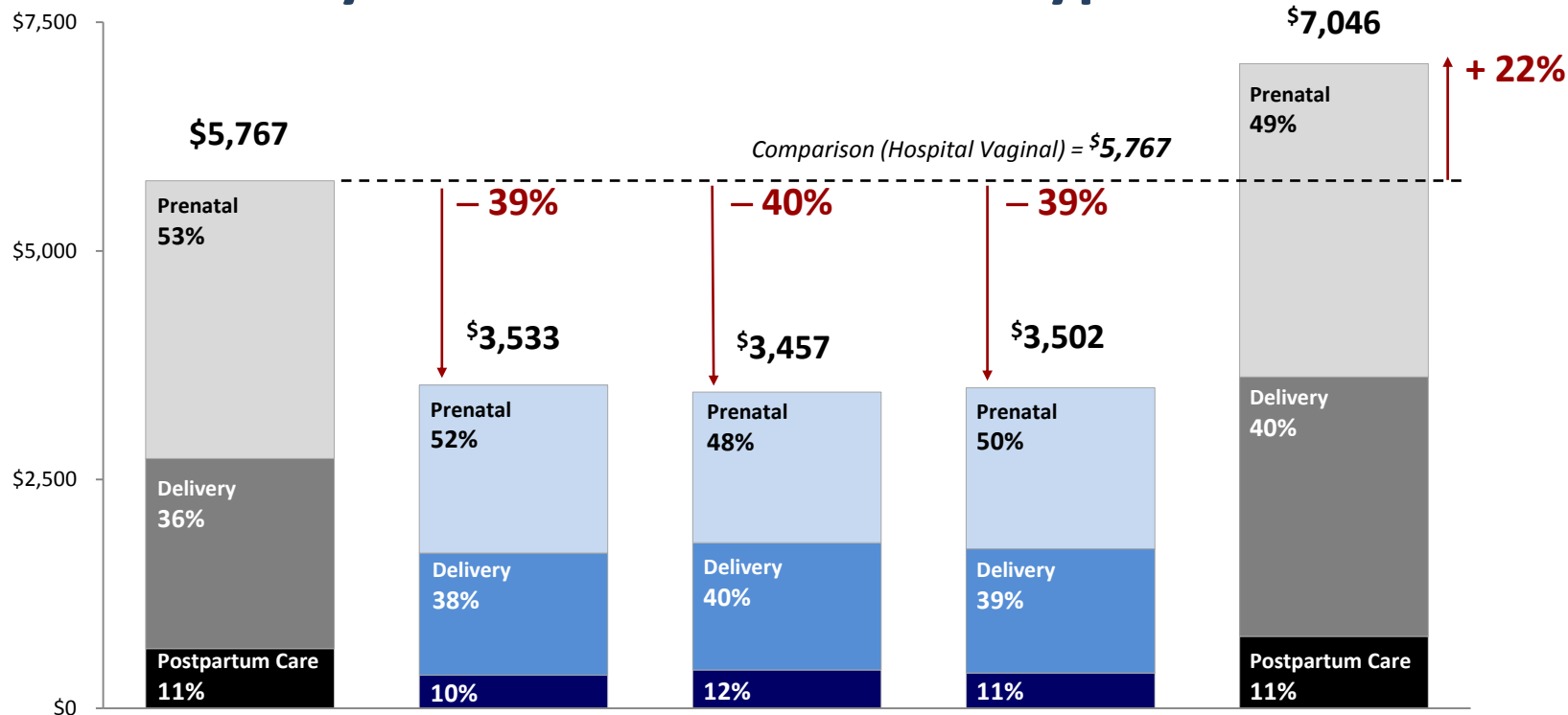
Average Medicaid Expenditures: Low Risk Births By Achieved Birth Place Type



	N = 14,259	N = 102	N = 82	N = 184	N = 2,558
Prenatal Care	\$ 2,892	\$ 1,842	\$ 1,545	\$ 1,709	\$ 3,011
Delivery	\$ 2,086	\$961	\$ 1,441	\$ 1,175	\$ 3,127
Postpartum	\$625	\$282	\$490	\$ 375	\$ 719
TOTAL	\$ 5,603	\$ 3,085	\$ 3,476	\$ 3,259	\$ 6,858



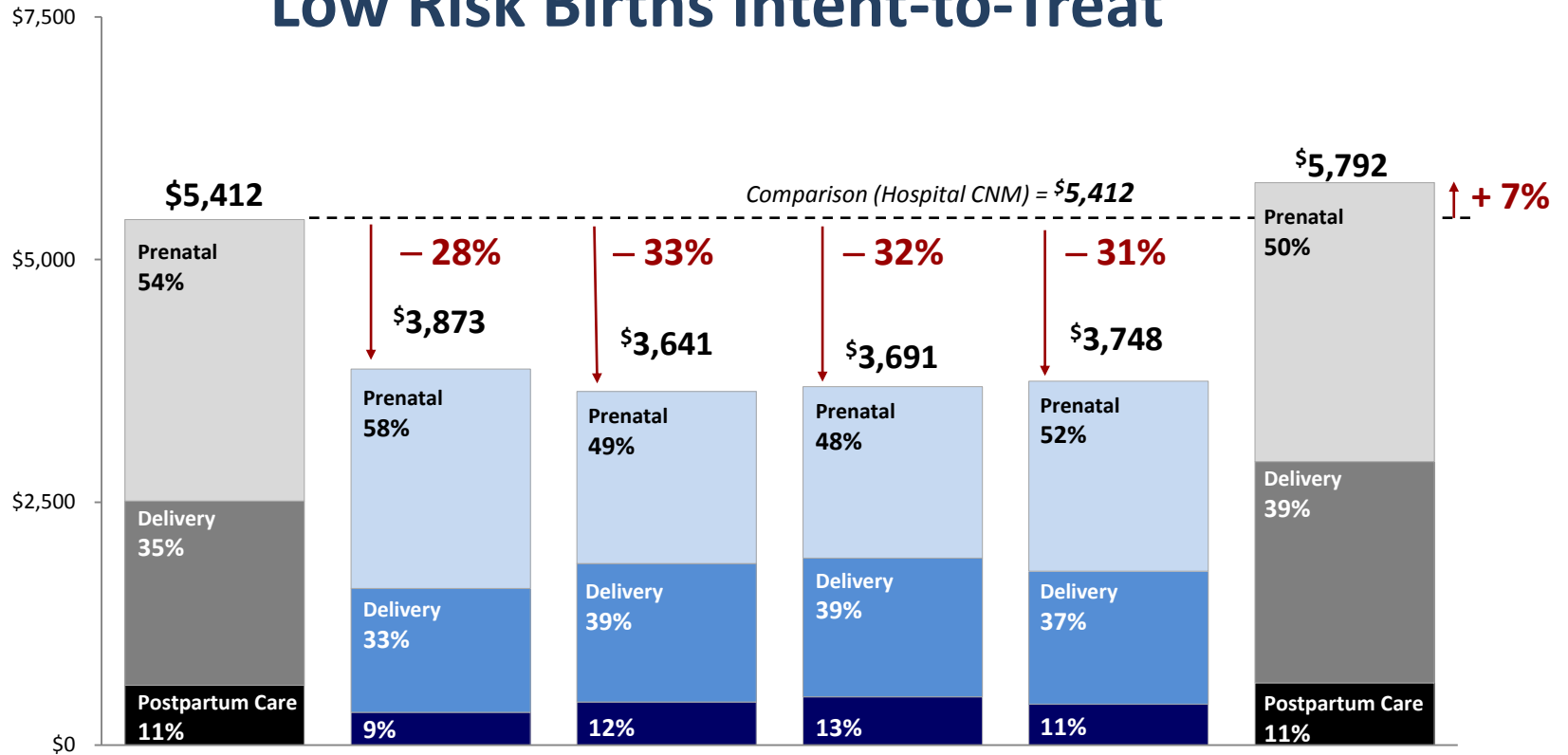
Average Medicaid Expenditures: By Achieved Birth Place Type



	Hospital Vaginal <i>N</i> = 26,061	Home Births (Planned) <i>N</i> = 162	Birth Center Births <i>N</i> = 112	All Planned Out of Hospital <i>N</i> = 274	Hospital C-Section <i>N</i> = 10,343
Prenatal Care	\$ 3,036	\$ 1,836	\$ 1,645	\$ 1,758	\$ 3,424
Delivery	\$ 2,077	\$1,335	\$ 1,392	\$ 1,358	\$2,835
Postpartum	\$653	\$ 363	\$420	\$ 386	\$787
TOTAL	\$ 5,767	\$ 3,533	\$ 3,457	\$ 3,502	\$7,046



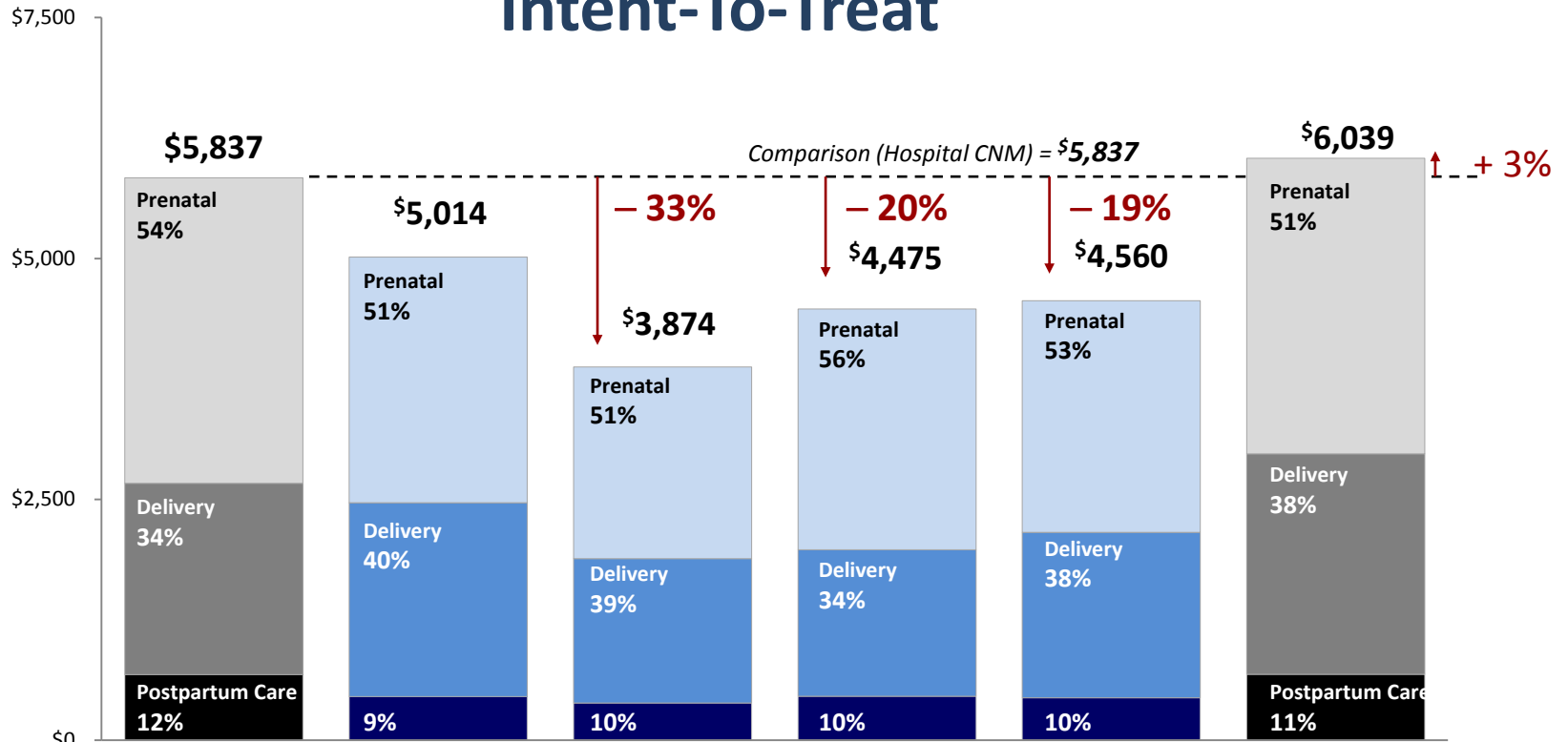
Average Medicaid Expenditures: Low Risk Births Intent-to-Treat



	Hospital CNM <i>N</i> = 2,323	Home Births (Planned) <i>N</i> = 101	Birth Center Births <i>N</i> = 70	Mixed <i>N</i> = 93	All Planned Out of Hospital <i>N</i> = 264	Hospital Other <i>N</i> = 14,261
Prenatal Care	\$ 2,899	\$ 2,262	\$ 1,773	\$ 1,766	\$ 1,958	\$ 2,873
Delivery	\$ 1,898	\$ 1,276	\$ 1,424	\$ 1,428	\$ 1,369	\$ 2,279
Postpartum	\$ 615	\$ 335	\$ 444	\$ 497	\$ 421	\$ 640
TOTAL	\$ 5,412	\$ 3,873	\$ 3,641	\$ 3,691	\$ 3,748	\$ 5,792



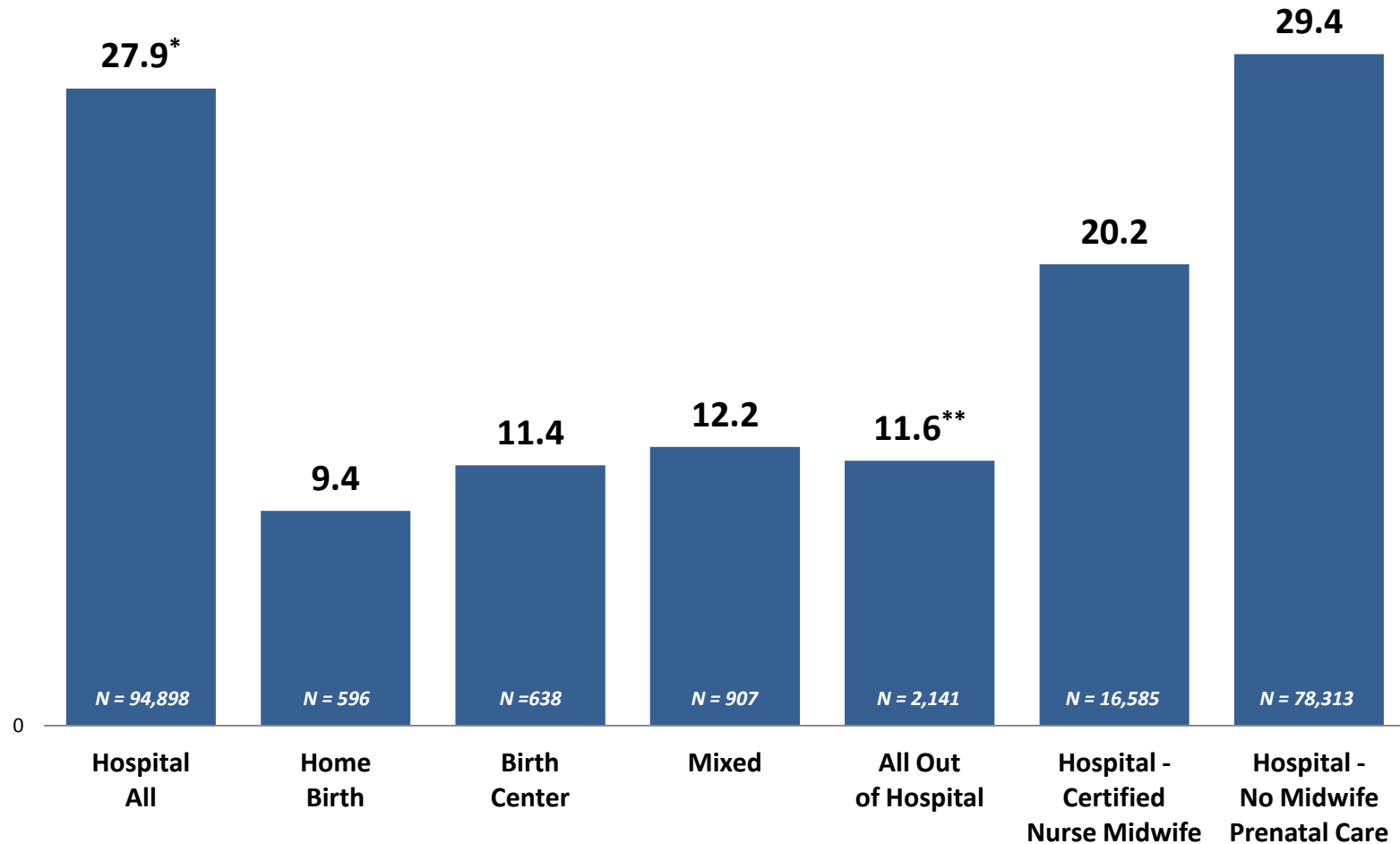
Average Medicaid Expenditures: Intent-To-Treat



	Hospital CNM	Home Births (Planned)	Birth Center Births	Mixed	All Planned Out of Hospital	Hospital Other
	<i>N</i> = 4,785	<i>N</i> = 182	<i>N</i> = 101	<i>N</i> = 159	<i>N</i> = 442	<i>N</i> = 30,571
Prenatal Care	\$ 3,170	\$ 2,549	\$ 1,988	\$ 2,499	\$ 2,403	\$ 3,067
Delivery	\$ 1,985	\$ 2,012	\$ 1,499	\$ 1,519	\$ 1,717	\$ 2,288
Postpartum	\$ 682	\$ 453	\$ 387	\$ 457	\$ 440	\$ 685
TOTAL	\$ 5,837	\$ 5,014	\$ 3,874	\$ 4,475	\$ 4,560	\$ 6,039



Cesarean Delivery Rate (%): Intent-To-Treat



* All Hospital = No Prenatal Care by Midwife + Certified Nurse Midwife

** All Out of Hospital = Home + Birth Center + Home and Birth Center (Mixed)



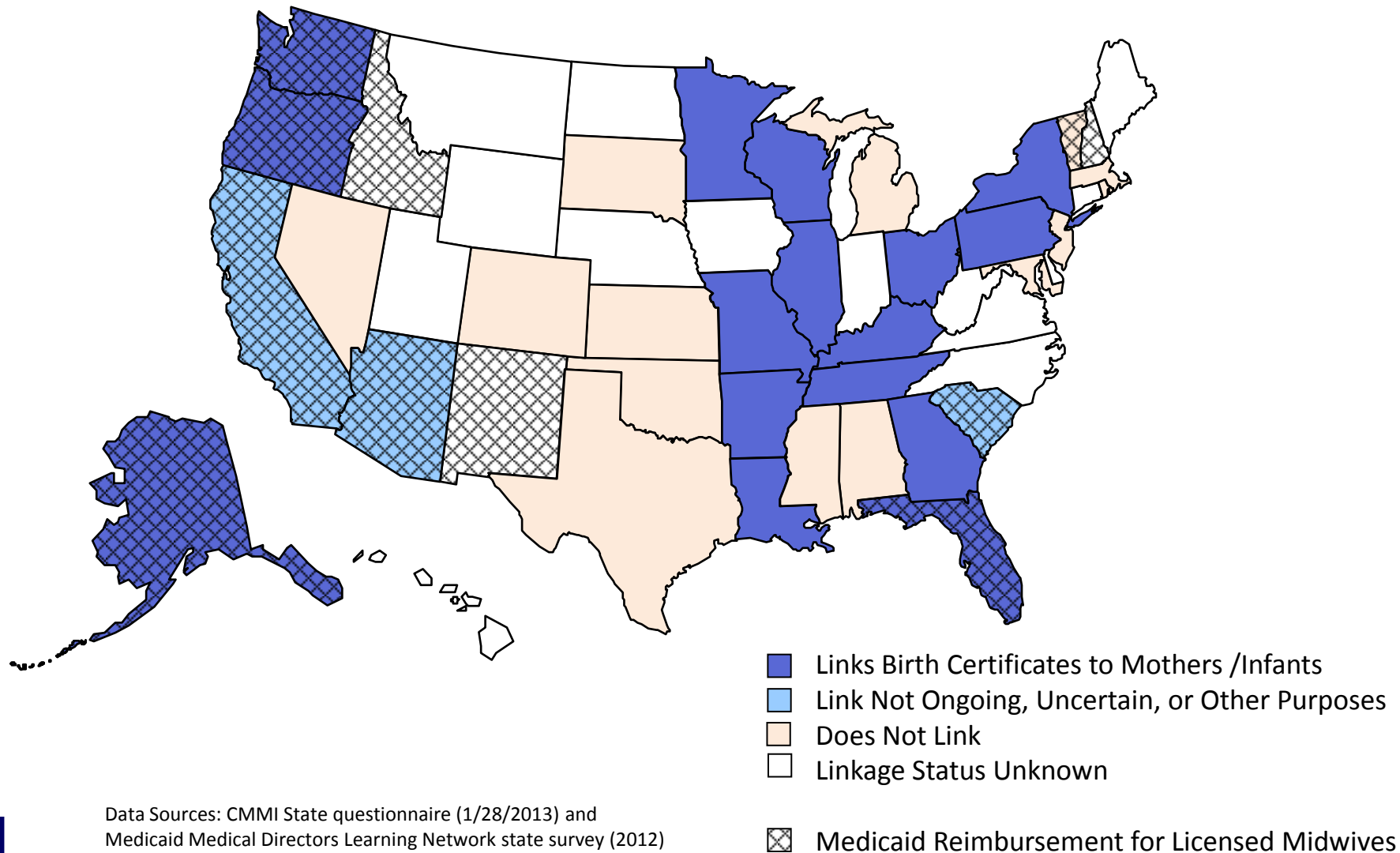
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Future Directions?

- **Extend analysis to other states with linked Medicaid claims and vital records and Medicaid reimbursement for out of hospital births**
 - Increase Ns
 - Study different states' models of care/reimbursement
 - Describe insurance issues for mother-infant dyad
- **Use medical record review or detailed analysis of claims data to identify timing of transfer of care, emergency transport expenses**
 - Explore outliers and remove as appropriate
- **Include birth outcomes and infant medical care expenditures together with maternal expenditures**
 - Compare transfer and C-section rates for nulliparous and multiparous women



Current Medicaid-Birth Certificate Linkage and Medicaid Reimbursement for Licensed (Direct-Entry) Midwives



Data Sources: CMMI State questionnaire (1/28/2013) and Medicaid Medical Directors Learning Network state survey (2012)
<http://mana.org/statechart.html>



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