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Reductions In Hospitalizations Among Children Referred To A Primary Care–Based Medical-Legal Partnership

ABSTRACT Medical-legal partnerships integrate legal advocates into health care settings to address health-related social needs. However, their effect on health outcomes is unclear. This retrospective cohort study examined the effect of referral to a medical-legal partnership on hospitalization rates among urban, low-income children in Greater Cincinnati, Ohio, between 2012 and 2017. We compared 2,203 children referred to a pediatric primary care–based medical-legal partnership with 100 randomly selected control cohorts drawn from 34,235 children seen concurrently but not referred. We found that the median predicted hospitalization rate for children in the year after referral was 37.9 percent lower if children received the legal intervention than if they did not. We suspect that this decrease in hospitalizations was driven by the ability of legal advocates to address acute legal needs (for example, threat of eviction and public benefit denial) and, when possible, to confront root causes of ill health (for example, unhealthy housing conditions). Interventions such as those provided through a medical-legal partnership may be important components of integrated, value-based service delivery models.

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Child health is affected by socioeconomic and environmental factors rooted in poverty. Health-related social needs, such as housing instability, adverse living conditions, and food and income insecurity, widen equity gaps across conditions. In urban pediatric primary care settings, health-related social needs are common.[1–3] Their early detection and mitigation in primary care are increasingly recommended, but there are few interventions that demonstrably ameliorate social needs and improve health outcomes.[4–8]

Many socioeconomic and environmental threats to health are common to low-income families and are amenable to legal remedies.[9] Legal advocates working with health care teams through medical-legal partnerships facilitate the provision of legal services to vulnerable families.[10–13] For example, advocates could compel a landlord to remove mold, pests, and other allergy triggers from the home. They could similarly help a family overcome inappropriate denials of public benefits or facilitate appropriate implementation of an Individualized Education Program at school. Through such services, families referred to medical-legal partnerships may experience an increase in access to healthy housing, food, income, and educational resources. Medical-legal partnerships may also enable more use of preventive services and less family stress.[14–21] Thus, medical-legal partnerships, by providing a mechanism that removes triggers and mitigates health-related social needs, could directly improve health outcomes by enhancing preventive care access. They could also indirectly improve health outcomes by easing worries over household priorities that compete with preventive treatments (for example, filling or using asthma controller medications).[22] Although direct bridging support for social needs in pediatric care has a role (for example, an in-clinic food pantry), legal partnerships are unique in their attempt to remedy health-related social needs' underlying causes.

Approximately 50 percent of all low-to-moderate-income households are estimated to have at least one unrecognized legal need and, therefore, stand to benefit from legal advocacy.[23–25] To our knowledge, however, medical-legal partnerships have never been explicitly linked to decreased acute health care use. We hypothesized that referrals to a pediatric primary care–based medical-legal partnership would be significantly associated with decreased hospitalizations. If the partnerships demonstrated reductions in costly health care use, payers such as Medicaid may consider reimbursing for legal aid services.

Study Data And Methods

STUDY DESIGN A retrospective cohort study evaluated the Cincinnati Child Health-Law Partnership (Child HeLP), a medical-legal partnership embedded within Cincinnati Children's Hospital Medical Center primary care centers, comparing referred children with matched controls seen concurrently but not referred. Child HeLP, launched in 2008, receives referrals from all Cincinnati Children's Hospital Medical Center primary care sites.[13,18,24] We included data for children referred between July 1, 2012, and June 30, 2017, matched to others seen at these sites during the same period. Outcome data were drawn from July 1, 2011, through June 30, 2018, to ensure that each child had twelve months of both prereferral (or matched visit) "before" time and follow-up "after" time. This study was approved by the Cincinnati Children's Hospital Medical Center Institutional Review Board.

SETTING There are three Cincinnati Children's Hospital Medical Center primary care centers and three school-based health centers managed within a single clinical division, with common staffing and care protocols. The first site is located on the main hospital campus. A second is in an impoverished urban neighborhood. The third is in a suburban location. Two school-based sites are at elementary schools, and one is at a high school. Across all sites, more than 30,000 patients receive primary care annually. More than 80 percent are covered by Medicaid, which is managed in Ohio by multiple managed care organizations. Care is delivered by attending pediatricians, nurse practitioners, resident physicians, medical students, nurses, medical assistants, and social workers. Legal services are provided by attorneys and paralegals from the Legal Aid Society of Greater Cincinnati, a law firm that assists low-income residents of seven Southwest Ohio counties. Legal advocates are colocated at the main primary care site and are available for telephone consultation when off site. Any income-eligible Cincinnati Children's Hospital Medical Center primary care patient from Ohio is eligible for a Child HeLP referral. Each year, approximately 3 percent of children cared for across sites are referred to Child HeLP.

REFERRAL PROCESS Health-related social needs are identified via a standardized social history or parents' self-disclosure of needs during clinical encounters.[26] Clinicians and legal advocates codeveloped an algorithm to guide team members on what needs are amenable to legal intervention (for example, eviction threat and public benefit denial or delay). If such needs are identified, the clinician discusses the possibility of a Child HeLP referral with the child's parent or guardian. If the parent or guardian consents to referral and sharing of protected health and legal information, the referral is entered into the electronic health record (EHR) as an order. This autogenerates an email notification to the Child HeLP team, prompting them to engage with the family.

Legal advocates then discuss identified needs with the family. The resulting intensity of the intervention undertaken by the legal advocate can vary. The advocate can share self-help materials or other legal advice ("low dose"), provide direct representation in cases that end up in court ("high dose"), or something in between. The length of engagement is driven by representation needed and family desire.[18]

INCLUSION AND EXCLUSION CRITERIA The intervention cohort included all children referred to Child HeLP during the study period. Any child seen concurrently and not referred was potentially eligible for inclusion in the matched cohort. Children were excluded if they had private insurance or missing insurance information and if they lived out of state (the Legal Aid Society was only able to assist children from Ohio). Children younger than twelve months at the time of referral (or matched visit) were also excluded to ensure that children within both cohorts had adequate prereferral (or matched visit) time.

OUTCOME AND EXPOSURE We measured hospitalization events in the twelve months before and the twelve months after each child's index visit. To enable identification and then quantification of hospitalization events, we first identified the date of each child's entry into their cohort, defined as the date of the Child HeLP referral for the intervention cohort and the date of clinic visits for potential controls. We then looked backward by twelve months to quantify prereferral hospitalization events. We looked forward from this date by twelve months to quantify postreferral hospitalization events. Pre- and postreferral hospitalization data were treated in two ways. First, we calculated hospitalization rates for each cohort, measured as the number of hospitalization events per 100 child-years. Second, we calculated the percentage of each cohort experiencing any hospitalization event.

Our exposure variable was the presence or absence of a Child HeLP referral. For descriptive purposes, we obtained legal case type from Child HeLP intake documentation. The most common case types were housing, income and public benefits, and educational concerns. Children can be referred for other reasons (for example, family issues), but these referrals are less common.[18]

ANALYTIC CONSIDERATIONS AND PROCEDURES We pursued an analytic approach designed to minimize bias and take advantage of already-collected information. We used data either that were within or that could be linked to our EHR. We began by reviewing records for all children referred to Child HeLP and those seen concurrently in our clinics during the study period. For each child, we calculated age at the time of visit. Age was categorized in single-year increments (one, two, three, and so on) up to those who were ages 11–12 and age 13 or older. We counted hospitalization events in the twelve months before the relevant visit. Some children, particularly intervention children, had a high number of prior hospitalizations. To keep as many referred children in the matching set as possible, we chose to categorize, for matching purposes, those with zero, one, two, and three or more prior hospitalization events.

We then pursued matching at the child level. We randomly selected one visit for each eligible control child for use in our matching procedures. We matched on age, date plus or minus seven days, and prior hospitalizations. We matched on date given potential changes in clinic practices over time and effects of seasonality. We matched on prior hospitalizations to mitigate the potentially confounding effect on hospitalizations in the subsequent twelve months.

Once a child had a visit selected for use in the control group, that child (and their other visits) was not eligible to be matched with another referred child. However, a referred or intervention child could be matched to multiple controls. Outcomes across the matched controls were averaged, creating a "synthetic control." We did this to limit the bias caused by random selection of a small subset of potential controls.

Because multiple visits from the group of children not referred could be eligible for inclusion in the control group, a single random sample could be subject to selection bias. Therefore, we repeated this cohort accrual process 100 times, constructing 100 unique bootstrap samples, or cohorts, of matched controls.[27] This process enabled 100 trials evaluating the Child HeLP intervention. For each trial, the effective sample size of synthetic controls was, by design, equal to the sample size of referred children. Through this approach, we made sure not to artificially inflate statistical significance.

Although matching on additional clinical and demographic characteristics would have optimized the comparability of our samples, we found that doing so reduced our sample size. That is, as we attempted to match on more covariates, we became less successful in finding matches. Therefore, we used additional variables in adjusted models. These variables related to sex, race, medical complexity, previous emergency department and clinic visits, and community-level socioeconomic deprivation. Race, in line with predominant clinic demographics, was defined as Black or African American, White, and other. Our clinical setting is not ethnically diverse (less than 5 percent of population), so we did not address ethnicity. Medical complexity was approximated using the Pediatric Medical Complexity Algorithm, placing children into low-, medium-, or high-complexity categories based on EHR-embedded diagnostic codes.[28] We also counted the number of emergency department and clinic visits in the preceding year. To estimate family-level socioeconomic deprivation and highlight the relevance of contextual factors on health outcomes and social needs, we used Health Insurance Portability and Accountability Act (HIPAA)-compliant software[29–31] to geocode and link children to their corresponding census tract and a tract-level socioeconomic deprivation index.[32,33]

STATISTICAL ANALYSES Our primary analyses assessed for differences-in-differences in hospitalization rates between the intervention and control groups. Given the differences in rates of prior hospitalization and other covariates, it was questionable whether the difference-in-differences parallel trends assumption was met. We therefore augmented our difference-in-differences approach, using adjusted, weighted generalized estimating equation Poisson models with a log-link function. This allowed for the estimation of a least square mean along with its 95% confidence intervals for the two cohorts for each of 100 random samples, adjusted for sex, race, medical complexity, clinic site, prior twelve-month emergency department and clinic visits, and community deprivation. We also adjusted for the total preceding hospitalization number on a continuous scale. Secondary analyses repeated these matching and adjustment procedures, using the dichotomized hospitalization outcome (any versus no hospitalization in the twelve months after the index visit) and generalized estimating equation logistic models. Finally, we performed sensitivity analyses assessing just those children without any hospitalization events in the twelve months before referral or matched visit (see the online appendix).[34]

All analyses followed the intention-to-treat principle: Any child referred to Child HeLP was considered treated by the intervention, no matter the intensity (dose) of actions taken by the family and legal advocate or the case type.

The analyses used SAS statistical software, version 9.4.

LIMITATIONS Despite the strengths and rigor of our methods, we acknowledge several limitations. First, we were not able to fully test the difference-in-differences parallel trends assumption, given limitations in our ability to evaluate preintervention trends in hospitalization. We worked to overcome this limitation by matching and adjustment. Future cohorts may allow important alternative analytic approaches to assess the robustness of these findings. Second, we noticed a reduction in hospitalizations in both the intervention and control cohorts in the year after the index visit. We expect this is a result of reduced acute health care use rates as children age. It is also possible that balancing the outcome in the prereferral twelve months may have set us up for reversion to the mean. Attrition is similarly possible, with children potentially seeking care at sites other than our own. As previous studies using our EHR data suggest minimal attrition,[35] and with our matching procedures, we do not expect these potentialities to have introduced differential bias. Third, given that it was not the central aim of the article and that there were insufficient data for adequate exploratory analyses, we could not account for the intensity or heterogeneity of the medical-legal partnership interventions within or across case types with these data. Future efforts to differentiate intervention aspects are warranted. Fourth, we acknowledge that our analyses enabled us to elucidate association and not causation. Finally, these analyses were pursued with data from a single medical-legal partnership located at well-resourced primary care sites within a single state. Replication in other medical-legal partnerships and in cities and states with differing laws and policies is warranted.

Study Results

Between July 1, 2012, and June 30, 2017, 3,235 children were referred to Child HeLP. There were 42,363 children seen concurrently, but not referred to Child HeLP, across 346,677 primary care visits. The accrual of our analytic cohort is described in exhibit 1. Our final analytic sample included 2,203 intervention children who could be matched to 31,009 controls.

The comparison between the two cohorts with respect to key demographic and clinical characteristics is shown in exhibit 2. Those in the intervention cohort were slightly more likely than matched synthetic controls to be Black and of higher medical complexity. Among children who received the Child HeLP intervention, 36.6 percent of them received a referral for a housing

EXHIBIT 1

Accrual of the analytic sample for evaluation of the Cincinnati Child Health-Law Partnership (Child HeLP) from Cincinnati Children's Hospital Medical Center primary care centers, for intervention children and matched controls, 2012–17

Population	Intervention	Control
Baseline population	Children referred to Child HeLP during study period (N = 3,235)	Children seen concurrently in primary care during study period (N = 42,363)
Exclusions	Total exclusions (n = 996) Out-of-state (n = 97) Non-Medicaid or missing insurance information (n = 53) Age <12 months (n = 880) Hospitalized on referral date (n = 5)	Total exclusions (n = 8,128) Out-of-state (n = 1,847) Non-Medicaid or missing insurance information (n = 3,169) Age <12 months (n = 4,406) Hospitalized on visit date (n = 708)
Children eligible for matching	Referred children (n = 2,239)	Nonreferred children(n = 34,235)
Matched children	Intervention children matched to controls (n = 2,203)	Controls matched to intervention children (n = 31,009)

SOURCE Authors' data collection processes and computations. **NOTES** Total exclusions do not represent exact sum of reasons for exclusion because certain children are included in more than one exclusion category. Children referred to Child HeLP (intervention) and matched synthetic controls across the 100 unique trials (bootstrap samples) were matched on age, categorized hospitalizations in previous year, and date of referral or index visit.

EXHIBIT 2

Characteristics of children referred to the Cincinnati Child Health-Law Partnership (intervention) and matched synthetic controls across the 100 unique trials (bootstrap samples)

	Intervention children		Matched control children	
Baseline characteristics	**Mean**	**SD**	**Mean**	**SD**
Age (years)	6.10	0.01	6.15	0.01
Sex (%)				
Male	55.41	0.14	50.92	0.20
Female	44.59	0.14	49.08	0.20
Race (%)				
Black	77.03	0.10	70.53	0.18
White	17.38	0.10	24.05	0.16
Other	5.58	0.06	5.42	0.09
Medical complexity (%)				
Low	45.32	0.12	64.05	0.21
Medium	30.99	0.13	21.09	0.20
High	22.34	0.15	11.64	0.18
Missing	1.35	0.02	3.22	0.04
Medicaid managed care organization (%)				
Caresource	55.98	0.12	55.70	0.19
Ohio Medicaid	16.29	0.10	14.34	0.14
Amerigroup	13.24	0.072	14.41	0.13
Other	14.50	0.089	15.55	0.12
Clinic site (%)				
Main campus	73.50	0.11	56.15	0.19
Urban neighborhood	11.21	0.085	20.88	0.15
Suburban location	14.53	0.083	19.40	0.15
School-based	0.76	0.002	3.57	0.069
No. of hospitalizations in previous 12 months (%)				
0	91.98	0.24	91.98	0.24
1	6.96	0.21	6.96	0.21
2	0.78	0.10	0.78	0.10
3 or more	0.28	0.05	0.28	0.05
No. in previous 12 months:				
ED visits	1.13	0.006	0.90	0.008
Well-child clinic visits	1.53	0.004	1.44	0.006
Ill visits	0.98	0.006	0.88	0.006
Follow-up clinic visits	0.60	0.004	0.38	0.006
Shot-only clinic visits	0.065	0.0007	0.10	0.002
Days between referral or index visit	0.00	0.00	0.027	0.03
Census-tract deprivation index score	0.50	0.0004	0.48	0.0005
Hospitalization rate (per 100 child-years)				
In 12 months before referral or index visit	10.1	0.33	9.7	0.33
In 12 months after referral or index visit	9.2	0.20	9.6	0.33

SOURCE Authors' calculations based on data from Cincinnati Children's Hospital Medical Center primary care centers. **NOTES** Mean and standard deviation calculated from distribution noted over the course of 100 simulated trials. Medical complexity defined using the Pediatric Medical Complexity Algorithm (see Simon TD et al., Pediatric medical complexity algorithm: a new method to stratify children by medical complexity, note 28 in text). Census-tract deprivation was calculated using an established index (see Brokamp C, cole-brokamp/dep index v0.1, note 32 in text; and Brokamp C et al., Material community deprivation and hospital utilization during the first year of life: an urban population-based cohort study, note 33 in text).

risk, 17.9 percent for income-related issues, 16.8 percent for educational concerns, and 28.7 percent for a case classified as "other" (data not shown).

As described above, we randomly selected 100 matched cohorts linking intervention children to children from the pool of eligible controls. If an intervention child could not be matched to a control child in a bootstrapped sample, that child was excluded from that particular analysis, or trial. Across all 100 samples, 2,203 of the 2,239 intervention children (interquartile range: 2,114–2,122) meeting inclusion criteria were able to be matched to controls. We were unable to find any match for just thirty-six otherwise-eligible referred children. These thirty-six children were similar to those who could be matched with respect to age, sex, race, preceding emergency and clinic visits, and community deprivation. They were, however, more likely to be medically complex and to have experienced more hospitalization events in the preceding twelve months.

In the twelve months before referral, the unadjusted hospitalization rate for those in the intervention cohort was 10.1 ±0.33 hospitalizations per 100 child-years (data not shown). The mean hospitalization rate for children who did not receive a referral but were included in the 100 matched cohorts was 9.7 ±0.33 hospitalizations per 100 child-years. In the twelve months after referral, the hospitalization rates were 9.2 ±0.20 and 9.6 ±0.33 per 100 child-years for the intervention cohort and the control cohorts, respectively. The unadjusted, paired pre-post difference in hospitalization rates was −0.84 ±0.03 for the intervention cohort and −0.09 ±0.04 for the matched control cohort. This unadjusted difference-in-differences analysis suggests that there were 0.73 fewer hospitalizations per 100 child-years as a result of the intervention.

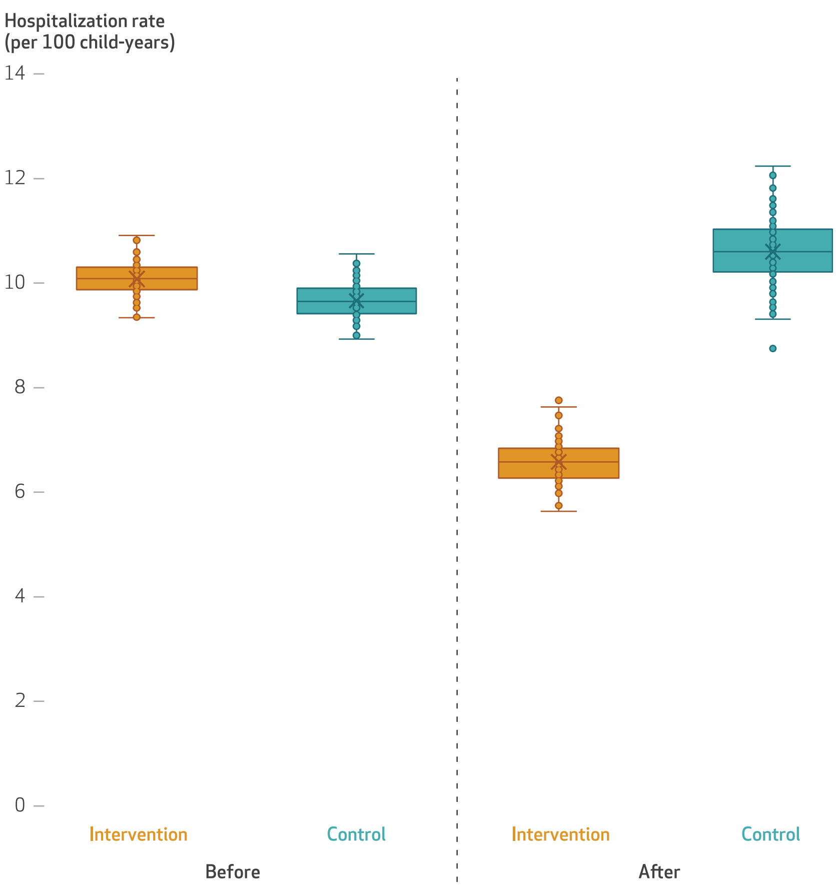
Given the differences between the intervention and control groups in medical complexity and baseline utilization, as well as our inability to ensure parallel preintervention trends, we proceeded to adjusted generalized estimating equation Poisson models. Across the 100 trials, we estimated (or predicted) hospitalization rates per 100 child-years in the twelve months after the index visit. For these adjusted analyses, the prereferral rate (for both groups) was 10.0 hospitalizations per 100 child-years. The median postreferral rate across all 100 trials was estimated to be 6.6 hospitalizations per 100 child-years (IQR: 6.3–6.8) if all children had received the intervention (exhibit 3). This stands in contrast to the estimated rate of 10.6 (IQR: 10.2–11.0) per 100 child-years had no one received intervention. Thus, the intervention was associated with a median postreferral hospitalization rate that was 62.1 percent (IQR: 60.5–63.4) of what would have been expected had no intervention taken place, across all 100 trials. This equates to 37.9 percent fewer hospitalizations occurring among those receiving the intervention. Analyses of all 100 trials detected similar, statistically significant effects (maximum $p = 0.0010$).

Our findings were similar when we treated hospitalization as a dichotomous yes-or-no variable. In the prereferral period, 8.0 percent of both intervention and control children had at least one hospitalization. With the adjusted generalized estimating equation logistic modeling approach, across the 100 samples, a median of 5.0 percent (IQR: 4.8–5.1) of intervention children and 6.2 percent (IQR: 6.1–6.4) of matched controls experienced a hospitalization in the postreferral period (exhibit 4). In aggregate, the odds of having any hospitalization in the subsequent twelve months were significantly lower with the intervention than without the intervention (median odds ratio: 0.78; IQR: 0.76–0.80).

Our sensitivity analyses, including just those with zero hospitalizations in the prereferral period, did not substantively change our results (see the appendix).[34]

EXHIBIT 3

Distribution of estimates of 12-month hospitalization rates per 100 child-years from before to after intervention (or matched visit) for intervention and synthetic matched controls over all 100 trials, evaluation of the Cincinnati Child Health-Law Partnership



SOURCE Authors' calculations based on data from Cincinnati Children's Hospital Medical Center primary care centers. **NOTES** Analyses were adjusted for sex; race; medical complexity; clinic site; preceding number of hospitalizations; emergency department, well-child, ill, follow-up, and shot-only clinic visits; and community deprivation. The hospitalization rates are calculated from the adjusted generalized estimating equations Poisson models. The presented box plots provide least squares mean estimates with 95% confidence intervals.

Discussion

In 1848 Rudolf Virchow noted that "the physician is the natural attorney of the poor."[36] He went on to highlight his belief in the social origins of disease and the idea that physicians must advocate for both patients and populations. Medical-legal partnerships such as Child HeLP link physicians and other medical professionals to the true "attorneys of the poor"—legal aid advocates working to address social needs amenable to legal remedies. We found that a referral to Child HeLP resulted in a significantly greater reduction in hospitalizations in the year after referral than what would have occurred had no referral taken place. To our knowledge, this is the first time that this type of intervention—a medical-legal partnership or analogous clinical-community partnership—has been linked to a reduction in acute care use. This finding has implications for upstream interventions, clinical care, and financing.

Previous interventions that addressed social needs have demonstrated an effect on mitigation of those needs (for example, housing intervention resulting in improved housing conditions).[1] It has been more challenging, however, to see a measurable effect of upstream action on downstream health outcomes. This has been true in our own data. We previously described the high-risk nature of children referred to Child HeLP (for example, elevated rates of asthma and developmental delays). We also enumerated the positive legal outcomes experienced by those referred, surmising downstream effects on health outcomes.[18] More recent studies of other social needs interventions have generally used patient-reported outcomes such as perceived or parent-reported improvements in a child's health.[6] Although such outcomes are undeniably meaningful, we see our findings of decreased hospitalizations as complementary, pairing perceived health improvements with reductions in experienced morbidity.

The potential for improvements in health via social needs interventions has implications for clinical care delivery. The American Academy of Pediatrics recommends routine social needs screening and, when possible, implementation of integrated needs-focused programs.[37] Medical-legal partnership is one such integrated program, bringing the expertise of legal advocates into the clinical environment. We suspect that the decrease in hospitalizations identified in our analyses was driven by the ability of advocates to address acute needs or challenges (for example, threat of eviction) and, when possible, to confront root causes of ill health (for example, unstable or unhealthy housing, adverse exposures, and competing priorities).[22,38,39] Comparative effectiveness trials of social interventions versus medical interventions, or in combination with medical interventions, would be an interesting line of future inquiry.

EXHIBIT 4

Distribution of estimates of percent of children experiencing a hospitalization from before to after intervention (or matched visit) for intervention and synthetic matched controls over all 100 bootstrap samples, evaluation of the Cincinnati Child Health-Law Partnership

SOURCE Authors' calculations based on data from Cincinnati Children's Hospital Medical Center primary care centers. **NOTES** Analyses were adjusted for sex; race; medical complexity; clinic site; preceding number of hospitalizations; emergency department, well-child, ill, follow-up, and shot-only clinic visits; and community deprivation. The hospitalization percentages are calculated from the adjusted generalized estimating equations logistic models. The presented box plots provide least squares mean estimates with 95% confidence intervals.

Medical-legal partnerships may also be complemented by analogous programs similarly poised to address health-related social needs. Food pantries are becoming more common in clinical settings, further illustrating the extended reach of primary care.[40] Medical-financial partnerships connect families to financial coaches, tax preparers, and job assistance programs.[41] Programs such as Health Leads, which involve help desks staffed by volunteers who connect patients to pertinent resources, are able to tackle multiple health-related social needs, similar to medical-legal partnerships.[6] Some such programs may be poised to respond in emergencies (for example, by providing a food supply to a hungry family) or solve a challenge at the root of those emergencies (for example, by assisting in job placement). Some may do both. Each of these programs and both responses to emergencies and root causes have merit. The breadth of programs and approaches is also illustrative of how primary care centers are seeking to address patients' needs and promote prevention.[2,3,42,43] Future study should seek to delineate differential effects across programs and approaches, or additive effects when combined.

The potential for interventions such as medical-legal partnerships to reduce preventable acute care use has important financing implications. Many traditional fee-for-service payment models are transitioning to a focus on value, incentivizing the achievement of better health at lower costs.[44] This could be accelerated by interventions such as Child HeLP.[45] According to recent data from the Healthcare Cost and Utilization Project, the average pediatric nonbirth hospitalization costs $13,400.[46] Given our estimated baseline hospitalization rates of approximately ten events per 100 child-years and our findings of an approximately 38 percent reduction in hospitalization rates through referral, we estimate a savings of approximately $40,000 for every 100 patients referred each year. Given this potential cost savings, future studies, in partnership with payers such as Medicaid managed care organizations, could consider enumerating the more specific return on investment for social needs interventions such as Child HeLP.

An American Academy of Pediatrics policy statement recently articulated the need for "all benefit plans [to] include coverage for enhanced services in the medical home for families in poverty."[37] Cindy Mann and Jennifer Eder highlighted how certain managed care organizations are now navigating this need by financing enhanced care management, transportation supports, and more.[47] The Integrated Care for Kids model, implemented through the Center for Medicare and Medicaid Innovation, is testing whether new care models "can reduce expenditures, improve quality of care, improve health outcomes, and reduce avoidable inpatient stays" for children.[48] Our data suggest that interventions similar to those provided by a medical-legal partnership may be important components of such integrated service delivery.

Conclusion

Children seen in primary care whose families were referred to legal advocates had a significantly greater reduction in hospitalizations in the subsequent year than those who had not been referred. Implementing medical-legal partnerships in health care settings could improve outcomes and bring value to pediatric care. ■

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