

# Legal Needs, Health, and Health Care Utilization Among Patients Participating in the Delaware Medical Legal Partnership

Alexandra M. Mapp, MPH; Christopher Moore, BA; Erin Booker, LPC; Cindy Santiago; Dawn Baker; Alicia L. Salvatore, DrPH, MPH

## ABSTRACT

**Context:** Unmet legal needs can exacerbate health disparities and contribute to a lack of adherence to treatment plans and medical recommendations for care. Medical legal partnerships (MLPs) are integrated health care and legal aid interventions offered by many health systems in the United States. Although much research has been published regarding the success of MLPs with specific patient groups, there is a gap in literature regarding the nature of MLPs in a more general, at-risk patient population.

**Objective:** We aimed to better understand specific patient characteristics and health outcomes associated with different iHELP legal needs.

**Design:** This is a cross-sectional study of patients who were enrolled in the Delaware MLP (DMLP) from November 2018 to June 2020 (N = 212).

**Setting:** The DMLP is a collaboration between ChristianaCare, a Mid-Atlantic health system, and the Community Legal Aid Society, Inc (CLASI).

**Participants:** Patients must be adults (ie, 18 years or older), below 200% of the federal poverty level (eg, ≤\$53 000 for a household of 4 as of 2021), have at least one qualifying legal need, and live in the state.

**Intervention:** The DMLP is designed to address unmet legal needs that fall under a framework called iHELP. iHELP legal domains are income and insurance (i), housing and utilities (H), education and employment (E), legal status (L), and personal and family stability (P).

**Main Outcome Measures:** Outcomes of interest were iHELP legal needs, patient demographics, perceived stress and mental and physical health–related quality of life, comorbidities, and health care utilization.

**Results:** Housing and utilities (46.2%) and income support (41.5%) were the highest reported legal needs. Perceived stress scores were significantly higher for those with income needs ( $P = .01$ ) as well as those with housing and utilities needs ( $P = .01$ ).

**Conclusions:** MLP programs offer a value-added service that can address unmet legal needs in vulnerable, at-risk patients.

**KEY WORDS:** disparities, medical legal, quality of life, social needs, vulnerable populations

**Author Affiliations:** Institute for Research on Equity and Community Health (iREACH) (Ms Mapp and Dr Salvatore) and Office of Health Equity (Mr Moore and Ms Booker, and Dawn Baker), ChristianaCare Health System, Wilmington, Delaware.

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**Correspondence:** Alexandra M. Mapp, MPH, Institute for Research on Equity and Community Health (iREACH), ChristianaCare Health System, 4000 Nexus Dr, Wilmington, DE 19803 ([amapp@christianacare.org](mailto:amapp@christianacare.org)).

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Medical legal partnership (MLP), the integration of legal aid into health care, is a well-recognized intervention designed to address unmet legal needs for low-income and vulnerable patients.<sup>1</sup> MLP has been highlighted by the National Academy of Medicine and the Robert Wood Johnson Foundation, among others, as an important health system intervention for advancing health equity.<sup>2,3</sup> As health systems increasingly embrace social care intervention as a core element of patient care, the number of MLPs across the United States is increasing. Currently, there are an estimated 450 US health systems that offer MLPs.<sup>4</sup> While MLPs differ in terms of structure (eg, legal aid collocated with

health services vs referrals to legal aid) and patient populations served (eg, children and families, pregnant and postpartum women, persons living with HIV and AIDS [PLWH/A], veterans, and the LGBTQ+), addressing health-harming social needs that have civil law remedies is a consistent element of all MLP programs.<sup>5</sup>

Legal needs within the purview of MLP programs are categorized using a framework called iHELP. The framework was established by the National Center for Medical-Legal Partnership to help describe common social, legal, and health needs and is used to screen patients for legal needs.<sup>6</sup> iHELP legal domains are income and insurance (i), housing and utilities (H), education and employment (E), legal status (L), and personal and family stability (P).<sup>1</sup> Issues regarding appeals and denials of food stamps, health insurance, and disability benefits are most common within the income and insurance domain.<sup>7</sup> Identified housing and utilities needs reflect issues related to unsafe, unhealthy, or unstable housing or physical environment such as evictions, housing subsidies, and subpar living conditions.<sup>7</sup> Education and employment legal needs often include employment discrimination, education services, and workplace rights.<sup>7</sup> Asylum and issues with legal documentation, as well as resolution of veteran discharge status, are common legal services within the legal status need.<sup>7</sup> Legal aid within the personal and family stability needs includes issues with guardianship, custody, and adoption, as well as domestic violence.<sup>7</sup>

These legal needs often reflect inequities, systemic barriers, and ongoing gaps in social needs that can result in health disparities, poor adherence to treatment plans, and medical recommendations for care.<sup>8</sup> Patients are often faced with dilemmas with regard to care and shifting priorities when it comes to decisions related to care and competing demands from unmet social needs such as food insecurity, housing, and employment.<sup>9</sup> Understanding the types of unmet legal needs present in patient populations can assist health systems in identifying areas to develop community and population health interventions for patient groups and communities that may be disproportionately affected. Furthermore, elucidating relationships between patients' legal needs and health conditions and health care utilization can help health system and clinical stakeholders to not only better understand the magnitude of patients' legal struggles but also increase support for MLP, policy and enforcement, and other population health strategies to improve patient health.

Most of the literature to date is observational in nature or demonstrative of assessing and addressing legal needs within specific vulnerable populations.

Although these studies provide important insight, it is imperative to contextualize the nature of MLPs within a general population of patients.

Thus, in this study, we examined baseline iHELP legal needs, sociodemographic characteristics, perceived stress, and quality of life and health among patients enrolled in the Delaware MLP (DMLP). This partnership between ChristianaCare, a Mid-Atlantic health system, and the Community Legal Aid Society, Inc (CLASI), aims to address civil legal issues and promote the health and well-being of low-income patients. Our study objective was to better understand specific patient characteristics and health outcomes associated with different iHELP legal needs. In terms of patient health, we examined patient-reported levels of perceived stress, mental and physical health-related quality of life, as well as patients' comorbidities and hospital utilization. Our study included all patients (N = 212) who participated in the MLP from November 2018 to June 2020.

## Methods

### *Description of the MLP*

The DMLP aims to address civil legal issues and promote the health and well-being of low-income ChristianaCare patients. The program does not focus on one particular patient population but rather serves any low-income patients who have qualifying legal needs. Patients who are identified as having 1 or more unmet civil legal needs are primarily referred by physicians, social workers, and Health Guides (patient navigators) in Primary Care, Emergency Medicine, and other service lines and programs throughout the system. The Health Guide screens the referred patients for eligibility, consents eligible and interested patients, and coordinates their referral to and subsequent appointment with the legal aid organization. For those patients, who do not have a qualifying social and/or legal need for the MLP, the Health Guide will provide additional referrals utilizing Unite Delaware, the health systems embedded social prescription platform.<sup>10</sup>

### *Patient eligibility*

To be eligible, patients must be adults (ie, 18 years or older), living below 200% of the federal poverty level (eg, ≤\$53 000 for a household of 4 as of 2021), live in the state, and have at least one qualifying legal need.

### *ChristianaCare*

ChristianaCare is a nonprofit, teaching hospital with a level I trauma center designation. As the largest

private employer in Delaware, ChristianaCare has 3 hospital campuses located in Delaware and 1 in Maryland. ChristianaCare offers primary care and specialty services. In fiscal year 2019, there were 53 121 admissions, 195 602 emergency department (ED) visits, and 255 513 primary care office visits. Two of the 3 main campuses, Wilmington and Newark, are in New Castle County. New Castle County, a socioeconomic diverse county, is the most populated of Delaware's 3 counties with a total population count of 546 943 (2017). In Wilmington, where ChristianaCare is headquartered, the poverty rate is 37% and more than 70% of residents are Black or African American.<sup>11</sup>

### **Data collection**

Upon referral and intake, screening data are collected by the Health Guide. Measures contained within the screening questionnaire include patient sociodemographic characteristics (ie, age, gender identity, federal poverty level, race, ethnicity, and preferred language), iHELP legal needs (ie, income support, housing and utilities, education and employment, legal immigration, and personal and family stability), and referring department or service line. A baseline questionnaire is self-administered at intake. This questionnaire includes Cohen's Perceived Stress Scale (PSS), a validated self-reported measure of feelings and perceived stress in relation to different life situations, with Likert scale responses ranging from 0 ("never") to 4 ("very often").<sup>12</sup> The questionnaire also includes the adult Global PROMIS (Patient-Reported Outcomes Measurement Information Survey) scale v1.2, a validated self-reported measure of 2 domains: Global Physical Health and Global Mental Health.<sup>13</sup>

### **Statistical analysis**

The primary aims of our analyses were to examine whether iHELP legal needs differed by (1) patient sociodemographic characteristics; (2) levels of perceived stress and mental and physical health-related quality of life, number of comorbidities, or individual chronic conditions; and (3) health utilization (ie, inpatient admissions, 24-hour observation stays, and ED visits). Self-reported data from DMLP participants' baseline assessment (ie, data collected at enrollment) and data abstracted from the electronic medical record were also included in the analysis.

Self-reported variables include sociodemographic characteristics (ie, age, race, ethnicity, and gender identity), perceived stress (PSS), and mental and physical health-related quality of life (PROMIS-10 Global Health survey). Chronic conditions were extracted

through the electronic medical record and recoded using the Elixhauser Comorbidity Index.<sup>14</sup> Health utilization metrics including inpatient admissions and ED visits at 3 months and 6 months preenrollment in the DMLP were also extracted from the electronic medical record.

The PROMIS-10 Global Health survey produces raw scores for Global Physical Health and Global Mental Health. The Global Physical Health raw score was calculated by summing the responses to the following self-rated questions: "In general, how would you rate your physical health?"; "To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?"; "How would you rate your fatigue on average?"; and "How would you rate your pain on average?"<sup>12</sup> The Global Mental Health raw score was calculated by summing the responses to the following questions: "In general, would you say your quality of life is: ...?"; "In general, how would you rate your mental health, including your mood and your ability to think?"; "In general, how would you rate your satisfaction with your social activities and relationships?"; and "How often have you been bothered by emotional problems such as feeling, anxious, depressed, or irritable?"<sup>13</sup> Raw scores are converted into standardized T-scores with a corresponding standard error (SE). For a general US reference population, the mean T-score is 50 with a standard deviation (SD) of 10.<sup>13</sup> Higher T-scores for Global Physical Health and Global Mental Health are indicators of better physical and mental health.<sup>13</sup>

PSS scores were calculated by reverse coding responses to the following questions: "In the last month, how often have you felt confident about your ability to handle your personal problems?"; "In the last month, how often have you felt that things were going your way?"; and then summing all responses. PSS scores range from 0 to 13 (low stress), 14 to 26 (moderate stress), and 27 to 40 (high perceived stress).<sup>15</sup>

Summary statistics were calculated and analyzed using chi-square tests, the Mann-Whitney *U* test for nonparametric data, and unpaired *t* tests, where appropriate based on distribution of data and sample size. Associations between iHELP categories and comorbidities, as well as hospital utilization at 30 and 90 days prior to MLP enrollment, were measured using linear regression models. All models were run unadjusted and then adjusted for age. All analyses were performed using SAS (version 9.4, Cary, North Carolina). The institutional review board of ChristianaCare approved this study.

## Results

Overall, there were 212 patients enrolled in the MLP program from November 2018 to June 2020. The majority of MLP patients were female (63.2%), non-Hispanic or Latino (88.6%), Black or African American (54.5%), and had a mean age of 50.0 years (SD = 16.6). Most patients reported one iHELP legal need (75.5%). Housing and utilities needs were the highest reported legal need (46.2%), followed by income support (41.5%) (see Supplemental Digital Content Table 1, available at <http://links.lww.com/JPHMP/B22>).

Specific income support needs reported by patients included help with social security disability insurance, supplemental security income, insurance instability, government program acquisition, and paperwork or filing assistance. Specific housing and utilities needs included eviction and loss of housing, assistance with utility debt, infested living environment, landlord and management, homelessness, and government program assistance. Education and employment needs included illegal termination and employer discrimination. Legal immigration needs included immigration documentation and discrimination. Personal and family stability included domestic violence, custodial and power of attorney (POA) assistance, and unstable home life (Table 1).

### ***iHELP legal needs and patient sociodemographic characteristics***

Income support needs accounted for 42% of reported legal needs. Patients who reported income support legal needs were mostly middle-aged, 40 to 59 years old (54.1%), female (65.1%), non-Hispanic or Latino (94.0%), and African American or Black (59.5%) (Table 2). Patients who reported income support needs were significantly younger than those who did not ( $P = .02$ ).

Legal Immigration accounted for 6% of reported legal needs (see Supplemental Digital Content Table 1, available at <http://links.lww.com/JPHMP/B22>). Patients with an identified legal immigration need were younger than those who did not have a legal need (60% between 18 and 39 years old and 25% between 18 and 39 years old, respectively), albeit not significant ( $P = .07$ ). There was a significantly higher percentage of patients who identified as Hispanic or Latino within the legal immigration needs group than those who did not have this identified need ( $P = .002$ ) (Table 2).

For patients with a housing and utilities (46.2%), education and employment (14.2%), or personal and family stability (31.6%) need, there were no

**TABLE 1**  
**Specific Needs by iHELP Categories in Delaware Medical Legal Partnership Patients**

Category	Specific Type of Needs
Income Support	Social security disability insurance (SSDI)
	Supplemental security income
	Insurance instability
	Government program acquisition Paperwork/filing
Housing and Utilities	Eviction/loss of housing
	Utilities/bill debt
	Infested living environment
	Landlord and management
	Homelessness Government program acquisition
Education and Employment	Discrimination employer
	Illegal termination/general termination
Legal Immigration	Discrimination
	Documentation
	Immigration
Personal and Family Stability	Domestic violence/abuse
	Custodial and power of attorney (POA)
	Unstable home life

differences in age, gender, ethnicity, and race as demographically; they were similar (mostly female, 40-59 years of age, not Hispanic or Latino, and Black or African American) to those patients without those reported needs (Table 2).

### ***iHELP legal needs, perceived stress, and quality of life***

Overall, PROMIS Global Physical Health and Global Mental Health scores for the DMLP population were lower than those for the US general population. Mean Global Physical Health score was 39.8 (SE = 4.1), 1 SD lower than the US general population average of 50, indicating poorer physical health. Mean Global Mental Health score was 41.1 (SE = 3.6), almost 1 SD lower than the US general population average, also indicating poorer mental health.

There were no significant differences in the PROMIS Global Physical Health and Global Mental Health scores by legal need (Table 3). However, mean perceived stress scores differed significantly between patients who reported an income support need (25.6; SD = 7.6) than those who did not (21.8; SD = 7.7) ( $P = .01$ ) (Table 3).

**TABLE 2**  
**iHELP Categories by Medical Legal Partnership Patient Sociodemographic Characteristics (N = 212)**

Characteristics	Income Support		Housing and Utilities		Education and Employment		Legal Immigration		Personal and Family Stability	
	No (n = 124)	Yes (n = 88)	No (n = 114)	Yes (n = 98)	No (n = 182)	Yes (n = 30)	No (n = 198)	Yes (n = 14)	No (n = 145)	Yes (n = 67)
Age, n (%) <sup>a</sup>										
18-24 y	9 (7.8)	...	4 (3.8)	5 (5.2)	9 (5.3)	...	8 (4.3)	2 (13.3)	5 (3.6)	4 (6.7)
25-39 y	28 (24.1)	18 (21.2)	28 (26.7)	18 (18.6)	36 (21.1)	10 (33.3)	39 (20.9)	7 (46.7)	30 (21.3)	16 (26.7)
40-59 y	44 (37.9)	46 (54.1)	43 (41.0)	48 (49.5)	73 (42.7)	17 (56.7)	86 (46.0)	4 (26.7)	68 (48.2)	22 (36.7)
≥60 y	35 (30.2)	21 (24.7)	30 (28.6)	26 (26.8)	53 (31.0)	3 (10.0)	54 (28.9)	2 (13.3)	38 (27.0)	18 (30.0)
<i>P</i>		.02		.51		.04		.07		.42
Gender, n (%)										
Female	75 (62.0)	54 (65.1)	68 (61.8)	63 (65.6)	110 (62.9)	19 (65.5)	122 (64.2)	8 (53.3)	91 (65.0)	38 (59.4)
Male	46 (38.0)	29 (34.9)	42 (38.2)	33 (34.4)	65 (37.1)	10 (34.5)	68 (35.8)	7 (46.7)	49 (35.0)	26 (36.2)
<i>P</i>		.65		.65		.78		.29		.44
Ethnicity, n (%)										
Hispanic	18 (15.1)	5 (6.0)	13 (12.3)	10 (10.2)	21 (12.1)	2 (6.9)	17 (9.0)	7 (46.7)	13 (9.4)	10 (15.6)
Not Hispanic or Latino	101 (84.9)	78 (94.0)	93 (87.7)	88 (89.8)	152 (87.8)	27 (93.1)	171 (91.0)	8 (53.3)	125 (90.6)	54 (84.4)
<i>P</i>		.04		.68		.54		.002		.20
Race, n (%) <sup>b</sup>										
White	40 (34.5)	26 (31.0)	36 (34.6)	31 (31.6)	55 (32.2)	11 (37.9)	64 (34.2)	2 (14.3)	42 (30.4)	24 (38.7)
Black or African American	59 (50.9)	50 (59.5)	54 (51.9)	56 (57.1)	94 (55.0)	15 (51.7)	105 (56.2)	4 (28.6)	81 (58.7)	28 (45.2)
Other	17 (14.7)	8 (9.5)	14 (13.5)	11 (11.2)	22 (12.9)	3 (10.3)	18 (9.6)	8 (57.1)	15 (10.9)	10 (16.1)
<i>P</i>		.39		.74		.81		<.001		.19

<sup>a</sup>Mean (SD) age for each iHELP category: Income Support 52.0 years (14.0); Housing and Utilities 51.1 years (16.7); Education and Employment 46.4 (12.3); Legal Immigration 41.4 years (15.2); Personal and Family Stability 47.1 years (18.9).

<sup>b</sup>Other race (n; %) includes the following: American Indian/Alaska Native (n = 2; 1.4); Asian (n = 4; 2.9); and Other (n = 19; 13.6).

**TABLE 3**  
**Mean Mental and Physical Health–Related Quality of Life<sup>a,b</sup> and Perceived Stress Scores<sup>c</sup> by IHELP Categories**

Characteristics	Income Support		Housing and Utilities		Education and Employment		Legal Immigration		Personal and Family Stability	
	No (n = 124)	Yes (n = 88)	No (n = 114)	Yes (n = 98)	No (n = 182)	Yes (n = 30)	No (n = 198)	Yes (n = 14)	No (n = 145)	Yes (n = 67)
Mean Global Physical Health (SE) <sup>d</sup>	39.8 (4.1)	37.4 (4.1)	39.8 (4.1)	37.4 (4.1)	37.4 (4.1)	39.8 (4.1)	37.4 (4.1)	42.3 (4.2)	37.4 (4.1)	39.8 (4.1)
<i>P</i>		.06		.05		.30		.04		.10
Mean Global Mental Health (SE) <sup>e</sup>	41.1 (3.6)	41.1 (3.6)	41.1 (3.6)	38.8 (3.6)	41.1 (3.6)	41.1 (3.6)	41.1 (3.6)	43.5 (3.6)	41.1 (3.6)	41.1 (3.6)
<i>P</i>		.110		.01		.69		.14		.48
PSS score (SD) <sup>f</sup>	21.8 (7.7)	25.6 (7.6)	21.7 (7.5)	25.2 (7.9)	23.3 (7.6)	23.3 (9.6)	23.9 (7.6)	16.8 (7.6)	24.1 (7.6)	21.5 (8.2)
<i>P</i>		.01		.01		.99		.01		.10

Abbreviations: PROMIS, Patient-Reported Outcomes Measurement Information System; PSS, Perceived Stress Scale; SE, standard error.

<sup>a</sup>The Global Physical Health and Global Mental Health are from the PROMIS Adult Global Scale v1.2. Raw summed scores are then converted to a T-score for each metric. Global Physical Health T-score ranges (16.2–67.7); Global Mental Health T-score ranges from 21.2 to 67.6; a score of 50 for either measure is average for the US general population.

<sup>b</sup>For our sample, the ranges are as follows: Global Physical Health = 23.5–61.9; Global Mental Health = 28.4–59.0.

<sup>c</sup>The PSS is a stress assessment tool developed to understand how situations affect feelings, and perceived stress PSS scores range from 0 to 13 (low stress); 14 to 26 (moderate stress); and 27 to 40 (high perceived stress). The Global Physical Health raw score is calculated by summing the responses to the following self-rated questions: "In general, how would you rate your physical health?"; "To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?"; "How would you rate your fatigue on average?"; "How would you rate your pain on average?"

<sup>e</sup>The Global Mental Health raw score is calculated by summing the responses to the following questions: "In general, would you say your quality of life is: . . .?"; "In general, how would you rate your mental health, including your mood and your ability to think?"; "In general, how would you rate your satisfaction with your social activities and relationships?"; "How often have you been bothered by emotional problems such as feeling, anxious, depressed, or irritable?"

<sup>f</sup>The breakdown (n; %) for our overall sample is as follows: low stress (n = 18; 15.1); moderate stress (n = 57; 47.9); and high perceived stress (n = 44; 37.0).

For those with a housing and utilities need, mean Global Physical Health (37.4; SE = 4.1) and Global Mental Health (38.8; SE = 3.6) were lower than the US average for the general population. In addition, the Global Mental Health score was significantly lower ( $P = .01$ ) for those who had a housing and utilities need than those who did not (41.1; SD = 3.6). For perceived stress, the average score was in the moderate stress range (25.2; SD = 7.9) and was significantly ( $P = .01$ ) higher than those without a housing and utilities need (Table 3).

Similar to other legal needs, mean Global Physical Health (39.8; SE = 4.1) and mean Global Mental Health (41.1; SE = 3.6) were below the national average and there were no significant differences for mean Global Physical Health and mean Global Mental Health scores between those with education and employment needs and those who did not have those needs ( $P = .30$  and  $P = .69$ , respectively). For perceived stress, on average, patients scored in the moderate stress range (23.3; SD = 9.6) (Table 3).

Patients with legal immigration needs had higher quality-of-life measures (Global Physical Health: 42.3,  $P = .04$ ; Global Mental Health: 43.5,  $P = .14$ ), close to the average for the US general population (Table 4). For perceived stress, those with legal immigration needs still scored, on average, in the moderate stress range (21.5; SD = 8.2) but were 7 points lower than those who did not have a legal need ( $P = .01$ ). Mean Global Physical Health (39.8; SE = 4.1) and mean Global Mental Health (41.1; SE = 3.6) scores were also below the national average (Table 3).

### ***iHELP legal needs and comorbidities***

Overall, DMLP patients had a mean of 6.6 (SD = 4.4) comorbidities. Patients with an income support legal need had a significantly higher ( $P = .01$ ) mean number of comorbidities than those without an income support legal need (see Supplemental Digital Content Table 2, available at <http://links.lww.com/JPHMP/B23>). In the age-adjusted linear regression model, there was a significant positive association with income support and the number of comorbidities or chronic conditions ( $\beta = 1.6$ ;  $P = .04$ ) (see Supplemental Digital Content Table 2, available at <http://links.lww.com/JPHMP/B23>).

Patients with a legal immigration need had, on average, significantly fewer reported comorbidities than those who did not have a legal immigration need ( $P < .001$ ) (see Supplemental Digital Content Table 2, available at <http://links.lww.com/JPHMP/B23>). The age-adjusted model demonstrated a significant negative association between legal immigration and the number of comorbidities or chronic conditions ( $\beta =$

$-3.6$ ;  $P = .00$ ) (see Supplemental Digital Content Table 2, available at <http://links.lww.com/JPHMP/B23>).

Although not significant, it should be noted that education and employment needs in addition to personal and family stability legal needs were associated with a lower number of comorbidities or chronic conditions (see Supplemental Digital Content Table 2, available at <http://links.lww.com/JPHMP/B23>).

### ***iHELP legal needs and hospital utilization***

Overall, health care utilization among DMLP patients was low. At 30 days preenrollment, DMLP patients had a mean of 0.24 ED visits (SD = 0.7) and at 90 days preenrollment a mean of 0.61 ED visits (SD = 1.6). At 30 days preenrollment, DMLP patients has a mean of 0.07 inpatient visits (SD = 0.3) and at 90 days preenrollment a mean of 0.10 inpatient visits (SD = 0.4).

At 30 and 90 days prior to enrollment, there were no significant differences in ED utilization between any of the legal need categories (those who had the legal need vs those who did not). The results were the same with regard to age in the adjusted linear regression models (Table 4).

For inpatient utilization 30 days prior to enrollment, there was a significant difference ( $P = .02$ ) in the mean number of admissions between those with a reported personal and family stability need compared with those who did not. Those with a reported personal and family stability need, on average, had fewer inpatient admissions (Table 4). However, when examining inpatient admissions 90 days prior to enrollment, there were no significant differences in the mean number of admissions by legal need categories (Table 4).

### **Discussion**

In this study, we aimed to better understand the specific baseline *iHELP* legal needs, sociodemographic characteristics, clinical comorbidities, and health care utilization of the patients who enrolled in the DMLP. Overall, we found that the patients who enrolled in this program had moderate to high levels of stress and lower than average mental and physical quality of life. On average, patients had a high comorbidity count but low ED and inpatient utilization.

In terms of legal needs, housing and utilities and income support needs were the most prevalent legal needs of this patient population. A systematic review of MLP-associated studies indicated that housing and utilities needs and income support were 2 of the most widely reported unmet legal needs of MLP patient populations across the United States.<sup>16</sup> Housing

**TABLE 4**  
**Emergency Department and Inpatient Visits at 30 and 90 Days Preenrollment by iHELP Category**

Characteristics	Income Support		Housing and Utilities		Education and Employment		Legal Immigration <sup>a</sup>		Personal and Family Stability	
	No (n = 124)	Yes (n = 88)	No (n = 114)	Yes (n = 98)	No (n = 182)	Yes (n = 30)	No (n = 198)	Yes (n = 14)	No (n = 145)	Yes (n = 67)
<i>30 d preenrollment</i>										
Mean number of ED visits (SD)	0.2 (0.7)	0.3 (0.8)	0.3 (0.8)	0.2 (0.5)	0.2 (0.7)	0.3 (0.7)	0.2 (0.7)	0.2 (0.4)	0.2 (0.7)	0.3 (0.7)
<i>P</i>		.3		.39		.58		.85		.36
Model 1: ED visit count = iHELP + age										
iHELP estimate (SE)	...	0.1 (0.1)	...	-0.1 (0.1)	...	0.1 (0.1)	...	-0.0 (0.2)	...	0.1 (0.1)
<i>P</i>		.3		.30		.58		.90		.30
Mean number of inpatient of admissions (SD)	0.1 (0.3)	0.1 (0.3)	0.1 (0.3)	0.1 (0.3)	0.1 (0.3)	0.0 (0.2)	0.1 (0.3)	0.0 (0.0)	0.1 (0.3)	0.0 (0.1)
<i>P</i>		.6		.46		.50				.02
Model 1: Inpatient visit count = iHELP + age										
iHELP estimate (SE)	...	0.0 (0.0)	...	0.0 (0.0)	...	-0.0 (0.1)	...	-0.1 (0.1)	...	-0.1 (0.0)
<i>P</i>		.6		.46		.50		.37		.08
<i>90 d preenrollment</i>										
Mean number of ED visits (SD)	0.6 (1.7)	0.7 (1.4)	0.5 (1.4)	0.7 (1.8)	0.6 (1.6)	0.5 (0.3)	0.6 (1.7)	0.3 (0.6)	0.6 (1.6)	0.7 (1.5)
<i>P</i>		.8		.38		.78		.09		.76
Model 1: ED visit count = iHELP + age										
iHELP estimate (SE)	...	0.1 (0.2)	...	0.2 (0.2)	...	-0.1 (0.3)	...	-0.4 (0.5)	...	0.1 (0.2)
<i>P</i>		.7		.37		.70		.43		.70
Mean number of inpatient of admissions (SD)	0.1 (0.5)	0.1 (0.4)	0.1 (0.3)	0.1 (0.5)	0.1 (0.4)	0.1 (0.3)	0.1 (0.4)	0.0 (0.0)	0.1 (0.5)	0.0 (0.3)
<i>P</i>		.8		.47		.51				.12
Model 1: Inpatient visit count = iHELP + age										
iHELP estimate (SE)	...	-0.0 (0.1)	...	0.0 (0.1)	...	-0.0 (0.1)	...	-0.1 (0.1)	...	-0.1 (0.1)
<i>P</i>		.8		.45		.60		.50		.20

Abbreviations: ED, emergency department; SD, standard deviation; SE, standard error.  
<sup>a</sup>None of the participants who had legal immigration needs had an inpatient visit 30 days prior to enrollment.



insecurity, substandard housing quality, and poor environmental conditions further exacerbate high stress living conditions. These issues are further complicated by the fact that those who face these housing issues are often confronted by limitations in income that would allow for remediation of poor environmental conditions or seeking out higher-quality or stable housing.<sup>1-5,8</sup>

Furthermore, our results indicate that among all reported needs, patients served by the DMLP scored lower than the US national average in mental and physical health–related quality of life and had high levels of perceived stress. Results from published studies demonstrate the positive impact of legal interventions on reducing perceived stress for patient populations similar in reported stress and demographic characteristics to those served by our program.<sup>17,18</sup>

Patients with reported legal immigration needs were a unique group that appeared to have lower comorbidity counts and health care utilization rates. Specific problems within the legal immigration cases involved obtaining citizenship or issues with citizenship applications. This could be due to the “healthy immigrant effect”<sup>19</sup> or rather when compared with those born in the United States, immigrants to the United States are less likely to be diagnosed with stress-associated chronic conditions and have higher health outcomes such as lower mortality from cardiovascular diseases and some cancers.<sup>19</sup> Further research and improved sample sizes are needed to better understand these differences within the DMLP patient population.

The differences we observed in health and health care utilization between the reported iHELP categories were relatively minimal, likely due to the fact that all patients in this program were vulnerable and had high levels of need. Previous literature has demonstrated the high prevalence of unmet civil legal needs among high-risk, low-income families.<sup>1-5,20</sup> Results from our study demonstrate the same and underscore the importance of programs, such as MLPs, that not only address unmet legal needs but also target the drivers of these legal needs as well as inequities in social determinants of health.

The DMLP program serves a vulnerable patient population that has high levels of perceived stress and lower than average mental and physical health. Further study of the impact of the DMLP on health outcomes and utilization is necessary to determine the true impact of the DMLP.

## Conclusion

Health care systems across the nation are beginning to understand the importance of social care programs

## Implications for Policy & Practice

- MLPs can be powerful public health tools by targeting social justice barriers within a population served by hospitals and clinics. They provide a socioeconomic benefit that comprehensively addresses social and legal needs.
- As demonstrated by our study, those who have unmet legal needs experience high stress and experience lower mental and physical health and, as such, it is imperative to continue investing in MLP programs.
- In addition, when seeking to build an MLP program, invested stakeholders, such as policy makers and hospital administrators, should keep in mind that the investment in these programs ultimately serves as an integrated approach to complex medical and social needs that affect the communities they serve.

such as MLPs. As we begin to emerge from the COVID-19 pandemic, the most vulnerable patient populations will likely have an increased need for such programs. Understanding patients’ baseline characteristics, health, and health care utilization will support the development of responsive programs. Outcome evaluation of MLPs is needed to understand patient- and system-level impacts and support further investment.

## Limitations

A limitation of our study is that we had modest sample sizes, and, with the exception of health care utilization and comorbidities, data were self-reported. As we do not have data on unmet legal needs in the larger health system population, we are unable to assess the extent to which our DMLP patient population is representative of this larger population. This program is funded by our health system’s Office of Health Equity and while efforts are made across the system to identify patients in need of this program, it is likely that there are additional patients who do not get identified and that the actual need may be larger than what the funding of this program could support. Similarly, these data come from a single health system and may not be generalizable to others in the state or elsewhere.

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