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Abstract

Attempts to Collect: A Quantitative Analysis of Medical Debt Lawsuits Filed in Thurston County in 2020

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Medical debt lawsuits against patients are a uniquely American problem. Many researchers have accessed court records of lawsuits to provide meaningful analysis on medical debt; some have used web scraping techniques to collect court data, while others have reviewed thousands of pages of paper documents. In this study, we use web scraping to download court documents. We developed a computer model with novel electronic recognition and parsing techniques to automate the process of extracting data from court records. This methodology expands the amount of data that can be reviewed in a given time. We provide descriptive statistics and an analysis of the medical debt lawsuits filed in Thurston County in 2020 by collections agency Dynamic Collections, inc. Our findings include: the average principal amount of suits was \$1,173 while the average judgment (total) amount was \$1,875, reflecting an average of \$622 in court fees and interest added to each case. We found the highest proportion of cases in Thurston County are attributed to Tacoma Radiological Services, a third-party vendor that provides in-hospital diagnostic services via contracts with hospitals. We identified 32% of lawsuits originated with hospitals required to provide charity care. We found one Federally Qualified Health Center and three public hospital districts that sued Thurston County patients in 2020. We also found 16% of lawsuits originated from dental services.

Attempts to Collect: A Quantitative Analysis of Medical Debt Lawsuits Filed in Thurston County in 2020

Introduction

Medical Debt

The United States is one of the only wealthy countries (defined as a member of one of the 38 democracies with market-based economies in the Organization of Economic Cooperation and Development)¹ in which patients can be sued over unpaid hospital bills. Estimates on the number of Americans who have medical debt vary from 23 to 100 million.^{2,3,4} In 2019, 66.5% of people who filed for bankruptcy reported medical debt as a contributing cause.⁵ Patients with and without medical insurance have difficulty paying their medical bills.⁶ This is a uniquely American problem with wide-ranging public health implications.

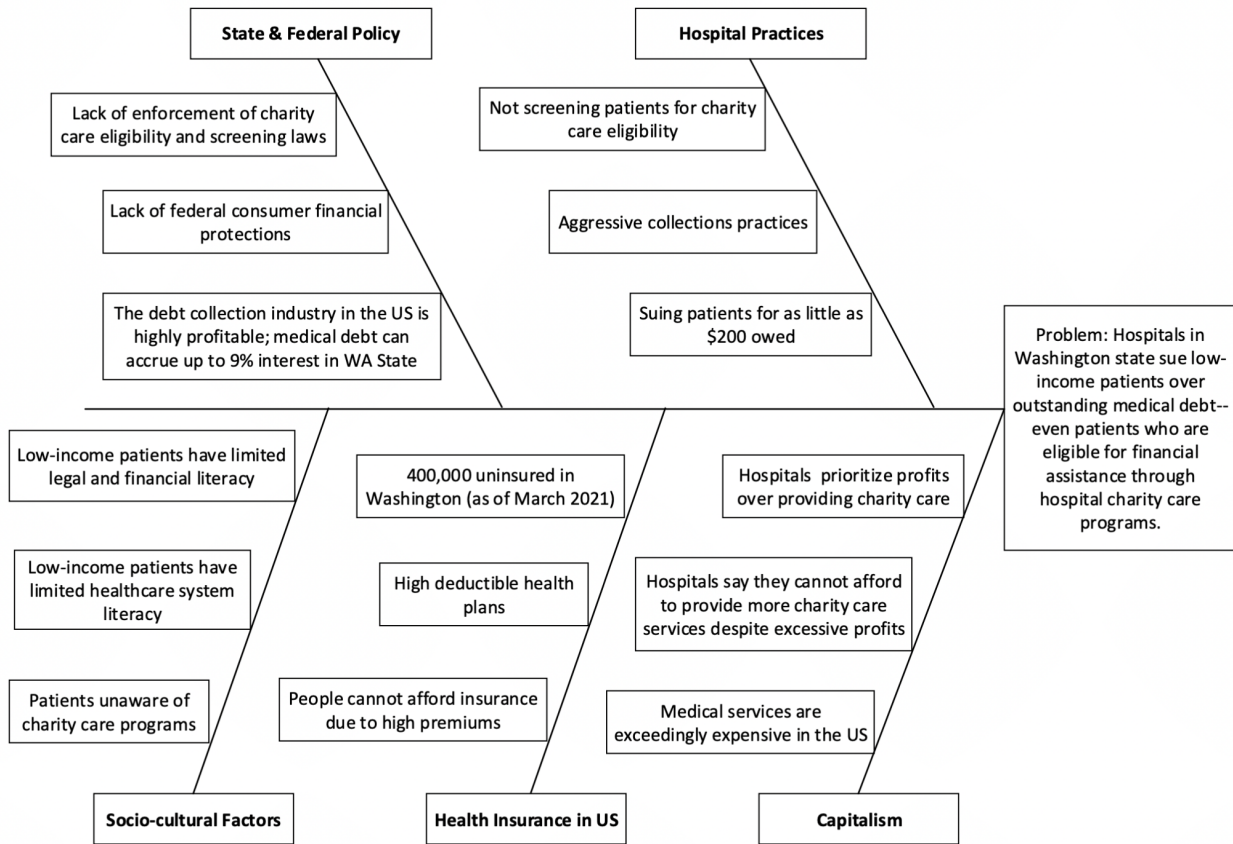
In this paper, we analyze medical debt lawsuits for a single county in Washington State, where hospital charity care is mandated by state law. We chose Thurston County because it is home to the state capital, and because data were readily available to us.

Medical debt is associated with reduced subsequent patient utilization of appropriate healthcare services, along with food and housing insecurity.^{7,8} Low-income patients who are sued over unpaid medical bills, often hospital bills,⁹ report a litany of poor financial and legal outcomes. These include bankruptcy, low credit scores, and wage garnishments.¹⁰ People experiencing homelessness who report having medical debt even experience longer periods of homelessness than their counterparts without medical debt.¹¹ People of color are more likely to experience medical debt, particularly Black patients.^{12,13} Immigration status can make health insurance unattainable for some people, contributing to medical debt and driving a greater need for financial assistance among the undocumented population.

Charity Care: Federal & State Policy

Both federal and state policies have attempted to reduce medical debt by requiring hospitals to offer charity care programs. Tax law requires nonprofit hospitals to provide community benefits in exchange for tax exemption, which includes financial assistance for low-income patients.¹⁴ Nonprofit hospitals do not pay property taxes, a lucrative benefit that saves many of them millions of dollars.¹⁵ The IRS requires these hospitals to report the value of community benefits they provide each year.¹⁴

Diagram 1. Conceptual diagram of causes of medical debt lawsuits originating from hospitals, including suits against low-income patients who were eligible for financial assistance



Twenty-six states have state laws that include additional charity requirements for hospitals. Examples of state charity care policies include: requirements for all hospitals to provide charity care (not just non-profits), setting minimum eligibility standards, and requiring hospitals to screen patients for charity care eligibility.¹⁶ Washington State law RCW 70.170 requires all hospitals in the state to determine patients' eligibility and provide financial assistance to those who are eligible.¹⁷ Washington State does not provide funding to hospitals to pay for charity care. Fewer than five hospitals in Washington State have for-profit status.

The Washington State Department of Health releases an annual charity care report. Reports dating to 2010 are available on its website. According to these reports, hospitals in Washington have spent less than 2% of their annual revenue on charity care since 2013. In 2020, Washington State hospitals spent 1.49% of their annual revenue on charity care.¹⁸

Nonprofit Hospitals

Since 2003, state and national press reports have called attention to hospitals that make charity care difficult to access, employ aggressive collections tactics, and sue patients even after they are determined to be low-income.^{4,19} The New York Times has reported on Swedish Hospital, owned by Providence in Washington State, and the Washington Attorney General's 2022 lawsuit charging the organization with failing to provide charity care to patients.²⁰ Providence operates nine hospitals in Washington State, including one in Thurston County: St. Peter hospital in Olympia, WA. Providence also operates outpatient healthcare facilities, including one in Lacey and one in Olympia.²¹

Other Healthcare Organizations

Public hospital districts (PHDs) are county-owned facilities: government entities established and funded to support the health of the community. PHDs are required to provide charity care.²² Fifty-seven PHDs are members of the Association of Washington Public Hospital Districts including numerous hospitals in rural areas surrounding Thurston County: Summit Pacific Medical Center, Mason Health (Mason General Hospital), Ocean Beach Hospital & Medical Clinic, and Harbor Regional Health (formerly Grays Harbor Community Hospital).²³

Federally Qualified Health Centers (FQHCs) are not hospitals and therefore are exempt from from the state's charity care law, however, these federally-funded outpatient clinics provide healthcare to underserved populations, including uninsured patients, immigrants, and English language learners. The Affordable Care Act boosted funding for FQHCs with policies tailored to improve quality, affordability, and accessibility.²⁴ Federal guidelines state FQHCs are not to deny care to any patient for inability to pay. In cases when a patient has difficulty paying, federal guidelines direct FQHCs to provide payment plans or financial counseling.²⁵

Despite differences in funding sources, mission statements, and policies, nonprofits, public hospital districts, and FQHCs operate similarly when it comes to billing and collections.

Related Research & Findings

Previous academic studies and journalism investigations have used similar methods to analyze court records on medical debt lawsuits. Cooper et al.'s 2021 study in Wisconsin accessed court records via the Wisconsin Circuit Court Access System. They included medical debt lawsuit data from every county in the state between 2001 and 2018. This study found lawsuits increased 37% in this time period. By inferring patient race, they found a higher proportion of lawsuits against Black patients; they also found a concentration of suits in poorer and less populated counties. The average lawsuit size varied between \$2,522 and \$3,939. The authors note: "For the 12% of cases listed with multiple plaintiffs, we used the first plaintiff listed."¹³ We use the same methodology in our study.

Bruhn et al.'s 2019 study scraped medical debt suit records from the General District Court Online Case Information System within the Virginia Judicial System. Their dataset included medical debt lawsuits filed in Virginia in 2017. The authors found over 20,000 medical debt suits and the average amount of wages garnished per patient was \$2,700. Garnishments were more common among nonprofit hospitals compared to for-profit hospitals. Only 36% of hospitals in Virginia garnished wages from patients, with a small number of hospitals accounting for most of the lawsuits.³

Ericson and Gross' 2021 research in Maryland scraped court records via the Maryland Judiciary Case Search system. Their dataset included medical debt cases filed between 2009 and 2018 in every county in Maryland. They found 90% of Maryland medical debt suits were for less than \$3,700, and approximately 50% of lawsuits were for less than \$1,000. Their methods include an estimate of the hospital revenue received from these cases. The authors offer an analysis of how a \$1,000 threshold policy for lawsuits would affect hospital revenues.²⁶

A white paper published by the Community Service Society of New York in 2020 used the New York State eCourts public database to review 30,000 medical debt lawsuits filed between 2015 and 2019. Authors Dunker and Benjamin tallied the number of lawsuits attributed to each hospital. Similar to Washington State, New York's hospitals are all nonprofit. The median amount of principal debt was \$1,900, and the median judgment amount was \$2,300 (indicating a median amount of \$400 in interest and fees added to each case.) The authors note the high proportion of default judgments and the racial disparities in which patients are most likely to be sued (based on geography and racial demographics of where defendants live.) Authors note: "The median amount of money hospitals pursued from patients (\$1,900) appears at odds with the legal costs hospitals must bear to pursue court cases against patients. Perhaps economies of scale are secured because the hospitals often use just a few high-volume law firms that sue thousands of patients."²⁷

In 2014, ProPublica published a piece on medical debt suits filed in 2013 in Missouri. The article does not describe the authors' methodology, but includes an analysis of the number of suits filed, total dollar amount garnished, and number of hospital beds at five hospitals in the state. The author notes: "Blue collar workers, Walmart cashiers, nursing home aides, clerical staffers—these types of patients have long been the most vulnerable to unexpected debt. They can't afford insurance, yet they're not poor enough for Medicaid." Evidently 3.6% of the 15,000 lawsuits were against patients working at McDonald's. The article notes the high proportion of default judgments in these cases. One Missouri patient's wages are garnished to the point where her take-home income is below the minimum wage.¹⁵

In 2021, The Mississippi Center for Investigative Reporting published a story on medical debt lawsuits in the state between 2018 and 2020. The authors write: "Mississippi has a court records

website for individual counties, but many of the state's 82 counties do not participate.” Researchers accessed some case records via this online database, but also spent weeks reviewing 50,000 pages of medical debt lawsuit records by hand. The article does not provide a quantitative analysis of the suits, but states many of the patients sued worked low-earning jobs in retail and fast food.^{28, 29}

Novel tool for automated extraction of data from court documents

Research on medical debt using court records is limited by the availability of digital court records systems in each state. Statewide online databases containing civil case filings which exist in some states facilitate research on a statewide scale. Washington State has an online court records database called Judicial Information System (JIS.) This database did not meet our needs; civil cases are filed in each county's court, and are not shared in the statewide JIS system.³⁰ Some counties in Washington State, including Thurston, have civil district court records accessible online.³¹

Our research employed novel electronic recognition and parsing techniques to automate the process of extracting information from court records. This methodology expands the amount of data that can be reviewed in a given time.

Research questions

We sought to understand how many low-income patients were sued for debt collection by Washington State hospitals in Thurston County in 2020. We specifically sought to identify the most aggressive companies in these suits, and whether hospital compliance with the state's charity care law was compromised by these lawsuits against patients. We set out to design a computer modeling approach to correctly identify medical debt cases in court filings and extract financial judgment data on these cases.

Methods

Overview

We developed a computer model to conduct a quantitative, cross-sectional study of publicly available Thurston County District Court records filed in calendar year 2020. Our aim was to extract and analyze cases in which patients were sued by hospitals or their collection contractors for unpaid medical debt.

RCW 70.54.470 states hospitals cannot send patient accounts to collections until at least 120 days after the initial billing statement.³² RCW 4.16.040 states an action on an account receivable must be commenced within 6 years.³³ Therefore, the lawsuits in our dataset originate from medical services which took place in the years preceding 2020.

The University of Washington IRB found this study exempt from human subjects research oversight, #STUDY00015110.

Obtaining digital district court case records

The attorney on our research team filed a records request with Thurston County District Court to obtain a list of civil cases filed in 2020 by Dynamic Collections, Inc. This collections agency, active in Thurston County, files lawsuits to collect debts on behalf of numerous types of creditors. In June 2022, University of Washington iSchool members of our team used web scraping methods to download case files from Thurston County’s case records website, using the case numbers we had received through a Public Records Act request.

Table 1. Number of cases retrieved and analyzed in Thurston County filed by Dynamic Collections, Inc.

Individual cases retrieved	1497
Services rendered cases identified by model and from which the model extracted relevant data	687
Cases verified (by a human) to be medical debt	566
Medical debt cases validated manually (all variables extracted from court records by humans and compared with model’s extracted data)	305

Identifying medical debt cases versus non-medical debt cases

Manual confirmation of case records early in the data collection process revealed some of Dynamic Collection’s lawsuits were on behalf of non-medical creditors, requiring us to distinguish the medical cases from other types of debt. The cases in the dataset fell into the following three categories: services rendered, Municipal Court judgment, and loan. Medical debt cases are filed under the “services rendered” category, so our team trained the model to first identify all the services rendered cases. The model identified 687 services rendered cases; some of these were for *medical* services rendered, while others were for non-medical services, such as tire repair or bank fees.

Figure 1.1 Example of medical debt case listed under services rendered category

FILED
JAN 02 2020
THURSTON COUNTY
DISTRICT COURT

Case No 127852

THURSTON COUNTY DISTRICT COURT DISTRICT COURT
CASE INFORMATION COVER SHEET

COURT CASE NO.

Attorney Name Joseph O. Enbody Bar Number WSBA # 21445
 Plaintiff/Petitioner Dynamic Collectors, Inc. CA DYN00005
 Defendant/Respondent _____

Amount of Suit \$ 915.77

Please check one category that best describes this case for indexing purposes. Accurate case indexing saves time in docketing new cases and assists in forecasting needed judicial resources. Cause of action definitions are listed on this form.
 Thank you for your cooperation.

<input type="checkbox"/> Goods and Services (GS) <input type="checkbox"/> Lease Agreement (LA) <input type="checkbox"/> Loan (LOA) <input type="checkbox"/> NSF Check (NSF) <input type="checkbox"/> Open Account (OPA)	<input type="checkbox"/> Other (OTH) <input type="checkbox"/> Rent (REN) <input checked="" type="checkbox"/> Services Rendered (SER) <input type="checkbox"/> Wages (WAG) <input type="checkbox"/> Written Instrument (WR)
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Figure 1.2 Creditor listed in case 127852

		AMOUNT	INTEREST	FEES	TOTAL
1	COMPLAINT- EXHIBIT A				
2					
3	CREDITOR				
4	PROVIDENCE ST PETER HOSPITAL	492.99	19.78	0.00	512.77
5	ACCOUNT#:				
6	LST CHG: 06-20-17				
7	REF#:				
8					
9	TOTAL	492.99	19.78	0.00	512.77
10					

Training the model

Between July and October 2022, our team trained the model to extract data on six variables for the medical debt cases. See Table 2.

Table 2. Six variables to extract from the court data set.

	Variable	System Output
1.	Principal Amount	Dollar amount
2.	Judgment or Total Amount	Dollar amount
3.	Defendant's name	Name (text)
4.	Defendant's address	Address (text)
5.	Healthcare Facility (Creditor)	Name of facility

Validating the model's output

After our model was designed and we completed its extraction process, an iSchool team member converted the data output into spreadsheet format. Next, two research assistants manually extracted data from 305 cases. To test the machine's extraction accuracy, the team compared the model's automatically extracted data with the manually extracted data from the 305 validation cases.

Figure 3. Example of model's output in spreadsheet format

A	B	D	H
case number	principal amount	total amount	creditor
128264	a. Awarding Plaintiff the principal amount of: \$ 3860 b	just. i. For a total of: \$ 6282. Dated	A CREDITOR AMOUNT MASON GENERAL HOSPITAL 38
134055	a. Awarding Plaintiff the principal amount of: \$ 218 b	just. i. For a total of: \$ 721. Dated	A CREDITOR CHEHALIS FAMILY DENTAL ACCOUNT#:
131985	a. Awarding Plaintiff the principal amount of: \$ 1312 b	just. i. For a total of: \$ 2408. Dated	A CREDITOR AMOUNT PACLAB 126.15 ACCOUNT#:
133283	a. Awarding Plaintiff the principal amount of: \$ 340. b	just. i. For a total of: \$ 747. Dated	A CREDITOR AMOUNT OLYMPIC DENTAL & DENTURE
132351	a. Awarding Plaintiff the principal amount of: \$ 1088. b	just. oe For a total of: \$ 2246. Dated	A CREDITOR AMOUNT SUMMIT PACIFIC MEDICAL CEN
132358	a. Awarding Plaintiff the principal amount of: \$ 340.00 b	just. i. For a total of: \$ 790.66 Dated	A CREDITOR WILLIAM GROMKO MD ACCOUNT#:
128299	a. Awarding Plaintiff the principal amount of: \$ 327 b	just. Ls For a total of: \$ 805. Dated	A CREDITOR W KIRK HARRIS, MD ACCOUNT#:
135370	a. Awarding Plaintiff the principal amount of: \$ 5724.96 b	just. le For a total of: \$ 7384.87 Dated	A CREDITOR AMOUNT GRAYS HARBOR COMMUNITY I

Data analysis

The lead author computed descriptive statistics on medical debt suit dollar amounts. These include the mean and median dollar amounts of the suit principal amount (how much was owed for medical bills) and the suit judgment amount (final amount the patient was ordered to pay after fees and interest were added). The difference between the mean principal and judgment amounts equals the mean amount of fees and interest added to each case. An iSchool team member created a scatter plot to illustrate how original principal amounts varied from final judgment amounts.

Next, the lead author analyzed the creditor data available to determine the proportion of suits originating with each creditor. The lead author also determined the average principal and judgment amount for each creditor.

Results

Types of errors in model extraction

We accessed documents from a total of 1497 cases via online District Court record databases. Our model made some errors, described in Table 3.

Table 3. Types of errors in model extraction

Misidentification	Identified cases as medical debt that were not medical debt Identified zip codes as dollar amounts
Transposition errors	Mistaking a 1 for a 7
Missing data	Model was unable to locate the data it was looking for, perhaps because it was in an atypical location in the document or it was not in the document at all
Incomplete data	Model identified the first piece of information it found and stopped looking, for example when multiple writs of garnishment documents are present and the gross wages data from each page is relevant
Handwriting	Model can identify and interpret some handwriting, but there are limitations

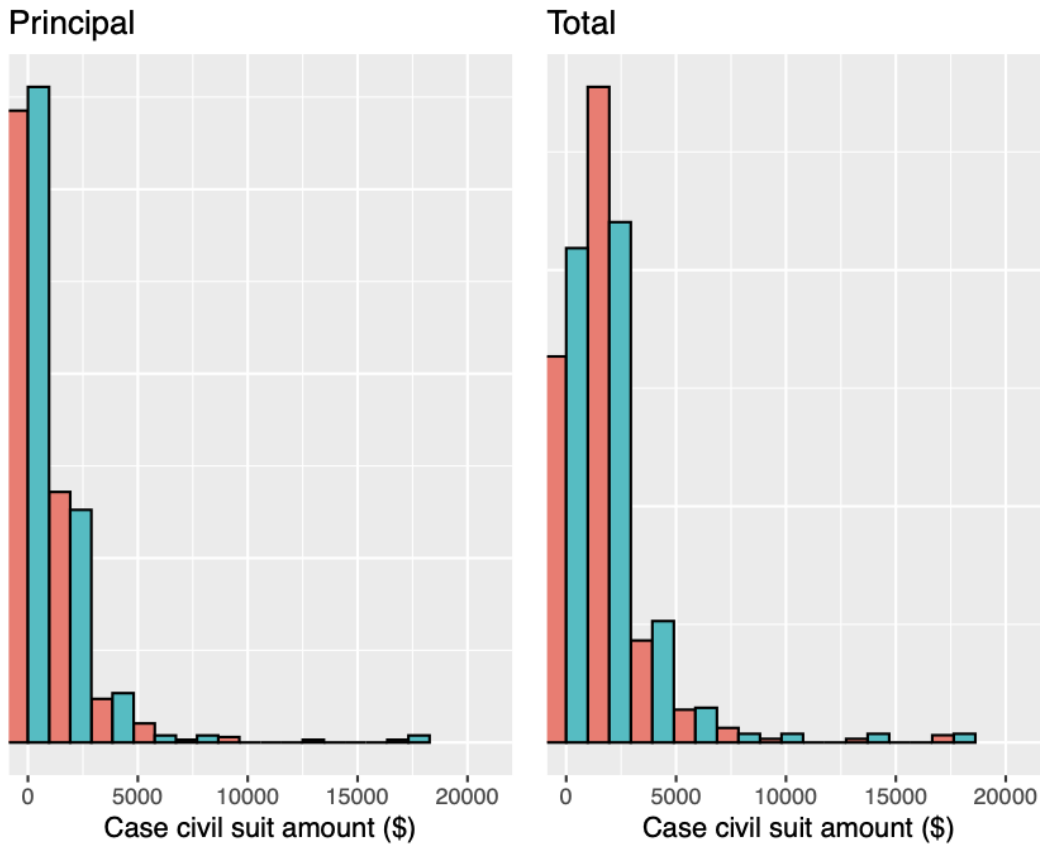
Descriptive statistics on dollar amounts of suits

We identified the mean and median principal and judgment amounts (see Table 4.) The results and histogram (Figure 4) indicate that most of the medical debt lawsuits were filed for less than \$1,200 owed. After fees and interest were added, most cases totaled closer to \$2,000.

Table 4. Principal and judgment amounts

Mean principal amount	\$1,173.10
Median principal amount	\$622.70
Mean judgment amount	\$1,875.34
Median judgment amount	\$1,207.00
Mean interest & fees added	\$661

Figure 4. Visualization of principal and total amounts and frequency. Credit: Ott Toomet, iSchool.



Relationship between principal amount and judgment amount

Our computer model correctly identified *both* the principal amount and judgment amount in 390 of the medical debt cases. Among these cases, the average interest and fees added to each case during court proceedings totaled \$661 (Principal Amount + Interest & Fees = Judgment [Total] Amount.) Figures 5.1 and 5.2 show the effects of both flat fees and interest accruing over time.

Figure 5.1 Relationship between principal amount and judgment amount. Credit: Ott Toomet, iSchool.

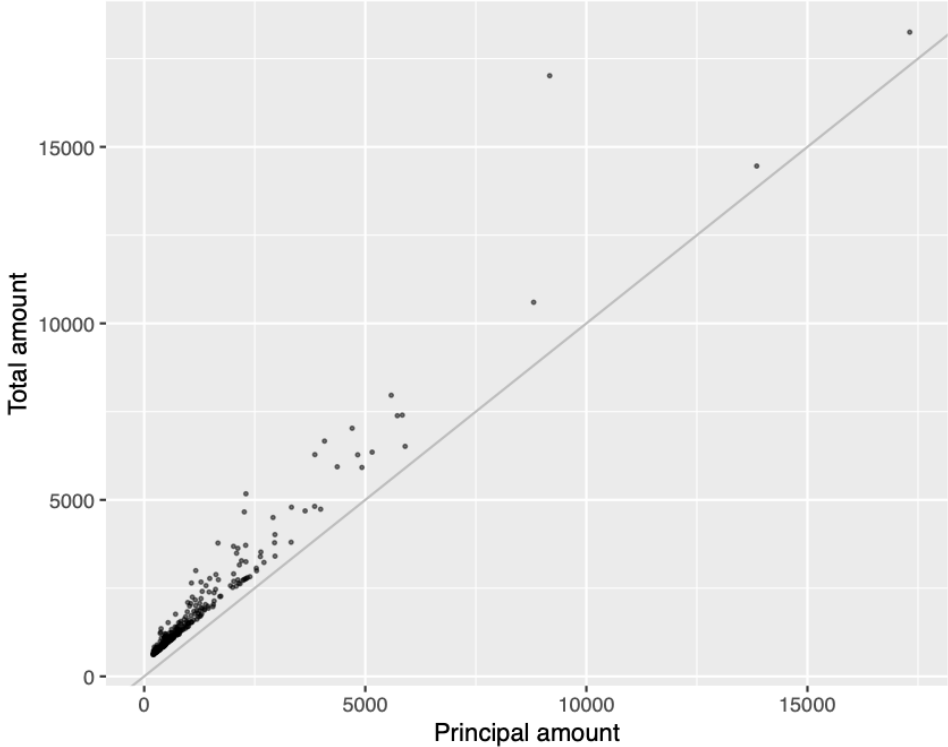
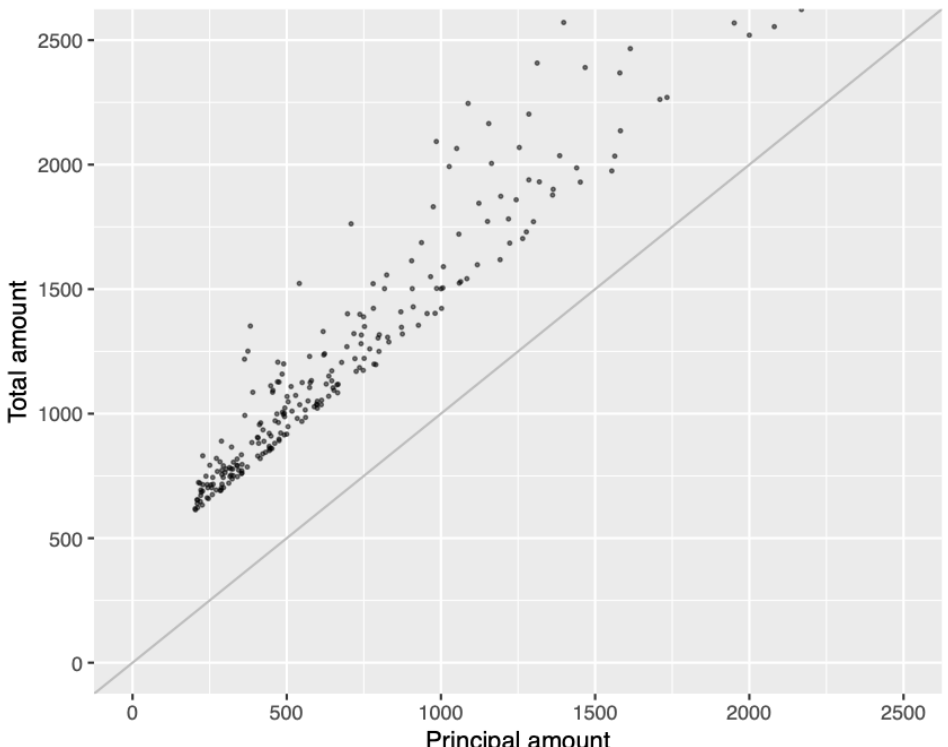


Figure 5.2 Detail of relationship between principal amount and judgment amount. Credit: Ott Toomet, iSchool.



Healthcare Facilities Responsible for Highest Volume of Medical Debt Suits

The model identified the creditor in 561 medical debt cases. We analyzed this data to identify what proportion of lawsuits was attributed to each creditor and type of creditor.

Table 5. Creditors responsible for highest proportion of medical debt suits

Creditor	Type of healthcare entity	Percentage of suits
Tacoma Radiological Associates	For-profit	18.18%
Providence health system (includes all facilities)	Nonprofit	14.79%
Paclab	For-profit	9.09%

We also aggregated similar types of creditors to evaluate which types of medical services resulted in the highest proportions of medical debt suits.

Table 6. Aggregate findings on creditors responsible for highest proportion of medical debt suits

Type of Creditors	Percentage of suits
Facilities required to provide charity care/financial assistance*	32.73%
Medical imaging (MRIs, X-rays, etc.)	21.03%
Dentists	16.39%

*Includes public hospital districts Mason General Hospital, Grays Harbor Community Hospital, and Summit Pacific Medical Center; nonprofit Providence; and FQHC Valley View Health Center

FQHCs

We identified one Federally Qualified Health Center (FQHC), Valley View Health Center, as responsible for 4.09% of the medical debt suits in our 2020 dataset. FQHCs are obligated by their federal charters to be in service to low-income patients, so the filing of Valley View's claims against 23 patients for approximately \$17,000 owed seems incongruous with its mission.

Public Hospital Districts

We identified three public hospital districts that sued Thurston County residents for medical debt in 2020. These facilities are not located in Thurston County, but still sued a significant number of patients residing there.

Table 7. Percentage of medical debt lawsuits attributed to public hospital districts

Public Hospital District	County	Percentage of suits
Mason General Hospital	Mason County	6.06%
Summit Pacific Medical Center	Grays Harbor County	4.99%
Grays Harbor Community Hospital	Grays Harbor County	2.85%

Default Judgments

The manual validation process revealed the majority of cases resulted in default judgments, meaning the defendant lost the case because they did not appear before the court and therefore the judge ruled in favor of the plaintiff, Dynamic Collections, Inc. We were unable to determine the exact number of default judgments because the information present in the case files was inconsistent.

Employment of Sued Patients

Some patients who are sued for medical debt have their wages garnished to pay back their debts. For these patients, a Writ of Garnishment in their court case documentation details their employer and the wages earned over the previous 60 days. At this time our model is not trained to identify wage garnishments and extract data on employers or garnishees’ incomes. However, during the manual validation process we observed many of the patients who had their wages garnished in 2020 worked for employers like McDonald’s, Dollar Tree, and Wal-Mart.

Hospital Debt Interest Rates

Washington State law RCW 19.16.500 allows public hospital districts to collect 50% interest on medical debt.³⁴ Our dataset included medical debt suits from many of the public hospital districts in areas near Thurston County. However, we did not find any cases in which patients had been charged 50% interest.

Strengths

Our automated data extraction process saved many hours of human labor reviewing court records. Each medical debt lawsuit may contain as few as two or as many as 100 pages of documentation. The scope of this project was possible because the researchers did not have to review every single case document by hand, as previous researchers have done.²⁸ This automated process also reduces the potential for human error while inputting data into spreadsheets.

Using court records is an effective tool for investigating medical debt at a local level and identifying which healthcare facilities are suing patients most often.

It is remarkable how much personal information is available in a public court record; acknowledging the sensitivity of this material, we were careful to protect names and addresses of individuals, even though these data points were a matter of public record.

Our team developed this model amid growing concerns about the application of artificial intelligence (AI) technology in research. To be clear, our model uses machine learning techniques, not AI, to recognize variables. The model is able to identify variables in a set of images because human beings taught the model, for example, where the “principal amount” is located on the page and what words and phrases are nearby. We were generally satisfied with the model’s capacity to recognize medical debt as distinct from other kinds of debt, however, it is still not perfect; because of the variability in the court case images, recognition remains a challenge and requires some human oversight and validation. We are hopeful that this model or similar tools will be helpful for investigations of medical debt and court records in the future. See our separate manuscript on developing the model.³⁵

Limitations

We discovered numerous medical collections agencies active in Washington State, although our analysis includes only those cases filed by Dynamic Collections, Inc. in Thurston County. Other collections agencies may have filed medical debt suits in Thurston County in 2020, making our dataset an incomplete picture of the total number of medical debt suits filed.

A significant barrier to this type of research is the limited accessibility of publicly-available court records. District Court records access systems are designed primarily for attorneys and parties involved in the cases to find records of their own cases; they are not designed for research. Accessing these publicly available digital archives for academic research is hampered by both inconsistent case filing formats and inconsistent rules and procedures between counties.

We are limited in the conclusions we can make with our dataset, as court records did not contain any of the following information:

- Patient’s household size (required to calculate precise eligibility for charity care)
- Patient’s phone number
- Patient’s age (to report eligibility for Medicare)
- Patient’s race, ethnicity, and preferred language (to report on potential inequities in court filings)
- Date of medical service (to know the time elapsed between care provided and suit filed)
- Type of medical service

Data on these variables was available in some, but not all of the cases in our dataset:

- Patient’s gross earnings (when wages were garnished, this was generally available)
- Patient’s insured/uninsured status and insurance plan

We hoped to identify the proportion of medical debt defendants eligible for charity care at the time of service. However, lack of data on household size and total income restricted our ability to calculate charity care eligibility. We are also unable to definitively identify what proportion of these patients had health insurance at the time of service. In addition, we could not calculate the time that had elapsed between the date of service and the date of the lawsuit; we were curious how quickly the medical provider took action against the patient. A longer elapsed time could indicate the provider worked with patients to set up payment plans.

Finally, we cannot make any determinations about the demographics of patients sued for medical debt. We hypothesized that patients who speak English as a second language and BIPOC patients are sued more frequently than their white counterparts, consistent with research from other states.^{13, 27}

We set out to create a computer model to automate data extraction from court documents. Manual validation of a significant sample of cases confirmed our confidence in the model. Some level of human oversight of the model's data extraction process is required, given the variation in forms and the construct of documents. Manual validation and correction of the model's success in extracting data will help retrain the model for future iterations.

Future research will determine whether the model we developed is compatible with other types of court documents, other counties, or even other states. We knew from previous research³⁶ that similar model training had worked to identify data in home eviction court filings.

Discussion

Overview

This is the first study to use automated methods to systematically extract court records data to analyze medical debt, allowing us to report number of cases, names of service providers, the range and average case amounts, the added costs of interest and fees. This provides a starting place for identifying likely violations of Washington State charity care law.

Amount of Suits

The median principal amount for which Thurston County hospitals sued their patients in 2020 was \$622.70, resulting in a median judgment amount of nearly twice that, at \$1,207. This is lower than the median and average medical debt suit amounts reported by researchers in New York, Wisconsin, Virginia, and Maryland, suggesting Washington state hospitals have less reluctance to sue over relatively small bills.^{3, 12, 13, 26}

The study in New York was the only one that identified the median value of court fees and interest added to medical debt suits about \$400 in 2020.¹² This is lower than the \$661 mean court fees and interest added we found in Thurston County in 2020.

Together, these findings indicate Thurston County residents, and perhaps Washingtonians in general, are being sued for less money owed than patients in other states, while being charged more fees and interest than patients in other states.

Hospitals responsible

Several studies have reviewed types of hospitals responsible for the highest proportion of suits. The Virginia study found nonprofit hospitals and those with lower revenue were responsible for the most garnishments.³ The New York study by Dunker analyzed which hospitals were responsible for the highest volume of medical debt suits. While all hospitals in New York are nonprofits, some of them filed a high volume of medical debt suits while others did not sue any patients at all.¹²

Consistent with these studies, our research found a high volume of medical debt lawsuits filed by nonprofits, although there are no for-profit hospitals in the Thurston County area for comparison. Our evidence indicates these healthcare facilities are engaging in aggressive collections practices, not consistent with their mission statements or charity care requirements. While many other studies analyzed the number and proportion of suits originating from nonprofit hospitals and public hospital districts, no other studies we found suggested FQHCs were suing patients. Our study is unique in including non-hospital medical debts. Many non-hospital healthcare facilities are suing patients over extremely low amounts, such as \$250.

We found a high volume of medical debt suits for imaging and laboratory services, mainly from Paclab and Tacoma Radiological Associates. These third-party contractors provide in-hospital services on contract to the hospital hosts.³⁷ While it is arguable that diagnostic testing is *medically necessary* for the provision of care in the hospital setting, it is not covered by Washington State charity care law.

We found a surprisingly high proportion of medical debt suits originating from dental services, indicating people have difficulty affording and accessing dental care.

Default Judgments

The high proportion of default judgments entered in medical debt cases in Thurston County indicates patients are not attending their court dates to defend themselves. Both the New York study by Dunker and the Missouri article by Kiel also found a high proportion of default judgments.^{15, 27} Default judgments result in poorer legal and financial outcomes for patients. This

trend illustrates the need for public defenders in civil cases. Kiel noted “the imbalance between the legal expertise of collections agencies’ attorneys and patients without representation.”¹⁵

Disparities

Kiel (2014) found most Missouri patients who had been sued were working “blue-collar” jobs: “They can't afford insurance, yet they're not poor enough for Medicaid.”¹⁵ Missouri did not expand Medicaid until 2021. In comparison, Washington State implemented Medicaid expansion in 2013. Nonetheless, our 2020 Thurston County analysis found a similar pattern of garnishee patients working for employers like Wal-Mart, McDonald’s, and Dollar Tree.

Several studies analyzed geographic trends relating to where the medical debt defendants live. A Wisconsin researcher found lawsuits were more commonly filed against people living in poor and rural counties.¹³ Ericson compared the number of lawsuits filed per capita in each Maryland county, finding three times as many lawsuits per capita were filed against residents in the lowest income regions of Maryland as compared to the highest-income regions.²⁶ Dunker found race and ethnicity information was not present in New York court records, similar to our finding in Thurston, but lawsuits are concentrated in areas where people of color live.¹² The Wisconsin study used a model to infer patient race, concluding Black patients in Wisconsin were sued at a higher rate than patients of other races.¹³ States seeking to ensure equity could require racial identity data in court filings, but the inferred race based on name is a good interim measure.

Further research

The Washington State Attorney General’s office is barred by law from taking action against the state’s 57 public hospital districts.^{23, 38} As public hospital districts are not explicitly included in the state's Consumer Protection Act, RCW 19.86, the Washington State Attorney General cannot take action against them.^{39, 40, 41, 42} Further research is needed on the financial assistance, billing, and collections practices of these government-owned healthcare facilities.

We identified a high proportion of medical debt suits that originated from for-profit entities, such as labs and other diagnostic services, that act in collaboration with hospitals but are not required themselves to provide charity care. Under current policy, low-income patients have no claim to financial assistance for diagnostic imaging and specimen testing, nor dental care, even if the services are provided by third-party organizations in hospitals themselves obligated to provide charity care.

While RCW 19.16.500³⁴ permits public hospital districts in Washington State to levy as much as 50% interest on medical debt, we are aware of only one district actually doing so (Snohomish County, north of Seattle).⁴³ This extraordinary interest clearly could substantially harm rural patients in places where public hospital districts are the only healthcare facility available.

It would be useful to know which types of healthcare organizations (hospitals, nonprofit, for-profit, public hospital districts, FQHCs, faith-based, etc.) are responsible for the relative amounts of medical debt lawsuits in Washington State.

Qualitative research could explain the patients' experience. We do not understand why patient knowledge of their rights under charity care law is so limited, or the barriers to applying so formidable.

Appendix

Table 8. Qualitative findings from practicum

Themes from Qualitative Interviews with Patients who were Sued for Medical Debt (Residents of Clallam and Chelan County) Interviews conducted Jan-Mar 2022, practicum with Northwest Health Law Advocates
Lack of awareness that charity care or financial assistance programs exist.
Numerous participants reported that they believed their health insurance would cover 100% of their medical bills.
Some participants were under the impression they did not owe for medical bills because the receptionist did not tell them so when they checked in for doctor appointments. Many people appear to rely on the receptionist at the healthcare facility to notify them of their outstanding balance, although this is not standard practice.
Several participants reported they are living with a chronic health condition (unmanaged diabetes was mentioned by 3 participants) and are no longer receiving care for that condition, at least partially due to fear around medical bills. It is likely that without preventive care, these conditions will be exacerbated and lead to medical emergencies that require costly interventions at some point in the future.
Individuals who live with extended family experience more difficulty applying for charity care and providing required documentation for their extended family members. This burden may be experienced by immigrants and people from non-white cultural backgrounds at a higher rate due to cultural traditions around multigenerational households. (Asian, Black, and Latinx families are more likely to live in multigenerational households than their white counterparts. ⁴⁴) This is especially problematic when the hospital assumes that family members who are cohabitating are sharing finances; this is not always the case.
Spanish-speaking participants in particular demonstrated lack of understanding of what had happened to them and how it had happened. This is likely related to receiving documents and medical bills in English.
The majority of these cases result in default judgments because defendants do not appear in court. One participant reported he did not appear for his court date because he believed doing so would cost him more money.
Several participants reported attempting to set up payment plans with the collections agencies, but were told the amount they were offering to pay monthly was not enough. Several individuals stated they wished the hospital had done more to communicate that they owed money, aside from sending medical bills in the mail. Several individuals also expressed they wished they could have set up payment plans with the hospital directly, before the hospital sent them to collections.
Several participants offered (unprompted) information about immigration status and reported either fears around being deported when seeking assistance for medical bills or fears that

having medical debt would make it more difficult to obtain citizenship.

One individual who responded to my letter but did not complete an interview is both employed by Confluence Health and also having her wages garnished for medical care received at Confluence Health.

While sending out letters to individuals who had been sued for medical debt, we observed a large proportion of addresses listed for these individuals in court documents are residences in trailer parks/mobile home parks.

Figure 6. Letter from defendant found in Thurston County court records

FILED
MAR 02 2020
THURSTON COUNTY
DISTRICT COURT

February 27, 2020

Case No .

To Whom It May Concern,

In June of 2017 I experienced a major medical event and due to my disability I have been unable to work since July of 2017. As a result I have not been able to take care of both medical and personal bills. I am in the process of exploring options around and saving for bankruptcy and plan on filing in the near future. With my lack of income I am barely able to take care of the basic needs for myself and two daughters, let alone get caught up and/or negotiate payments on past and current debts.

Thank you for your understanding and patience.

Figure 7. Excerpt of code from model

```
question = "what is the creditor?"
print(len(medical_1))
model.eval()
medical_list = []
for folder in medical_folder:
    print(folder)
    folder_path = major_path + '/' + folder
    for each in listdir(folder_path):
        # print(each)
        if each.endswith(".pdf.7.jpg"):
            image_path = folder_path + '/' + each
            my_file = pathlib.Path(image_path)
            if my_file.is_file():
                # file exists
                image_eval = Image.open(image_path).convert("RGB")
                input_ids, input_mask, segment_ids, token_boxes, token_actual_boxes = convert_example_to_features(image_eval, tokenizer, args=args)
                input_ids = torch.tensor(input_ids, device=device).unsqueeze(0)
                attention_mask = torch.tensor(input_mask, device=device).unsqueeze(0)
                token_type_ids = torch.tensor(segment_ids, device=device).unsqueeze(0)
                bbox = torch.tensor(token_boxes, device=device).unsqueeze(0)
                outputs = model(input_ids=input_ids, bbox=bbox, attention_mask=attention_mask, token_type_ids=token_type_ids)
                logits = outputs.logits
                prediction = torch.nn.functional.sigmoid(logits)
                result = input_ids*(prediction.argmax(dim=-1))
                final = [i for i in result[0] if i != 0]
                predicted_answer = tokenizer.decode(final)
                amount_suit_dict[folder] = predicted_answer
            print(predicted_answer)
```

References

1. Organization for Economic Co-operation and Development. List of OECD member countries [Internet]. [cited 2023 May 25]. Available from: <https://www.oecd.org/about/document/ratification-oecd-convention.htm>
2. Palosky C. 1 in 10 adults owe medical debt, with millions owing more than \$10,000. KFF [Internet]. 2022 Mar 10 [cited 2022 Dec 07]. Available from: <https://www.kff.org/health-costs/press-release/1-in-10-adults-owe-medical-debt-with-millions-owing-more-than-10000/>
3. Bruhn WE, Rutkow L, Wang P, et al. Prevalence and characteristics of Virginia hospitals suing patients and garnishing wages for unpaid medical bills. JAMA [Internet]. 2019 June 25 [cited 2023 May 25]; Research letter. Available from: <https://jamanetwork-com.offcampus.lib.washington.edu/journals/jama/fullarticle/2737183?resultClick=1&appId=scweb>
4. Kliff S, Silver-Greenberg J. This nonprofit health system cuts off patients with medical debt. The New York Times [Internet]. 2023 Jun 1 [cited 2023 Jun 4]. Available from: <https://www.nytimes.com/2023/06/01/business/allina-health-hospital-debt.html>
5. Himmelstein DU, Lawless RM, Thorne D et al. Medical bankruptcy: still common despite the Affordable Care Act. Am J Public Health [Internet]. 2019 Mar [cited 2023 Jun 4];109(3):431-433.
6. Bai G, Yehia F, Anderson GF. Charity care provision by US nonprofit hospitals. JAMA [Internet]. 2020 Feb 17 [cited 2022 Dec 07];180(4):606-607. Available from: <https://jamanetwork-com.offcampus.lib.washington.edu/journals/jamainternalmedicine/fullarticle/2760774> doi: 10.1001/jamainternmed.2019.7415
7. Kalousova L, Burgard SA. Debt and foregone medical care. J Health Soc Behav [Internet]. 2013 June [cited 2023 May 25];54(2):204-220. Available from: <https://pubmed.ncbi.nlm.nih.gov/23620501/>
8. Mendes de Leon CF, Griggs JJ. Medical debt as a social determinant of health. JAMA Network [Internet]. 2021 Jul 20 [cited 2022 Oct 03];326(3):228-229. Available from: <https://jamanetwork.com/journals/jama/article-abstract/2782205>
9. Buck, ID. When hospitals sue patients. Hastings Law Journal [Internet]. 2022 Feb [cited 2023 May 25];73(2):191-232. Available from: <https://heinonline-org.offcampus.lib.washington.edu/HOL/Page?handle=hein.journals/hastlj73&collection=journals&id=192&startid=&end=233#>
10. Lagnado L. Hospitals try extreme measures to collect their overdue debts. WSJ [Internet]. 2023 Oct 30 [cited 2023 May 25]. Available from: <https://www.anderson.ucla.edu/documents/areas/adm/loeb/04a19-5.pdf>
11. Bielenberg JE, Futrell M, Stover B et al. Presence of any medical debt associated with two additional years of homelessness in a Seattle sample. Inquiry [Internet]. 2020 Jan [cited 2023 May 25];57. Available from: <https://pubmed.ncbi.nlm.nih.gov/32513034/>

12. Dunker A, Benjamin ER. Discharged into debt: New York's nonprofit hospitals are suing patients. The Community Service Society of New York [Internet]. 2020 Mar [cited 2023 May 25]. Available from: https://smhttp-ssl-58547.nexcesscdn.net/nycss/images/uploads/pubs/2020_Hospital_Report_V3_web.pdf
13. Cooper Z, Han J, Mahoney N. Hospital lawsuits over unpaid bills increased by 37 percent in Wisconsin from 2001 to 2018. Health Affairs [Internet]. 2021 Dec [cited 2023 May 25];40(12). Available from: <https://doi.org/10.1377/hlthaff.2021.01130>
14. Bazzoli GJ, Clement JP, Hsieh H. Community benefit activities of private, nonprofit hospitals. J Health Polit Policy Law [Internet]. 2010 Dec [cited 2022 Dec 07];35(6):999-1026. Available from: <https://read.dukeupress.edu/jhpl/article-abstract/35/6/999/13393/Community-Benefit-Activities-of-Private-Nonprofit?redirectedFrom=fulltext> doi: 10.1215/03616878-2010-036
15. Kiel P. From the E.R. to the courtroom: how nonprofit hospitals are seizing patients' wages. ProPublica [Internet]. 2014 Dec 19 [cited 2023 May 25]. Available from: <https://www.propublica.org/article/how-nonprofit-hospitals-are-seizing-patients-wages>
16. Levinson Z, Huler S, Neuman T. Hospital charity care: how it works and why it matters. KFF [Internet]. 2022 Nov 3 [cited 2023 Jun 4];Health Costs. Available from: <https://www.kff.org/health-costs/issue-brief/hospital-charity-care-how-it-works-and-why-it-matters/>
17. RCW 70.170.060 (WA)
18. Washington State Department of Health. Charity care in Washington hospitals [Internet]. [cited 2023 May 25]. Available from: <https://doh.wa.gov/data-statistical-reports/healthcare-washington/hospital-and-patient-data/hospital-patient-information-and-charity-care/charity-care-washington-hospitals>
19. Unland JJ. Two years into the storm over pricing to and collecting from the uninsured--a hospital valuation expert examines the risk/return dynamics and asks: would fair pricing and fair medical debt repayment plans increase yields to hospitals and simultaneously mitigate these controversies? J Health Care Finance [Internet]. 2005 Jan 01 [cited 2022 Dec 07];32(1):54-66. Available from: <https://europepmc.org/article/med/18972978>
20. Silver-Greenberg J, Thomas K. They were entitled to free care. Hospitals hounded them to pay. The New York Times [Internet]. 2022 Sep 24 [cited 2022 Dec 07];Business. Available from: <https://www.nytimes.com/2022/09/24/business/nonprofit-hospitals-poor-patients.html>
21. Providence. Washington jobs [Internet]. [cited 2023 Jun 6]. Available from: <https://providence-washington.jobs/human-resources-business-partner/jobs-in/>
22. Association of Washington Public Hospital Districts. Legal manual [Internet]. [updated 2022 Mar; cited 2023 May 25]. Available from: <https://mrsc.org/getmedia/f3986741-4f36-4c91-9e5d-da6dd3be9306/AWPHD-Legal-Manual.pdf>

23. Association of Washington Public Hospital Districts. Public hospital district directory [Internet]. [cited 2023 May 25]. Available from: <https://www.awphd.org/members/>
24. Kaiser Family Foundation. Summary of the Affordable Care Act [Internet]. 2013 Apr 25 [cited 2023 May 25]. Available from: <https://www.kff.org/health-reform/fact-sheet/summary-of-the-affordable-care-act/>
25. Health Resources and Services Administration: Bureau of Primary Health Care. Health center program compliance manual [Internet]. [updated 2018 Aug 20; cited 2023 May 25]. Available from: <https://bphc.hrsa.gov/sites/default/files/bphc/compliance/hc-compliance-manual.pdf>
26. Ericson K, Gross T. Limits on medical-debt lawsuits in Maryland: estimates of the effect on hospital revenue. Abell Foundation [Internet]. 2021 Feb 09 [cited 2023 May 25]. Available from: <https://abell.org/wp-content/uploads/2022/02/Final20Medical20Debt20Report.pdf>
27. Dunker A, Benjamin ER. Discharged into debt: New York’s nonprofit hospitals are suing patients. The Community Service Society of New York [Internet]. 2020 Mar [cited 2023 May 25]. Available from: https://smhttp-ssl-58547.nexcesscdn.net/nycss/images/uploads/pubs/2020_Hospital_Report_V3_web.pdf
28. Mississippi Center for Investigative Reporting. The painful price for healthcare: how we did it [Internet]. 2021 Aug 06 [cited 2023 May 25]. Available from: <https://www.mississippicir.org/news/how-we-did-it>
29. Bologna G. Mississippi hospitals are suing patients over medical debt. Here’s how to fix that. Mississippi Center For Investigative Reporting [Internet]. 2021 Aug 06 [cited 2023 May 25]. Available from: <https://www.mississippicir.org/news/mississippi-hospitals-are-suing-patients-over-medical-debt-heres-how-to-fix-that>
30. Washington Courts. JIS-Link customer manual [Internet]. [updated 2018 Aug 20; cited 2023 May 25]. Available from: <https://www.courts.wa.gov/jislink/docs/JIS-Link%20Customer%20Manual.pdf>
31. Thurston County District Court. LaserFiche document management portal [Internet]. [cited 2023 May 25]. Available from: <https://weblink.co.thurston.wa.us/DCCASES/CustomSearch.aspx?SearchName=CivilCases>
32. RCW 70.54.470 (WA)
33. RCW 4.16.040 (WA)
34. RCW 19.16.500 (WA)
35. Wen B, Curtis K, Toomet O et al. Information extraction from legal documents: lessons from a study of aggressive hospital debt collection practices. Overleaf [Internet]. [cited 6 Jun 2023]. (Unpublished). Available from: <https://www.overleaf.com/project/634735e910252109f9d73cc6>

36. Hepburn P, Louis R, Fish J et al. U.S. eviction filing patterns in 2020. *Socius* [Internet]. 27 Apr 2021 [cited 2023 Jun 6]. Available from: <https://journals.sagepub.com/doi/pdf/10.1177/23780231211009983>
37. Better Business Bureau. Complaints: Tacoma Radiological Association [Internet]. [cited 2023 Jun 4]. Available from: <https://www.bbb.org/us/wa/tacoma/profile/radiology/tacoma-radiological-associates-ps-1296-41000603/complaints>
38. O'Connor, W. [Personal interview, 8 Mar] Virtual; 2023 (unpublished).
39. RCW 19.86.010 (WA)
40. *State v. Roadhs* (1967) 71 Wash.2d 705, 707, 430 P.2d 586
41. *Washington Nat. Gas Co. v. Pub. Util. Dist. No. 1 of Snohomish Cnty* (1969) 77 Wash. 2d 94, 98, 459 P.2d 633, 635–36
42. *Williamson v. Grant County Pub. Hosp. Dist. No. 1* (1964) 65 Wash.2d 245, 251, 396 P.2d 879 (1964)
43. Kellison, J. [Personal interview, 16 Nov] Phone call; 2022 (unpublished).
44. Pew Research Center. Chapter 3: demographics of multi-generational households [Internet]. 2011 Oct 3 [cited 2023 Jun 6]. Available from: <https://www.pewresearch.org/social-trends/2011/10/03/chapter-3-demographics-of-multi-generational-households/>