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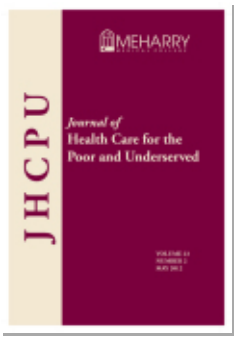

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Rural Medical-Legal Partnership and Advocacy: A Three-Year Follow-up Study

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Abstract: **Introduction**. Medical-legal partnerships perform advocacy services for vulnerable and underserved populations, who are burdened disproportionately by legal and medical problems. This study aimed to examine the effectiveness and projected sustainability of a rural medical-legal partnership (MLP). **Methods**. Five years of baseline data and three years of follow-up data were analyzed using descriptive and inferential statistics as well as logic modeling. **Results**. The benefit relative to cost of the MLP increased between the years of 2002–2006 and 2007–2009. The number of people served increased across the two time periods, and the proportion of cases won remained the same. Overall, the population served remained similar across time. The MLP continued to show social and financial impacts, such as health care recovery dollars (319% return on investment between 2007 and 2009), Social Security benefits, family law services, and end-of-life guidance. **Conclusion**. A rural MLP can maintain its impact and efficiency across time and have opportunities for expansion.

Key words: Medical-legal partnerships, sustainability, health navigation, advocacy, rural.

Medical-legal partnerships (MLPs) seek to eliminate barriers to healthcare and improve the health of vulnerable and underserved populations by integrating legal assistance into the medical setting. These partnerships resolve various legal needs related to health (including medical insurance, Social Security benefits, housing, employment, and family problems) by affording medical patients the benefits and protections of legal services.[1,2] MLPs also assist medical patients and practitioners in successfully

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navigating the complex and often overlapping health care and legal systems by giving advice and making referrals.[3–12] Between 2007 and 2010, the American Bar Association, American Academy of Pediatrics, American Medical Association, and the Agency for Healthcare Research and Quality began to support and promote the MLP model.[1,3]

Rural medical-legal partnership. The MLP model was developed at the Boston Medical Center in 1993 and has become a national movement in the United States and internationally.[1,13] MLPs are known to be active in 38 U.S. states, 100 hospitals, and 116 community health centers, but relatively few medical legal partnerships are located in rural areas.[1] Medical-legal partnerships are particularly important in rural areas since, compared to suburban and urban areas, poverty rates as well as morbidity and mortality rates for many preventable or controllable diseases are usually higher and access to services is more limited.[15–20]

In 2002, the Medical-Legal Partnership of Southern Illinois (MLPSI) began offering services to underserved and economically disadvantaged individuals in seven economically impoverished rural counties,[20–24] all of which have been designated as Health Profession Shortage Areas and Medically Underserved Areas by the United States Health Resources and Services Administration.[16] The MLPSI includes various partners in planning, implementation, and evaluation (a non-profit health care system, universities, a legal assistance foundation, and a national non-profit organization).

In the MLPSI, medical staff (e.g., physicians, nurses, social workers, and case managers) are trained to identify legal issues and refer patients for assistance by legal staff (i.e., paralegals and attorneys). A broad range of patients with various legal issues (e.g., government benefits, family law, and wills) are referred for legal assistance. To qualify for legal services, patients must meet criteria for economic disadvantage and type of case. As a mock case example, a cardiac patient visiting a hospital physician is referred to the legal partner for assistance with obtaining Medicaid benefits. After the patient contacts the legal assistance partner, a formal intake and assessment of case merit take place. The legal assistance partner recommends then initiates a Medicaid appeal process. At the appeal hearing, the patient is denied Medicaid benefits. The MLPSI attorney then files the case for review in the County Circuit Court. After court review, the patient is awarded Medicaid benefits, which enables the patient to have a payer source for future medical treatment and has past medical bills paid.

Results from the original MLPSI study. The original study of MLPSI, conducted in 2006, found that the program addressed various health and social issues, such as Medicaid coverage, Social Security benefits, family law needs, housing assistance, and end of life services (i.e., power of attorney and wills). Between 2002 and 2006, the MLPSI program produced a 149% return on investment for the hospital system that is a partner. The original study supported MLPSI sustainability and impact of the MLP in rural southern Illinois.[25] Since the publication of the original manuscript, the MLPSI has been recognized, in part due to the findings of the original study, as a model program for rural areas.[1,26]

Purpose of the follow-up study. The aim of this follow-up study was to examine the sustained impact of the MLPSI. Five research questions guided the study.

Methods

Since the beginning of the MLPSI program, the partnering hospital system and legal assistance foundation have collected data on patients and their cases. The integration of data collection into the program has enabled research partners to assist the legal assistance and health care partner to evaluate the program via secondary data analysis. Following approval from the health care organization's and university's institutional review boards and in accordance with each organization's local policies, de-identified data were transferred to university research partners for transformation, analysis, and reporting. Descriptive (frequencies and means) and inferential statistics (two by two contingency tables and dependent t-tests) as well as logic modeling were used to analyze and describe the data.

Variables. This follow-up study (2007–2009) included the same variables as the original study (2002–2006), which also enabled the creation of a combined 2002–2009 data set. Please see the original study for a detailed description of the variables.[25] Note that the Medicaid reimbursement rate varied by hospital and by year, and these variations were taken into account when calculating health care recovery dollars.

Cost benefit. To evaluate cost benefit, return on investment (ROI) and cost benefit ratio (CBR) were calculated for recovered health care dollars. CBR was calculated as the quotient of the sum of Medicaid adjusted health care recovery dollars (i.e., the dividend) and the sum of dollars dedicated by the hospital system to the medical-legal partnership (i.e., the divisor) (CBR = [dollars recovered / dollars invested]). ROI was calculated by dividing the difference of the adjusted health care recovery dollars and the hospital systems' dollars invested in the MLPSI by the hospital systems' dollars invested in the MLPSI (ROI = [dollars recovered − dollars invested] / dollars invested).

Logic modeling. Logic modeling was used to depict the flow of the MLPSI as well as program processes and outcomes (see Figure 1).[25,27–29] First, the health care partner funds the legal assistance partner. Second, the legal assistance partner prepares for referrals. Third, patients are referred to the legal assistance partner. Fourth, the legal assistance partner reviews the cases and takes appropriate actions (e.g., following up, pursuing or rejecting case, giving legal advice, making outside referrals, filing appeals, or taking cases to court). Fifth, the program impacts patients or organizations. Finally, the healthcare provider, based on reported program impacts, decides if the program will be funded in the subsequent year.

Results

Comparing original and follow-up studies. *Research question 1*. Relative to the original study conducted from 2002–2006, did the benefit relative to cost of MLPSI decrease, maintain, or increase during 2007–2009? The health care partner dedicated $115,438 to the MLPSI during 2002–2006 and $116,250 during 2007–2009. The CBR and ROI to the health care partner for the original 2002–2006 study were 249% and 149%. The original 2002–2006 study, however, included missing data and pending cases that have since been resolved or closed. Updating the data for 2002–2006 increased the CBR and ROI for the 2002–2006 time period to 321% and 221%. Both of these

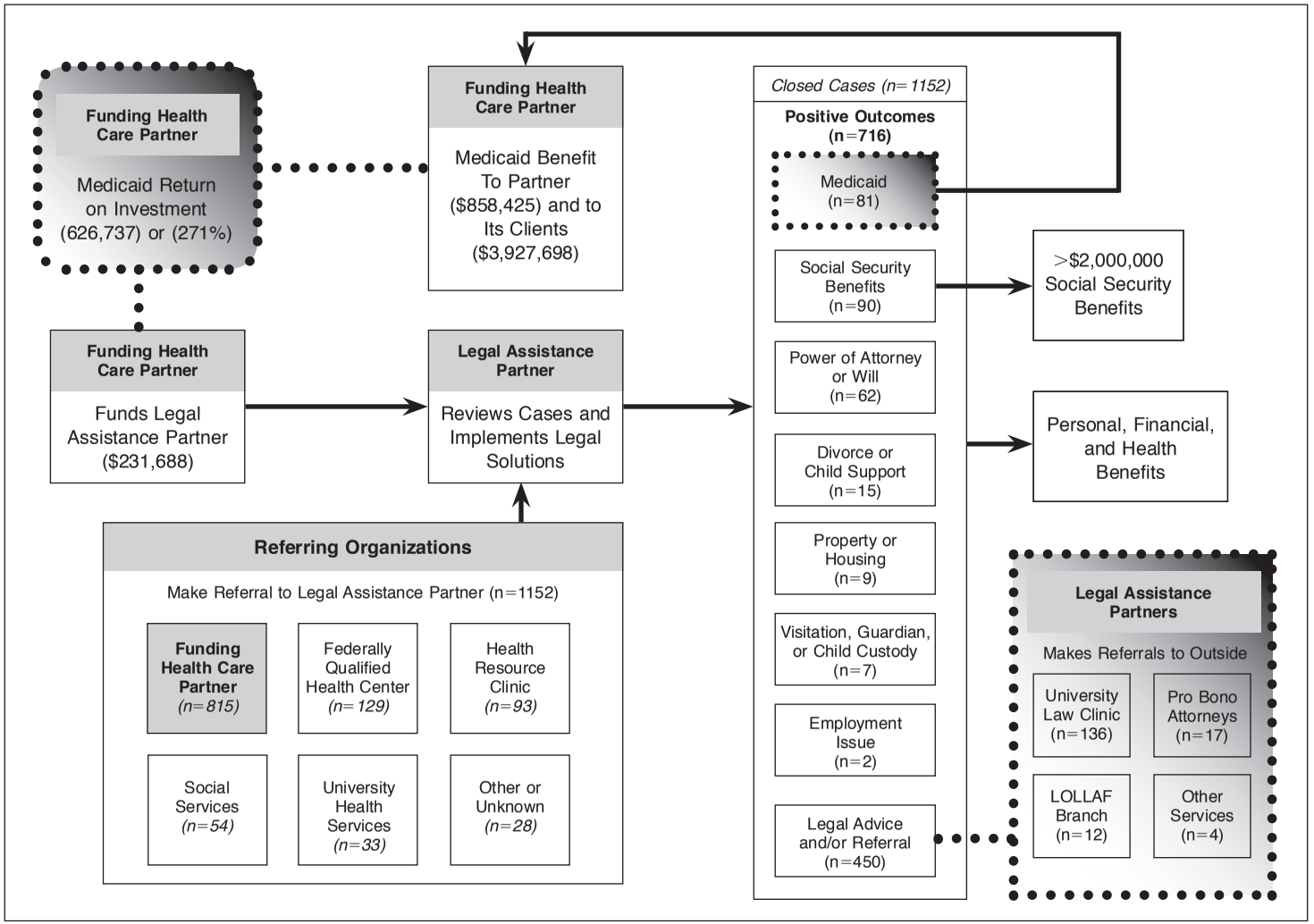

Figure 1. Depiction of Medical Legal Partnership of Southern Illinois (MLPSI) processes and impacts (2002–2009).

cost benefit measures increased further for the 2007–2009 period to 419% and 319%. The absolute ROI increases in health care recover dollars actualized despite shrinking Medicaid reimbursement rates across time; Medicaid reimbursement rates for 2009 were less than half (about 47%) the rates set in 2002. If Medicaid reimbursement rates were set to constant, using 2002 hospital Medicaid rates as the referent, the change in ROI between the two study periods would be even greater. The Medicaid rate adjusted ROI becomes 343% for the updated 2002–2006 period and 698% for 2007–2009. Additionally, between the years of 2002 and 2006 patients had $1,537,208 of their health care debt relieved ($307,442 per year) and $2,390,490 during the years of 2007 and 2009 ($796,830 per year). Table 1 compares the 2002–2006 original study, updated 2002–2006, and the 2007–2009 follow-up study results. Note that for the remainder of the manuscript narrative the updated 2002–2006 will be used.

Research question 2. Did the program's efficiency change between the two study periods? The mean number of cases referred per year was 181% greater in the follow-up study period than the original study period (85.8 cases between 2002 and 2006 and 241 cases between 2007 and 2009, respectively).

The mean cost per case and per patient was lower for 2007–2009 than 2002–2006 ($161 per case and $229 per patient for 2007–2009 compared to $269 per case and $364 per patient for 2002–2006). Although the raw number of cases won by any case type (see Table 1 for a break down of wins by case type) was greater for 2007–2009 than 2002–2006 (169 versus 97 won cases), the proportion of won cases did not significantly differ across the two study periods ($X^2=0.33$, $p=.57$). The proportion of cases that resulted in any type of win, patient legal referral, or legal advice also did not significantly differ across time ($X^2=2.72$, $p=.10$).

In spreading the health care recovery dollars across all cases, not only Medicaid cases, the per case benefit to the hospital partner was $864 (429 cases) for the 2002–2006 time period and $674 (723 cases) for the 2007–2009 study period. Spreading the health care relief across all cases resulted in $3,583 per case for 2002–2006 and $3,306 per case for 2007–2009.

Research question 3. Did the patient population served change across time? Between 2002–2006 and the 2007–2009 follow-up study, the mean age of patients at the time of referral did not significantly change ($t_{(780)}=-1.61$, $p=.11$). The percentage increase in female patients from 54% in the original study period to 61% in the follow-up study period was not statistically significant ($X^2=3.41$, $p=.07$). The percent of White patients significantly increased between the two study periods (75% and 82%, respectively; $X^2=4.55$, $p<.05$). Although the percentage of White/Caucasian patients increased between 2002–2006 and 2007–2009, it was still below the counties' average of 91%. The percentage of patients referred from the partnering hospital system also increased from 59% to 78% ($X^2=45.58$, $p<.05$).

Research question 4. Did the MLPSI program continue to help patients with their social and financial legal needs? Beyond the 49 Medicaid related cases won between 2007 and 2009, 57 Social Security Benefit, 43 will or power of attorney, 17 family law (i.e., divorce, child support, or custody/visitation), and 3 employment or housing cases were won or positively resolved between 2007 and 2009. An additional 291 cases resulted in legal advice or referrals to more appropriate services.

Table 1.

SUMMARY OF MLPSI RESULTS ACROSS TIME (2002–2009)

	2002–2006 Original Study	2002–2006 Data Update[a]	2007–2009 Follow-up Study
Patient Demographics			
Mean age	48	47	49
Percent female	52	54	61
Percent White	76	75	82
Cases			
Referred Cases	428	429	723
Cases Closed	372	429	723
Outcomes			
Advice or Referral	159	159	291
Social Security Benefits	32	33	57
Medicaid	31	32	49
Power of Attorney or Will	19	19	43
Family law	5	5	17
Property, housing, or employment	8	8	3
Investment	$115,438	$115,438	$116,250
Medicaid return of investment (raw)	149%	221%	319%
Medicaid return of investment (adjusted)	n/a	343%	698%

[a]This column updates the data from the original study, which included pending cases.

Research question 5. In combining the 2002–2006 and 2007–2009 data, what has been the overall impact of MLPSI? Figure 1 summarizes the processes and outcomes of the MLPSI across 2002 to 2009. Between 2002 and 2009, the funding hospital system dedicated a total of $231,688 to the MLPSI program. 1,152 cases (825 patients) were referred to the legal assistance partner for services. Of the 259 won cases: 90 patients received social security benefits; 81 received Medicaid benefits and reimbursement; 62 received power of attorney or wills; 22 received family law services; and 11 received housing or employment assistance. In addition to the cases won in court or mediation, patients received legal advice or referrals for 450 cases of which 169 were referred to more appropriate services. Across the course of the MLPSI project and based on known health care recovery dollars, the return on investment to the funding hospital system was 271% or $626,737 across 2002–2009. The hospital system received over $850,000, before accounting for their program expenditures; patients had just under $4,000,000 in health care debt relieved. Additionally, using the average amount of yearly social security payment awarded while adjusting by year of receipt of service, the number of patients being awarded social security benefits in a year, and a continuation factor, it was also estimated that patients have received over $2,000,000 in social security benefits

as a result of the program. The total receipt of social security benefits calculation was based on a sum of social security benefit (SSB) backpay plus the sum of patients social security benefit award (monthly $SSB_{mean} \times 12 \times$ [year-2010] $\times .85$). In this case .85 represented an estimated continuation factor that roughly accounted for discontinuation of social security benefits.

Discussion

The importance and impact of MLPs has been well established, especially for vulnerable and underserved medical patients.[1,12,30–31] There has, however, been little research on the effectiveness of MLPs in rural areas. The MLPSI is in a unique position because it is located in a rural area and has been evaluated since its initiation.

The results from the original study and this follow-up study have assisted in expanding the efforts of MLPSI. The documented impact of the implementation of the MLPSI to patients and the health care system relative to the investment has helped to establish a new MLP in central Illinois and is currently being used to support the development of an MLP in East Saint Louis, a highly under-resourced area of Illinois. The MLPSI ROI model has also been used nationally as a model for sustaining MLPs. With new incentives for improving the quality and access to care, highlighted by health care reform, the MLP model has potential to improve medical care.[1]

Larger questions could be raised beyond the issue of patient care and establishing a payer source. The issue of financing health care through public means, such as Medicaid, is a complex topic from a business and political perspective. One could argue that the MLPSI program places a greater financial burden on the government to pay for health care. Within the MLPSI project, patients are, however, gaining access to services for which they are eligible for by law. The result being that the burden of eligibility and financing is predetermined by governmental law prior to a patient receiving care or an MLP advocating for a patient. Additionally, addressing health care payer source and the other benefits of MLPSI participation could improve access to care, decrease social marginalization, and improve health thereby reducing the need for emergency services; seeking care from hospitals in an emergency is more expensive than participating in primary care, and the funds spent in hospital emergency departments could buy considerably more primary care. Moreover, the uninsured receive only about 55% percent of the health care dollars that the insured receive and pay more than 33% of the total cost out of pocket versus less than 20% for the insured, which accumulates disadvantage of the uninsured.[32] These examples of health care disparities in health care payments were not directly addressed by MLPSI. However, due to the recognized impact of existing policies on health inequities,[33–34] the MLPSI began advocating for changes to existing or adoption of new policies in 2010.

With regard to government benefits, a recent randomized study found that gaining access to public benefits (i.e., Medicaid) increases appropriate use of health care services, increases initiation and maintenance of proper preventive health care, and decreases patient medical expenses and debt. Relative to a control group, those receiving Medicaid perceived themselves as healthier and having better access to care.[35] This is one example of how Medicaid influences not only the financial position of patients and

providers within the health care system but also the health and well-being of patients. MLPs increase patients' access to Medicaid as well as other government benefits (i.e., social security) legal solutions to social issues (i.e., family law services, and end-of-life guidance). This follow-up study supported the sustained impact of the MLPSI, which is especially important due to the under-representation of MLPs in rural areas and the health and socioeconomic inequities found in rural areas.[14–24]

Notes

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