

Health Care Financial Burden and Postpartum Care Utilization

Menolly Kaufman, PhD MPH

Senior Research Associate, CHSE at OHSU
Instructor, OHSU-PSU School of Public Health

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INEQUITIES IN MATERNAL HEALTH

Maternal Mortality Ratios in Selected Countries, 2018 or Latest Year

Deaths per 100,000 live births

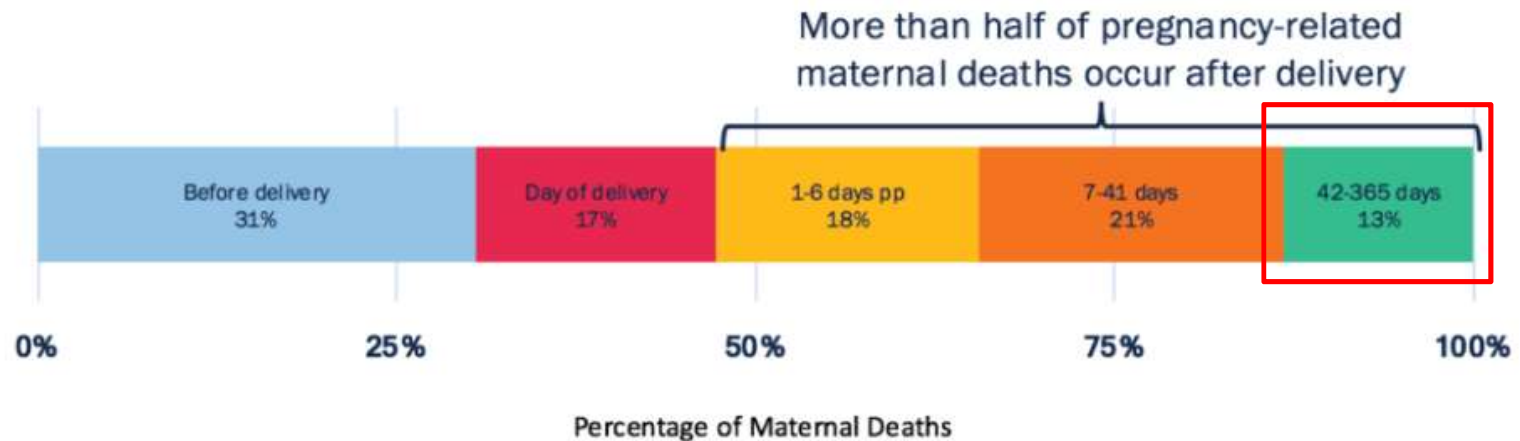


Source: Tikkanen, 2020



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RENEWED FOCUS ON *POSTPARTUM* HEALTH



Source: Creanga, 2017



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SPECTRUM OF POSTPARTUM HEALTH



Maternal Mortality

Severe Maternal Morbidity

*All Other
Maternal
Morbidity*



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POSTPARTUM EMERGENCY DEPARTMENT VISITS

- **1 in 12** women had an ED visit within 90 days after birth
- **1 in 3** covered by Medicaid visited ED within 6 months
- **50%** of postpartum hospital encounters are *not associated* with childbirth hospitalization



Sources: Batra, 2017; Ehrental, 2017; Horwitz, 2021



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POSTPARTUM CARE RECOMMENDATIONS

American College of
Obstetricians and
Gynecologists

Postpartum Process	Primary maternal care provider assumes responsibility for woman's care through the comprehensive postpartum visit											
	Contact with all women within first 3 weeks			Ongoing follow-up as needed 3-12 weeks								
	BP check 3-10 days	High risk I/u 1-3 weeks	Comprehensive postpartum visit and transition to well-woman care 4-12 weeks, timing individualized and woman-centered									
Wks	0	1	2	3	4	5	6	7	8	9	10	11
6-Week Visit	Traditional period of rest and recuperation from birth 0-6 weeks						***** 6-week visit					

National Academy of
Medicine



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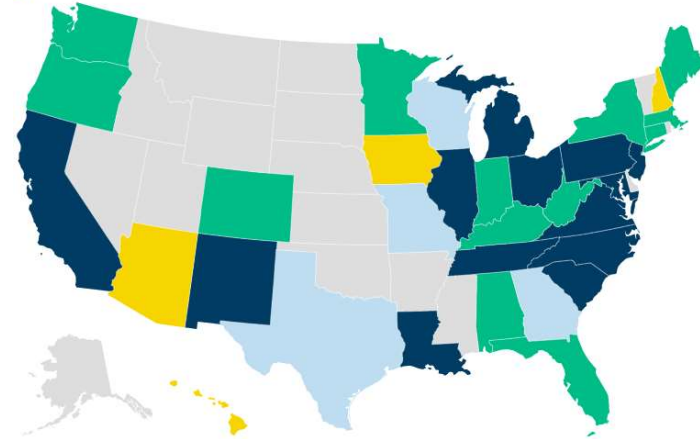
POSTPARTUM POLICY CONTEXT



Option for states to expand postpartum Medicaid coverage from 60 days to one year.

Postpartum Coverage Tracker Map

- 12-month extension implemented (13 states)
- Planning to implement a 12-month extension (13 states & DC)
- Limited coverage extension approved or proposed (4 states)
- Pending legislation to seek federal approval through SPA or 1115 Waiver (4 states)



Source: KFF, 2022



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INSURANCE & MATERNAL MORBIDITY

- Births funded by Commercial insurance *tend to* have better outcomes than births funded by Medicaid
- Commercial insurance *vary* :
 - Provider Network
 - Services Covered
 - Premiums \$
 - Direct Patient Costs



INCOME & INSURANCE STATUS

FPL

INCOME

138%

Medicaid
Eligible

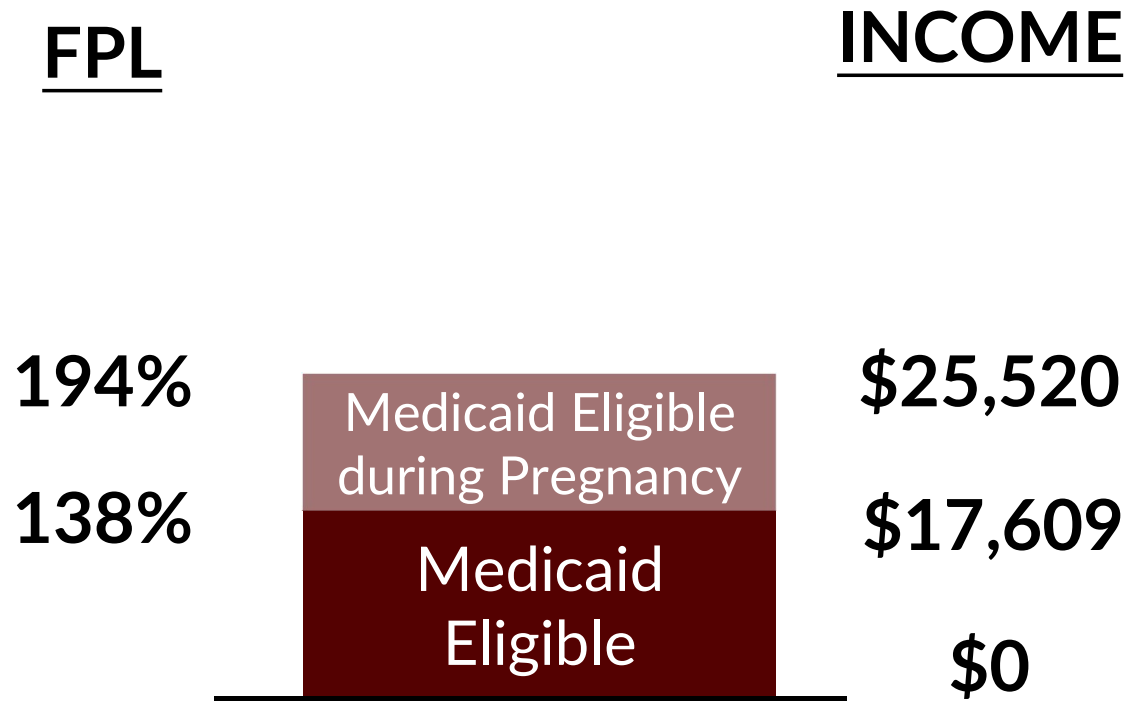
\$17,609

\$0

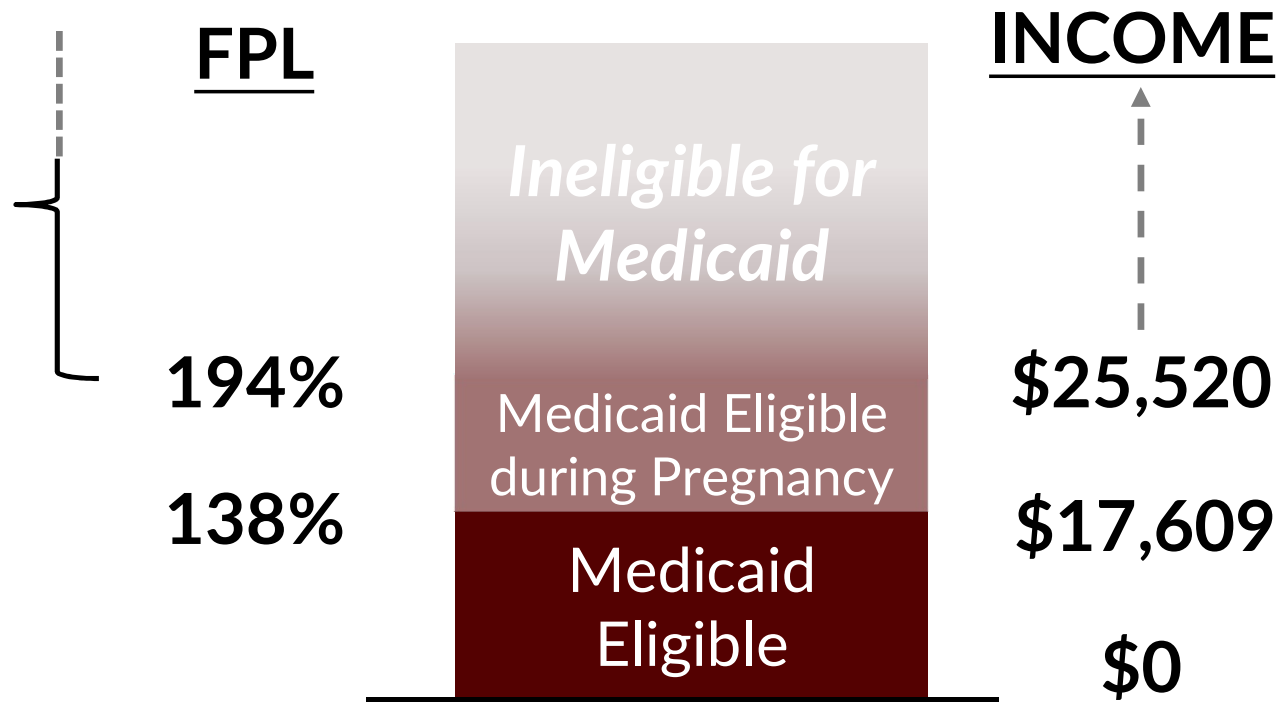


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INCOME & INSURANCE STATUS



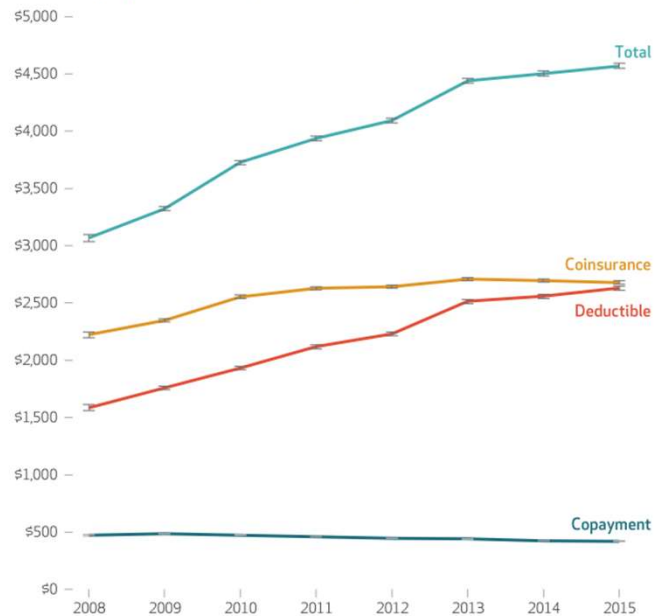
INCOME & INSURANCE STATUS



MATERNITY CARE COSTS

EXHIBIT 1

Mean out-of-pocket spending for maternity care among women with employer-based insurance, by type of cost sharing, in delivery years 2008-15



Among commercially insured women, out-of-pocket spending increased nearly 50% from 2008 to 2015.

Source: Moniz, 2020



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PAYING FOR BIRTH IN THE US

Miscarriage

Ultra Sound for Spotting at 6 Weeks	40
Ultra Sound for Confirmation at 8 weeks	40
ED visit for miscarriage	1298.82
Ultra Sound to confirm miscarriage	40
D & C	1355.85
Ultra Sound to check for fetal product	40
Total	\$2,814.67

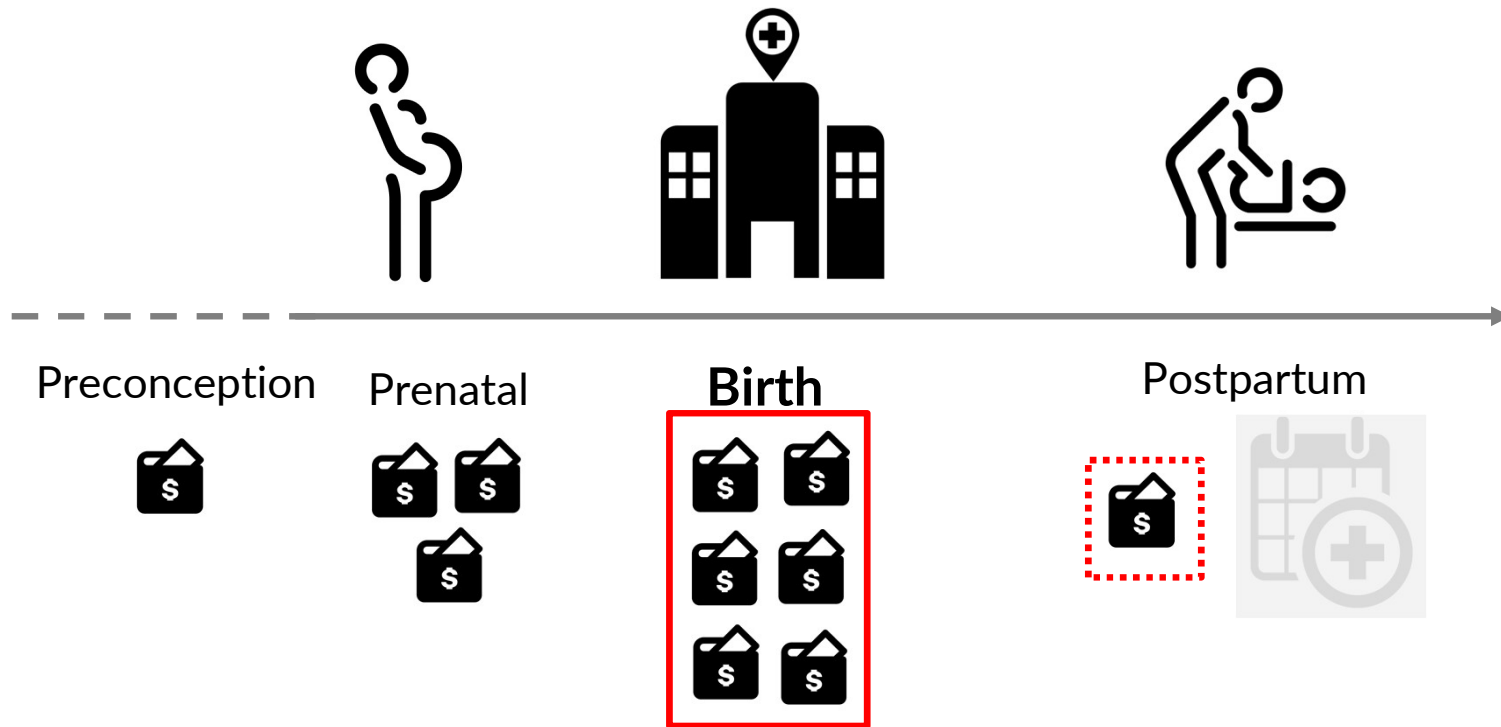
Pre-Natal Care/Birth

Ultra Sound for Confirmation at 7 weeks	40
Ultra Sound for Subchronic Hematona with acute bleeding	40
Ultra Sound for NT check	40
Ultra Sound for Subchronic Hematona with acute bleeding	40
OB ED visit for High blood pressure	386.87
Ultra Sound for Anatomy Scan	40
Ultra Sound for follow up Anatomy Scan	40
Ultra Sound for growth check	40
Gestational Diabetes Care	120
Ultra Sound for growth check	40
NST 32 Weeks	40
NST 34 Weeks	40
Ultra Sound for growth check	40
OB ED visit for High blood pressure	519.29
C section	1595.91
OB ED visit for High blood pressure	458.81
OB ED visit for High blood pressure	444.08
Total	\$3,964.96



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THEORETICAL FRAMEWORK

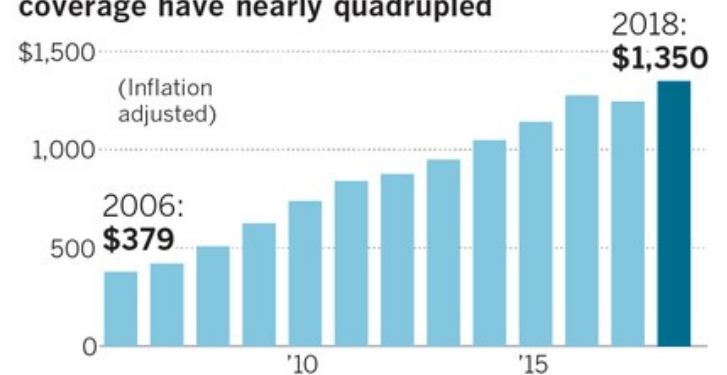


FINANCIAL BURDEN & HIGH DEDUCTIBLE HEALTH PLANS

- Deductible = \$ patient pays for health care in *full* before any insurance coverage
 - 2021: deductibles >\$1,400
- Are HDHPs a good marker of financial burden for birthing people?

Deductibles up, savings flat

Average deductibles for single coverage have nearly quadrupled



Source: KFF



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RESEARCH OBJECTIVES

Describe health care **financial burden** before and during birth among commercially insured women and examine if an association between **financial burden** and **postpartum care utilization** exists.



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OREGON ALL PAYERS ALL CLAIMS

- 2011- 2018
- Medical and Pharmacy Claims
- Cost for patient & plan
- Enrollment and Demographic information
- All insurers that cover 5,000 lives
- 87-98% of Oregonians



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POPULATION

- Oregon hospital births from 2012-2017
- Ages 15-44
- *Commercial* insurance at birth
- 11 of 12 months of postpartum insurance enrollment



EXPOSURE

Health Care Financial Burden

- Total Out-of-pocket costs for any health care encounter
 - Maternity care, all other care, and birth
 - Summarized Deductibles, Coinsurance, and Copayments
- Timing: January 1 of birthing year through childbirth hospitalization discharge date.



OUTCOMES

- (1) Inpatient readmissions within one year**
- (2) Emergency department (ED) Visits within one year**
- (3) Comprehensive postpartum visit Attendance within 12 weeks**



ANALYSIS

Modeling Approach:

- Robust Poisson Regression
 - Cumulative Incidence Ratio (RR)
- Causal modeling approach to confounder selection

Model 1: *Financial burden* and Readmissions, ED Visit, and Postpartum Visit

Model 2: *HDHP* and Readmissions, ED Visit, and Postpartum Visit



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RESULTS

- Study population: 65,153 commercially funded births that met our continuous enrollment criteria (at least 11 months)
- Highest vs lowest level of financial burden (>\$5,000 v \$0):
 - *Rural*: 34.2% vs 19.6%
 - *Cesarean Delivery*: 40.2% 28.2%
 - *Extended length of stay*: 15.4% vs 1.4%



RESULTS

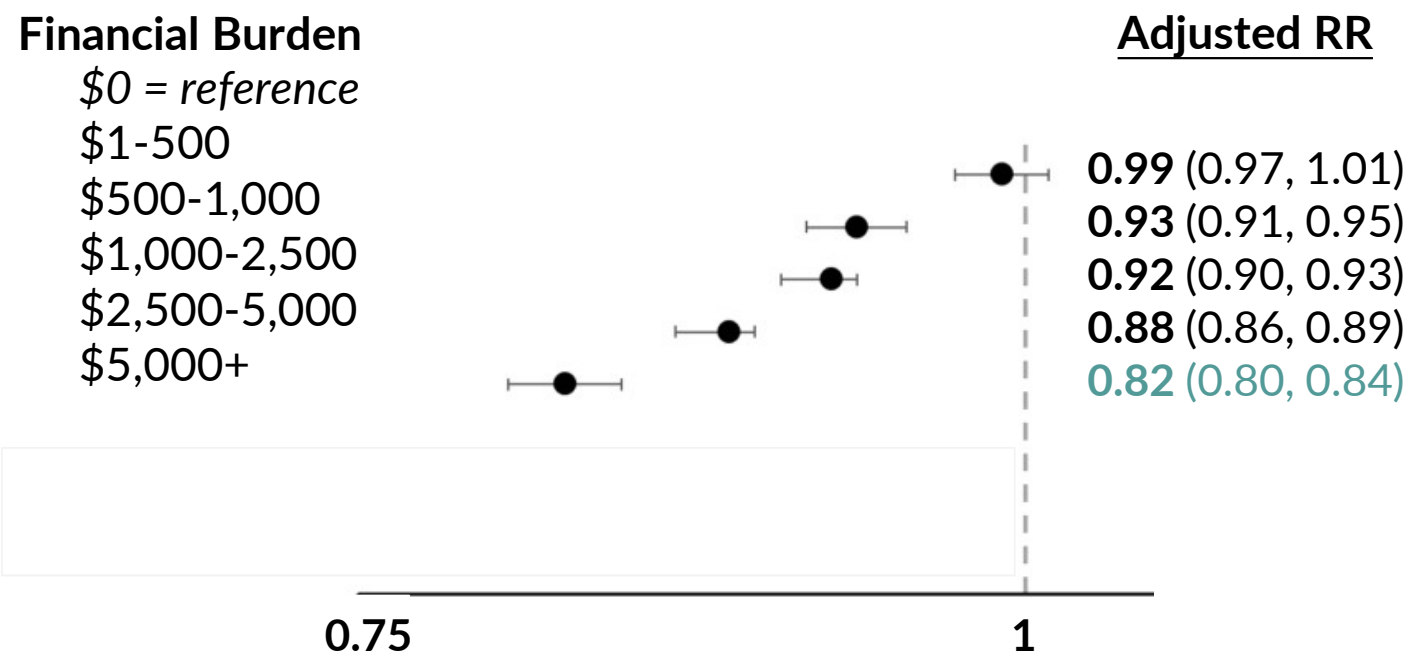
Financial Burden & Insurance Type

Financial Burden	High Deductible Health Plans		Other Commercial Plans		Total	
	N	%	N	%	N	%
\$<1,000	747	2.3	32,114	97.7	32,861	100
\$1,000-4,999	2,261	5.8	36,950	94.2	39,211	100
\$5,000+	685	11.3	5,390	88.7	6,075	100



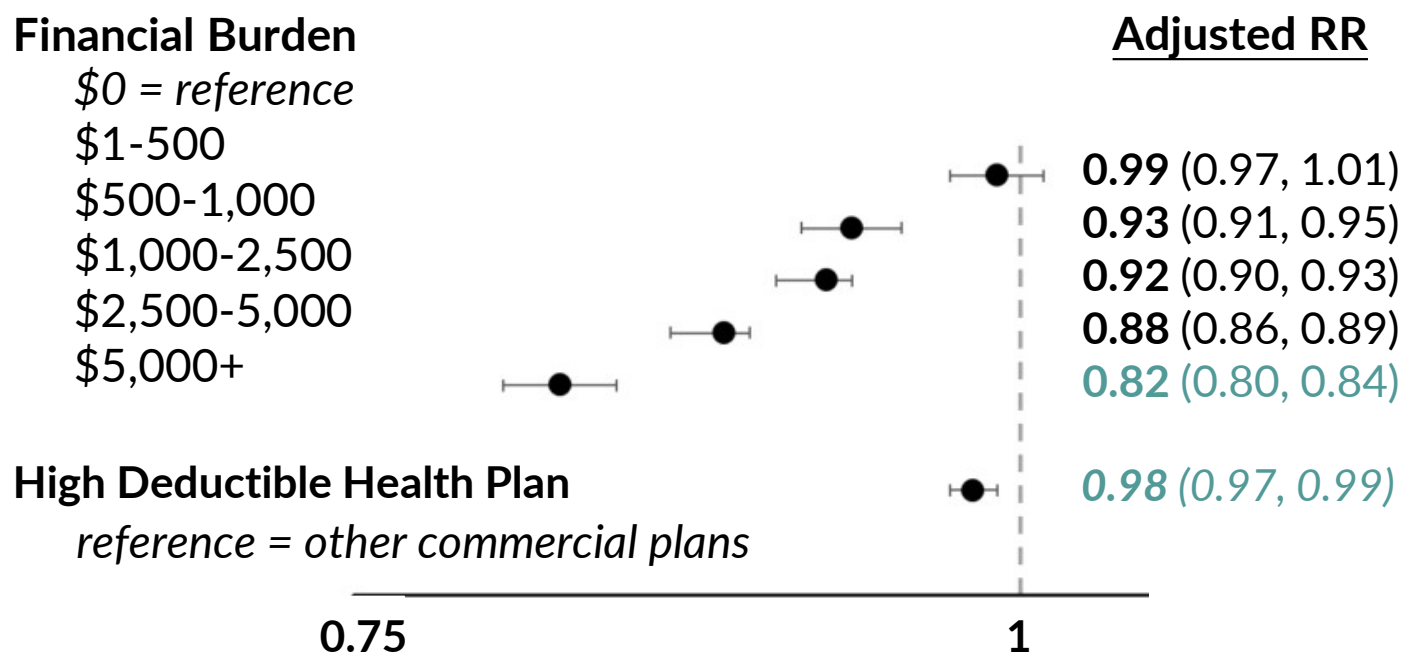
RESULTS

Postpartum Visit Attendance



RESULTS

Postpartum Visit Attendance



RESULTS

ED Visits

Financial Burden

\$0 = reference

\$1-500

\$500-1,000

\$1,000-2,500

\$2,500-5,000

\$5,000+

Adjusted RR

1.02 (0.95, 1.10)

1.00 (0.92, 1.09)

0.92 (0.86, 0.99)

0.86 (0.79, 0.92)

0.79 (0.72, 0.88)

High Deductible Health Plan

reference = other commercial plans

0.91 (0.82, 1.01)

0.70

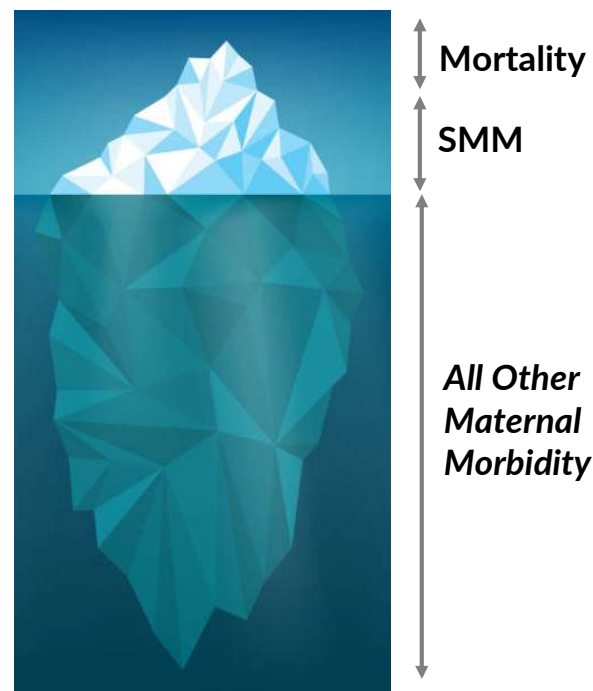
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CONCLUSIONS

- Financial burden related to childbirth is widespread, even outside of HDHPs.
- Evidence suggests that high cost-sharing may be related to unmet postpartum health needs.
- Burden >\$5K associated with decreased: outpatient care, ED use.



LIMITATIONS

- Claims data limitations
- Missing the uninsured
- Data not currently available in APAC
 - Maternal race and ethnicity
 - Birth related factors from vital statistics
 - Socioeconomic status (education, occupation, income, family size)
- Generalizability



IMPLICATIONS

- Postpartum morbidity is nuanced & our solutions must grapple with that complexity.
- High cost-sharing & patient centered care.



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Art by Mariana Gomez



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