I. Introduction

Orthopedic clinic patients have unmet legal needs related to social determinants of health, and this study is intended to begin to evaluate those needs. Social determinants of health (SDH) are social, economic, and environmental factors affecting patients' health and are well recognized as major determinants of health outcomes. SDH include factors such as economic stability, neighborhood and physical environment (e.g., housing), education, nutrition, social integration, and access to health care. Attorneys are uniquely qualified to identify and potentially “treat” patients' SDH like housing insecurity, job insecurity, disability, food insecurity, poverty, criminal law issues, etc. through direct intervention, as well as through policy initiatives—so it is important that legal scholars begin to understand the legal needs of patients hindered by SDH encountered in medical practices. Social determinants such as housing, food, and/or job insecurity, poverty, social isolation, and psychological stresses have been shown to “compromise” and “strongly influence” health—driving medical cost and utilization. In this paper we analyze the prevalence of social determinants of health that are potentially amenable to intervention by attorneys, the willingness of patients to reveal those legal issues to a law student, and the acceptance of a legal representative in medical settings.

II. Methods

Law students were given access to three different types of orthopedic clinics to directly perform surveys assessing patients' legal needs related to SDH at the University of Arkansas for Medical Sciences (UAMS), Division of Orthopedic Surgery. A seven-question, online survey (Appendix 1) was accessed by the law student on surveymonkey.com during patient clinic visits; the questions were asked in the exam room by the law student, who contemporaneously entered the patient's responses into the online form. The three types of orthopedic clinics evaluated included (1) Adult Trauma Clinics, (2) Oncology Clinics, and (3) Off-Campus Subspecialty Clinics specializing in total joint replacements and sports medicine. A total of 201 patients took the survey, including 138 patients (68.7%) in adult orthopedic trauma clinic, 44 patients (21.9%) in off-campus orthopedic subspecialty clinics, and 19 patients (9.5%) in orthopedic oncology clinics. The average survey duration was around 3 minutes. The median patient age was approximately 55. Analysis of patients' insurance status revealed overall that 48.5% of patients had Medicare/Medicaid or both, 43.8% had commercial health insurance, and 5.9% were uninsured. However, the uninsured patients were concentrated almost entirely in the Adult Trauma Clinics, with only one non-Trauma Clinic patient being uninsured. The Oncology Clinic patients were primarily insured by Medicare/Medicaid (62%), whereas the Off-Campus Specialty Clinic patients were primarily commercially insured (54%).
III. Results

Almost three-fourths of patients (73.9%) reported legal issues affecting their recovery. These included issues related to financial issues, living conditions at home, employment status, domestic relations, criminal law, addiction, and immigration.

A. Financial Problems Affecting Health

The most common issue facing patients was debt interfering with medical care (49.2%--including 41.2 non-tax debt and 8% tax debt) with a total of 27.6% facing collection agency letters and 12.6% facing bankruptcy. Debt issues were similar among the three clinics (52.6% oncology, 51.3% off-campus, and 47.8% trauma), so it is surprising that trauma patients were the most likely to be facing collection agency letters (30.9%) compared to 26.3% oncology and 18.2% off-campus. Bankruptcy was most common in the off-campus group (18.2%) compared to 15.8% oncology and 10.3% trauma.

A significant number of patients (27.5% overall) were having financial difficulties affording their medications, and this was particularly common among Oncology Clinic patients (42.1%) compared to Adult Trauma Clinic patients (29.2%) and Off-Campus Subspecialty Clinic patients (15.9%).

*147 B. Living Conditions

Many patients were having difficulties with basic living conditions, including utility insecurity, housing insecurity, food insecurity, and transportation problems. First, almost one of four (24%) patients feared losing access to utilities like heat, air conditioning, or water in their homes due to their illness. Utility insecurity was more common among Trauma Clinic patients (26.3%) than Oncology (21.1%) or Off-Campus (18.2%) patients.

Second, housing insecurity was common (21%) among the patients in our study. Fear of losing housing was similar among all three clinics with 22.7% of the Off-Campus Subspecialty Clinic patients, 21.1% of the Oncology Clinic patients, and 20.4% of Trauma Clinic patients having that fear. Two patients in our study were homeless, and both were Trauma Clinic patients. In addition, several patients were facing eviction while going through their illness, including 5.2% of trauma patients, 4.6% of off-campus patients, and none of the oncology patients.

Third, food insecurity was common among the patients in our study with one in five patients (20%) reporting they were having problems affording healthy meals during their treatment. Over one-fourth (26.2%) of Oncology Clinic patients reported difficulties affording healthy meals compared to 21.2% of Trauma Clinic patients and only 13.6% of Off-Campus Subspecialty Clinic patients.

Finally, a significant portion of our patients (21.1%) were having transportation problems--including 20.1% of trauma patients, 20.5% of off-campus patients, and 15.8% of oncology patients.

C. Employment Status

Overall, almost one third of the patients in our study were experiencing job insecurity with only 68.1% of respondents reporting that their job was secure with plenty of leave time to recover from their health issue (28.9%), were retired (18.6%), or were already receiving disability payments (20.6%). Some (8.3%) specifically feared losing their job due to their current health issue. Others (11.9%) were already unemployed with no unemployment benefits and needing assistance; only 2.1% were already receiving unemployment benefits. A few (4.6%) were on Workers Compensation, but one third of those on Workers Compensation reported they were needing legal help with their benefits. Several were going through the disability application process (10.3%) and some were considering applying (1.6%). In addition, work safety issues were a concern for a few patients (2.5%).
Trends were evident when comparing the employment status of patients in the various clinics. Off-Campus Specialty Clinic patients tended to have more job security (36.4% reporting security compared to 27.5% of trauma patients and 21.1% of oncology patients) or be retired (31.8% retired compared to 15.8% of oncology patients and 14.5% of trauma patients). Trauma Clinic patients tended to be more fearful of losing their jobs (11.5% compared to 5.3% of oncology patients and none of the off-campus patients) and more likely to need assistance with unemployment benefits (14.5% compared to 9.1% of off-campus patients and none of the oncology patients). Oncology patients were much more likely to be receiving disability benefits; 47.4% of the oncology patients were already on disability compared to 15.9% of the off-campus patients and 18.3% of the trauma patients.

D. Domestic Relations

Patients commonly were having difficulties with relationships in their lives related to their illness. First, many (22%) reported difficulty serving as a caregiver to someone who was depending upon them. Oncology patients were most likely to report difficulties serving as a caregiver with 31.6% so reporting compared to 23.4% of trauma patients and 13.7% of off-campus patients. Some patients (5%) reported being alone themselves, with no one to help them in their life.

Second, marital difficulties were common with 15.1% of patients reporting being separated from their spouse. Trauma patients were most likely to be separated from their spouse at 16.9% compared to 11.4% off-campus and 10.5% oncology.

Third, some abuse was reported with 3.5% reporting physical abuse and 2.5% reporting mental abuse. The numbers were too small to make meaningful comparisons between the clinics.

E. Criminal Law Issues

Many patients were facing criminal law issues including 13.6% facing fines, jail or imprisonment, 9.6% with criminal convictions affecting their job prospects, and 5.5% facing criminal charges. Criminal issues were most likely among trauma patients including 16.9% facing fines, jail, or imprisonment, 11.8% facing criminal convictions limiting job options, and 7.4% facing criminal charges.

Some patients had been the victims of crime with 9.1% dealing with identity theft and 11.6% reporting being a scam victim. Trauma patients were most likely to face identity theft with 10.3% compared to 9.1% off-campus and none of the oncology patients. Scam victim percentages were similar among the different clinics.

F. Addiction

Addiction issues were common (14.6%). Addiction issues were most common in trauma patients at 19.1% compared to 10.5% oncology and 2.3% off-campus.

G. Immigration

A small number of patients reported immigration issues (1.5%). Immigration issues were most likely to be reported off-campus (4.5%).

IV. Discussion

Almost three out of four (73.9%) patients acknowledged legal problems affecting their recovery. We found many different types of social determinants of health with possible legal solutions affecting orthopedic patients' recovery, which we will broadly categorize for discussion into (1) issues with basic necessities and (2) other social/legal issues including employment issues,
relationship issues, criminal law issues, addiction, and others. We will also make some general comments regarding the study itself.

*149 A. Basic Necessities

We found patients facing significant problems with money/debt, affording medications, housing insecurity, food insecurity, and utility insecurity.

First, debt was the most common issue facing the patients in our study. Almost half (49.2%) reported issues with debt affecting their recovery with 27.6% receiving collection letters and 12.6% facing bankruptcy. These debt numbers are in line with expectations and other studies because patients often borrow money to finance their medical treatments. This is especially true for cancer patients with 54% of cancer patients in one study having problems affording their treatments, 40% depleting their savings, 34% borrowing money to pay for their treatments, 11.1% facing bankruptcy, and 30% having problems with bill collectors. 7 In our study, debt issues were similar among the three clinics (52.6% oncology, 51.3% off-campus, and 47.8% trauma), but surprisingly trauma patients were noticeably more likely to be receiving collection letters (30.9% versus 26.3% oncology and 18.2% off-campus).

Debt has been shown to negatively impact health recovery leading to depression, anxiety, and noncompliance with treatment recommendations leading to poor health outcomes. 8 Attorneys might be able to help “treat” debt in a way that improves health outcomes by educating patients about their rights under the Fair Debt Collection Practices Act (FDCPA) and assisting those patients facing overly aggressive creditors to ensure compliance with debtor/creditor laws; something as simple as a legal discussion with the patient and an attorney letter to an aggressive creditor might significantly impact patient outcomes by decreasing the mental burden of dealing with crushing debt during serious illness. 9

In addition, many of our patients reported being victims of scams (11.6%) or identity theft (9.1%)--a growing problem in the U.S. currently. If these scams/identity thefts affect the patient's credit scores, patients may not be able to borrow money needed to provide basic necessities required for health recovery. Attorneys can help patients deal with credit report discrepancies and help ensure that creditors abide by the Fair Credit Reporting Act (FCRA). 10 Forty-three million Americans have medical debt that negatively impacts their credit reports, and low income families are especially vulnerable. 11 A lengthy discussion of creditor/debtor law is beyond the scope of this article.

*150 Second, we found that over one fourth of patients (27.5%) were having problems affording their medications. Because cancer drugs are often extremely expensive, we were not surprised that the problem was much more common among oncology clinic patients with 42.1% of oncology patients reporting problems affording their medications. As a result of being unable to afford medications, noncompliance with necessary treatments may occur. Nationwide, approximately 20% of the population fails to adhere to doctor's recommendations primarily due to lack of affordability--placing them at risk for costly avoidable complications. 12 For example, patients may take smaller or less frequent medication doses or go to fewer physical therapy visits due to cost concerns--even including some higher income individuals. 13

Targeting oncology clinics for legal assistance with counseling regarding debt issues mentioned above along with attorney guidance in seeking assistance from other programs designed to help patients afford their medications might result in improved outcomes. In some cases, attorneys may be able to help patients who cannot afford their medications by setting up legal online fundraising efforts 14 or maybe helping the patient qualify for prescription medication assistant programs like NeedyMeds or RX Hope. 15 In addition, information or assistance to patients regarding programs like the Medicare Savings Programs, Programs for All-Inclusive for the Elderly (PACE), prescription drug assistance programs, and other programs might help health outcomes. With regard to cancer patients, oral chemotherapy parity laws or the Women's Health and Cancer Rights Act might come into play. 16 Other legal interventions beyond the scope of this article may also be available.
Third, almost one fourth (24%) of the patients in our study feared having crucial utilities shut off while they recovered. Trauma patients tended to be more susceptible to utility insecurity, but not significantly so. Excess cold and heat is associated with negative health outcomes. Excess deaths in wintertime have been associated with low indoor temperatures, especially secondary to cardiovascular and respiratory diseases.\textsuperscript{17} Cold\textsuperscript{*151} homes have been associated with heart attacks, pneumonia, mental illness, and even death.\textsuperscript{18} Vulnerable populations include patients with diabetes, circulatory problems, asthma, arthritis, lung problems, disability, and those who are children or elderly.\textsuperscript{19} Cold housing may exacerbate arthritis symptoms.\textsuperscript{20} Improvements in warmth has been shown to improve general, respiratory and mental health.\textsuperscript{21}

Likewise, hot housing can cause morbidity and mortality among vulnerable populations with one study estimating that air conditioning in homes has decreased the rates of premature deaths by 80% since 1960.\textsuperscript{22} Given that our study occurred during late spring and early summer months, the concern is the fact that when temperatures reach over 90 degrees, people get sick and/or die.\textsuperscript{23}

Loss of running water also can lead to significant health consequences. If the patients' running water is shut off for non-payment, then the health benefits of flush toilets, clean water, and decreased spread of infectious diseases are lost.\textsuperscript{24} Severe bacterial infections (e.g., sepsis and meningitis), respiratory illnesses, skin infections, dental cavities, and other health issues can occur due to patients' losing running water--especially among vulnerable populations.\textsuperscript{25}

*\textsuperscript{152} Attorneys can help ensure patients' due process rights are protected when utility companies threaten to shut off vital utilities affecting heat, air, and water. “Constitutionally sufficient shut-off notice ... (must) provide the customer with the information he needs to quickly and intelligently take available steps to prevent the threatened termination of service.”\textsuperscript{26} To prevent shut-off, utility companies often offer credit counseling and more lenient payment agreements for patients in “genuine hardships or appropriate situations.”\textsuperscript{27} Other options are available as well, beyond the scope of this paper.\textsuperscript{28}

Fourth, housing insecurity was common among our patients because 21% feared losing their housing, 4.5% were already facing eviction, and 1% already homeless. The home environment clearly affects health outcomes.\textsuperscript{29} Particularly vulnerable populations are those that spend the most time indoors and are culturally isolated--often including the elderly, the chronically ill, the immunocompromised, and low income children.\textsuperscript{30} Unstable housing “leads to depression, anxiety, and, in children, diminished functioning.”\textsuperscript{31} Foreclosure worsens the health outcomes, even being linked to hypertension and renal disease.\textsuperscript{32}

Attorneys can help stabilize housing insecurity by improving patients' chances of avoiding eviction or foreclosure by protecting their due process rights and other rights under housing laws. Nationwide, statistics suggest that due process may be questionable in many locations. For example, in Chicago where the courts handle 31,000 eviction proceedings annually, the average time spent during an eviction proceeding is \textit{one minute and forty-four seconds}, and only 5% of tenants are represented by an attorney (i.e., they are \textit{pro se}).\textsuperscript{33} New York City handles 300 to 400 eviction cases daily.\textsuperscript{34} Once evicted, as many as 47% of families in some cities end up homeless or in homeless shelters, with obvious health implications.\textsuperscript{35} Recognition of housing threats early in a medical clinical setting and appropriate involvement of an attorney might prevent negative health outcomes that result from the consequences associated with housing instability. We recognize that there are many other housing interventions beyond the scope of this article.

Finally, 20% of our patients reported difficulties affording healthy meals potentially signaling food insecurity. Oncology patients were especially likely to have food\textsuperscript{*153} insecurity with over one fourth (26%) reporting difficulty affording healthy meals. Poor diet negatively impacts health outcomes. Nationwide, nearly 50 million Americans are affected by food insecurity.\textsuperscript{36} Adult food insecurity is associated with arthritis, cancer, decreased physical activity, osteoporosis, obesity, hypertension, depression, suicidal ideation, insomnia, heart disease, lung disease, kidney disease, and a plethora of other health problems.\textsuperscript{37}

In addition to helping prevent financial crisis in the first place under some of the methods discussed above, attorneys can also assist patients with eligibility and ensure state compliance with programs like Supplemental Nutrition Assistance Program
(SNAP), \(^{38}\) Women, Infants, and Children (WIC) supplemental nutritional services, as well as other interventions beyond the scope of this article.

**B. Other Legal/Social Issues Affecting Health Recovery**

Other social/legal issues affecting the patients' health in this study include employment problems, disability benefits, unemployment and workers' compensation benefits, relationship issues, criminal law issues, addiction, and immigration issues.

First, a significant number of our patients were facing employment issues that affect their health. Less than half of patients (47.5\%) said they felt secure in their jobs or were retired, and 8.3\% of patients feared losing their job due to their illness/injury. Trauma patients were most susceptible to job insecurity with 11.5\% fearing job loss compared to 5.3\% of oncology patients and none of the off-campus patients (remember that 31.8\% of the off-campus patients were retired). Employment issues can negatively impact health outcomes, and job loss and unemployment are associated with a variety of negative health effects." \(^{39}\) People who are unemployed “are less likely to get medical care \(^{154}\) or prescription drugs than people with jobs,” regardless of whether they have health insurance. \(^{40}\) In addition, unemployed adults have “poorer mental and physical health” and are “less likely to receive needed medical care” than employed adults according to the CDC. \(^{41}\) Further, work has obvious economic benefits, but also has important psychological impacts on health outcomes by providing a routine, a distraction from health issues, and a sense of productivity and usefulness to many patients. \(^{42}\)

Attorneys can play a key role in helping patients remain employed by informing patients of their rights and helping to protect those rights. \(^{43}\) In addition to the FMLA, \(^{44}\) federal fair employment laws like the ADA and ADAAA protect patients recovering from illness--often requiring “reasonable accommodations” and “fair employment protections” for patients in danger of losing their jobs. \(^{45}\) State laws may also help some patients. \(^{46}\) Contractual employees can also obviously benefit from attorney intervention. There are many other ways attorneys can help with employment issues beyond the scope of this article.

Second, many of our patients were either already on Social Security disability or seeking it. Specifically, 20.6\% of the patients in our study were already receiving disability payments, including a disproportionate percentage of oncology patients (47.4\% versus only 18.3\% of trauma patients and 15.9\% of off-campus patients). Disabled patients may also need help with issues involving accessibility and transportation where an attorney might help.

Almost 12\% of our patients had either applied or were considering applying for disability. Early attorney intervention in disability qualification can be critical to health \(^{155}\) outcomes because the system takes a long and arduous process to qualify. \(^{47}\) Two thirds of initial Social Security Disability Insurance (SSDI) applicants are denied and must appeal, with a decision often taking almost two years. \(^{48}\) In some states, short term disability programs may help. \(^{49}\) In addition, an attorney may be able to help expedite the process for “compassionate allowances” and “terminal illnesses.” \(^{50}\) A full discussion of disability law will not be included here.

Third, we found that patients also often needed assistance with workers' compensation and with unemployment benefits. Specifically, 11.9\% reported needing assistance with unemployment benefits, while only 2.1\% were receiving unemployment benefits. In addition, one-third of the 4.6\% of patients who were on workers' compensation reported needing assistance, and because their case workers were often in the room during the survey, we suspect more patients on workers' compensation needed help, but were hesitant to discuss the issue in front of their case worker.

Fourth, the most common relationship issue affecting our patients was difficulty providing help to someone who depended upon them, which 22\% of patients reported. 31.6\% of cancer patients reported this problem. Vulnerable dependents included children, elderly, and disabled family members and friends. Attorney evaluation of those family members' situations might reveal that they qualify for some type of assistance that would reduce the burden on the patients in our study. The second most common relationship issue was marital separation in 15.1\%. Attorney intervention might or might not make a difference in this area because many patients seemed to be satisfied with the long term separation and were not seeking divorce, so the health
impact is not clear. Finally, small numbers of patients reported physical or mental abuse, which we suspect is mostly due to underreporting. More study is needed in this area to make any meaningful suggestions.

Fifth, criminal issues were fairly common with 13.6% facing fines, jail or imprisonment and 5.5% facing current criminal charges, which were affecting their health--noticeably more common among trauma patients. More information regarding legal information and representation of those patients is required to make meaningful recommendations here. Almost 10% (9.6%) of patients reported criminal convictions affecting their job prospects. As noted above, employment issues are important to health. In some cases, expungement legal proceedings might be an option that an attorney could offer to improve the patients' job prospects.

Sixth, addiction and immigration issues may also be amenable to attorney treatment that would improve health outcomes. However, we suspect these issues were underreported in our study (especially with immigration in the current political climate).

*156 C. General Comments

Because many medical professionals view attorneys unfavorably and associate legal representatives with “ambulance-chasing” plaintiff's attorneys, we were concerned that the law student would face considerable resistance in the clinics from medical personnel. However, this was largely not the case, and most personnel accepted and assisted the student in conducting the surveys and in discussing their patient care concerns with her. We think this acceptance was because we made it clear that we were there to try to improve patient care and were not interested in investigating tort or medical malpractice issues. One clinic representative did initially resist the law student's presence, but this was cleared up after discussion with clinic leadership regarding the reasons for her presence. Therefore, we believe that medical professionals will accept legal representatives in the clinical environment as long as their reasons for being present are to improve patient health outcomes and those reasons are clearly stated at the outset.

Patients likewise generally accepted the law student and agreed to participate in the survey. Before beginning the survey, each patient was given a clear option to opt out. Only five patients opted out. One patient's family member in the orthopedic trauma clinic became hostile when the student began asking about housing and utilities and considered the survey too intrusive, so the law student simply left the room at the family members request. Another patient with apparent opioid abuse history immediately refused to talk to the student when she identified herself as being a law student. One oncology patient simply did not want to take the survey after receiving bad medical news during the clinic visit. One patient had very poor hearing, so a family member simply declined the survey. Finally, another patient simply declined the survey without any obvious reason. So, 97.6% (201/206) patients agreed to do the survey after the student introduced herself as a law student. We think patients will accept law students and probably other legal representatives in medical clinics if their roles are well defined.

As an educational experience for the law student, she reported the experience was favorable and would have a positive impact on her understanding of health-care related issues in her future legal practice. We believe these patient and medical personnel interactions will provide the future attorney with unique insight into the inner workings of a medical care setting that should help her be a better policymaker, health care client/patient advocate, physician/hospital advocate, and/or litigator. During her exit interview, she described the experience as “very eye opening” and noted that “listening to people telling their story was very educational.” She said, “I've learned a lot about social determinants of health,” and “I have a grasp on how medicine works now.” We think direct patient interaction will help make young lawyers into better health policymakers and health lawyers and is one way to introduce law students to compassion and empathy to make them better attorneys.

*157 One weakness of the study is the fact that the data was collected by a single law student at a single university. It is possible that other students or interviewers might get different results. This is a starting point for us. Many medical clinics are not excited about having lawyers or law students in their offices. Dr. Barnes and the UAMS Department of Orthopedic Surgery are progressive thinkers and willing to pave new roads by allowing us unprecedented access. Another weakness is the small sample size. Again, this is the first study of which we are aware where a law student has been allowed direct access to patients in a clinical setting to personally ask legal questions. If we can get more general acceptance of attorneys' value in medical settings, future studies may have much larger numbers. As EMRs incorporate ICD 10 codes with medico-legal factors, it may be easier
to get data in the future--although lawyers and law students are likely to be the most effective screeners for these issues, which may be missed by some medical intake personnel.

V. Conclusions

Social determinants of health with legal implications are common among orthopedic clinic patients, and those patients recognize that these issues are affecting their health and are willing to talk to legal personnel in a medical clinic setting. Almost three-fourths of patients in our study were facing legal/social issues affecting their health. Debt was particularly prevalent, affecting almost half of patients; so, debt counseling and assistance at an early stage by qualified attorneys might significantly improve patient outcomes. Difficulty affording medications affected over one fourth of the patients in our study, including over 40% of orthopedic cancer patients. Attorney intervention in helping patients get assistance with obtaining their medications in oncology clinics might help ensure compliance with those medications and improve clinical outcomes. Fear of losing critical utilities, housing insecurity, and food insecurity were also common (24%, 21%, and 20%, respectively) among the patients in our study--with attorneys potentially being able to provide assistance in a multitude of ways for all of these issues. Employment issues, disability, unemployment benefits, and workers' compensation were also common problems among our patients that may be amenable to attorney intervention. Relationship issues including difficulty with care-giver responsibilities and marital separation were common, and abuse issues were present though likely underreported. Finally, a significant number of patients were facing criminal issues, addiction, and immigration issues affecting their health, but more information is needed to make meaningful suggestions regarding those issues.

Overall, we believe the educational experience gave the student valuable insight into the health care environment that will make her a better attorney. In addition, medical personnel and patients were generally accepting of being interviewed by legal personnel during their medical office visits. More study is needed in this area, and we hope that other law/medical schools begin similar studies to help more clearly delineate ways attorneys can begin to bring their unique qualifications into health care settings to help treat the social determinants of health.

VI. APPENDIX 1

Question 1: Student input: In which clinic or setting is the patient being seen?
• Adult Orthopedic Trauma Clinic
• Orthopedic Oncology Clinic
• Other Adult Orthopedic Clinic

Question 2: What is your age?

Question 3: How are your current living conditions? (Student: Check and explain all that apply)
• I am homeless
• I fear losing my housing due to issues related to my health
• I fear losing my utilities like heat/air conditioning/water due to my health
• I have difficulty affording healthy meals
• I have difficulty affording my medications
• I do not have problems where I live or getting food to eat
Question 4: What is your work status while you recover from your illness/injury? (Student: Check and explain all that apply)

- I am employed. My job is secure, and I have plenty of leave time to recover my health
- I am currently employed but am worried that I might lose my job due to my health
- I am unemployed with no unemployment benefits and needing assistance
- I am unemployed and receiving unemployment benefits
- I am on Workers' Compensation and satisfied
- I am on Workers' Compensation and needing help
- I have applied for disability already
- I am considering applying for disability
- I am already on disability

Question 5: What problems, if any, are you having with people in your life that are affecting your recovery? (Student: Check and explain all that apply)

- I am alone. I really don't have anyone in my life to create issues
- Physical abuse
- Mental abuse
- Difficulty serving as a care-giver to a person who depends on you
- I would like to talk about this with someone later, but not now
- Other: Explain below.

*159 Question 6: Are any legal issues affecting your ability to recover your health? For example, eviction, collection agency letters, victim of a scam, separation from a spouse, criminal charges, etc. (Student: Check all that apply & explain)

- Criminal charges
- Criminal convictions limiting your job options
- Fines, jail, or imprisonment
- Identity theft
- Immigration issues
• Bankruptcy
• Eviction
• Addiction
• Tax debt
• Other (non-tax) debt
• Transportation issues
• Work safety issues
• Victim of a scam
• Collection agency letters
• Need for a will and estate planning
• Separated from spouse
• Other: Please explain
• No, there are no legal issues affecting my health

Question 7: What type of health insurance do you have?
• None
• Medicaid
• Medicare
• Private health insurance (Not through an employer) El Employer based health insurance
• Other (Explain below)

Footnotes

a1 Dr. Griffin is currently an Adjunct Professor and Health Law Scholar-in-Residence at the University of Arkansas School of Law and an Adjunct Clinical Assistant Professor in Orthopedic Surgery with the Division of Orthopedic Surgery at the University of Arkansas for Medical Sciences. Dr. Griffin is a graduate of the University of Arkansas School of Law and previously clerked for the Honorable Judge Bobby Shepherd at the United States Court of Appeals for the Eighth Circuit.


3. See BRADLEY & TAYLOR, supra note 1, at 38; see also James Teufel et al., Rural Health Systems and Legal Care, 35 J. LEGAL MED. 81, 82 (2014); Investing in Social Services as a Core Strategy for Healthcare Organizations: Developing the Business Case: A Practical Guide to Support Health Plan and Provider Investments in Social Services, COMMONWEALTH FUND (Mar. 22, 2018).

4. The survey was approved by the University of Arkansas Medical School Internal Review Board (UAMS IRB).

5. Patients who were incarcerated were excluded from the study.

6. We were uncertain of insurance status on 1.8% of patients based on the information provided by the patient.


10. See BRYANT & MORALES, supra note 7, at 308.

11. See BRYANT & MORALES, supra note 7, at 282; see also Andrew F. Beck et al., Identifying and Treating a Substandard Housing Cluster Using a Medico-Legal Partnership, 5 PEDIATRICS 130, 831 (Nov. 2012), available at http://www.academia.edu/20511630/Identifying_and_Treating_a_Substandard_Housing_Cluster_Using_a_Medical-Legal_Partnership.


13. See id. (discussing ways to reduce costs associated with medication and/or doctor's visits).

14. BRYANT & MORALES, supra note 7, at 316 (explaining how online legal fundraising efforts can help patients afford their medication).

15. BRYANT & MORALES, supra note 7, at 316 (explaining how NeedyMeds and RXHope provide critical medications to patients who cannot afford them otherwise).


17. E.g., Cold homes and health, CTR. FOR SUSTAINABLE ENERGY, https://www.cse.org.uk/advice/advice-and-support/heat-and-health (last visited May 8, 2019) (identifying health issues associated with a cold home);

18 Id. (highlighting the impact on environmental factors within the home affecting health).

19 Id. at 24.

20 See id. at 26. Symptoms of arthritis (also including the flu, colds, and rheumatisms) are difficult to fully quantify due to the lack of systemic recording, which occurs with mortalities. Id. The Warm Front health impact studies have reported improvements in health ranging from generally improved comfort to mobility to cases of minor colds. Id. at 20. Among this study, nearly a quarter of respondents reported improvement of arthritic conditions. GEDDES ET AL., supra note 17.


22 See Juliet Eilperin, Study: home air conditioning cut premature deaths on hot days 80 percent since 1960, WASH. POST (Dec. 22, 2012), https://www.washingtonpost.com/national/health-science/study-home-air-conditioning-cut-premature-deaths-on-hot-days-80-percent-since-1960/2012/12/22/5b57f3ac-4abf-11e2-b709-667035ff9029_story.html?noredirect=on&utm_term=.44f2e6769e09. Researchers found that the days of temperatures above 90 degrees Fahrenheit resulted in about 600 premature deaths annually between 1960 and 2004. Id. This is one-sixth as many premature deaths as would have occurred under pre-1960 conditions. Id. See also Alan L. Barreca et al., Adapting to Climate Change: The Remarkable Decline in the U.S. Temperature Mortality Relationship over the Twentieth Century, SSRN (Dec. 21, 2012), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2192245.

23 See Eilperin, supra note 22; see also Climate Change and Health, WORLD HEALTH ORG. (Feb. 1, 2018), https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health. “Extreme high air temperatures contribute directly to deaths from cardiovascular and respiratory disease, particularly among elderly people.” Id.

24 Division of Preparedness and Emerging Infections (DPEI): Water and Sanitation, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/ncezid/dpei/aip/water-sanitation.html. The risk of spreading infectious diseases increases when homes do not have running water. Id. Washing hands and bathing are important ways to reduce the spread of such diseases. Id.

25 Id.


27 Id.

28 For example, other options include making the patient aware and assisting patients with qualification for Low Income Home Energy Assistance Program (LIHEAP).

29 Beck et al., supra note 11, at 834; see also Samiya A. Bashir, Home Is Where the Harm Is: Inadequate Housing as a Public Health Crisis, 92 AM. J. PUB. HEALTH 733, 733, 834 (2002); Allyson E. Gold, No Home for Justice: How Eviction Perpetuates Health Inequity Among Low Income and Minority Tenants, 24 GEO. J. POVERTY 59 (2016). Research shows malnutrition, asthma, lead poisoning, and injury can all be hazardous health outcomes. Gold., supra.

30 Bashir, supra note 29, at 733; Gold, supra note 29.

31 Bashir, supra note 29, at 733; Gold, supra note 29.

32 Beck, supra note 11, at 836 (discussing the link between foreclosure and tenants' health).
33 Gold, supra note 29, at 62, 64 (noting the number and brevity of eviction cases to highlight the lack of due process).

34 See id. at 62 (noting eviction case statistics in New York City).


36 See id. at 69.

37 See generally Am. Acad. of Pediatrics & Food Research and Action Ctr., Addressing Food Insecurity: A Toolkit for Pediatricians, FOOD RESEARCH & ACTION CTR. (last visited May 9, 2019), http://frac.org/aaptoolkit; Dr. Seth A. Berkowitz, Food Insecurity, Malnutrition, and the Health of Older Adults: Testimony for the U.S. Senate Special Committee on Aging, FOOD RESEARCH & ACTION CTR., http://frac.org/blog/food-insecurity-malnutrition-health-older-adults-testimony-u-s-senate-special-committee-aging (last visited May 9, 2019) (explaining food insecurity significantly affects health of older adults who are not frail or underweight); Heather Hartline-Grafton, The Impact of Food Insecurity on Women's Health, FOOD RESEARCH & ACTION CTR., http://frac.org/blog/impact-food-insecurity-womens-health (last visited May 9, 2019) (noting that food insecurity has detrimental impacts on health of children); Gundersen & Ziliak, supra note 36.


39 NANETTE GOODMAN, LEAD CENTER POLICY: THE IMPACT OF EMPLOYMENT ON THE HEALTH STATUS AND HEALTH CARE COSTS OF WORKING-AGE PEOPLE WITH DISABILITIES, BRIEF 4 (2015), available at http://www.leadcenter.org/system/files/resource/downloadable_version/impact_of_employment_health_status_health_care_costs_0.pdf. Working leads to better health outcomes, which improves the quality of life and well-being. Id. Unemployment is a major factor that can negatively impact one's health and prevent one from regaining employment. Id. See also Robert Wood Johnson Found., How Does Employment, or Unemployment, Affect Health? ROBERT WOOD JOHNSON FOUND. (Mar. 12, 2013), https://www.rwjf.org/en/library/research/2012/12/how-does-employment--or-unemployment--affect-health-.html. Unemployed Americans are faced with numerous health challenges due to their unemployment. Id. Those without jobs are more likely to develop poor health conditions, like heart attacks or other stress-related conditions. Id. They are also more likely to be diagnosed with mental illness. Id.


41 See supra note 40 and accompanying text (comparing statistical difference between employed and unemployed adults based on fair or poor health).

42 See GOODMAN, supra note 39; BRYANT & MORALES, supra note 7, at 95.

43 BRYANT & MORALES, supra note 7, at 93.


46 See, e.g., BRYANT & MORALES, supra note 7, at 117-18; see, e.g., CAL. GOV'T CODE § 12945.2 (2019), WIS. STAT. ANN. § 103.10 (West 2018), OR. REV. STAT. ANN. § 659A.156 (West 2018).

47 See, e.g., 20 C.F.R. § 404.1505(a) (2012) (defining disability and requirements needed to qualify under the definition).

48 BRYANT & MORALES, supra note 7, at 157.

49 Id. at 182.

50 Id. at 177-79.

51 Fred Charatan, U.S. Doctors Debate Refusing Treatment to Malpractice Lawyers, 328 BMJ 1518 (2004), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC437138/ (stating that many medical professionals view attorneys unfavorably). Charatan also references a proposed AMA resolution to allow doctors to refuse care to some lawyers, their families, and their employees except in emergencies. Id.