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# Insurance Churn and Postpartum Health among Texas Women with Births Covered by Medicaid/CHIP

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#### ABSTRACT

Introduction: Insurance churn (changes in coverage) after childbirth is common in the United States, particularly in states that have not expanded Medicaid coverage. Although insurance churn may have lasting consequences for health care access, most research has focused on the initial weeks after a birth.

Methods: We analyzed data from a cohort study of postpartum Texans with pregnancies covered by public insurance (n = 1,489). Women were recruited shortly after childbirth from eight hospitals in six cities, completing a baseline survey in the hospital and follow-up surveys at 3, 6, and 12 months. We assessed insurance trajectories, health care use, and health indicators over the 12 months after childbirth. We also conducted a content analysis of women's descriptions of postpartum health concerns.

Results: A majority of participants (64%) became uninsured within 3 months of the birth and remained uninsured for the duration of the study; 88% were uninsured at some point in the year after the birth. At 3 months postpartum, 17% rated their health as fair or poor, and 13% reported a negative change in their health after the 3-month survey. Women's openended responses described financial hardships and other difficulties accessing care for postpartum health issues, which included acute and ongoing conditions, undiagnosed concerns, pregnancy and reproductive health, mental health, and weight/lifestyle concerns.

Conclusions: Insurance churn was common among postpartum women with births covered by Medicaid/CHIP and prevented many women from receiving health care. To improve postpartum health and reduce maternal mortality and morbidity, states should work to stabilize insurance coverage for women with low incomes.

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In the United States, instability in insurance coverage, or insurance churn, is common in the months before and after delivery, particularly for women living on low incomes (D'Angelo et al., 2015; Daw, Hatfield, Swartz, & Sommers, 2017; Ranji & Gomez, 2019). During pregnancy, women with low incomes who may otherwise be uninsured can gain coverage through pregnancy Medicaid—which has more generous income limits

than standard Medicaid in most states—or through the Children's Health Insurance Program (CHIP) Unborn Child Option, which covers pregnant women who are ineligible for Medicaid due to immigration status (Green, Hochhalter, Dereszowska, & Sabik, 2016). However, CHIP coverage for postpartum care is limited and not available in all states, and pregnancy Medicaid coverage expires after 60 days postpartum.<sup>2</sup> Postpartum coverage

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<sup>&</sup>lt;sup>1</sup> As of January 2021, 17 states (including Texas) provide coverage to pregnant women, regardless of immigration status, through the CHIP Unborn Child Option [Brooks et al., 2021].

<sup>&</sup>lt;sup>2</sup> In recent years, many states have considered proposals to extend pregnancy Medicaid.As of June 2021, three states have obtained Centers for Medicare and Medicaid Services (CMS) waivers to extend pregnancy Medicaid coverage beyond 60 days, three states have CMS waivers pending, and another five states have enacted legislation to seek federal approval to extend pregnancy Medicaid through a CMS waiver or a state plan amendment [Kaiser Family Foundation, 2021d]

after 60 days depends on eligibility for standard Medicaid, which varies by state (Daw, Eckert, Allen, & Underhill, 2021; Green et al., 2016; Ranji & Gomez, 2019). Thus, women whose pregnancies are covered by Medicaid or CHIP are at risk of becoming uninsured early in the postpartum period (Daw et al., 2017, 2021). Stable insurance is vital to the diagnosis and management of chronic conditions, such as hypertension and diabetes (Daw & Sommers, 2019), and inconsistent coverage between pregnancies may contribute to a cycle of poor interconception health leading to higher-risk pregnancies and additional health problems (Daw et al., 2017; Daw & Sommers, 2019).

Medicaid expansion under the Affordable Care Act has decreased insurance churn among reproductive-aged women and increased health care use in the postpartum period (Daw et al., 2021; Daw & Sommers, 2019; Dunlop, Joski, Strahan, Sierra, & Adams, 2020; Gordon, Sommers, Wilson, & Trivedi, 2020). However, residents of expansion states are still vulnerable to insurance churn if their incomes exceed 138% of the federal poverty level (FPL), the eligibility threshold for nonelderly adults.<sup>3</sup> Moreover, women living in the 12 states that have not expanded Medicaid (Kaiser Family Foundation, 2021c) remain at higher risk of losing coverage after childbirth and experiencing adverse health outcomes associated with insurance loss. This is particularly concerning given that women with low incomes and women of color are disproportionately affected by insurance churn and by serious maternal morbidity and maternal mortality (D'Angelo et al., 2015; Joseph et al., 2021; Liese et al., 2019; Louis, Menard, & Gee, 2015; Maternal Mortality and Morbidity Task Force, 2020; Petersen et al., 2019).

Texas is an important setting to examine postpartum women's health and experiences of insurance churn in the months after childbirth, given its large population of reproductive-age women and its high rates of maternal morbidity and mortality (MacDorman et al., 2018). The state has the largest share of women aged 19 to 64 without insurance (23%) in the United States (Kaiser Family Foundation, 2019), as well as large racial/ethnic disparities in the percent uninsured: 14% of non-Hispanic White women, compared with 18% of non-Hispanic Black women and 37% of Hispanic women (U.S. Census Bureau, 2019) (Authors' tabulations of 2019 American Community Survey 1-year Public Use Microdata). As of June 2021, Texas has not expanded Medicaid, and Medicaid eligibility for nonpregnant people is limited to those with incomes equivalent to less than 17% of the FPL (Kaiser Family Foundation, 2021b). Uninsured women earning below 200% FPL qualify for family planning services and reproductive health care through Healthy Texas Women (HTW), a Medicaid waiver program; HTW Plus, an expansion program implemented in 2020, covers an additional subset of health services (e.g., screening and treatment for hypertension, postpartum depression, and substance use disorders) for postpartum women with low incomes in the 12 months after childbirth. Postpartum care for undocumented women is extremely limited: HTW and HTW Plus are restricted to U.S. citizens and legal residents, and CHIP Perinatal (the Texas implementation of the CHIP Unborn Child Option) covers only two postpartum visits. Other state-funded programs that do not restrict services based on immigration status have historically been underfunded (Carpenter, Lerma, Dixon, & White, 2021), further limiting the scope of care available to individuals who do not qualify for Medicaid.

Typical sources of state-level data on pregnant and postpartum women's health, such as the Pregnancy Risk Assessment Monitoring System, offer limited insight into the consequences of insurance churn because they are cross-sectional and do not collect information on women's health beyond the early postpartum period. Longitudinal assessment of postpartum women's experiences with insurance churn is important as states consider policy strategies to address maternal and morbidity, such as extending Medicaid coverage to the 12 months after a birth. In this analysis, we use data from a prospective cohort study of postpartum women in Texas to examine insurance churn and maternal health in the 12 months after a birth. After describing longitudinal patterns of insurance coverage and several maternal health indicators, we conduct a content analysis of open-ended survey responses to characterize postpartum women's salient health concerns.

#### Methods

Data

We conducted a secondary analysis of survey data from the Texas Postpartum Contraception Study. This longitudinal study recruited women who gave birth between 2014 and 2016 at one of eight participating hospitals in six cities throughout Texas. Women aged between 18 and 44 years were eligible if they gave birth to a singleton infant who did not require extended care in a neonatal intensive care unit, had a birth that was not covered by private insurance, lived in Texas within the catchment area of the hospital where they gave birth, spoke English or Spanish, and did not plan to have another child within the next 2 years. Of the 1,825 women who met these criteria, 1,700 (93%) agreed to participate. After providing informed consent, women completed a baseline survey in person with the assistance of a trained interviewer before leaving the hospital. Women completed follow-up surveys via telephone at 3, 6, 12, 18, and 24 months after childbirth. Women who did not complete a follow-up survey were contacted to participate in the next survey; those who missed two consecutive surveys were considered lost to follow-up. This study was approved by the institutional review boards of all participating hospitals and the University of Texas at Austin.

This analysis uses data from the baseline survey and follow-up surveys conducted 3, 6, and 12 months after childbirth. Data collection for the 12-month surveys concluded in 2017, before the implementation of HTW Plus. Our sample includes 1,489 women who had pregnancies covered by Medicaid or CHIP and completed at least one follow-up survey. This analysis excludes 59 women who were uninsured at the time when they gave birth.

## Measures

At the baseline survey, women reported their age, parity, race/ethnicity, and nativity. We constructed a composite measure of race/ethnicity and nativity with the following categories: Hispanic, born in the United States; Hispanic, born outside the United States; non-Hispanic Black; non-Hispanic White; and non-Hispanic other. The 3-month survey captured receipt of government assistance.

Outcomes of interest included insurance coverage, health care use during the postpartum period, and indicators of women's health care needs in the 12 months after childbirth.

<sup>&</sup>lt;sup>3</sup> Although eligibility for pregnancy Medicaid differs by state, the median income limit is 200% FPL [Kaiser Family Foundation, 2021a].

Insurance was captured at each survey wave. At the time of the birth, all respondents indicated having public insurance (i.e., Medicaid, CHIP Perinatal, or Emergency Medicaid.) In later surveys, women were coded as publicly insured, privately insured (including Tricare), or uninsured. Women without private or public insurance who reported enrollment in the HTW program (or its predecessor program), <sup>4</sup> enrollment in county programs, or clinic discounts were considered uninsured because these programs do not provide comprehensive health care coverage (i.e., broad coverage for a wide range of acute and chronic health conditions, encompassing both diagnosis and treatment.)

Measures of health care use in the postpartum period included completion of a postpartum visit (captured at 3 months, or at 6 months if no 3-month survey), whether women ever wanted to have a health condition or illness checked by a doctor in the year after the birth (measured at 12 months), and whether women who wanted to see a doctor during this time had done so (measured at 12 months).

To assess women's probable need for health care during this same period, we compiled several indicators of postpartum health and illness. Self-rated health (captured at 3 months) provided a holistic assessment of women's health early in the postpartum period (excellent/very good/good/fair/poor). Women selecting fair or poor received an open-ended survey question prompting them to explain their response. In the 6- and 12-month surveys, women were asked whether they had experienced any change in their health since the previous survey; women indicating any change in their health received an open-ended survey question in which they were asked to describe the change(s). Responses to these open-ended survey questions provided insight into the range of health issues that women experienced in the postpartum period.

We also constructed indicators of specific chronic conditions linked to maternal mortality and severe maternal morbidity (Admon et al., 2017; Maternal Mortality and Morbidity Task Force, 2020). Hypertension and diabetes in the 12 months after childbirth were composite measures based on several items in the baseline and follow-up surveys. We considered women to have hypertension if they ever reported current high blood pressure, use of blood pressure medication, or gestational hypertension that continued after the birth. We coded women as having diabetes if they reported having diabetes before their pregnancy or diabetes that was diagnosed in pregnancy and persisted beyond 3 months postpartum. Because maternal mortality and morbidity are associated with obesity (Maternal Mortality and Morbidity Task Force, 2020; Nelson, Moniz, & Davis, 2018), we computed the body mass index (BMI) (kg/m<sup>2</sup>) at each survey wave using height (measured at baseline) and weight (captured in each follow-up survey.)

#### **Analysis**

Quantitative analyses were conducted in Stata 16 unless otherwise noted. First, we calculated the percentage with Medicaid/CHIP, private insurance, and no insurance at each survey wave. We used the R package *TraMineR* to identify the most common sequences of insurance status during the 12 months after childbirth. Next, we calculated the percentage of women who completed a postpartum visit. We also calculated the distribution of self-rated health 3 months after the birth, the

percentage who reported a negative change in their health, the distribution of BMI 12 months after the birth, and the prevalence of hypertension and diabetes. In light of known disparities in hypertension and diabetes among American adults (Centers for Disease Control and Prevention, 2020; Ostchega, Fryar, & Nguyen, 2020), we conducted an exploratory analysis of racial/ethnic differences. We also computed the percentage of women who wanted to have a concern or illness checked by a doctor during the postpartum period and the percentage of these women who reported visiting a doctor about their health concern.

Finally, we conducted a content analysis of women's openended survey responses (n=445) describing their health. The responses collected at 3 months postpartum explained why women had rated their health as fair or poor; at 6 and 12 months postpartum, these responses described changes in women's health since the previous survey. Open-ended responses were coded through an iterative process. Responses provided in Spanish were translated by a bilingual author. Two authors read all responses and proposed a preliminary set of codes. The resulting categories and coding decisions were refined through discussion among all authors. Responses that described multiple health concerns or changes could be assigned multiple codes. All final coding decisions were reviewed by the full group of authors. This content analysis was conducted in Microsoft Excel.

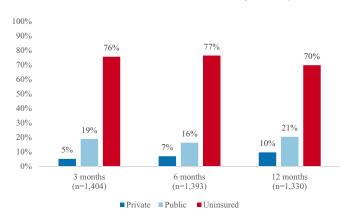
#### Results

Just under one-half of respondents (46%) were between 18 and 24 years old; another 26% were 25–29 years old and 28% were 30 years or older (Table 1). Hispanic women born in the

Sample Characteristics (n = 1,489 Postpartum Women with Births Covered by Medicaid/CHIP)

Characteristics	n	%
Age, years		
18–24	684	45.9
25-29	389	26.1
≥30	416	27.9
Race/ethnicity and nativity		
Hispanic, born in the United States	541	36.3
Hispanic, born outside the United States	657	44.1
Non-Hispanic Black	202	13.6
Non-Hispanic White	71	4.8
Non-Hispanic other	18	1.2
Parity		
1	381	25.6
2	474	31.8
≥3	634	42.6
Had a postpartum visit		
Yes	1172	82.9
No	241	17.1
Household participates in Supplemental		
Nutrition Program for Women, Infants,		
and Children (WIC)		
Yes	1222	82.1
No	267	17.9
Household participates in Supplemental		
Nutritional Assistance Program (SNAP)		
Yes	868	58.3
No	621	41.7
Household receives Temporary Assistance		
for Needy Families (TANF)		
Yes	30	2.0
No	1459	98.0
Child(ren) in household covered by Children's		
Health Insurance Program (CHIP)		
Yes	1362	91.5
No	127	8.5

<sup>&</sup>lt;sup>4</sup> The transition to HTW from its predecessor program, the Texas Women's Health Program (TWHP), occurred during the data collection period.



**Figure 1.** Insurance coverage in the 12 months after childbirth (n = 1,489).

United States made up 36% of the sample and Hispanic women born outside the United States made up 44%. Non-Hispanic Black women accounted for 14% of the sample and the remaining 6% of women were Non-Hispanic White, Asian, Native American, or some other race/ethnicity. One-quarter (26%) of participants had just given birth to their first child, 32% had two children, and 43% had three or more children.

Three months after the birth, 83% lived in a household participating in the Supplemental Nutrition Program for Women, Infants, and Children, 58% lived in a household participating in the Supplemental Nutritional Assistance Program, 2% lived in a household receiving Temporary Assistance for Needy Families, and 91% of women had a child in their household enrolled in CHIP.

#### Health Insurance and Health Care Use

Among women who had Medicaid/CHIP coverage at the time of the birth, 77% were uninsured at 3 months postpartum (Figure 1). The share of women without insurance remained stable at approximately three-quarters for the rest of the study period. Overall, 86% of women were uninsured at some point during this time, and only 12% of women held private insurance at any time in the year after childbirth.

The most common trajectory of insurance coverage during study period, experienced by 59.3% of women, was to have a birth covered by public insurance, become uninsured by 3 months postpartum, and remain uninsured for the remainder of the year (Figure 2). The second-most common trajectory, experienced by 5.8% of women, was to remain on public insurance for the entire 12 months.



**Figure 2.** Most common insurance trajectories in the 12 months after childbirth (n = 1,489).

Six months after the birth, 17.1% of women had not had a postpartum visit. Twelve months after the birth, 14.9% of women reported having a condition or illness in the previous year that they had wanted to have checked by a doctor. Of these women, 53.5% reported seeing a doctor.

#### Health Indictors

In this sample, 8% of women reported that they had hypertension and 1% of women reported that they had diabetes (Table 2). Non-Hispanic Black women were nearly three times as likely to have hypertension (18%) than U.S.-born Hispanic women (6%), foreign-born Hispanic women (6%), or women in other racial/ethnic groups (6%) (p < .001). Before the index pregnancy, 24% of women had a BMI in the overweight category and 30% had a BMI in the obese category; 12 months after the birth, 26% had a BMI in the overweight category and 37% had a BMI in the obese category.

Although the majority of women rated their health as excellent, very good, or good 3 months after the birth, 17% considered their health to be fair or poor. One-half of non-Hispanic Black women (50%) described their health as excellent or very good, compared with 40% of foreign-born Hispanic women and 38% of U.S.-born Hispanic women; only 14% of non-Hispanic Black women described their health as fair or poor, versus 16% of foreign-born Hispanic women and 19% of U.S.-born Hispanic women (p < .05). Among women who had insurance at 3 months postpartum, 47% rated their health as excellent or very good, compared with 40% of women who had recently lost their insurance (p = .063). Overall, 13% of women reported a negative change in their health in either the 6-month survey or the 12-month survey.

## Open-ended Health Descriptions

Postpartum women's open-ended survey responses (n=445) reflected a variety of health concerns experienced in the postpartum period as well as obstacles that limited access to care. We identified seven categories of health responses: ongoing conditions, undiagnosed concerns, acute conditions, mental health, weight/lifestyle, pregnancy, and nonpregnancy reproductive health. Regardless of their specific health concerns, women described navigating a fragmented health care system on their own with little support and varying levels of success. Moreover, women's challenges managing their health often intersected with other financial and material hardships. Our analysis focuses on health concerns not related to pregnancy or reproductive health (Table 3 provides additional examples drawn from all seven categories.)

Responses about ongoing conditions (n=118) described formally diagnosed conditions requiring ongoing care or management by a health care provider. This category included severe, potentially life-threatening conditions such as cancer and cardiomyopathy, as well as conditions requiring long-term management, such as diabetes, hypertension, anemia, and chronic pain. For instance, a 36-year-old woman said, "My blood pressure is high and my heart beats a lot and there are other things, too. And because I don't have money, I can't pay or anything, you know, as an immigrant" (foreign-born Hispanic, uninsured shortly after childbirth). A woman suffering from migraines described material hardships that complicated the management of her symptoms, explaining that she was

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**Table 2** Health Status in the 12 Months after Childbirth (n = 1,489 Postpartum Women with Births Covered by Medicaid/CHIP)

Status	n	%
Self-rated health 3 months after childbirth		
Very good/excellent	581	41.3
Good	590	41.9
Fair/poor	237	16.8
Reported a negative health change in 12 months	192	13.4
after childbirth*		
BMI 12 months after childbirth <sup>†</sup>		
Underweight	23	1.7
Normal	334	25.0
Overweight	353	26.5
Obese	490	36.7
Missing BMI	134	10.0
Chronic conditions in 12 months after childbirth <sup>‡</sup>		
Hypertension	118	7.9
Diabetes	19	1.3

Abbreviation: BMI, body mass index.

- \* n = 1,434 women who completed either the 6-month or 12-month survey.
- $^{\dagger}$  n = 1,334 women who completed 12-month survey.
- ‡ Excludes cases reported during pregnancy only.

taking Advil because of my migraines and I don't have money to buy better medication... there's cracks in the house and mold starting to come out and I told [the landlord], but he has done nothing about it. Roaches and other kinds of animals are starting to come in through the cracks. We can't break the contract because if we do, we lose the [financial assistance]" (28 years old, U.S.-born Hispanic, lost and regained public insurance).

Some respondents reported multiple ongoing conditions, such as a 33-year-old woman who explained, "I have issues with anemia, still working on the carcinoma and doing treatments for that, and I have cardiomyopathy" (U.S.-born Hispanic, uninsured after 3 months). A 37-year-old woman said, "I am diabetic and I have high blood pressure and my diabetes is starting to affect the retina to my eye" (U.S.-born Hispanic, consistent public insurance).

Undiagnosed concerns (n = 122) were symptoms that were not connected to a formal diagnosis. This heterogeneous category included symptoms such as dizziness, headaches, fatigue, or episodes of unexplained nausea and vomiting. One woman explained, "There are times when I throw up every day for a week and then it goes away and it comes back and I don't know why" (26 years old, foreign-born Hispanic, uninsured shortly after childbirth). Sometimes, these concerns remained undiagnosed because symptoms were nonspecific or tests results were inconclusive. This was true for a 21-year-old woman who said, "Every day since I gave birth it's just really hard to get through the day. Constant headaches, going to and from the ER and they can't find out what's wrong with me. There hasn't been a day that I've felt good since I had [the baby]" (U.S.-born Hispanic, uninsured after 3 months). More frequently, women indicated that they had not visited a health care provider about their symptoms. A woman whose public insurance was set to expire said, "lately I have been sick with migraines, fever, vomiting, and lately I've been feeling very weak. I made an appointment but they can't see me until October when I don't have insurance. Same with [the local hospital]" (20 years old, foreign-born Hispanic, uninsured after 3 months). Some women's symptoms suggested that potentially serious medical conditions were going undetected. For instance, an uninsured woman described "pain in my chest and arm sometimes, and I don't know if it's

**Table 3** Typology of Open-Ended Health Responses and Sample Quotations (n = 445 Responses)

Ongoing conditions (n = 118)

"My blood pressure has been off the roof lately. I've been trying to take my medicine and go to the gym for it." (29, non-Hispanic Black, consistent public insurance)

"I have problems with my stomach and I have irritable bowel syndrome, but I don't have the medicine now since my Medicaid ran out." (30, U.S. born Hispanic, uninsured shortly after childbirth)

"I was diagnosed with thyroid cancer 3 months into my pregnancy and we're starting treatment in a week." (18, Middle Eastern, consistent public insurance) "I just try to stay in a calm frame because I have epileptic seizures..." (34, non-Hispanic Black, consistent public insurance)

Undiagnosed concerns (n = 122)

"When I sit down, I can't really breathe well." (19, foreign-born Hispanic, uninsured shortly after childbirth)

"Weight loss, dizziness, sometimes I feel dizzy, weak, my hair is falling out, headaches." (21, U.S. born Hispanic, uninsured after 3 months)

"[L]ately I have been sick with migraines, fever, vomiting, and lately I've been feeling very weak. I made an appointment but they can't see me until October when I don't have insurance. Same with [the local hospital]." (20, foreign-born Hispanic, uninsured after 3 months)

"Sometimes I have a lot of pain in my body, a bad headache, no desire to eat, sometimes lack of sleep, I sleepwalk during the day." (25, foreign-born Hispanic, uninsured shortly after childbirth)

Reproductive health, non-pregnancy (n = 36)

"Weight gain and bloating and spotting and headaches as side effects from the birth control." (28, U.S. born Hispanic, private insurance shortly after childbirth)

"I had a cyst that ruptured on my ovary about 3 months ago now...I haven't really had any problems since then, but my menstrual cramps have worsened a lot." (23, non-Hispanic Black, uninsured shortly after childbirth) Acute conditions (n = 27)

"I had gallbladder pain. They had to operate on me." (25, foreign-born Hispanic, gained and lost private insurance)

"I was hospitalized with an infection 2 weeks ago." (39, foreign-born Hispanic, uninsured shortly after childbirth)

Mental health (n = 22)

"I've had 3 months of postpartum depression and with the medication I'm taking now I am doing better. They gave me an injection to calm my nerves and I'm feeling better." (28, U.S. born Hispanic, public insurance until 12 months, then uninsured)

"I have anxiety, real bad anxiety." (24, U.S. born Hispanic, consistent public insurance)

Pregnancy (n = 20)

"Besides the ectopic pregnancy. I lost a lot of blood and had to take some iron pills just enough so they didn't have to give me a blood infusion. I was in the hospital for a week." (28, non-Hispanic Black, uninsured shortly after childbirth)

"The infections — mastitis. I've gone to the hospital. I even went to the WIC office and they try to help me through the process, told me to continue pumping regularly. I just [use] remedies at home, herbs, anything I can do to get better. This last time I had it, it was really bad. I passed out at work and everything. It's gotten better. So now I go and take a 15-minute break every 3 hours and I pump because this last time my breast was really bad. It felt like I had a tumor; it was horrible. I tried to apply for ObamaCare, but they told me I can't make enough money." (30, U.S. born Hispanic, uninsured shortly after childbirth)

Weight and lifestyle (n = 166)

"Losing a little bit of weight because I'm exercising more." (24, U.S. born Hispanic, uninsured after 3 months)

"I'm a little overweight and I probably don't eat nearly as well as I should. I'm also probably not as active as I could be, plus I don't drink enough water." (37, U.S. born Hispanic, uninsured shortly after childbirth)

cholesterol or something" (34 years old, foreign-born Hispanic, uninsured shortly after childbirth). Another woman commented, "my arms get numb—especially the left one gets completely numb, sometimes my left leg as well" (24 years old, U.S.-born Hispanic, consistent public insurance).

Acute conditions (n = 27) included short-term conditions with a formal diagnosis that may require medical attention, but

not ongoing care or medical management. These included conditions such as broken bones, appendicitis, and pneumonia. The most common acute condition was gallbladder pain, including severe cases requiring gallbladder removal. For example, one woman explained that "apparently the hormones from getting pregnant caused me to get gallstones, and now I have to get my gallbladder taken out and I have to watch what I eat or I'm in severe pain. My Medicaid just ran out so I have to either get another insurance or find the money to get my gallbladder removed" (29 years old, non-Hispanic White, uninsured shortly after childbirth).

Mental health responses (n=22) included descriptions of mental health diagnoses or symptoms that women attributed to depression, anxiety, or panic attacks. One woman described feeling "like I can't handle things and I feel depressed and I try to fight it off" (30, U.S.-born Hispanic, uninsured shortly after childbirth). Another woman said, "Sometimes I stress out a lot and that gives me headaches, dizziness, and a lot of body aches. Sometimes I have panic attacks and I have chest pain and find it hard to breathe" (27 years old, foreign-born Hispanic, uninsured shortly after childbirth).

Finally, responses were classified as weight/lifestyle changes (n = 166) when women described changes in their weight (A minority of responses about weight were categorized as undiagnosed concerns because women expressed concern about unexplained weight changes that might indicate an illness) or health behaviors (e.g., smoking cessation, exercise). Most responses in this category related to weight gain during or after pregnancy, successful or unsuccessful attempts to lose weight during the postpartum period, and body image. A woman concerned about her weight explained, "I am trying to work on it. It's just with three kids and I have no car for myself, I can't go work out" (23 years old, U.S.-born Hispanic, lost public insurance and later obtained private insurance). Another woman said, "I feel like I lost track of my...well everything, eating healthy, everything I used to do since I had my kid" (21 years old, U.S.-born Hispanic, uninsured shortly after childbirth).

#### Discussion

Insurance churn was nearly universal within our sample of postpartum women with births covered by Medicaid/CHIP: long periods without coverage were typical and only 14% of women were continuously insured throughout the 12 months after childbirth. This finding corroborates and expands on prior studies showing high risk of insurance loss soon after a birth, particularly among non-White women in the South whose births were covered by public insurance (Daw et al., 2017, 2020a,b). Because we captured 12 months of insurance and health data after childbirth, we were able to demonstrate that most women who lost their insurance early in the postpartum period did not regain coverage within the year. Over the same period, many women had health conditions requiring short-term or long-term medical care, and others described symptoms that could indicate serious underlying conditions.

Moreover, our results indicated that conditions that were identified during pregnancy or developed in the months after childbirth often went untreated. Among women who wished to have a health concern or illness checked by doctor during the study period, only about one-half were able to visit a provider. In open-ended responses, many women volunteered information about their obstacles to receiving care, such as the prohibitive cost of health care and difficulty obtaining appointments before

their temporary pregnancy coverage ended, and described attempts to self-manage their symptoms when they did not receive medical care they needed.

Inaccessible or inadequate health care in the year after childbirth may have serious consequences. Although women's health concerns varied in type and reported severity, they included conditions such as diabetes, hypertension, and cardiomyopathy, which rank among the top causes of maternal death in Texas (Maternal Mortality and Morbidity Task Force, 2018, 2020). Moreover, the higher prevalence of self-reported hypertension among non-Hispanic Black women in our sample was a troubling echo of racial/ethnic disparities in maternal outcomes (Louis et al., 2015). If an end result of insurance churn is that women with lower incomes living with chronic conditions only have access to treatment when pregnant, postpartum women may experience severe (and preventable) complications.

## Implications for Policy and/or Practice

Medicaid expansion has decreased perinatal insurance churn in participating states (Daw et al., 2020a,b) and would likely have similar benefits if implemented in the remaining 12 non-expansion states. Extending pregnancy Medicaid coverage beyond 60 days would benefit residents of nonexpansion states, as well as residents of expansion states who do not qualify for standard Medicaid because their incomes exceed 138% FPL. Stabilizing coverage in the postpartum period would ensure that women can receive needed health care and would likely be cost effective (Eckert, 2020). Proposals to extend pregnancy Medicaid have been endorsed by the American Medical Association, the American College of Obstetricians and Gynecologists, and Maternal Mortality Review Committees in Texas and other states (Eckert, 2020; Maternal Mortality and Morbidity Task Force, 2020).

The 2021 American Rescue Plan Act creates new fiscal incentives to expand Medicaid for states that have not yet done so, including Texas. The American Rescue Plan Act also permits states to extend pregnancy Medicaid to cover 1 full year after a birth by filing a state plan amendment, eliminating the need to obtain a Section 1115 waiver from CMS to receive federal matching funds (Daw et al., 2021; Musumeci, 2021; Ranji, Salganicoff, & Gomez, 2021). This option will become available to states in 2022, amid significant bipartisan interest in extending pregnancy Medicaid: as of June 2021, three states have obtained waivers to extend postpartum coverage, three states have similar waivers pending, and five additional states have enacted legislation to extend Medicaid by applying for a waiver or filing a state plan amendment (Kaiser Family Foundation, 2021d). California has implemented an extension of pregnancy Medicaid using state funds, although this coverage is limited to women with a diagnosed mental health condition (Daw et al., 2021).

During the recently concluded 2021 session of the Texas State Legislature, bills to expand Medicaid did not receive a hearing (Harper, 2021). Although the legislature considered a proposal to extend pregnancy Medicaid to cover 12 months after childbirth, the final version approved by the legislature extended coverage to 6 months after childbirth. This bill was signed into law in June 2021. We expect that this extension of pregnancy Medicaid will decrease insurance churn early in the postpartum period and help women to obtain care for the wide range of health concerns described in our data. However, our results suggest that, without an expansion of Medicaid or a longer extension of pregnancy

Medicaid, there is likely to be substantial insurance churn at 6 months postpartum and unmet need for health care in subsequent months. Some of these needs may be addressed by the recent HTW Plus expansion, which covers a subset of conditions associated with maternal mortality and morbidity (e.g., hypertension, diabetes, substance use, and postpartum depression) for women with low incomes in the 12 months after childbirth. The impact of HTW Plus on postpartum health has not yet been assessed, given the recent implementation of the program in September 2020, and its impact will likely depend on the level of participation by patients and providers. Recent programmatic changes to HTW, including the discontinuation of autoenrollment from pregnancy Medicaid and eligibility verification based on participation in other means-tested programs, could decrease participation among those who are eligible. There are also concern about the availability of providers to offer the specialist care newly covered by HTW Plus (Lerma, Carpenter, & White,

Additional interventions are needed to improve health care access for women who cannot receive Medicaid or enroll in HTW Plus owing to their immigration status. Given the exclusion of undocumented immigrants from Medicaid,<sup>5</sup> the American Rescue Plan Act does not incentivize the expansion of coverage to this population. However, states may address the health needs of immigrants and undocumented people by electing to cover their health care costs using state revenue (Green et al., 2016; Kelley & Tipirneni, 2018). For instance, eight states use their own revenue to provide coverage for low-income undocumented children (Brooks, Gardner, & Tolbert, 2021). Although the expenditures would not be eligible for federal matching funds, Texas could use state revenue to expand postpartum coverage for recent immigrants and undocumented women.

Health systems may improve maternal health outcomes through proactive communication with patients throughout the postpartum period. For instance, mobile applications could facilitate conversations between patients and providers about their health concerns and streamline the process of seeking care. Health care organizations can reduce barriers to care for immigrant women by ensuring the availability of interpretation services, conducting community outreach in patients' own languages, and engaging organizations embedded in immigrant communities. Finally, health care providers already participate in state programs (such as the Texas Home Visiting program, which provides voluntary home visits to pregnant women and families with young children) that could be leveraged to ensure that postpartum women are connected to resources.

## Limitations and Strengths

Although the Texas Postpartum Contraceptive Study collected longitudinal health information, it was not designed to assess women's health risks and did not include a full medical history. Participants may have been experiencing health problems that we did not detect, including additional risk factors for maternal mortality and morbidity. Open-ended survey responses were collected from a subset of postpartum women who reported poor health or negative health changes; although these data

provide rich description of health concerns and obstacles to receiving care, they do not indicate the prevalence of specific conditions at the population level. In particular, we caution against inferring a low need for perinatal mental health services from the rarity of survey responses explicitly mentioning mental health. Mental health conditions such as postpartum depression are a leading cause of pregnancy-related death in Texas and disproportionately affect women of color (Maternal Mortality and Morbidity Task Force, 2020; Muzik, 2021; Rich-Edwards et al., 2006). We attribute the low number of responses about mental health in our study to the lack of a specific survey question about mental health, underdiagnosis of mental health conditions, and under-reporting of mental health symptoms owing to stigma. Finally, because our study examined the experiences of a majority-Hispanic sample recruited from eight urban hospitals in Texas, our conclusions are not necessarily generalizable to all postpartum women in Texas and in other states that have not expanded Medicaid. For instance, our sample included relatively few non-Hispanic Black women. Additional research is needed to capture the impact of postpartum insurance churn within other populations.

Nevertheless, our results are drawn from a large, multisite sample of women with several risk factors for postpartum insurance churn, including low incomes, births covered by public insurance, and residence in a state that has not expanded Medicaid. Another strength of our analysis was the longitudinal measurement of insurance coverage and health conditions well beyond the early postpartum period, when most data on maternal health (e.g., the Pregnancy Risk Assessment Monitoring System) are collected. Thus, we were able to describe postpartum women's health care access, use, and needs over an entire year after a birth. Finally, recruitment immediately after a birth facilitated participation by women whose subsequent insurance loss decreased their access to health care providers—women who are likely under-to be represented in clinic-based studies of postpartum health.

## Conclusions

Women are at risk of insurance churn in the months after childbirth, particularly in states that have not expanded Medicaid. By examining 12 months of survey data collected from postpartum women in Texas whose births were covered by Medicaid/CHIP, we found that people experiencing insurance churn have health care needs that are not being adequately addressed. The limitations of existing public programs leave postpartum women in Texas with lower incomes (especially immigrant women) vulnerable to long-term health problems, poor preconception health, and higher risk future pregnancies. A more inclusive and comprehensive safety net is required to improve maternal outcomes among women with low incomes and women of color.

## References

Admon, L. K., Winkelman, T. N. A., Moniz, M. H., Davis, M. M., Heisler, M., & Dalton, V. K. (2017). Disparities in chronic conditions among women hospitalized for delivery in the United States, 2005–2014. Obstetrics and Gynecology, 130(6), 1319–1326.

Brooks, T., Gardner, A., & Tolbert, J. (2021). Medicaid and CHIP eligibility and enrollment policies as of January 2021: Findings from a 50-state survey report. Kaiser Family Foundation. Available: www.kff.org/report-section/medicaid-and-chip-eligibility-and-enrollment-policies-as-of-january-2021-findings-from-a-50-state-survey-report/. Accessed June 14, 2021.

<sup>&</sup>lt;sup>5</sup> In 2016, California applied for a Medicaid waiver to allow undocumented adults to purchase insurance from its state exchange without federal subsidies; however, California withdrew the application in early 2017 owing to concerns about exposing undocumented Californians to the risk of deportation [Kelley & Tipirneni, 2018].

- Carpenter, E., Lerma, K., Dixon, L., & White, K. (2021). Publicly funded reproductive health care programs for people with low incomes in Texas, 2011-2012. Texas Policy Evaluation Project. Available: http://sites.utexas.edu/txpep/files/2021/03/TxPEP-research-brief-reproductive-health-care.pdf. Accessed June 29, 2021.
- Centers for Disease Control and Prevention. (2020). *National Diabetes Statistics Report*, 2020. Atlanta: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.
- D'Angelo, D. V., Le, B., O'Neil, M. E., Williams, L., Ahluwalia, I. B., Harrison, L. L., Floyd, R. L., & Grigorescu, V. (2015). Patterns of health insurance coverage around the time of pregnancy among women with live-born infants— Pregnancy Risk Assessment Monitoring System, 29 States, 2009. Morbidity and Mortality Weekly Report, 64(4), 1–19.
- Daw, J. R., Eckert, E., Allen, H. L., & Underhill, K. (2021). Extending postpartum Medicaid: State and federal policy options during and after COVID-19. *Journal of Health Politics, Policy and Law*, 46(3), 505–526.
- Daw, J. R., Hatfield, L. A., Swartz, K., & Sommers, B. D. (2017). Women in the United States experience high rates of coverage 'churn' in months before and after childbirth. *Health Affairs*, 36(4), 598–606.
- Daw, J. R., Kolenic, G. E., Dalton, V. K., Zivin, K., Winkelman, T., Kozhimannil, K. B., & Admon, L. K. (2020a). Racial and ethnic disparities in perinatal insurance coverage. *Obstetrics and Gynecology*, 135(4), 917–924.
- Daw, J. R., & Sommers, B. D. (2019). The Affordable Care Act and access to care for reproductive-aged and pregnant women in the United States, 2010–2016. American Journal of Public Health, 109(4), 565–571.
- Daw, J. R., Winkelman, T. N. A., Dalton, V. K., Kozhimannil, K. B., & Admon, L. K. (2020b). Medicaid expansion improved perinatal insurance continuity for low-income women. *Health Affairs*, 39(9), 1531–1539.
  Dunlop, A. L., Joski, P., Strahan, A. E., Sierra, E., & Adams, E. K. (2020). Postpartum
- Dunlop, A. L., Joski, P., Strahan, A. E., Sierra, E., & Adams, E. K. (2020). Postpartum Medicaid coverage and contraceptive use before and after Ohio's Medicaid expansion under the Affordable Care Act. Women's Health Issues, 30(6), 426–435.
- Eckert, E. (2020). Preserving the momentum to extend postpartum Medicaid coverage. *Women's Health Issues*, 30(6), 401–404.
- Gordon, S. H., Sommers, B. D., Wilson, I. B., & Trivedi, A. N. (2020). Effects of Medicaid expansion on postpartum coverage and outpatient utilization: The effects of Medicaid expansion on postpartum Medicaid enrollment and outpatient utilization. Comparing Colorado, which expanded Medicaid, and Utah, which did not. *Health Affairs*, 39(1), 77–84.
- Green, T., Hochhalter, S., Dereszowska, K., & Sabik, L. (2016). Changes in public prenatal care coverage options for noncitizens since welfare reform: Wide state variation remains. *Medical Care Research and Review*, 73(5), 624–639.
- Harper, K. B. (2021). Medicaid expansion for uninsured Texans had bipartisan support, but lawmakers won't pass it this session. The Texas Tribune. Available: www.texastribune.org/2021/05/07/texas-medicaid-expansion-legislature/. Accessed June 28, 2021.
- Joseph, K. S., Boutin, A., Lisonkova, S., Muraca, G. M., Razaz, N., John, S., ... Schisterman, E. (2021). Maternal mortality in the United States. *Obstetrics and Gynecology*, 137(5), 763–771.
- Kaiser Family Foundation. (2019). Health insurance coverage of females 19-64. Available: www.kff.org/other/state-indicator/health-insurance-coverage-of-nonelderly-adult-females/. Accessed December 07, 2020.
- Kaiser Family Foundation. (2021a). Medicaid and CHIP income eligibility limits for pregnant women as a percent of the federal poverty level. Kaiser Family Foundation. Available: www.kff.org/health-reform/state-indicator/medica id-and-chip-income-eligibility-limits-for-pregnant-women-as-a-percent-ofthe-federal-poverty-level/. Accessed January 29, 2021.
- Kaiser Family Foundation. (2021b). Medicaid income eligibility limits for adults as a percent of the federal poverty level. Available: www.kff.org/healthreform/state-indicator/medicaid-income-eligibility-limits-for-adults-as-a-pe rcent-of-the-federal-poverty-level/. Accessed January 29, 2021.
- Kaiser Family Foundation. (2021c). Status of state Medicaid expansion decisions: Interactive map. Available: www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/. Accessed June 07,
- Kaiser Family Foundation. (2021d). Medicaid postpartum coverage extension tracker. Available: www.kff.org/medicaid/issue-brief/medicaid-postpartumcoverage-extension-tracker/. Accessed June 08, 2021.
- Kelley, A. T., & Tipirneni, R. (2018). Care for undocumented immigrants —Rethinking state flexibility in Medicaid waivers. New England Journal of Medicine, 378(18), 1661–1663.
- Lerma, K., Carpenter, E., & White, K. (2021). Provider perspectives on Texas' publicly funded family planning programs. Austin: Texas Policy Evaluation Project.

- Liese, K. L., Mogos, M., Abboud, S., Decocker, K., Koch, A. R., & Geller, S. E. (2019). Racial and ethnic disparities in severe maternal morbidity in the United States. *Journal of Racial and Ethnic Health Disparities*, 6(4), 790–798.
- Louis, J. M., Menard, M. K., & Gee, R. E. (2015). Racial and ethnic disparities in maternal morbidity and mortality. Obstetrics & Gynecology, 125(3), 690–694.
- MacDorman, M. F., Declercq, E., & Thoma, M. E. (2018). Trends in Texas maternal mortality by maternal age, race/ethnicity, and cause of death, 2006-2015. *Birth*, 45(2), 169–177.
- Maternal Mortality and Morbidity Task Force. (2018). Maternal Mortality and Morbidity Task Force and Department of State Health Services Joint Biennial Report. Available: www.txhealthsteps.com/static/courses/maternal-health/assets/MMMTFJointReport2018.pdf. Accessed December 04, 2020.
- Maternal Mortality and Morbidity Task Force. (2020). Maternal Mortality and Morbidity Task Force and Department of State Health Services Joint Biennial Report. Available: www.dshs.state.tx.us/legislative/2020-Reports/DSHS-MMMRC-2020.pdf. Accessed January 15, 2021.
- Musumeci, M. (2021). Medicaid Provisions in the American Rescue Plan Act. Kaiser Family Foundation. Available: www.kff.org/medicaid/issue-brief/medicaid-provisions-in-the-american-rescue-plan-act/. Accessed June 14, 2021.
- Muzik, M. (2021). Achieving comprehensive treatment in perinatal mental health: Is educating obstetric providers sufficient? *Journal of Women's Health*, 30, 1367–1369.
- Nelson, D. B., Moniz, M. H., & Davis, M. M. (2018). Population-level factors associated with maternal mortality in the United States, 1997–2012. BMC Public Health, 18(1), 1007.
- Ostchega, Y., Fryar, C. D., & Nguyen, D. T. (2020). Hypertension prevalence among adults aged 18 and over: United States, 2017–2018 (No. 364; NCHS Data Brief). Hyattsville, MD: National Center for Health Statistics.
- Petersen, E. E., Davis, N. L., Goodman, D., Cox, S., Syverson, C., Seed, K., ... Barfield, W. (2019). Racial/ethnic disparities in pregnancy-related deaths—United States, 2007–2016. *Morbidity and Mortality Weekly Report*, 68(35), 762–765.
- Ranji, U., & Gomez, I. (2019). Expanding postpartum Medicaid coverage. Kaiser Family Foundation. Available: www.kff.org/womens-health-policy/issuebrief/expanding-postpartum-medicaid-coverage/. Accessed December 04, 2020.
- Ranji, U., Salganicoff, A., & Gomez, I. (2021). Postpartum coverage extension in the American Rescue Plan Act of 2021. Kaiser Family Foundation. Available: www.kff.org/policy-watch/postpartum-coverage-extension-in-the-american -rescue-plan-act-of-2021/. Accessed June 14, 2021.
- Rich-Edwards, J. W., Kleinman, K., Abrams, A., Harlow, B. L., McLaughlin, T. J., Joffe, H., & Gillman, M. W. (2006). Sociodemographic predictors of antenatal and postpartum depressive symptoms among women in a medical group practice. *Journal of Epidemiology & Community Health*, 60(3), 221–227
- U.S. Census Bureau. (2019). 2019 American Community Survey 1-year public use microdata samples [CSV Data file]. Available: https://data.census.gov/mdat/#/search?ds=ACSPUMS1Y2019.

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