

Evaluation of a Pathways Community Hub in Texas for Pregnant Mothers and their Infants

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Executive Summary



This evaluation examined the characteristics, service use, costs, and newborn outcomes of 209 pregnant mothers who participated in a Pathways Community Hub (PCH) operated by the Bexar County Health Collaborative in San Antonio, Texas from 2019–2023. Program data from the Bexar PCH were linked to Medicaid claims data for analysis. Medicaid data were available for 90 mothers who completed the PCH program and 68 mothers who participated but did not complete the PCH program. Linked newborn data were available for 70–148 mothers who participated in the PCH program. Compared to matched control groups of pregnant mothers who did not participate in the PCH program at all, pregnant mothers who participated in the Bexar PCH incurred higher prenatal costs and delivery costs. Mothers who completed the Bexar PCH program had a significantly higher number of postpartum visits and, though not statistically significant, had a higher number of prenatal visits than their controls. However, mothers who completed the Bexar PCH were found to be significantly more likely to have newborns with pre-term births, low birth weight, and neonatal intensive care admissions than matched controls. Sensitivity analyses that relaxed mother-newborn matching criteria and included mothers who participated but did not complete the Bexar PCH found no significant differences in birth outcomes between Bexar PCH participants and matched controls. These findings suggest a limited impact of the Bexar PCH, improving partially perinatal care among those completing the referral process, though not modifying maternal and newborn outcomes. Still, they should be interpreted in the context of several important limitations, including the small sample sizes, reliance on Medicaid claims data, inability to match or adjust for social and contextual differences beyond zip code and race/ethnicity, no assessment of fidelity to the PCH model, and the majority Hispanic sample. Further evaluation is needed to fully test and replicate these findings with a larger sample size and additional data sources.



Background

High infant mortality in the United States is a major public health issue and can be mediated by the health and healthcare access of pregnant mothers.¹ Starting infants with healthy lives is necessary for the child's immediate and long-term well-being and essential for population health.² Improved birth outcomes are inversely correlated with lower healthcare costs.³ A growing community-based model of care for pregnant mothers and their infants is called a Pathways Community Hub (PCH). A PCH is an organized, pay-for-outcomes focused, community-based organization network that hires and trains community health workers to conduct outreach and assessment, and directly connects individuals to needed healthcare and social services. This model empowers individuals to become more engaged in meeting their health and social needs. They operate within a population-based social determinants of health framework and have been endorsed by the Agency for Healthcare Research and Quality (AHRQ).⁴ PCHs are being established in a number of cities throughout the country, but more rigorous research is needed to guide development and inform policymakers about this model of care coordination that activates patients to achieve and sustain improved health outcomes

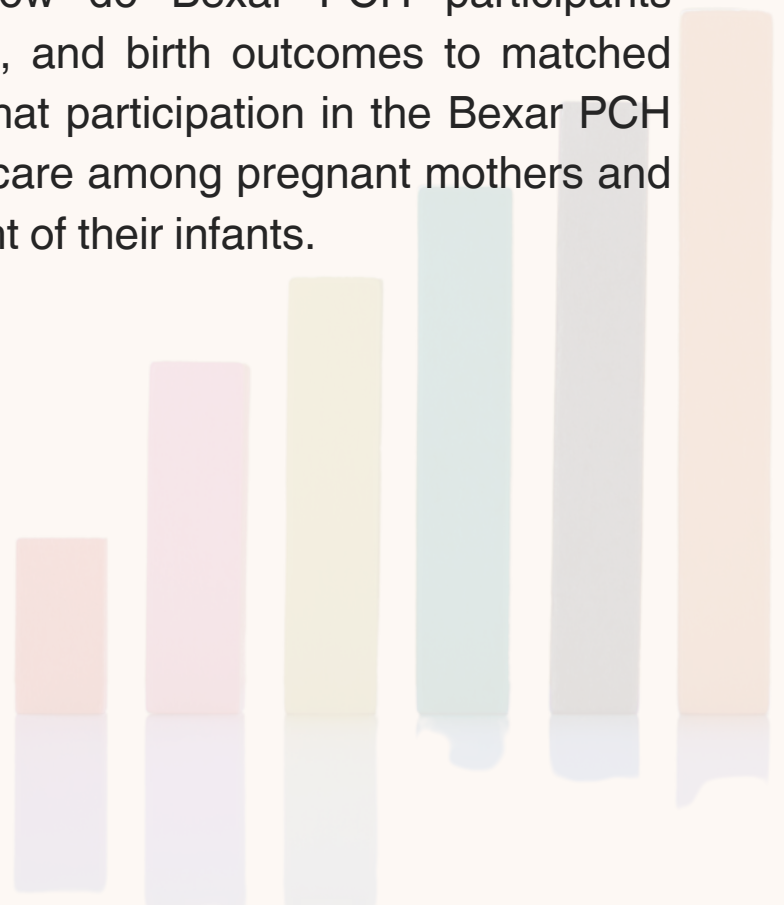


PCHs utilize community health workers to conduct outreach, assessment of risk factors, and direct linkages for vulnerable populations to medical, social, and behavioral health services to reduce their risk of adverse health and social outcomes. These hubs are theorized to improve health through increasing patients' self-efficacy and better care coordination between providers. While PCHs have been developed in numerous areas across the country,⁵ there is a need for more research about these hubs and evaluation of their outcomes. A brief scoping review found only 4 existing studies of PCHs in Ohio, Arizona, and Kansas.⁶ These studies had different methodologies outcomes, and none were a randomized trial but all included a comparison group. Three of the 4 studies focused on infants' low birth weight and found use of PCHs were associated with reduced low birth weights and the fourth study found use of PCHs was associated with greater use of prenatal care.



Maternal and child health is a state-wide public health priority as determined by the Texas legislature and evidenced by the passage of Bill HB 1575, which requires Texas Medicaid to develop standardized screening tools to determine non-medical needs of pregnant mothers.⁷ The new law will also allow community health workers and doulas to be reimbursed by Medicaid for their work to address the needs of Texas mothers and their babies. Examining the role of PCHs in Texas within the context of these new opportunities to provide care for pregnant mothers is important to make informed decisions about program development and effectiveness.

This project reports the outcomes of an evaluation of a PCH in San Antonio, Texas created and managed by the Bexar County Health Collaborative. The PCH of the Bexar County Health Collaborative (herein referred to simply as the Bexar PCH) seeks to improve health outcomes downstream for pregnant mothers and their infants by reducing health inequities upstream. The main evaluation questions were: How do Bexar PCH participants compare on service use, costs, and birth outcomes to matched controls? It was hypothesized that participation in the Bexar PCH would increase use of prenatal care among pregnant mothers and reduce the risk of low birth weight of their infants.



Methods

**Program
Description**

**Data
Source**

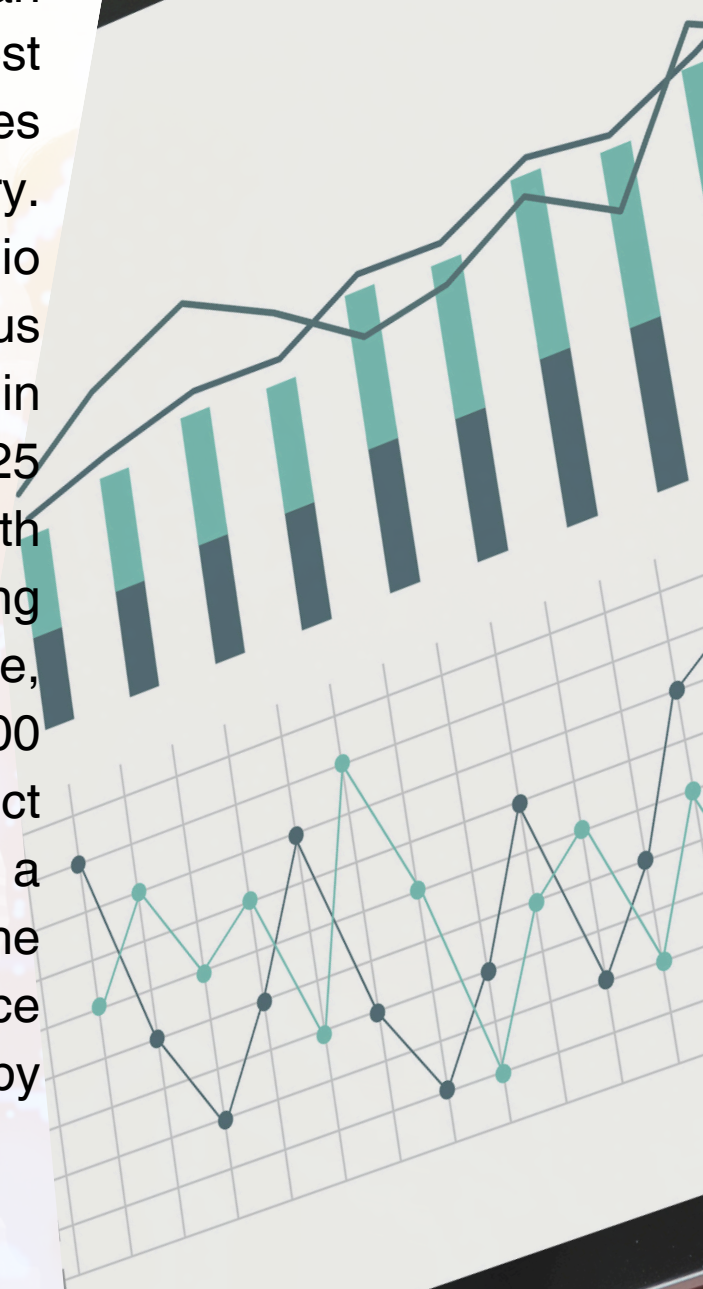


Analyses



Program Description

The Bexar PCH is a certified PCH which has been operating for over 4 years by the Bexar County Health Collaborative in San Antonio. San Antonio is the largest Hispanic-majority city in the United States and the 7th largest city in the country. Bexar County is located in San Antonio and is Texas' fourth most populous county. The Bexar PCH was launched in July 2018 and currently consists of 25 community health workers working with 10 care coordination agencies. According to the Bexar County Health Collaborative, the Bexar PCH has served over 2,000 families to date. This evaluation project was categorized and registered as a quality improvement project at the University of Texas Health Science Center at Houston, and was exempt by the institutional review board.



Data Source

Individual-level program data of pregnant mothers who participated in the Bexar PCH from 2019-2023 were provided by Bexar PCH to the evaluation team. These data were then linked to Medicaid claims data from the University of Texas Health Science Center at Houston, School of Public Health, Center for Health Care Data using the mother's first name, last name, date of birth, and delivery date. After linking Bexar PCH participants with Medicaid records, the mothers in the Bexar PCH were matched with pregnant mothers with similar characteristics on zip code, race, age (± 1 year), and delivery date (± 1 month) to create a matched control group of pregnant women who did not participate at all in the Bexar PCH. The total sample size of Bexar PCH participants was 209 with a matched control group of the same size. But there were two sets of groups used in analyses, Bexar PCH participants who completed the program and their matched controls; and there were Bexar PCH participants who used the Bexar PCH but did not complete the program, and their matched controls. Different subsamples of Bexar PCH participants and matched controls were used depending on the analysis. Figure 1 describes the data flow in further detail, separated by Bexar PCH participants who completed the program and those who did not.

Analyses

Data on service use and costs were based on the linked Medicaid claims data. Prenatal (9 months before the delivery date) medical and pharmacy per member per month (PMPM) costs for all Bexar PCH participants and matched controls were calculated. These costs were compared between Bexar PCH participants (case group) and their matched controls (control group) stratified by Bexar PCH program completion status. Delivery costs were calculated based on claims that occurred during the delivery episode. To compare the costs between the case and control groups, we used a generalized linear model with robust standard errors, adjusting for pathway completion status, maternal comorbidities, type of delivery, high-risk pregnancy, maternal age, and maternal race. Our prenatal and delivery service cost estimates were similar to those reported by others.⁸

Birth outcomes were identified using the claims data of mothers participating in the Bexar PCH and also their newborn claims. Newborns were not easily linked to the mother in the Medicaid data. Therefore, to link the newborns with the mothers who were included in the cohort, we used the following criteria: The matching process was conducted with cumulative confidence levels, each building on the criteria of the previous level. At the most basic level (0), a match was made based only on the mother's delivery date and the newborn's date of birth (± 1 day). Level 1 required all the criteria of level 0, plus either the billing provider NPI or the zip code being the same between the mother's delivery claim. Level 2 added the requirement that the mother and newborn must have the same zip code in the same year of enrollment. Level 3 further required that the mother and newborn be enrolled in the same Medicaid program at the same time. At level 4, the criteria included all of the previous requirements, plus the number of matched newborns had to be less than or equal to the maximum number of newborns the mother could have had. Finally, level 5 represented the highest confidence, where the mother and newborn shared the same Medicaid case number at any point.



The main outcome analyses included mother and newborn pairings with a matching confidence level of 4 or 5. We used logistic regression with robust standard errors to compare the likelihood of three birth outcomes—preterm birth, low birth weight, and neonatal intensive care unit (NICU) admissions—between the case and control groups for those who completed the pathway. The analyses were adjusted for maternal comorbidities, type of delivery, high-risk pregnancy, maternal age, and race. We did not conduct analyses for the 'Incomplete' group due to a low linkage rate between newborns and mothers.

A series of sensitivity analyses were conducted on the outcomes. First, to further refine the mother and newborn pairings with a confidence level of 3 (along with levels of 4 or 5), we only included the pairings that matched based on the type of delivery record in the mothers' and newborns' claims and the pairings where the mother's delivery date matched the newborn's date of birth. This allowed us to include more newborns by relaxing some matching criteria. We conducted a second sensitivity analysis that included Bexar PCH participants who completed and did not complete the program, and their corresponding matched controls. Therefore, we included program completion status as a variable in the model. The analyses were conducted with a match confidence level of 3, 4, or 5.

Finally, data on subsamples of Bexar PCH participants who completed the Patient Activation Measure (PAM)⁹ and Patient Health Questionnaire (PHQ-9)¹⁰ was provided by the Bexar County Health Collaborative for descriptive analyses. The Patient Activation Measure (PAM) is a 13-item questionnaire that assesses a patient's knowledge, skills, and confidence in managing their health and is scored on a 0–100 scale that is broken down into four levels of activation (Levels 1-4), with a lower score and corresponding lower level indicating less activity in managing health. The PHQ-9 is a nine-item depression screening tool with a total score ranging from 0 to 27 with scores of 10 or above indicating moderate to severe depression.

Results

Table 1 describes the demographic characteristics, Medicaid program, and medical comorbidities of Bexar PCH participants and matched controls. The propensity score matching worked well in that there were no significant differences between Bexar PCH participants and matched controls on any demographic characteristics, Medicaid program, or maternal comorbidities; the one exception is that Bexar PCH participants who did not complete the program were significantly more likely to have a substance use disorder than matched controls. There were also no significant differences on the managed care organizations that Bexar PCH participants and matched controls were enrolled in (not shown in Table, but available upon request). Notably, both Bexar PCH participants and matched controls had high rates of obesity (66-77%), previous Cesarean deliveries (15-27%), and gestational diabetes (13-19%). Other comorbidities' rates collapsed as counts per cell were too small to report.

Among all Bexar PCH participants (n= 209), the administrative program data recorded that 76% received a social service referral, 35% received health education, 32% postpartum care, 9% additional medical referrals, 5% medical home, 4% health insurance, 3% adult learning, 2% housing, 2% tobacco cessation treatment, and 1% employment services.

Table 2 shows the unadjusted number of prenatal and postnatal visits and associated medical costs among Bexar PCH participants and matched controls. Bexar PCH participants who completed the program had significantly more postnatal visits than controls. However, they also incurred more prenatal emergency department visits, and had higher medical and pharmacy costs than matched controls. Though they had a higher number of prenatal visits, this difference was not statistically significant. There was no difference in service use between Bexar PCH participants who did not complete the program and matched controls, however, Bexar PCH participants who did not complete the program incurred significantly higher pharmacy costs than matched controls.

Considering Bexar PCH participants together (regardless of program completion) and adjusting for age, race, maternal comorbidities, type of delivery, and high-risk pregnancy, the analyses found no significant difference in medical prenatal costs between Bexar PCH participants and matched controls, but Bexar PCH participants still incurred higher pharmacy prenatal costs, total prenatal costs, and total delivery costs (Table 3).

Table 4 shows the types of births and birth complications that Bexar PCH participants and matched controls experienced, which were not significantly different between groups. There were many Caesarean sections (37-41%) and several cases of preeclampsia ranging from (9-17%).

Table 5 shows the results of the adjusted comparison of birth outcomes among PCH participants who completed the program and their matched controls. While there were 90 mothers in both groups, Medicaid data available on their newborns had to be linked to the mothers for analysis resulting in newborn data from 70 cases and 68 controls. The results showed that newborns born to mothers involved in the pathway were significantly more likely to experience all three key birth outcomes (pre-term births, low birth weight, and NICU admissions) than the control group.

Two sets of sensitivity analyses were conducted to further test these key outcomes (Table 6). The first set of sensitivity analyses, which relaxed the matching criteria, involved 158 mothers who completed the PCH program and matched controls with linked data on 88 and 81 of their newborns, respectively. After rerunning the model, newborns born to PCH participants who completed the program were significantly more likely to have low birth weight, but there was no significant difference in the other two key birth outcomes (pre-term births, and NICU admissions). The second set of sensitivity analyses included all PCH participants together (including those who completed and did not complete the Bexar PCH) and their matched controls. This new analysis revealed no significant difference between Bexar PCH participants and matched controls on the three key outcomes.

Lastly, PAM and PHQ-9 scores of subsamples of Bexar PCH participants over time were analyzed with descriptive analyses (Table 7). Among Bexar PCH participants who completed the program, 51 individuals (45%) completed the PAM, achieving a baseline mean of 70.01, Level 3 (SD: 18.23). Notably, 62% of these participants retook the test, raising their average score to 75.36, Level 4 (SD: 18.39). Some participants took multiple subsequent tests, improving their scores. On the other hand, 30 participants (32%) who did not complete the PCH program began with a mean score of 76.58, Level 4 (SD: 20.72). Given the low completion rate of PAM at follow-up at the time of data gathering, no subsequent analysis was possible.

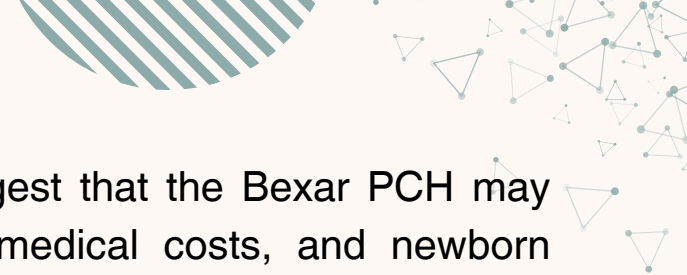
Among Bexar PCH participants who completed the PCH program, 83 individuals (73%) had an initial mean PHQ-9 score of 3.54 (SD: 4.35), indicating no or minimal depression. However, only about half of these participants completed follow-up PHQ-9 measures, with an improved mean score of 3.97 (SD: 5.60). It is important to note that participants were encouraged to retake the test as they received support from the Bexar PCH. Sixty of the participants (63%) who did not complete the PCH program had a baseline PHQ-9 score of 4.37 (STD: 6.05). Given the low completion rate of PH-Q9 of these, no subsequent analysis was possible.

CONCLUSION

This evaluation of the Bexar PCH located in the largest Hispanic-majority city in the United States had several findings regarding maternal and infant outcomes. We found that from 2019-2023, the Bexar PCH served a high proportion of high-risk mothers with maternal comorbidities, including obesity, substance use disorder, diabetes, asthma, and hypertension. Many of these mothers had complicated births, including Caesarean sections and preeclampsia. To properly compare Bexar PCH participants with other mothers that did not participate in the Bexar PCH, we identified a control group of mothers that was matched on age, zip code, and delivery date. We further controlled for potential differences between Bexar PCH participants and the control group by statistically adjusting for group differences in race, maternal comorbidities, type of delivery, and high-risk pregnancies.

Our analysis found that mothers who completed the Bexar PCH had significantly more postnatal and prenatal visits, though this was not statistically significant compared to matched controls. However, those who completed the Bexar PCH also had significantly more emergency department visits than matched controls. These differences in service use were not observed between mothers who did not complete the Bexar PCH and their matched controls. When we considered all mothers who participated in the Bexar PCH together regardless of completion status and adjusting for other group differences, we found that Bexar PCH participants incurred significantly higher pharmacy prenatal costs and delivery costs than matched controls.



In terms of birth outcomes, we found that mothers who completed the Bexar PCH program were significantly more likely to have newborns with pre-term births, low birth weight, and NICU admissions than matched controls. When we further examined these outcomes with sensitivity analyses, we had mixed findings as one set of analyses that relaxed the matching criteria for mothers and infants and allowed for a larger sample size, still found Bexar PCH program completers were more likely to have newborns with low birth weight than matched controls. However, when the matching criteria were relaxed and both Bexar PCH program completers and non-completers were included in the analyses, there was no significant difference in birth outcomes compared to matched controls.



In conclusion, these findings together suggest that the Bexar PCH may have a limited impact on perinatal care, medical costs, and newborn outcomes of participating pregnant mothers. However, several important evaluation and data limitations need to be considered in interpreting these findings, which are detailed in the section below. Importantly, these findings indicate the need for further research and evaluation with a larger more diverse sample, greater matching of program data with Medicaid data or other data sources, and assessment of fidelity to the PCH program model.

Limitations

There are several important limitations of this evaluation that need to be recognized. We had a small sample size of PCH participants which was further limited by matching errors with the newborn data. The Bexar PCH has undergone various evolutions over the 6 years, and we did not assess fidelity to the PCH model, which may have affected the findings. We had limited data on the PAM and PHQ-9 measures for all participants and consistently over time which precluded detailed longitudinal analysis. Furthermore, though matching and adjustment for different characteristics was done, claims data does not have detailed social, economic and educational data and our matching and adjustment process might not have accounted for social and contextual differences between cases and controls. Our analysis of newborns was limited to subsamples of newborns whose Medicaid data could be linked to their mothers and as our sensitivity analysis revealed, there were differing results depending on the matching and grouping methods used. Thus, we do not know whether these findings apply to all Bexar PCH participants or whether they can be generalizable to other PCH programs. Moreover, our sample was largely Hispanic so our findings may not be as applicable to Non-Hispanic Black communities where there have been important public health concerns about maternal and infant health.



References

1. Chen A, Oster E, Williams H. Why is infant mortality higher in the United States than in Europe? *American Economic Journal: Economic Policy*. 2016;8(2):89-124.
2. Lundberg O. The impact of childhood living conditions on illness and mortality in adulthood. *Social Science & Medicine*. 1993;36(8):1047-1052.
3. Petrou S, Yiu HH, Kwon J. Economic consequences of preterm birth: A systematic review of the recent literature (2009–2017). *Archives of Disease in Childhood*. 2019;104(5):456-465.
4. Community Care Coordination Learning Network- The Pathways Community HUB Institute. Connecting those at risk to care: The quick start guide to developing community care coordination pathways. A companion to the Pathways Community Hub Manual. Rockville, MD: Agency for Healthcare Research and Quality (AHRQ);2016.
5. Zeigler BP, Redding SA, Leath BA, Carter EL. Pathways community HUB: A model for coordination of community health care. *Population Health Management*. 2014;17(4):199-201.
6. Tsai J, Camacho A, Ganduglia-Cazaban C. Brief scoping review of Pathways Community Hubs for the care of pregnant mothers and their infants. *Maternal and Child Health Journal*. under review.
7. Barnes A. Governor signs new law that enhances screening for non-medical needs, role of community health workers and doulas to improve health outcomes for Texas moms and babies. Episcopal Health Foundation. <https://www.episcopalhealth.org/enews/governor-signs-new-law-that-enhances-screening-for-non-medical-needs-role-of-community-health-workers-and-doulas-to-improve-health-outcomes-for-texas-moms-and-babies/>. Published 2023. Accessed August 1, 2024.
8. Davenport S, Caverly M, Muse D. Approaches for addressing nonmedical health drivers through Medicaid managed care: Landscape study and actuarial analysis in the state of Texas. Seattle, WA: Milliman;2023.
9. Hibbard JH, Stockard J, Mahoney ER, Tusler M. Development of the Patient Activation Measure (PAM): Conceptualizing and measuring activation in patients and consumers. *Health Services Research*. 2004;39(4p1):1005-1026.
10. Kroenke K, Spitzer RL. The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*. 2002;32:509-521.

Figure 1. Diagram of data flow for the Bexar PCH and matched comparison groups

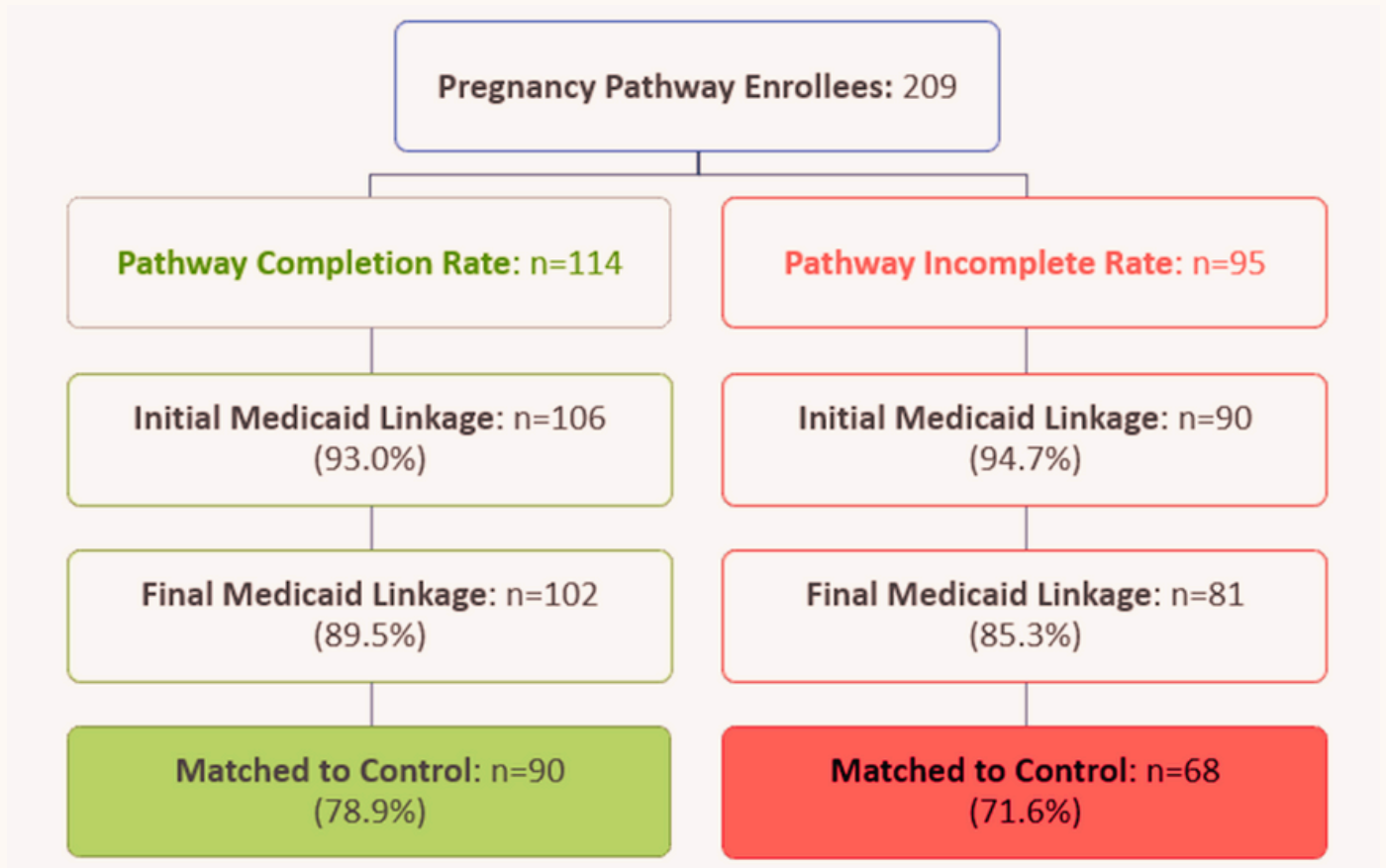


Table 1.

Demographic and clinical characteristics of Bexar PCH participants (case) and a propensity-score matched group of pregnant mothers who did not participate in the Bexar PCH (control)

	Completed the Program			Did not complete the program		
	Case (n= 90)	Control (n= 90)	p-value	Case (n= 68)	Control (n= 68)	p-value
Age, Mean (STD)	29.1 (5.9)	29.3 (6.1)	NS	27.1 (5.0)	27.1 (5.0)	NS
Race/Ethnicity, n (%)						
Hispanic	74 (82)	74 (82)	NS	60 (88)	60 (88)	NS
*Other	16 (18)	16 (18)	NS	8 (12)	8 (12)	NS
Medicaid Program, n (%)						
STAR	82 (91)	73 (81)	NS	60 (88)	62 (91)	NS
Other	---	---	NS	---	---	NS
Average Months Enrolled, prenatal period	7.83	7.41	NS	7.96	7.32	NS
Maternal Comorbidities, n (%)						
Obesity	69 (77)	59 (66)	NS	54 (79)	52 (77)	NS
Previous Caesarean delivery	14 (15)	14 (15)	NS	18 (27)	13 (19)	NS
Substance use disorder	13 (14)	---	NS	10 (14.7)	---	.02
Gestational diabetes	12 (13)	17 (19)	NS	10 (15)	13 (19)	NS
**Other Comorbidities	57(63)	38(42)	NS	31(46)	44(65)	NS

Note:

--: Counts less than 10 are not reported.

*Race/Ethnicity "Other" category includes non-Hispanic blacks, others, and unknowns.

**Other Comorbidities category includes Asthma, Chronic ischemic heart disease, Chronic renal disease, Congenital heart disease, Congestive heart failure, COVID-19, High-risk pregnancy, Multiple gestation, Placenta previa, Preexisting diabetes mellitus, Preexisting hypertension, Sickle cell trait, and Tobacco use.

High-risk pregnancy, which was defined as the mother age <16 or age>34 and having pre-eclampsia, high blood pressure, diabetes, or mental illness. NS= Not Significant, COVID-19= Coronavirus Disease 2019; HIV= Human Immunodeficiency Virus.

Table 2.

Unadjusted comparison between Bexar PCH participants and matched controls on prenatal/postnatal visits and service costs

	Completed the Program			Did not complete the program		
	Case (n=90)	Control (n=90)	p-value	Case (n=68)	Control (n=68)	p-value
Service Use						
Prenatal visits	87 (97%)	81 (90%)	NS	66 (97%)	65 (96%)	NS
Postnatal visits	68 (76%)	49 (54%)	<.01	40 (59%)	50 (73%)	NS
Prenatal emergency department visits	62 (69%)	41 (46%)	<.01	46 (68%)	39 (57%)	NS
Mean # of emergency department visits	1.62	1.11	<.01	1.88	1.19	NS
Costs						
Medical prenatal costs	\$4,975	\$3,252	<.001	\$4,537	\$4,236	NS
Pharmacy Prenatal costs	\$1,507	\$886	<.01	\$1,478	\$839	.02
Total prenatal costs (Medical+ Pharmacy)	\$6,482	\$4,318	<.001	\$6,015	\$5,075	.04
Total delivery costs	\$4,743	\$4,050	NS ^a	\$4,492	\$4,135	NS

Note: NS= Not Significant.

^ap= .049.

Table 3.

Adjusted comparison between Bexar PCH participants and matched controls on median prenatal/delivery costs, per member per month

	Case (n= 90)	Control (n= 90)	Adjusted coefficient (95% confidence interval)
Medical prenatal costs	\$428	\$312	1.22 (0.98-1.51)
Pharmacy Prenatal costs	\$84	\$32	1.51 (1.05-2.23)*
Total prenatal costs (Medical + Pharmacy)	\$580	\$408	1.28 (1.03-1.59)*
Total delivery costs	\$4,365	\$3,875	1.12 (1.01-1.25)*

Note: These analyses adjusted for age, race, maternal comorbidities, type of delivery, and high-risk pregnancy. *p<.05.

Table 4.

Bivariate comparison of types of births and birth complications among Bexar PCH and matched controls

	Completed the Program			Did not complete the program		
	Case (n= 90)	Control (n= 90)	p- value	Case (n= 68)	Control (n= 68)	p- value
Cesarean section	41%	41%	NS	37%	39%	NS
Preeclampsia	17%	---	NS	---	---	NS
Eclampsia	---	---	NS	---	---	NS
SMM without transfusion	---	---	NS	---	---	NS
SMM transfusion	---	---	NS	---	---	NS

Note:

NS = Not Statistically Significant. SMM = Severe Mental Morbidity.

--: Counts less than 10; therefore, absolute counts and percentages are not shown, though statistical testing is performed. If significant, reported.

Table 5.

Adjusted comparison of key birth outcomes among Bexar PCH participants who completed the program and matched controls

	Case (n= 90)	Control (n= 90)	Adjusted odds ratios (95% confidence interval)
Pre-term births	23%	<10%	4.13 (1.18, 11.11)
Low birth weight	20%	<10%	3.62 (1.20, 14.27)
NICU admission	30%	22%	3.83 (1.20, 12.26)

Note: These analyses adjusted for maternal age, maternal race, maternal comorbidities, type of delivery, and high-risk pregnancy. NICU= Neonatal Intensive Care Unit.

Table 6.

Two sets of sensitivity analyses of three key birth outcomes among Bexar PCH participants and matched controls

First analysis: Relaxed matching criteria			
	Case (n= 90)	Control (n= 90)	Adjusted odds ratios (95% confidence interval)
Pre-term births	18%	---	2.32 (0.86, 6.31)
Low birth weight	18%	---	2.87 (1.08, <u>7.59</u>)*
NICU admission	32%	22%	2.41 (0.95, 6.10)
Second analysis: Relaxed matching criteria, and included all PCH participants.			
Pre-term births	19%	10%	1.92 (0.95, 3.88)
Low birth weight	15%	11%	1.30 (0.67, 2.55)
NICU admission	22%	11%	1.93 (0.99, 3.75)

Note: All matches had a confidence level of 3, 4, or 5. The first analysis only included PCH participants who completed the program and their matched controls. NICU= Neonatal Intensive Care Unit. *p<.05.

--: Counts less than 10 are not reported.

Table 7.

Scores on the Patient Activation Measure (PAM) and Patient Health Questionnaire-9 (PHQ-9) among Bexar Pathways Community Hub participants who completed and did not complete the program.

PAM Score						
Program Status	PAM Test #	N Persons	Number of Tests	Test/Person	Mean	Std Dev
Completed (N=114)	First Test	51	51	1.00	70.01	18.23
	Subsequent Tests	31	46	1.48	75.36	18.39
Incomplete (N=95)	First Test	30	30	1.00	76.58	20.72
	Subsequent Tests	---	---	---	---	---
PHQ-9 score						
Program Status	PHQ-9 Test #	N Persons	Number of Tests	Test/Person	Mean	Std Dev
Completed (N=114)	First Test	83	83	1.00	3.54	4.35
	Subsequent Tests	43	71	1.65	3.97	5.60
Incomplete (N=95)	First Test	60	60	1.00	4.37	6.05
	Subsequent Tests	---	---	---	---	---

Note

---: Counts less than 10 are not reported.