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Changes in abortion access after implementation of Medicaid coverage in Illinois: a retrospective analysis

Carmela Zuniga ,[1] Valeria Hernandez,[2] Debra Stulberg,[2] Lee Hasselbacher,[3] Ashley McHugh,[2] Danielle Young,[4] Hanz Dismer,[5] Terri-Ann Thompson [1]

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[1]Ibis Reproductive Health, Cambridge, Massachusetts, USA
[2]Department of Family Medicine, The University of Chicago, Chicago, Illinois, USA
[3]The Center for Interdisciplinary Inquiry and Innovation in Sexual and Reproductive Health, The University of Chicago, Chicago, Illinois, USA
[4]Planned Parenthood of Illinois, Chicago, Illinois, USA
[5]Hope Clinic, Granite City, Illinois, USA

Correspondence to
Carmela Zuniga;
czuniga@ibisreproductive health.org

ABSTRACT

Introduction In 2018, Illinois implemented House Bill 40 (HB-40), allowing state funds to provide Medicaid coverage for abortion. This study aimed to quantitatively measure changes in access among Illinois residents after the law's implementation, with a focus on changes experienced by Medicaid versus non-Medicaid patients.

Methods We conducted a retrospective analysis using 67 462 abortion visits across 18 health centres comparing service delivery patterns 1 year before and 3 years after HB-40 implementation. We used a t-test and difference-in-differences regression to assess the policy's effect on mean gestational age at the time of abortion among Medicaid patients and non-Medicaid patients. We used χ^2 tests to capture differences in insurance type used for payment, as well as differences between Medicaid and non-Medicaid patients in presenting at ≤11 weeks gestation, abortion method provided and time between scheduling and getting an abortion.

Results From 2017 to 2020, the overall volume of abortions increased by 27% and the share of abortions paid for with Medicaid increased from 15% to 49%. Compared with non-Medicaid patients, Medicaid patients experienced a significant decrease in average gestational age at the time of abortion post-HB-40 (incidence rate ratio (IRR)=0.93, 95% CI 0.91 to 0.95, p<0.001). The proportion of Medicaid patients ≤11 weeks gestation increased post-HB-40 (76% to 83%; p<0.001) but did not change among non-Medicaid patients (89% to 90%; p=0.62). By 2020, the 13%-point gap that existed between the two groups in 2017 (76% and 89%) was reduced to 4 (86% and 90%). The proportion of medication abortions increased substantially for Medicaid patients post-HB-40 (27% to 46%; p<0.001) and increased slightly for non-Medicaid patients (51% to 53%; p=0.001), resulting in decreased gaps in medication abortions received between the two groups.

Conclusion Medicaid coverage of abortion reduced insurance-related disparities for Medicaid patients, as shown by decreased gaps in average gestational age among Medicaid and non-Medicaid patients. It was also associated with increased medication abortions among Medicaid patients.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Research on Medicaid coverage of abortion in a handful of states suggests coverage removes financial barriers and increases access to timely abortion care. While some studies have measured differences in abortion access among individuals residing in states with and without Medicaid coverage of abortion, no study has quantitatively compared differences in abortion access between Medicaid and non-Medicaid patients within the same state before and after Medicaid coverage of abortion, which may highlight how Medicaid coverage impacts insurance-based disparities in abortion access.

WHAT THIS STUDY ADDS

⇒ This study aimed to address this gap in the literature by analysing patient medical records from 18 facilities—providing nearly half of the abortions to Illinois residents—to quantitatively measure any changes in access after the implementation of House Bill 40 (the law requiring Medicaid coverage of abortion in Illinois), with a focus on changes among Medicaid patients compared with non-Medicaid patients. This study reveals that in Illinois, Medicaid coverage of abortion led to more equitable access to abortion services for Medicaid patients by decreasing existing gaps between Medicaid and non-Medicaid patients at gestational age at the time of presentation. Among Medicaid patients, Medicaid coverage was also associated with an increase in presenting for an abortion ≤11 weeks gestation and an increase in the proportion of medication abortions provided.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Results from this study should encourage policy makers in other states to implement laws requiring insurance coverage of abortion to increase timely access to abortion services and decrease disparities that may exist based on insurance type.

INTRODUCTION

In the USA, abortion care is difficult for many people to access, as 13 states have banned abortion in almost all circumstances, and an additional 28 restrict care based on

gestational age.[1] Many states also restrict health insurance coverage of abortion costs by preventing private plans from offering abortion coverage[2] or by refusing to use state funds to ensure public coverage of abortions (beyond the limited circumstances determined by federal standards). [3]These restrictions on private and public insurance coverage make abortion financially inaccessible to many insured patients. Median US out-of-pocket costs in 2021 were US$568 for medication abortions, US$625 for first-trimester procedural abortions and US$775 for second-trimester abortions.[4] For many households earning their state's median income, out-of-pocket costs for abortion care would consume such a large proportion of monthly household income that they would be financially catastrophic.[5]

Insurance coverage of abortion can ensure that care is financially accessible and received in a timely manner. Availability of abortion methods is dependent on gestational age, with medication abortion commonly offered up to 10 or 11 weeks of gestation.[6] Time spent gathering funds to pay for the abortion or associated travel costs can result in postponement of care,[7–10] and since abortion costs are generally higher in the second trimester than the first,[11] delaying care can lead to higher out-of-pocket costs and even to foregoing abortion care altogether. Furthermore, for some patients, medication abortion is the only acceptable option, and a lack of access to this method may prevent them from accessing abortion care at all.[12]

Three-quarters of abortion patients are poor or earn low incomes,[13] meaning that many are eligible for Medicaid—a public health insurance programme for low-income individuals that is jointly funded by states and the federal government.[14] Although the Hyde Amendment prevents federal funds (including contributions to Medicaid) from being used to cover abortion costs except in cases of rape, incest or life endangerment of the pregnant person,[15] states can choose to use their own funds to ensure that Medicaid covers abortion care in other circumstances.[16]

In 2018, Illinois implemented House Bill 40 (HB-40), which allows for the use of state funds to provide Medicaid coverage for abortion without conditions.[17] As of January 2025, 20 states have opted to use state funds to provide Medicaid coverage of abortion.[18] Studies have shown that state Medicaid coverage of abortion has been associated with increased volume of abortion procedures,[19 20] decreased patient costs[19 21] and increased access to abortion among people of colour[19] and patients with limited financial resources.[22 23] A study comparing Medicaid patients in states with and without Medicaid coverage of abortion found that residents of states with Medicaid coverage were more likely to experience timely access to abortion care than those residing in states that did not allow Medicaid coverage of abortion.[24] Similarly, another study found that among individuals considering abortion, those residing in states with Medicaid coverage were more likely to access care in a timely manner.[25] Research in Illinois has revealed that Illinois abortion providers, as well as staff from organisations providing resources to abortion providers or patients, supported Medicaid coverage of abortion and expected patients to benefit from it.[26 27] One study comparing Illinois to 29 other states that did not offer Medicaid coverage of abortion found that HB-40 resulted in an 18.2% increase in abortion volume in Illinois.[20] A study analysing the impact of HB-40 on patient access at one academic medical centre found that out-of-pocket costs decreased, while gestational age at the time of abortion and procedures completed with sedation increased.[28] However, it is unknown if these shifts after the implementation of HB-40 are similar to or different from other facilities providing abortion care in Illinois. In addition, although one study has compared patients' experiences using Medicaid versus private insurance to pay for early abortion care,[29] no study has quantitatively compared differences in abortion access between Medicaid and non-Medicaid patients before and after Medicaid coverage of abortion to understand if and to what extent public insurance coverage impacts insurance-based disparities in abortion access. This study aimed to address gaps in the literature by analysing chart data from 18 facilities—providing nearly half of the abortions to Illinois residents—to quantitatively measure any changes in abortion access after the implementation of HB-40, with a focus on differences between Medicaid and non-Medicaid patients.

MATERIALS AND METHODS

Study design

Our retrospective analysis compared patient characteristics and service delivery patterns 1 year before and 3 years after HB-40 implementation in Illinois. We decided to analyse changes immediately and in the 2-year period following implementation because some abortion providers were delayed in implementing HB-40 when it went into effect in 2018,[26] which may have stunted the impact of the law. We reached out to all organisations in the state that offered both medication and procedural abortions and provided more than 500 abortions annually, and we included centres able to share data from the years 2017–2020. Two health centres met these criteria: Planned Parenthood of Illinois (PPIL) and Hope Clinic. PPIL is a non-profit organisation that provides sexual and reproductive healthcare services and, during the study period, operated 17 health centres throughout the state and provided abortions up to 21 weeks and 6 days gestation.[30] Hope Clinic is located in southern Illinois at the border of Missouri, <10 miles away from St. Louis. The majority of abortion patients at Hope Clinic are not Illinois residents, and at the time of the study, Hope Clinic provided care up to 24 weeks gestation.[31] We obtained all patient records for the years 2017–2020. Dividing the annual abortion totals of these centres by the annual totals offered by the Illinois Department of Public Health for each year of the study,[32] we estimate these 18 centres

covered between 36%–40% of abortion care in the state and between 44%–50% of abortion care for Illinois residents specifically during the study time period.

We extracted deidentified data from electronic medical record systems to capture patient characteristics, as well as characteristics of the abortion service. We restricted our sample to Illinois residents (aged 13–55) who received abortion care during the study period since out-of-state patients are not eligible for Illinois Medicaid. Based on anonymised ID numbers, about 14.5% of abortions in our dataset were from patients who had more than one abortion.

We focused on the following outcomes before and after HB-40 went into effect: patient characteristics, including average patient age and type of insurance used to pay for the abortion (public, private, both and none); average gestational age at the time of the abortion (in weeks); proportion of patients receiving care at 11 weeks gestation or earlier; the proportion of medication and procedural abortions provided; the proportion of medication abortions provided among those presenting early enough to be eligible for that method and time between making an appointment and receiving an abortion. We assessed changes in average patient age because we thought the proportion of young adult abortion patients (aged 18 or older) enrolling in Medicaid may have increased and led to a decrease in mean patient age. We hypothesised that more young adults, who may find it difficult to pay out-of-pocket for an abortion[33] and may not want to use Medicaid under their parents' plan due to privacy concerns, may have enrolled in Medicaid after HB-40 was enacted. We analysed insurance type used to pay for the abortion to assess if patients were using Medicaid after the law's passage. We looked at average gestational age to understand if HB-40 removed financial obstacles and helped patients obtain care earlier. We also looked at the proportion of patients presenting for their abortion at 11 weeks or less to detect any changes in the proportion of patients accessing services early enough to be able to choose their abortion method. Earlier care could result in an increased proportion of patients eligible for medication abortion, so we were also interested if the proportion of patients receiving medication abortions increased after the law went into effect. As previous research noted that Medicaid coverage of abortion resulted in increased abortion volume, we wanted to assess if the time between making an appointment and receiving an abortion changed after HB-40 was implemented. We compared service delivery outcomes by whether patients used Medicaid to pay for all or some of their abortions (hereafter defined as 'Medicaid patients') or did not use Medicaid ('non-Medicaid patients') to explore if any insurance-related disparities in abortion access existed before HB-40 and if there were any changes after the law's implementation. Payment data, as well as the time between making an appointment and receiving an abortion, were only available from PPIL health centres. Missing data from Hope clinic visits, which made up 9% of our dataset, were therefore removed from these analyses.

Statistical analysis

We planned to use the difference-in-differences method on three outcomes: average gestational age at the time of abortion, proportion of patients who got an abortion ≤11 weeks gestation and proportion of patients who used medication abortion. We classified non-Medicaid patients as our control group and Medicaid patients as our treatment group with the passing of HB-40 as the intervention. To proceed with this method, we reviewed whether the three planned outcomes held under the method's assumptions. To check the parallel trends assumption, we tested whether outcome trends from both groups were constant during the preintervention period since the method works under the assumption that outcome trends would stay constant without the intervention. With the null hypothesis being that linear trends are parallel, only average gestational age at the time of abortion held under this assumption (p=0.06). Trends for the proportion of patients who got an abortion ≤11 weeks gestation and the proportion of patients who used medication abortion were not parallel preintervention and therefore not analysed using difference-in-differences (p=0.04, p=0.006, respectively). We assumed that HB-40 was unrelated to our outcomes at baseline, that HB-40 did not directly affect non-Medicaid patients, that people did not have different levels of exposure and that the composition of our two groups did not change because eligibility for Medicaid did not change during the study period. To calculate the difference-in-differences between Medicaid and non-Medicaid patients before and after HB-40 went into effect, we ran regressions using an interaction term between Medicaid coverage and time. We controlled for race and ethnicity because Medicaid recipients are more racially and ethnically diverse than the general US population.[34] We also controlled for clinics since there could be clinic-level differences in the time it took to fully implement HB-40, as well as differences in staff availability, methods of abortion offered, and patient volume that could impact the scheduling of appointments (and therefore the gestational age at which patients present for their abortion). For gestational age at the time of abortion, we used Poisson regression.

Using t-tests, we analysed differences in mean gestational age at the time of abortion as well as differences in average time to an abortion appointment between the preimplementation and postimplementation period (2017 vs 2018–2020) among Medicaid patients and non-Medicaid patients. Missing data on gestational age accounted for 1% of our dataset, and there was no missing PPIL data that prevented us from calculating the average time to an abortion appointment. We used the χ^2 test to capture differences between the preimplementation and postimplementation periods (2017 vs 2018–2020) in insurance type used to pay for the abortion (public, private, both and none) and <1% of PPIL

data was missing insurance payment information. We also used χ^2 tests to assess differences between these preperiod and postperiod in the proportion of Medicaid and non-Medicaid patients accessing services at ≤11 weeks gestation and receiving medication abortion. There was no missing data on the type of abortion provided in each visit.

Due to differences in software availability for the two authors conducting statistical analysis, we used R (V.4.3.1)[26] to complete bivariate analyses and Stata 18 to complete regression analyses.

We used the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) cross-sectional checklist when writing our report.[35]

Patient and public involvement

Patients or the public were not involved in the design, conduct, reporting or dissemination plans of our research.

RESULTS

In total, we gathered data from 67 462 visits of Illinois residents aged 13–55 who received abortion care (61 261 from PPIL centres and 6201 from Hope Clinic) from 2017 to 2020. The total volume of abortions increased every year after HB-40 went into effect, with the largest increase (17.5%) occurring the year HB-40 was implemented (2018). Overall, the volume of abortions increased by 27% between 2017 and 2020.

Patient characteristics

Over half (59%) of our sample was ≥25 years old (table 1), and a majority were either white (46%) or Black (46%).

There were no differences in average patient age before and after HB-40 went into effect (p=0.16), but there were shifts in race and the highest level of education attained. The proportion of patients reported as Black increased over time (38% to 51%), particularly during the first year HB-40 went into effect, whereas the proportion of patients reported as white decreased (53% to 43%) between 2017 and 2020. In addition, the proportion of patients whose highest level of education attained was a Bachelor's degree decreased (17% to 11%), while those with a high school diploma increased (22% to 35%).

Of the 61 028 visits with data on payment, 39% were paid all or in part by Medicaid, 10% were paid all or in part with private insurance and 51% were paid without insurance. Type of insurance used to pay for the abortion was significantly associated with whether abortion services were received before or after the implementation of HB-40 (p<0.001). Between 2017 and 2020, the proportion of patients using public insurance to cover part or all of their abortion costs increased substantially, particularly in the first year HB-40 was implemented. In 2017, 15% used public insurance, whereas this increased to 44% in 2018. By 2020, half of the abortion patients paid using public insurance. The proportion of patients using private insurance decreased slightly during the first year HB-40 went into effect (11% to 9%), whereas the proportion of patients not using any type of insurance decreased substantially, from 74% to 47% (figure 1).

Service delivery Statistics

Gestational age

Among all patients, there was a statistically significant increase in the average gestational age at the time of abortion after HB-40 went into effect, from 8.4 weeks to 8.6 weeks (p<0.001, 95% CI (0.16, 0.27)).

Among Medicaid patients, there was a significant decrease in average gestational age, from 9.4 weeks in 2017 to 8.9 weeks between 2018 and 2020 (p<0.001, 95% CI −0.65 to −0.35), while among non-Medicaid patients, gestational age increased slightly (8.1 weeks to 8.2 weeks; p<0.001, 95% CI 0.07, 0.18). This resulted in a decreased gap in average gestational age between patients with and without Medicaid post-HB-40, from a 1.3-week difference in 2017 to a 0.5-week difference in 2020 (figure 2).

Controlling for covariates (race, ethnicity and clinic), the difference-in-differences in average gestational age between Medicaid and non-Medicaid patients before HB-40 compared with the difference after implementation was significant (IRR=0.93, 95% CI 0.91 to 0.95, p<0.001), (online supplemental table 1).

Early presentation for abortion

Among all patients, there was a small but statistically significant decrease in the proportion of patients presenting for their abortion at ≤11 weeks gestation after HB-40 went into effect, from 87% to 86% (p=0.04). Looking at the data by year, the largest decrease occurred the first year HB-40 went into effect (87% to 85%) and gradually increased to 88% by 2020.

Comparing Medicaid patients with non-Medicaid patients in the pre-HB-40 period, only 76% of Medicaid patients presented for their abortion appointment at or before 11 weeks, whereas this was true for 89% of non-Medicaid patients. By 2020, this 13%-point gap was reduced to 4% points (figure 3).

The proportion of Medicaid patients presenting for abortion ≤11 weeks gestation increased post-HB-40 (76% to 83%; p<0.001) but did not change among non-Medicaid patients (89% to 90%; p=0.62).

Abortion methods

Among all patients, there was a significant relationship between abortion method and whether the abortion took place before or after HB-40 went into effect, with an increase in the proportion of medication abortions provided post-HB-40 (46% in 2017 vs 48% in 2018–2020, p<0.001). By 2020, 53% of abortions in our sample were medication abortions.

Comparing abortion methods between Medicaid and non-Medicaid patients pre- and post-HB-40, the proportion of medication abortions increased substantially for Medicaid patients (27% to 46%; p<0.001) and increased slightly for non-Medicaid patients (51% to

Table 1 Patient characteristics over time (2017–2020)

	Overall	2017	2018	2019	2020	Missing (%)
	67 462	14 322	16 832	18 109	18 199	
Age group	n (%)	n (%)	n (%)	n (%)	n (%)	0
13–17	2026 (3.0)	453 (3.2)	590 (3.5)	487 (2.7)	496 (2.7)	
18–24	25 887 (38.4)	5490 (38.3)	6461 (38.4)	6934 (38.3)	7002 (38.5)	
25–34	31 621 (46.9)	6613 (46.2)	7787 (46.3)	8594 (47.5)	8627 (47.4)	
35–44	7796 (11.6)	1737 (12.1)	1966 (11.7)	2050 (11.3)	2043 (11.2)	
>44	131 (0.2)	29 (0.2)	28 (0.2)	43 (0.2)	31 (0.2)	
Ethnicity						12.4
Hispanic or Latino	12 835 (21.7)	2802 (22.7)	3078 (21.1)	3438 (21.8)	3517 (21.5)	
Not Hispanic or Latino	46 291 (78.3)	9563 (77.3)	11 527 (78.9)	12 358 (78.2)	12 843 (78.5)	
Race						9
American Indian or Alaska Native	321 (0.5)	90 (0.7)	65 (0.4)	92 (0.6)	74 (0.4)	
Asian, Native Hawaiian and/or Pacific Islander	2483 (4.0)	729 (5.7)	611 (4.0)	600 (3.6)	543 (3.2)	
Black or African American	28 381 (46.2)	4807 (37.5)	7058 (46.3)	7982 (48.0)	8534 (51.0)	
Other race	1885 (3.1)	402 (3.1)	477 (3.1)	565 (3.4)	441 (2.6)	
White	28 328 (46.1)	6798 (53.0)	7018 (46.1)	7386 (44.4)	7126 (42.6)	
Highest education attained						12.2
Associates degree	4717 (8.0)	1218 (9.8)	1218 (8.4)	1193 (7.5)	1088 (6.7)	
Bachelor's degree	8048 (13.6)	2127 (17.1)	2064 (14.2)	2030 (12.8)	1827 (11.2)	
Graduate or professional degree	2562 (4.3)	745 (6.0)	652 (4.5)	627 (3.9)	538 (3.3)	
High school or equivalent	17 324 (29.3)	2720 (21.9)	4045 (27.8)	4876 (30.7)	5683 (34.8)	
No formal education	449 (0.8)	145 (1.2)	114 (0.8)	108 (0.7)	82 (0.5)	
Some college	20 312 (34.3)	4407 (35.5)	5043 (34.6)	5442 (34.2)	5420 (33.2)	
Some high school	5809 (9.8)	1047 (8.4)	1437 (9.9)	1615 (10.2)	1710 (10.5)	
Insurance used for abortion						9.5
Private	5908 (9.7)	1456 (11.0)	1431 (9.4)	1476 (9.2)	1545 (9.4)	
Public	23 590 (38.7)	2032 (15.4)	6706 (44.0)	6783 (42.1)	8069 (49.1)	
Both public and private	435 (0.7)	2 (0.0)	25 (0.2)	316 (2.0)	92 (0.6)	
None	31 095 (51.0)	9734 (73.6)	7089 (46.5)	7549 (46.8)	6723 (40.9)	
Gravidity						9.7
0	327 (0.5)	47 (0.4)	36 (0.2)	99 (0.6)	145 (0.9)	
1–2	29 485 (48.4)	7066 (53.9)	7448 (49.0)	7603 (47.2)	7368 (44.6)	
3–4	18 383 (30.2)	3724 (28.4)	4612 (30.4)	4874 (30.3)	5173 (31.3)	
5+	12 743 (20.9)	2276 (17.4)	3093 (20.4)	3523 (21.9)	3851 (23.3)	
Parity						19.7
0	19 290 (35.6)	4097 (37.8)	4017 (31.5)	4919 (34.4)	6257 (38.5)	
1–2	25 724 (47.5)	5115 (47.2)	6490 (50.9)	6866 (48.0)	7253 (44.6)	
3–4	7792 (14.4)	1429 (13.2)	1883 (14.8)	2136 (14.9)	2344 (14.4)	
5+	1363 (2.5)	199 (1.8)	353 (2.8)	397 (2.8)	414 (2.5)	

53%; p=0.001). Among patients presenting at ≤11 weeks gestation, there was a large difference in the proportion of people who received a medication abortion post-HB-40 based on whether they used Medicaid. In 2017, 35% of Medicaid patients at or before 11 weeks gestation had a medication abortion, whereas this was true of 58% of non-Medicaid patients. By 2020, 60% of Medicaid patients at or below 11 weeks gestation had a medication

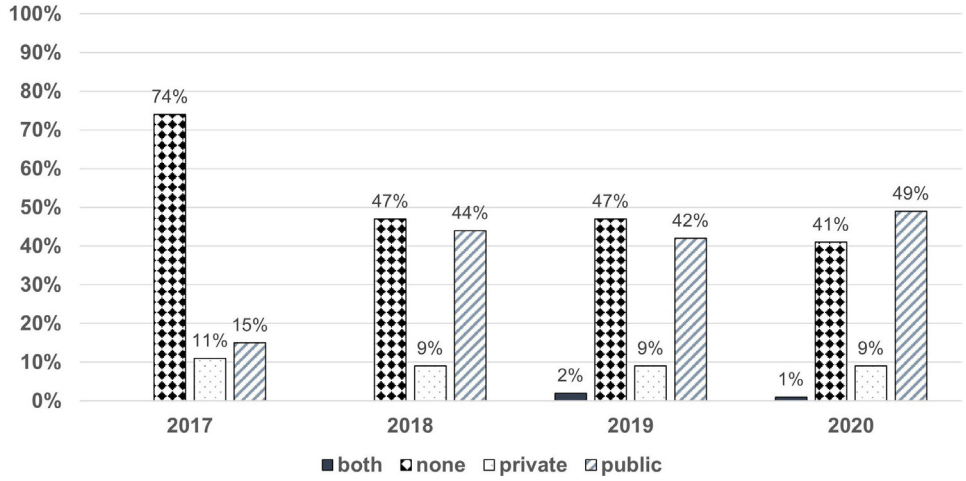

Figure 1 Proportion of patients using private insurance, public insurance, public and private insurance or no insurance to pay for their abortion by year (2017–2020).

abortion, compared with 63% of non-Medicaid patients (figure 4).

Time between scheduling an abortion appointment and getting an abortion

Overall, the average wait time for all patients shifted from 6.6 days to 9.1 days (p<0.001, 95% CI 2.44 to 2.63). The average time between a Medicaid patient scheduling an abortion appointment and having an abortion increased post-HB-40 by 2.5 days, from 6.8 days to 9.3 days (p<0.001, 95% CI 2.23 to 2.67). Similarly, non-Medicaid patients experienced an average increase of 2.7 days, from 6.5 days to 8.9 days (p<0.001, 95% CI 2.3 to 2.5).

DISCUSSION

After Illinois implemented Medicaid coverage for abortion, total abortion volume at the included clinics increased, while the average gestational age at which Medicaid patients presented for abortion decreased. The volume increase was not surprising based on prior research,[36 24] and our findings on average gestational age suggest that HB-40 led to more equitable access to abortion services for Medicaid patients by decreasing existing gaps between Medicaid and non-Medicaid patients.

One prior study analysed data from patients visiting a major abortion provider from 2010 to 2013 in Hawaii (a state that requires most private insurance companies and Medicaid to cover abortion services) and found that Medicaid patients presented for care almost 2 weeks later than those privately insured or who paid out-of-pocket.[37] The patient demographics from that study differed from ours in that almost half of Medicaid patients identified as Native Hawaiian, and the authors noted that pregnancy attitudes among Native Hawaiians and the role of the family may have contributed to the delay in presentation. Although the difference in average gestational age among Medicaid and non-Medicaid patients appears to be smaller in Illinois than in Hawaii, Illinois residents with Medicaid consistently presented later in their pregnancy on average than patients without Medicaid coverage during the study period. Although Medicaid coverage of abortion removes a direct financial barrier to abortion access for many patients earning low incomes, other financial and non-financial factors may influence abortion access.[27 38–40]

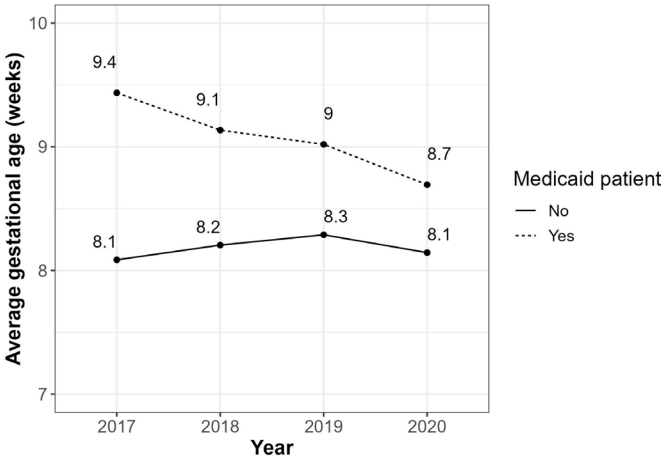

Figure 2 Average gestational age at the time of abortion among patients (Illinois residents) with and without Medicaid across 18 health facilities in Illinois by year (2017–2020).

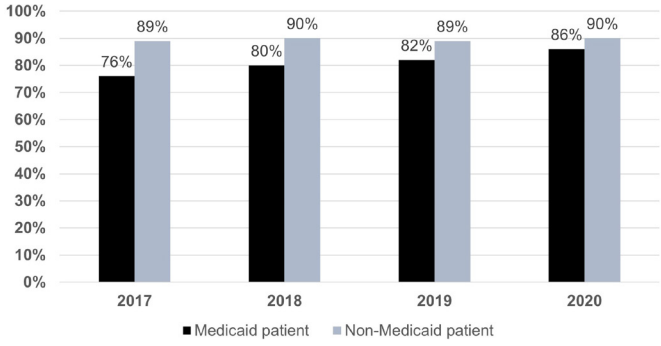

Figure 3 Proportion of patients (Illinois residents) with and without Medicaid accessing abortion care at or before 11 weeks gestation across 18 health facilities in Illinois by year (2017–2020).

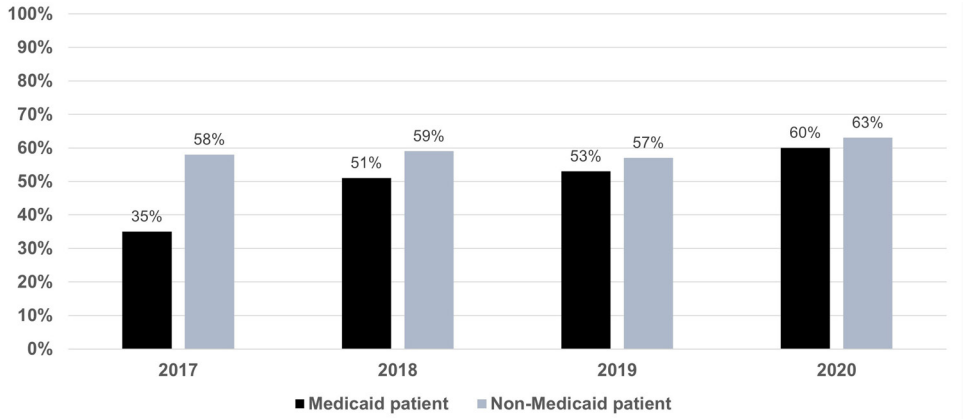

Figure 4 Proportion of Medicaid and non-Medicaid patients (Illinois residents) ≤11 weeks gestation accessing medication abortions across 18 health facilities in Illinois by year (2017–2020).

We also found a slight decrease in the proportion of people accessing abortion at ≤11 weeks gestation when comparing the preperiod and postperiod (87% to 86%), although by 2020, the proportion of people accessing care at ≤11 weeks increased to 88%. In tandem, we saw a decrease in gaps between patients with and without public insurance in the proportion presenting early enough to choose their abortion method. The increase in the proportion of Medicaid patients accessing abortion services was expected as Medicaid coverage eliminates delays to gather funds to cover abortion costs.[7–10] Prior research has shown that restricting Medicaid funding for abortion is associated with a 13% increase in second-trimester abortions.[41]

We also found marked shifts in the use of medication abortion among Medicaid patients after HB-40 went into effect. Though the increase in telemedicine services during the COVID-19 pandemic may have played a role from 2019 to 2020, the largest increase in medication abortions in our sample occurred the first year HB-40 went into effect (from 35% in 2017 to 51% in 2018), before the pandemic. Medication abortions have been increasing nationwide since 2000[42] and were estimated to comprise approximately 40% of all abortions in 2018.[43] It is possible that the larger proportion of medication abortions seen in our sample compared with nationwide estimates that year may be due to earlier abortion access among Medicaid patients made possible by HB-40.

Previous research has found that patients residing in states with Medicaid coverage experience shorter wait times for abortion appointments than patients in states without public insurance coverage.[24 25] While we found that the overall time between scheduling an abortion appointment and getting an abortion increased by about 2.5 days after HB-40 was implemented, this increase is small considering the 27% increase in patient volume during this time period, which also overlapped with the start of the COVID-19 pandemic. Despite the increase, the 9-day wait time is still relatively short, as data from the Guttmacher Institute's 2014 Abortion Patient Survey found that patients living in states with Medicaid coverage of abortion were less likely to wait over 14 days than those residing in states without such coverage.[24]

Limitations

There are several limitations to this study. The first is the impact the COVID-19 pandemic may have had on patient access during 2020, as the pandemic resulted in many people using models of abortion care that did not involve a clinic visit,[44] experiencing delays or cancellations of abortion appointments,[45] and/or forgoing abortion care altogether.[46] However, our review of 2020 abortion statistics from the Illinois Department of Public Health suggests that the pandemic resulted in a <1% decrease in the total number of abortions from the previous year and a 7% decrease among Illinois residents.[32] Hence, we suspect pandemic-related factors influenced our findings regarding appointment delay but otherwise did not majorly contribute to our results.

Though we adjusted our analysis to account for race/ethnicity, we were unable to adjust for other characteristics that have been shown to differ between Medicaid recipients and the general US population, including rural residence and having a primary language other than English.[47] Compared with the broader US population, Medicaid recipients were more likely to reside in a rural area and less likely to have a primary language other than English.[47] However, the inability to adjust for these variables likely had minimal impact on our findings as the vast majority of Illinois residents (88.5%) do not live in rural counties[48] and speak only English at home (76%).[49]

It is also likely that the average wait time between making an appointment and receiving an abortion has increased since 2020 due to the US Supreme Court's ruling on 24 June 2022 that the US Constitution does not protect the right to abortion.[50] As of June 2023, abortion bans in other states have led many out-of-state abortion seekers to travel to Illinois, with a>30% increase in overall volume.[51]

We were unable to obtain data from all clinics offering abortion in the state, and it is unknown if other facilities

offering abortion services saw similar changes in patient volume or service delivery statistics among Illinois residents. We did, however, manage to obtain information from health centres that we estimate provide almost half of abortion care to Illinois residents in the state, which expands on previous research from one facility.[28]

Lastly, this paper does not report on outcomes from people living outside Illinois, and it contains no self-reported information from patients. These perspectives in future work will be important to inform the full picture of patients' abortion care experiences before and after HB-40.

CONCLUSION

Medicaid coverage of abortion in Illinois reduced insurance-related inequities for Medicaid patients, as evidenced by decreased gaps in average gestational age at the time of presentation among Medicaid and non-Medicaid patients. Medicaid coverage was also associated with an increase in total abortion volume, as well as increases among Medicaid patients presenting for an abortion ≤11 weeks gestation and receiving medication abortions. From the data available in this study, HB-40 appears to have achieved its primary objectives. Furthermore, since an increasing number of neighbouring states have banned abortion,[52] the capacity of Illinois abortion providers and funders to care for the growing volumes of patients may have implications for those beyond state borders.

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Patient consent for publication Not applicable.

Ethics approval This study involves human participants and was approved by the University of Chicago Institutional Review Board (IRB20-0901). We were granted a waiver of informed consent from the IRB due to the following reasons: this was a minimal-risk study; the research could not have been feasibly carried out without the waiver as we were not collecting names or contact information as it would increase the risk of loss of confidentiality; the waiver will not have adversely affected the rights and welfare of the subjects who are involved in the research.

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ORCID iDs
Carmela Zuniga http://orcid.org/0000-0001-6016-1568
Terri-Ann Thompson http://orcid.org/0000-0002-3570-6500

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