Medical Bankruptcy in Massachusetts: Has Health Reform Made a Difference?

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ABSTRACT

BACKGROUND: Massachusetts’ recent health reform has decreased the number of uninsured, but no study has examined medical bankruptcy rates before and after the reform was implemented.

METHODS: In 2009, we surveyed 199 Massachusetts bankruptcy filers regarding medical antecedents of their financial collapse using the same questions as in a 2007 survey of 2314 debtors nationwide, including 44 in Massachusetts. We designated bankruptcies as “medical” based on debtors’ stated reasons for filing, income loss due to illness, and the magnitude of their medical debts.

RESULTS: In 2009, illness and medical bills contributed to 52.9% of Massachusetts bankruptcies, versus 59.3% of the bankruptcies in the state in 2007 (P = .44) and 62.1% nationally in 2007 (P < .02). Between 2007 and 2009, total bankruptcy filings in Massachusetts increased 51%, an increase that was somewhat less than the national norm. (The Massachusetts increase was lower than in 54 of the 93 other bankruptcy districts.) Overall, the total number of medical bankruptcies in Massachusetts increased by more than one third during that period. In 2009, 89% of debtors and all their dependents had health insurance at the time of filing, whereas one quarter of bankrupt families had experienced a recent lapse in coverage.

CONCLUSION: Massachusetts’ health reform has not decreased the number of medical bankruptcies, although the medical bankruptcy rate in the state was lower than the national rate both before and after the reform.

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KEYWORDS: Health care financing; Health care reform; Health economics; Medical bankruptcy

Massachusetts’ landmark health care reform passed in 2006 and was fully implemented by January 2008. According to Census Bureau figures, the share of state residents who were uninsured decreased by approximately half between 2006 and 2008, from 10.4% to 5.5%, the lowest rate of any state.1

Recently, Governor Deval Patrick wrote, “Because of our reform . . . families are less likely to be forced into bankruptcy by medical costs.”2 However, no published data on medical bankruptcy rates in Massachusetts are available. Moreover, past studies have found substantial rates of medical bankruptcy among insured families, often because of gaps in coverage.3,4 Thus, shrinking the number of uninsured is not necessarily tantamount to protection from medical bankruptcy.

To examine the impact of health reform on medical bankruptcy, we surveyed a random sample of Massachusetts bankruptcy filers in July 2009. In addition, we compared the 2009 Massachusetts findings with those from an early 2007 national sample and with the subsample of Massachusetts debtors included in the 2007 national sample.

MATERIALS AND METHODS

We relied on 2 data sources: questionnaires mailed to debtors immediately after their bankruptcy filing and publicly available court records. We also reanalyzed the questionnaire and court record data from our national study carried out in early 2007 (n = 2314), with special attention to the Massachusetts respondents (n = 44) in that earlier survey.
Sample Design
In early August 2009, Automated Access to Court Electronic Records provided us with a list of all personal bankruptcy filers in Massachusetts during July 2009. We identified 494 debtors who filed between July 28 and 31 and mailed a self-administered questionnaire to each of them within 4 weeks of their filing. Eleven questionnaires were returned as undeliverable. Non-respondents received a second questionnaire approximately 5 weeks later. Of the 483 questionnaires mailed to those with valid addresses, 199 (41.2%) were completed and returned, 36 (7.5%) declined to participate, and 249 (51.6%) did not respond.

Questionnaire
A cover letter accompanying each questionnaire described the project and human subjects protections; a token payment (a $1 bill) was included. Respondents were also invited to respond via a secure Internet site. The questionnaire included a subset of questions from our 2007 national survey regarding demographics; health insurance; employment; the specific reasons for the bankruptcy filing; the range of out-of-pocket medical expense (none, <$1000, $1000-$5000, or >$5000); loss of work-related income; borrowing to pay medical bills; and home ownership.

Court Records
We obtained the bankruptcy court records of respondents from the federal court’s electronic filing system for each respondent whose questionnaire provided insufficient information to determine the magnitude of their medical debts relative to income. A trained research assistant abstracted each record to determine the debtor’s income and the total amount of identifiable medical debts. The court records often substantially understate the amount of medical debt because they indicate the creditor to whom money is currently owed, but not why the debt was incurred. Thus, a debt still owed to a hospital or other medical provider at the time of filing could be identified as medical, but a medical debt that had been turned over to a collection agency, charged to a credit card, or incorporated into mortgage debt could not be identified as “medical” from the court records.

Data Analysis
As in the 2007 national study, a bankruptcy was categorized as medical if one or more of the following conditions were met: the debtor reported uncovered medical bills of at least $5000 or more than 10% of income, or listed medical illness or medical bills as a reason for the bankruptcy; the debtor or spouse lost 2 or more weeks of work-related income because of illness or was completely disabled by a medical problem; the debtor or spouse lost 2 or more weeks of work-related income to care for a sick family member; or the debtor mortgaged a home to pay medical bills.

To arrive at representative estimates, we weighted the 2009 data to adjust for the slight overrepresentation of respondents who filed under Chapter 13 (bankruptcies with repayment plans) and underrepresentation of Chapter 7 filers (liquidation bankruptcies) compared with all Massachusetts bankruptcy filers in fiscal 2009. To calculate the number of individuals affected by each cause of bankruptcy in each year, we multiplied the proportion of debtors citing that cause by the number of Chapter 7 and Chapter 13 personal bankruptcy filings in that fiscal year and then multiplied by the average household size for the group (ie, all debtors, medical debtors, or non-medical debtors).

Chi-square and 2-tailed t tests were used for statistical comparisons. Human subject committees at Harvard Law School and the Cambridge Health Alliance approved the project protocols.

RESULTS
In 2009, illness or medical bills contributed to 52.9% of bankruptcies in Massachusetts. In contrast, in early 2007, medical bankruptcies accounted for 59.3% of personal bankruptcies in the state \( P = .44 \) for comparison with 2009 proportion) and 62.1% nationally \( P < .02 \). Because the total number of personal bankruptcy filings in Massachusetts increased by 51% between fiscal years 2007 and 2009,6 the absolute number of medical bankruptcies in the state actually increased by more than one third during that period, from 7504 to 10,093.

Most of the recent Massachusetts debtors were female (Table 1). Their average age was 48.2 years, two thirds of them had attended college, and 70.5% owned a home or had owned one within the past 5 years. The average debtor household included 2.94 persons; in three quarters of them, at least 1 adult was employed at the time of bankruptcy filing. The medically bankrupt were similar to other Massachusetts debtors in most respects, although fewer of the

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**CLINICAL SIGNIFICANCE**

- Massachusetts' health reform, enacted in 2006, served as the model for the 2010 nationwide reform that will not be fully implemented until 2014.
- Although the Massachusetts reform has covered many of the uninsured, underinsurance remains widespread, and illness and medical bills still contribute to 52.9% of all bankruptcies in the state. The number of medical bankruptcies has not decreased.
- The recently enacted national health reform is unlikely to adequately address the widespread problem of medical bankruptcy.
medically bankrupt were employed ($P < .001$), likely reflecting their higher rates of disability.

Table 2 displays the specific contributors to medical bankruptcy in Massachusetts in 2007 and 2009. In both years, unaffordable medical bills and income shortfalls due to illness were common. In 2009, 45.6% of the entire sample (86.2% of the medically bankrupt) had high medical bills or specifically cited illness as a cause of their bankruptcy, proportions that did not vary by insurance status. The remaining 13.8% of the medically bankrupt (7.3% of the entire sample) were classified as medically bankrupt because they had lost significant work-related income because of illness or had mortgaged a home to pay medical bills. Overall, the 19,079 personal bankruptcies in Massachusetts in 2009 involved an estimated 58,573 debtors and dependents ($\approx 1\%$ of the Massachusetts population), including 30,985 in households affected by medical bankruptcy.

As would be expected in a state where medical insurance is mandatory, the overwhelming majority (89.0%) of debtors had health insurance for themselves and all of their dependents at the time of bankruptcy filing (Table 3). However, one quarter of households had experienced a gap in coverage during the 2 years before filing (which would include a period before the state enforced the health insurance mandate). The insurance coverage rates of medical debtors were no different than those of other bankrupt debtors. The 2009 coverage rates in Massachusetts were higher than those for Massachusetts debtors in 2007 (before the coverage mandate was enforced), when 84.1% had insurance at the time of filing and approximately one third (34.1%) had experienced a coverage gap. In both 2007 and 2009, Massachusetts debtors’ had higher coverage rates than in our 2007 national sample, in which only 69.7% of bankrupt families were insured at the time of filing and 37.4% had experienced a gap.

### Table 1: Demographic Characteristics of Debtors in 199 Massachusetts Bankruptcy Filings and Comparison of Medical and Non-Medical Filers, 2009

<table>
<thead>
<tr>
<th></th>
<th>All Bankruptcies</th>
<th>Medical Bankruptcies</th>
<th>Non-Medical Bankruptcies</th>
<th>$P$ Value, Medical vs Non-Medical Bankruptcies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>48.2 y</td>
<td>48.4 y</td>
<td>48.0 y</td>
<td>NS</td>
</tr>
<tr>
<td>Debtor or spouse/partner female</td>
<td>54.1%</td>
<td>54.9%</td>
<td>53.2%</td>
<td>NS</td>
</tr>
<tr>
<td>Married</td>
<td>47.3%</td>
<td>47.9%</td>
<td>46.6%</td>
<td>NS</td>
</tr>
<tr>
<td>Mean family size – debtors + dependents</td>
<td>2.94</td>
<td>3.07</td>
<td>2.79</td>
<td>NS</td>
</tr>
<tr>
<td>Attended college</td>
<td>68.1%</td>
<td>63.1%</td>
<td>73.7%</td>
<td>NS</td>
</tr>
<tr>
<td>Homeowner or lost home within past 5 y</td>
<td>70.5%</td>
<td>68.7%</td>
<td>72.5%</td>
<td>NS</td>
</tr>
<tr>
<td>Debtor or spouse/partner currently employed</td>
<td>74.9%</td>
<td>65.3%</td>
<td>85.9%</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

NS = not significant.

*Bankruptcies meeting at least one of the following criteria: illness, injury, or medical bills listed as specific reason for filing, OR uncovered medical bills $> $5000 or $> 10\%$ of annual family income, OR lost $\leq$ $2$ wk of work-related income due to illness/injury, OR depleted home equity to pay medical bills.

### Table 2: Medical Causes of Bankruptcy in Massachusetts, 2007 and 2009

<table>
<thead>
<tr>
<th></th>
<th>Percent of All Bankruptcies, 2007 (N = 44)</th>
<th>No. of Debtors and Dependents in Affected Families, 2007*</th>
<th>Percent of All Bankruptcies, 2009 (N = 199)</th>
<th>No. of Debtors and Dependents in Affected Families, 2009*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debtor cited medical illness/bills as a specific cause of bankruptcy or had large unpaid medical bills†</td>
<td>38.6%</td>
<td>12,700</td>
<td>45.6%§</td>
<td>26,709</td>
</tr>
<tr>
<td>Debtor or spouse lost $\leq$ $2$ wk of income because of illness or complete disability</td>
<td>34.1%</td>
<td>11,219</td>
<td>32.1%§</td>
<td>18,802</td>
</tr>
<tr>
<td>Debtor or spouse lost $\leq$ $2$ wk of income to care for ill family member</td>
<td>6.8%</td>
<td>2237</td>
<td>8.2%§</td>
<td>4803</td>
</tr>
<tr>
<td>Mortgaged home to pay medical bills‡</td>
<td>8.1%</td>
<td>2665</td>
<td>5.3%§</td>
<td>3104</td>
</tr>
<tr>
<td>Any of above</td>
<td>59.3%</td>
<td>19,510</td>
<td>52.9%§</td>
<td>30,985</td>
</tr>
<tr>
<td>Any personal bankruptcy</td>
<td>100%</td>
<td>32,268</td>
<td>100%</td>
<td>58,573</td>
</tr>
</tbody>
</table>

*Extrapolation based on number of personal bankruptcy filings during that fiscal year (from reference 6) and household size of medical/non-medical debtors.

†Unpaid medical bills $> $5000 or $> 10\%$ of family income.

‡Percentage based on homeowners rather than all debtors.

§Difference between percentages in 2007 and 2009 nonsignificant, $P \geq .40$ for all comparisons.
eral months, the precipitants of financial disaster. Thus, our
bankruptcy. Bankruptcy filings generally follow, by at least sev-
of Massachusetts’ health financing reform on medical bank-
and wage garnishments; and perhaps cultural proclivi-
tively robust social safety net; restrictions on payday lend-
medicare coverage, and low bankruptcy rates); a compar-
and gaps in coverage—copayments, deductibles, and
uncovered services—often left insured families liable for
substantial out-of-pocket costs. None of that changed. For
example, under Massachusetts’ reform, the least expensive
individual coverage available to a 56-year-old Bostonian
carries a premium of $5256 and a deductible of $2000, and
covers only 80% of the next $15,000 in costs for covered
services.10 Thus, an insured couple with medical problems
and an income greater than $44,000 (ie, >300% of poverty,
the eligibility threshold for insurance subsidies) might pay
$20,512 in annual medical expenses, a figure that far ex-
ceeds the financial capacities of the average American fam-
ily.11 Uncovered services, such as physical therapy, drugs,
or home care, might push out-of-pocket costs even higher.

DISCUSSION
Despite a marked declined in the uninsured rate in Mas-
sachusetts since the implementation of health reform, the
proportion of bankruptcies that occurred in the wake of
medical problems has not decreased significantly, and the
absolute number of medical bankruptcies has actually in-
creased by one third. The deep recession beginning in 2008
surely played an important role in increasing the bankruptcy
rate and left many families more vulnerable to financial
shocks from illness. However, our findings are incompatible
with claims that health reform has cut medical bankruptcy
filings significantly.

On the other hand, Massachusetts residents had slightly
lower rates of medical bankruptcy (as a share of overall
bankruptcy filings) than the US average even before the
state’s health reform, and Massachusetts has long enjoyed
overall bankruptcy filing rates that are well below the na-
tional average. Moreover, although the number of filings in
Massachusetts has increased sharply during the current re-
cession—a 51% increase between 2007 and 2009—this
increase is smaller than that experienced by 54 of the 93
other federal bankruptcy jurisdictions. Thus, the state’s per
capita medical bankruptcy rate remains lower than the na-
tionwide rate.

The low overall bankruptcy rate may reflect the state’s
relative prosperity (it ranks third among all states for per-
sonal income7); its relatively old population8 (the elderly
have minimum guaranteed incomes through social security,
Medicare coverage, and low bankruptcy rates); a compar-
atively robust social safety net; restrictions on payday lend-
ing and wage garnishments; and perhaps cultural proclivi-
ties—virtually all New England states have low bankruptcy
filing rates. Although Massachusetts’ slower than average
increase in filings since 2007 raises the possibility that
health reform may have attenuated the recession’s impact,
this effect was at best modest, and the milder than average
housing crisis in the state seems a likelier explanation.

The period covered by our study (2007-2009) provides
an appropriate window for examining the short-term impact
of Massachusetts’ health financing reform on medical bank-
ruptcy. Bankruptcy filings generally follow, by at least sev-
eral months, the precipitants of financial disaster. Thus, our

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Health Insurance Status of Debtor Households With and Without Medical Causes of Bankruptcy, Massachusetts, 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medical Bankruptcy</td>
</tr>
<tr>
<td>Debtor or a dependent uninsured at time of bankruptcy filing</td>
<td>11.1%</td>
</tr>
<tr>
<td>Debtor or a dependent had a lapse in coverage during past 2 years</td>
<td>26.5%</td>
</tr>
<tr>
<td>NS = not significant.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Bankruptcy</th>
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</thead>
<tbody>
<tr>
<td>Bankruptcy</td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td></td>
</tr>
<tr>
<td>Non-Medical</td>
<td></td>
</tr>
<tr>
<td>P Value</td>
<td></td>
</tr>
</tbody>
</table>

2007 sample (which was drawn in February and March of
that year when the reform had made little impact on cov-
erage rates in the state) reflects financial problems incurred
before the implementation of reform. Conversely, few fil-
ings in the summer of 2009 would result from medical
problems in the pre-reform period.

What accounts for the seemingly paradoxical trends of
increasing coverage yet stable, or even increasing (on a per
capita basis), medical bankruptcy rates? Health costs in the
state have increased sharply since reform was enacted.9
Even before the changes in health care laws, most medical
bankruptcies in Massachusetts, as in other states, affected
middle-class families with health insurance. High premium
costs and gaps in coverage—copayments, deductibles, and
uncovered services—often left insured families liable for
substantial out-of-pocket costs. None of that changed. For
example, under Massachusetts’ reform, the least expensive
individual coverage available to a 56-year-old Bostonian
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ily.11 Uncovered services, such as physical therapy, drugs,
or home care, might push out-of-pocket costs even higher.

Although high medical bills per se often lead to financial
disaster, lost income due to illness or caregiving responsi-
bilities also plays an important role. Many families experi-
ence multiple simultaneous blows; some lose their jobs
when they get sick, and others get sick after they have lost
jobs. Either way, medical bills arrive just as the paycheck
stops. In recent years, these problems have been com-
pounded by increasing unemployment and decreasing home
values that have made borrowing more difficult.

Several caveats apply to our findings. As in previous
bankruptcy studies, many debtors failed to respond to our
survey, although we see little reason to think that medical
debtors were especially likely (or unlikely) to respond. One
possible exception is that people who have very serious
medical problems may be less likely to respond either be-
cause they are too unwell or because they are deceased by
the time of the survey. Many bankruptcies involve a com-
plex web of causation, with multiple interacting causes.
Teasing out the precise role of illness and medical bills is
necessarily imprecise. Because we used the same survey
questions and definitions in 2007 and 2009, however, time
trends should be reliable. Finally, in 2007 we supplemented
our written survey with phone interviews with many debt-
ors; approximately 1% of debtors identified large medical
debts during these phone interviews that were omitted from
their survey responses. Thus, our survey-only data collect-
on 2009 may slightly underestimate the medical bankruptcy
rate compared with our 2007 methods.

Our results seem in keeping with those from other
sources. A 2008 Boston Globe survey12 found that 14% of
Massachusetts residents had accrued new medical debts in the past year. A series of surveys by the Urban Institute found modest improvement in financial access to care during the first year of health insurance reform, but not during its second year when 19.8% of state residents reported paying off medical bills over time.13 An agency that counsels Massachusetts medical debtors documented ongoing problems in paying medical bills for both the insured and the uninsured in the state.14 In contrast, national estimates of medical bankruptcy rates based exclusively on review of court records have found lower rates of medical bankruptcy.15 Unfortunately, as Jacoby and Holman5 demonstrated, such studies are unreliable because medical debts are often charged to credit cards, financed through second mortgages, or turned over to collection agencies, and these medical debts cannot be identified in court records. Although only 52% of bankruptcy filers’ court records show any evidence of medical debts, 78% report such debts when specifically surveyed.5 Similar problems beset studies that use general population surveys,16 in which respondents seem to markedly underreport bankruptcies,17,18 perhaps reflecting the stigma attached to bankruptcy.

**CONCLUSIONS**

The recently enacted national health reform law closely mirrors Massachusetts’ reform. That reform expanded the number of people with insurance but did little to upgrade existing coverage or reduce costs, leaving many of the insured with inadequate financial protection. Our data do not suggest that health care reform cannot sharply reduce the number of medical bankruptcies. Indeed, medical bankruptcy rates appear lower in Canada,19 where national health insurance provides universal, first dollar coverage. Instead, these data suggest that reducing medical bankruptcy rates in the United States will require substantially improved—not just expanded—insurance, as well as better disability insurance programs to provide income support to ill individuals and family caregivers.

**References**