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Impact of Dependent Coverage Provision of the Affordable Care Act on Insurance Continuity for Adolescents and Young Adults With Cancer

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QUESTION ASKED: What is the impact of the Affordable Care Act (ACA) on insurance continuity for privately insured adolescent and young adult patients with cancer?

SUMMARY ANSWER: In the vulnerable population of adolescent and young adult patients with cancer, the implementation of the Dependent Care Provision (DCP) of the ACA was associated with a statistically significant lower insurance dropout rate among eligible patients, leading to a median of 4 months longer time to disenrollment from insurance.

WHAT WE DID: A retrospective cohort of 18- to 25-year-old patients with a diagnosis of cancer between 2000 and 2015 was constructed from OptumLabs Data Warehouse. Those eligible for the DCP were matched on cancer type, diagnosis date, demographics, and treatment characteristics to patients who were not eligible when they turned 19 years of age. Time to loss of coverage was estimated using Cox models, and a difference-in-difference analysis was performed to evaluate differences over time.

WHAT WE FOUND: There was a 15% greater reduction in the risk of insurance coverage loss among eligible patients (P < .0001) after implementation of the DCP compared with before its enactment. Younger patients were more likely to retain insurance coverage over

4 years compared with older patients (37% v 31%; P < .0001).

BIAS, CONFOUNDING FACTORS: It is difficult to isolate the specific impact of the DCP of the ACA from other potential confounding events, such as the Great Recession. This study was performed within an employer-based private insurance claims database, which may limit generalizability for patients who have insurance through other mechanisms. Additional studies are needed to assess the impact that improved insurance continuity had on receipt of care in this unique patient population.

REAL-LIFE IMPLICATIONS: Previous evidence suggests that the presence and continuity of insurance contributes substantively to receipt of timely medical care. As policymakers debate expanding or repealing the ACA, the impact of the popular DCP on improved insurance continuity for oncology patients should be taken into consideration. As practicing oncologists, we can make our DCP-eligible patients aware of the provision, which provides the option for insurance coverage through their parents up to age 26 years. With unemployment markedly increased because of the economic fallout of a worldwide pandemic, many young adults are losing their employer-based health insurance; the DCP provides a mechanism for them to maintain access to health care through their parents' insurance.

ASSOCIATED CONTENT

Data Supplement

Author affiliations and disclosures are available with the complete article at ascopubs.org/journal/op.

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original contributions

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PURPOSE The 2010 Dependent Coverage Provision (DCP) of the Affordable Care Act (ACA) allowed enrollees to remain on their parents' health insurance until 26 years of age. We compared rates of insurance disenrollment among patients with cancer who were DCP-eligible at age 19 to those who were not eligible at age 19.

METHODS Using OptumLabs Data Warehouse, which contains longitudinal, real-world, de-identified administrative claims for commercial enrollees, we examined patients born between 1982 and 1993 and diagnosed with cancer between 2000 and 2015. In the recent cohort, patients who turned 19 in 2010-2012 (DCP-eligible to stay on parents' insurance) were matched to patients who turned 19 in 2007-2009 (not DCP-eligible when turning 19). In an earlier control cohort, patients who turned 19 between 2004 and 2006 (not DCP-eligible) were matched to patients who turned 19 between 2001 and 2003 (not DCP-eligible). Patients were matched on cancer type, diagnosis date, demographics, and treatment characteristics. The time to loss of coverage was estimated using Cox models. Difference-in-difference between the recent and earlier cohorts was also evaluated.

RESULTS A total of 2,829 patients who turned 19 years of age in 2010-2012 were matched to patients who turned 19 in 2007-2009. Median time to disenrollment was 26 months for younger patients versus 22 months for older patients (hazard ratio [HR], 0.85; 95% CI, 0.80 to 0.90; P=.001). In 8,978 patients who turned 19 between 2001 and 2006, median time to disenrollment was 20 months among both younger and older patients (HR, 0.99; 95% CI, 0.94 to 1.03; P=.59). The difference between the recent cohort and the earlier control cohort was a 15% greater reduction in coverage loss (P<.0001), favoring those turning 19 after the DCP went into effect.

CONCLUSION In the vulnerable population of adolescent and young adult cancer survivors, the ACA may have lowered the insurance dropout rate.

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INTRODUCTION

The Affordable Care Act (ACA) is the most far-reaching effort to improve access to care since the enactment of Medicare and Medicaid in 1965. The Dependent Coverage Provision (DCP), which went into effect on September 23, 2010, allowed young adults to remain on their parents' health insurance plans until 26 years of age. The ACA has been shown to improve access to care, reduce delays in care among young adults with medical problems, and improve detection of early-stage cervical cancer.

Cancer survivors are more likely to report delayed care, forgone medical care, or inability to afford medications/ health care services than the general population.³

Greater than 25% of young adults with cancer experience some period of no insurance coverage within 35 months of diagnosis. These disruptions in insurance can lead to delays in care and the decision to forgo needed care altogether. A study using SEER data demonstrated increased insurance rates among 18- to 25-year-old cancer survivors after the enactment of the DCP.

The objective of this study was to evaluate the impact of the recent ACA policy change on privately insured adolescent and young adult patients with cancer. A better appreciation of the impact of the ACA's DCP on insurance continuity for oncology patients will inform policy decisions about ongoing implementation, particularly for the vulnerable adolescent and young adult

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population. Our approach was to compare insurance continuity among 18- to 25-year-old patients with a diagnosis of cancer by matching those eligible for the DCP to those not eligible for the DCP. We hypothesized that patients eligible for the DCP at the time they turn 19 disenroll less frequently and have longer continuous enrollment after the DCP compared with before the DCP.

METHODS

Study Population

We were granted access to the OptumLabs Data Warehouse (OLDW; Cambridge, MA), which contains deidentified administrative claims data for a large population of geographically diverse, commercially insured enrollees. The database contains longitudinal health information, including medical and pharmacy claims, laboratory results, and enrollment records for enrollees, representing a diverse mixture of ages, ethnicities, and geographic regions across the United States, with greatest proportions of members in the Midwest and South regions. Because this study involved analysis of preexisting, deidentified data, and no identifiable protected health information was extracted, it was deemed exempt from review by the Children's Hospital of Philadelphia's Institutional Review Board.

We selected patients born in 1982 or later, who had a valid International Classification of Diseases (9th edition; ICD-9) diagnosis codes for a cancer of interest between January 1, 2000, and October 1, 2015. Cancers of interest included Hodgkin lymphoma, non-Hodgkin lymphoma, acute lymphoblastic leukemia, acute myeloid leukemia, thyroid cancer, germ cell tumor, soft tissue sarcoma, bone tumors, or CNS tumors because they represent the most common cancers occurring among adolescent patients.⁷ Patients were also required to have at least 30 days of continuous insurance enrollment at the time of diagnosis for study inclusion. See the Data Supplement (online only) for ICD-9 codes of interest and for the diagnosis assignment algorithm. To find clinically similar patients, we also defined their treatment method (chemotherapy, radiation, or surgery, as well as combinations; the Data Supplement describes the treatment codes used).

Matching Methods

To measure the impact of the DCP, we defined cohorts of patients who had differential levels of exposure to the ACA. We defined a recent cohort, in which we matched older patients born in 1988-1990 to younger patients born in 1991-1993. Although the older patients in the recent cohort would not have been protected by the ACA when they turned 19 years of age in 2007-2009, the younger patients did have the ACA protection when they turned 19 in 2010-2012. As a control, we then defined an earlier cohort, in which we matched older patients born in 1982-1984 to younger patients born in 1985-1987. Neither of these

groups experienced the protection of the ACA when they turned 19 in 2001-2003 or 2004-2006, respectively, and thus the earlier era served as a control time period (as shown in the Data Supplement).

Within each era, we matched younger to older patients who were born between 1 and 3 years apart but who were diagnosed with cancer on similar dates. We required pairs of patients to have dates of diagnosis within 12 months of each other. The Mahalanobis distance is a distance formula between two patients that can take into consideration many matching variables simultaneously, weighting each squared difference by a function of the variancecovariance matrix between these matching variables.^{8,9} We used the robust version of this distance that is based on ranks. We minimized the Mahalanobis distance between the precise dates of diagnosis. Patients were matched exactly on principal cancer diagnosis, and a Mahalanobis distance was used to pair patients based on their race/ethnicity, sex, and treatment type. See the Data Supplement for a detailed description of the matching algorithm. Matching was performed without viewing outcomes and was accomplished using rcbalance in R version 3.4.2.^{10,11}

In a stability analysis, a second set of matches was performed in which patients were matched more closely on age at the time of diagnosis and less stringently on diagnosis date. The remainder of the matching algorithm was otherwise the same as in the primary analysis. See the Data Supplement for the balance table for the recent and earlier eras in the stability analysis.

Statistical Methods

Kaplan-Meier curves displaying the probability of losing coverage over a 5 year-period were constructed for the matched datasets (Fig 1).¹² Cox proportional hazards models were performed within each era examining the relationship between time until loss of coverage and age (younger versus older patients) while controlling for matched covariates (race/ethnicity, sex, age, and treatment type).¹³ A Cox proportional hazards model¹³ was also performed across eras, examining the relationship between time until loss of coverage and an interaction term between era and age (younger versus older patients), while controlling for matched covariates, representing a difference-in-difference analysis.

Examining Matches and Comparing Outcomes

For each variable, we computed standardized differences, which is the difference in means between the younger and older patients as a proportion of the variable's standard deviation before matching. An informal standard is to attain standardized differences below 0.2, although we aimed to keep all standardized differences $<0.1.^9$ We also examined the balance of the matches using group randomization tests, comparing the balance achieved with matching to the expected balance from

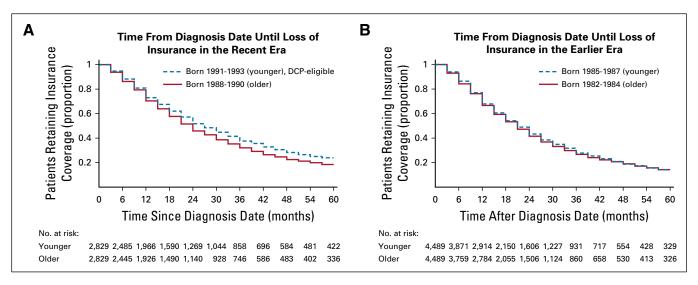


FIG 1. Kaplan-Meier curves of health insurance coverage. The recent era match compared younger and older patients born in 1988-1990 and 1991-1993 respectively, in with only the younger patients had protection from the ACA upon turning 19, and a difference is observed (P < 0.0001). The earlier era match compares younger and older patients born in 1982-84 and 1985-87 respectively, neither of whom had protections against insurance loss from the ACA when they turned 19, and no difference is seen (P = 0.59).

randomization. The Fisher's exact test was used for binary variables, whereas the Wilcoxon rank sum test was used for continuous variables.

The primary outcome was time from cancer diagnosis until loss of insurance. Loss of insurance was defined a priori as at least a 90-day gap in coverage, operationalized by evaluating coverage end dates (and any subsequent start dates). Within each era, we examined the hazard for losing coverage for the younger patient relative to the older one. The hazard ratios from the recent and earlier eras were compared using a Cox model.

RESULTS

Quality and Characteristics of the Matches

The balance of matching variables in the earlier and recent era matches is shown in Table 1. As intended, the groups within each era differed in their mean age at diagnosis by 1 to 3 years. The younger and older patients in each pair did not have any other important differences in diagnosis, treatment modality, race/ethnicity, sex, or year as all standardized differences were < 0.1 after matching. For the earlier era, 90 (2%) of patients were unable to be matched and for the recent era, 184 (6%) of patients were unable to be matched. These patients were not included in the analyses. The overall study population was 50% female, 70% White non-Hispanic, 12% Hispanic, 7% Black, and 3% Asian. Twenty-eight percent had a household income > \$100,000 and 10% had a household income < \$40,000; notably, income was unknown in one third of our cohort. Median follow-up time from diagnosis was 24 months.

Continuity of Insurance

In the 2,829 patients who turned 19 years of age in 2010-2012 (and were thus eligible for the DCP at the time they turned 19), median time to disenrollment was 26 months compared with 22 months among patients who turned 19 in 2007-2009 (Table 2). Thus, the risk of disenrollment was reduced by 15% (hazard ratio [HR] 0.85; 95% CI, 0.80 to 0.90; P < .0001) among the younger patients in the pairs for the recent era. Younger patients were more likely to retain insurance coverage over 4 years compared with older patients (37% v 31%; P < .0001) as shown in the Data Supplement. Among the more than 60% who disenrolled, approximately 15% eventually re-enrolled in a commercial health plan within the OLDW.

In the 8,978 patients who turned 19 between 2001 and 2006, median time to disenrollment was 20 months among both the younger and older patients in the pair. The risk of disenrollment was not significantly different (HR, 0.99; 95% CI, 0.94 to 1.03; P=.59) between the younger and older patients in the earlier era (before exposure to the ACA), as shown in Table 2. There was no significant difference between younger and older patients in the proportion of patients who retained insurance coverage within 4 years in the earlier era (30% v 31%; P=.23); Data Supplement).

The difference-in-difference analysis between the recent and earlier eras demonstrated a decrease in disenrollment (HR, 0.85; 95% CI, 0.79 to 0.92; P < .0001; Table 2), favoring those who turned 19 after the DCP was enacted. In both the recent and earlier eras, Hispanic and Black patients were 9%-14% more likely to disenroll relative to the White non-Hispanic population.

TABLE 1. Balance of Earlier and Recent Matches

Januari de di Lan	Recent Era					Earlier Era				
Covariate	Younger After Matching (n = 2,829; %)	Older After Matching (%)	Standard Difference Before Matching	Standard Difference After Matching	<i>P</i> After Matching	Younger After Matching (n = 4,489; %)	Older After Matching (%)	Standard Difference Before Matching	Standard Difference After Matching	<i>P</i> After Matching
Mean age at diagnosis, years	16.4	19.0	-0.54	-0.40	.04	23.1	24.6	-0.50	-0.24	.12
Demographics										
Mean year of diagnosis	2008.7	2008.6	-0.09	0.02	.08	2009.5	2008.1	-0.02	0.22	.13
White non-Hispanic	69.9	71.4	0.00	-0.02	.24	69.4	67.5	0.02	0.03	.06
Hispanic	10.6	9.9	-0.01	0.02	.43	12.1	10.9	0.01	0.03	.07
Black	7.4	6.1	0.01	0.04	.06	7.3	6.9	0.00	0.01	.46
Asian	3.1	2.8	0.00	0.01	.53	3.4	3.6	-0.03	-0.01	.73
Unknown race/ ethnicity	9.0	9.9	0.00	-0.02	.30	7.7	11.1	-0.03	-0.08	.00
Female	46.7	47.3	-0.02	-0.01	.67	50.2	51.4	-0.02	-0.01	.43
Male	52.2	51.4	0.02	0.01	.58	48.6	47.5	0.03	0.01	.33
Treatment variables										
Any chemotherapy	52.9	49.5	0.09	0.05	.01	41.9	41.4	0.03	0.01	.64
Any radiation	22.8	23.3	-0.01	-0.01	.64	22.9	22.8	0.01	0.00	.90
Any surgery	20.0	19.4	-0.02	0.01	.59	20.3	22.1	0.00	-0.03	.04
Chemotherapy or radiation or surgery	64.4	61.1	0.06	0.05	.01	57.5	57.5	0.02	0.00	.98
Chemotherapy and radiation and surgery	5.9	6.6	-0.01	-0.02	.32	4.9	5.4	0.01	-0.02	.29
Chemotherapy and radiation	17.4	17.5	0.02	0.00	.94	14.2	13.6	0.03	0.01	.45
Chemotherapy and surgery	11.5	11.3	-0.01	0.00	.87	9.7	10.9	0.00	-0.03	.09
Radiation and surgery	8.3	8.9	-0.03	-0.02	.39	8.6	9.8	-0.02	-0.03	.06
Cancer diagnoses										
CNS tumor	21.1	21.1	0.07	0.00	1.00	13.4	13.4	0.07	0.00	1.00
Hodgkin lymphoma	11.6	11.6	-0.04	0.00	1.00	14.2	14.2	0.00	0.00	1.00
Non-Hodgkin lymphoma	10.9	10.9	0.01	0.00	1.00	10.9	10.9	-0.01	0.00	1.00
Germ cell tumor	8.8	8.8	-0.14	0.00	1.00	18.6	18.6	-0.04	0.00	1.00
Thyroid cancer	10.4	10.4	-0.11	0.00	1.00	19.8	19.8	-0.10	0.00	1.00
Acute lymphoblastic leukemia	16.2	16.2	0.13	0.00	1.00	6.0	6.0	0.09	0.00	1.00
Acute myeloid leukemia	6.5	6.5	0.01	0.00	1.00	6.1	6.1	0.02	0.00	1.00
Soft-tissue sarcoma	6.2	6.2	0.01	0.00	1.00	5.4	5.4	0.02	0.00	1.00
Bone tumor	8.3	8.3	0.02	0.00	1.00	5.5	5.5	0.05	0.00	1.00

NOTE. The earlier era match compared younger and older patients born in 1982-1984 and 1985-1987, respectively, neither of whom had protections against insurance loss from the Affordable Care Act (ACA) when they turned 19. The recent era match compared younger and older patients born in 1988-1990 and 1991-1993, respectively, in which only the younger patients had protection from the ACA on turning 19. Notably, age at diagnosis was different between the younger and older patients by design. The younger and older patients in each pair did not have any other important differences as all standardized differences are below 0.1 after matching.

TABLE 2. Hazard Ratio for the Younger Patient Losing Health Insurance Coverage Relative to the Older Patient Within Each Era

Median Time Until Cover Loss, months (95% CI)

Match Era	No.	Hazard Ratio (95% CI)	P	Younger	Older
Recent era	5,658	0.85 (0.80 to 0.90)	< .0001	26 (24 to 28)	22 (21 to 23)
Earlier era	8,978	0.99 (0.94 to 1.04)	.592	20 (20 to 22)	20 (19 to 21)
Difference-in-difference	14,636	0.85 (0.79 to 0.92)	< .0001		

NOTE. The earlier era match compared younger and older patients born in 1982-1984 and 1985-1987, respectively, neither of whom had protections against insurance loss from the Affordable Care Act (ACA) when they turned 19 years of age. The recent era match compared younger and older patients born in 1988-1990 and 1991-1993, respectively, with only the younger patients having protection from the ACA on turning 19 years of age. The hazard ratios showed reduced hazard of losing coverage for the younger patients in the recent era who were eligible for the Dependent Care Provision (P < .0001).

Stability Analysis

In stability analyses, in which we matched patients to ensure they were born within a year of one another, the risk of disenrollment remained lower (HR, 0.91; 95% CI, 0.85 to 0.96; P=.001) among the younger patients (ν older patients) in the pairs for the recent era, whereas the risk of disenrollment was not significantly different (HR, 1.03; 95% CI, 0.98 to 1.08; P=.20) between the younger and older patients in the earlier era as shown in the Data Supplement. The difference-in-difference between the recent and earlier eras in the stability analysis was consistent with the findings from the primary analysis, demonstrating a 15% decrease in disenrollment (HR, 0.85; 95% CI, 0.78 to 0.91; P=.0002), as shown in the Data Supplement, once again favoring those who turned 19 after the DCP was enacted.

DISCUSSION

The ACA was associated with increased continuity of enrollment in private insurance among adolescent and young adult patients with a history of cancer in our study. Although previous studies have demonstrated improved uptake of private insurance among young adults after enactment of the ACA with more than 3 million young adults gaining health insurance coverage, ¹⁴ to our knowledge, this is the first study to evaluate the impact of the ACA on disruptions and discontinuity in insurance in the pediatric and young adult oncology population. Not only did we find that the ACA was associated with increased duration of insurance continuity, but that insurance loss was less frequent among those who were eligible for the DCP.

As more children and adolescents with cancer are cured, the population of adolescent and young adult cancer survivors has grown, now representing one in 530 young adults between the ages of 20 and 39. Three quarters of long-term cancer survivors develop a chronic medical condition, and more than one third suffer from a severe or life-threatening condition, and more pressing. However, patients with cancer and survivors experience ongoing disability, loss of

work, and trouble obtaining affordable health insurance. Similarly, patients with cancer and survivors experience ongoing loss of income and financial burden related to their medical issues.¹⁷ Moreover, younger cancer survivors, those who have changed employment because of cancer, and those who are uninsured are more likely to report financial hardship, underscoring the importance of avoiding gaps in insurance coverage.¹⁷

Insurance churn is a well-described phenomenon, particularly among patients with Medicaid. 18 Brief gaps in Medicaid coverage can disrupt continuity and have harmful consequences, including unnecessary emergency department visits and admissions. 19,20 Patients with cancer have a variety of reasons they experience gaps in insurance coverage, in particular, taking a leave from school or work because of their illness or treatment. Before the ACA, young adults were no longer eligible to stay on their parents' employer-based health insurance plans at the age of 19 years or on graduation from college. Of note, on January 1, 2014, the ACA's provisions requiring guaranteed issue and renewability of coverage and preventing exclusion of those with preexisting medical conditions went into effect. These provisions, along with the Medicaid expansion, are particularly important given the greater difficulty obtaining insurance coverage and higher rates of being denied insurance coverage observed among cancer survivors historically. 21,22 Although our study design was meant to ensure our findings are largely driven by the DCP (because patients were matched on year of diagnosis), other components of the ACA and the macroeconomic environment (such as the Great Recession, which occurred between December 2007 and June 2009) may also have affected our findings related to insurance continuity.

Additional studies are required to determine how the improvement in insurance continuity we have demonstrated affects receipt of care. The ACA has previously been shown to increase the percentage of young adults seeking routine care. ²³ Data suggest reductions in the uninsured population after the DCP were also associated with significant reductions in perforated appendix rates, suggesting that the

insurance expansion led to fewer delays in seeking and accessing care.²⁴ However, the impact of the DCP on cancer care has not been investigated outside the setting of cervical and colon cancers.^{25,26} Previous studies have shown that having insurance increases the likelihood of childhood cancer survivors receiving outpatient care, including from specialty care physicians.²⁷ Notably, in one recent report, 27% of uninsured survivors received no outpatient health care over the course of a year.²⁷ Another study showed that approximately half of uninsured pediatric cancer survivors skipped or postponed medical care because of excess worry related to the cost of care.²² Uninsured cancer survivors are also more likely to forgo a needed medical test or not fill a prescription than their insured counterparts.²² Even among insured cancer survivors, there are increased rates of delayed care, forgone medical care, and/or inability to afford medications and health care services compared with adults without a history of cancer.³ Importantly, Nipp et al³ showed a decreasing proportion of cancer survivors reporting these concerns in more recent years, coinciding with implementation of the ACA.

Before the DCP, lower-income cancer survivors were more likely to report difficulties with health care affordability and access.3 A recent study suggests that the DCP increased disparities among young adults with cancer by increasing private insurance among middle- and high-income non-Hispanic White patients, but not among Hispanic patients.²⁸ Similarly, a study of trauma patients showed that racial disparities in insurance coverage widened after implementation of the DCP.^{29,30} It is interesting to consider our finding that the rates of disenrollment among minority patients relative to non-Hispanic White patients did not significantly change between the two eras in the context of these other studies. These previous studies evaluated the rate of new insurance enrollments; in contrast, our study cohort included patients who were already privately insured and evaluated loss of insurance. Thus, among patients who are currently insured, observed existing disparities were not significantly affected by the ACA, but persisted despite the ACA.

Although this study adds insight into the impact of the ACA on adolescents and young adults with childhood cancer, there are several limitations. Despite our difference-in-difference approach, it is difficult to definitively determine

that the improvements in insurance continuity among eligible patients are solely attributable to the DCP of the ACA. Importantly, when patients disenrolled from this large private insurance database, they may have enrolled in other private insurance, enrolled in Medicaid, become uninsured, or died. We did not directly evaluate whether adolescents and young adults with cancer were enrolled through their parents or alone, nor was the reason for disenrollment available in our administrative dataset; however, our study design, by matching patient diagnosis date within the same year, ensures that changes in the macroeconomic environment should not differentially influence our results. The patients contained in the OLDW represent patients with employer-based health insurance with skewing toward White and wealthier patients, thus limiting the generalizability to patients with cancer who obtain insurance via other means. It is possible, but unlikely, that the DCP of the ACA may affect insurance continuity differently in employer-provided health plans not represented in the OLDW. Furthermore, although we matched patients closely on available claims data, we lacked biologic details about cancer stage, grade, and/or risk categories, and thus, patients could not be matched on these important factors.

In conclusion, adolescent and young adult cancer survivors are a uniquely vulnerable population that has distinctive health care needs, making access to timely care essential for this group. Evidence suggests that the presence and continuity of insurance contributes substantively to receipt of medical care. Our data demonstrated that more recently, young adults with cancer were less likely to disenroll from their current private insurance than previously, and this may be in part due to the ACA. Particularly in a time where unemployment is increasing to unprecedented levels and many are losing their employer-based health insurance, the ACA provides a mechanism for young adults to maintain access to health care through their parents' insurance (if their parents are able to continue their employment). As policymakers continue to consider the best approach to reforming our health care system and some advocate for repeal of the ACA, the key implications of our study should be considered in attempting to improve care, particularly for adolescents and young adults with underlying lifethreatening conditions.

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AUTHOR'S DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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AUTHOR CONTRIBUTIONS

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Alvarez, Jill P. Ginsberg, Jeffrey H. Silber Financial support: Jeffrey H. Silber Administrative support: Jeffrey H. Silber

Provision of study materials or patients: Jeffrey H. Silber

Collection and assembly of data: Lena E. Winestone, Lauren L. Hochman, James E. Sharpe, Laura Becker, Jill P. Ginsberg, Jeffrey H. Silber Data analysis and interpretation: Lena E. Winestone, Lauren L. Hochman, James E. Sharpe, Eric J. Chow, Joseph G. Reiter, Jill P. Ginsberg, Jeffrey H. Silber

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Impact of Dependent Coverage Provision of the Affordable Care Act on Insurance Continuity for Adolescents and Young Adults With Cancer

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Open Payments is a public database containing information reported by companies about payments made to US-licensed physicians (Open Payments).

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