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THE WORLD'S MOST EXPENSIVE HEALTH CARE

MASSACHUSETTS HEALTH CARE COSTS, 1980 TO 1998

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SUMMARY

Newly-released data from the federal Health Care Financing Administration (HCFA) show that health care costs in Massachusetts are still the highest in the nation—and thus in the world.

Here are highlights of this Access and Affordability Monitoring Project (AAMP) analysis of these new data:

- ***Spending on personal health care reached $4,887 per person in this state in 1998. That put Massachusetts health costs***

  - 30 percent above the national average,
  - higher than in any other state, and
  - farther above the national average than ever before.

- Looking worldwide, Massachusetts health costs were nearly triple (2.8 times) the median of the 20 wealthy democracies with the highest health care costs.

- Total health spending here, including research, insurance administration and profits, will reach roughly $6,154 per person in the year 2000. Statewide, that means $37.8 billion in total health spending this year.

- Health spending consumed more than one dollar in every seven in this state in 1997 (about 14.5 percent of Gross State Product). Only the economy's very rapid growth has kept health care's burden from rising even higher.

- Spending on care outside hospitals soared between 1980 and 1998, climbing from 3 percent to 30 percent above the U.S. average. Meanwhile, hospital costs (acute and non-acute) is also high, at 30 percent above the U.S.

- Ranking 2nd in the nation on both non-hospital and hospital costs—including 2nd on physician costs—kept health spending here highest among the states.

- The past decade of managed care, hospital closings, and price competition—which were intended to move care out of hospitals and save money—have failed to bring Massachusetts overall health costs closer to the U.S. average.

This new evidence on Massachusetts health care costs suggests that at least five possible explanations of the state's high costs—and therefore the cost-cutting strategies based on some of those explanations—are largely incorrect.

- Excess hospital beds, care of patients from out-of-state, publicly-financed research, high caregiver profits and incomes, and high HMO reserves do not explain high costs.

- Our state's high costs are manifested in high insurance premiums. Premiums reflect the costs of paying the very substantial sums garnered by our state's caregivers. They reflect the costs of serving Massachusetts patients, not patients from out of state.

What are the dynamics that have made Massachusetts health care so costly?

- Generally, Massachusetts health care has evolved toward a pattern of relatively elaborate and expensive patterns of care. It is not clear that our extra spending buys commensurate extra quality or outcomes.

- Why did our care become so elaborate and costly? There are no villains here. No one woke up one morning and asked, "How can we make the costs of health care in Massachusetts the highest in the world?"

- Having many more physicians per 1,000 residents than the nation as a whole has helped to make our health care more costly.

- So has our heavy reliance on teaching hospitals to provide inpatient acute care services.

A decade of cost-cutting efforts relying on managed care, price competition, and hospital closings, have left the extraordinarily high health care costs in Massachusetts just where they were—30 percent above the national average. The strategies widely advocated throughout the 1990s, and embodied in state legislation and policy here, have not succeeded in bringing Massachusetts health costs down closer to the U.S. average.

These strategies have also come at the price of growing medical insecurity for patients, and caregivers' complaints that they are in worsening financial shape. Hospitals and nursing homes report disadvantageous margins, and many indeed appear to be in potentially dangerous condition. Physician representatives are also complaining of inadequate incomes.

We suggest that a combination of strategies can allow our state to finance the care that works for all the patients who need it, without increasing spending:

- Legislate lower drug prices, but protect drug makers and their research by guaranteeing revenues and profits. All prescriptions are filled but spending does not rise appreciably.

- Pool the various streams of public and private dollars that now finance health services into one reservoir. Use these dollars to entitle all residents of the Commonwealth. The cuts in administrative and clinical waste that would accompany these and related strategies would be sufficient to finance all needed care and actually reduce total spending by roughly $1 billion annually.

- Taking important steps—such as those described by Litvak and Long—to improve hospital management will enhance efficiency and save very substantial sums.[1]

The latest data on high health care costs in Massachusetts should serve as a loud warning that more money for business as usual is unaffordable. We must take steps to

- consolidate and extend recent gains in coverage,
- protect insurors and needed caregivers, and
- hold down increases in insurance premiums.

Despite our state's high costs, many Massachusetts caregivers and HMOs are financially vulnerable today.

We must make health care durably affordable to all who live here—and identify and safeguard all needed caregivers—before the shock of the next recession destabilizes the health services on which we all depend.

INTRODUCTION

Just-released data show that health care costs in Massachusetts are still the highest in the nation—and thus in the world.

The new federal government estimates show that Massachusetts health spending rose relative to the national average in the 1980s, and then stayed at that higher level through the 1990s. These data indicate that the strategies used to try to cut health care costs here have failed.

The new data, released by the United States Health Care Financing Administration (HCFA) on 29 September 2000, show spending on personal health care from 1980 to 1998, for each state.[2]

Building on the statewide health spending figures reported by HCFA for Massachusetts, this report provides:

- per person spending estimates,
- estimates for the years 1999 and 2000,
- estimates of health care's burden on the economy,
- comparisons of health costs in Massachusetts to the U.S. average, to those of other states, and to those of other nations, and
- evidence on trends—changes since 1980, and especially recently—in health spending overall and in individual health care sectors.

We then address the implications of the new cost data—for understanding of the state's high costs, and for what Massachusetts must do to put health care on a sustainable footing for the future.

* * *

Note on the data:

All cost figures are for 1998 unless otherwise indicated.

All cost estimates are in current dollars—the dollars of the year referred to—rather than constant dollars, so the effects of overall inflation have not been factored out.

These are estimates of state health spending which reflect the state where the caregiver is located, not the patient's residence—a point discussed in detail in a later section.

I. FINDINGS: STILL THE WORLD'S HIGHEST HEALTH COSTS

A. Health Spending Totals

1. Personal health care spending, 1998

Statewide

- New federal data indicate that spending on personal health care in Massachusetts in 1998 totaled just over $30 billion—$30,039,000,000. See Exhibit 1. (All exhibits appear near the end of this report, just before the notes.)

- That was up from $28.5 billion in 1997, a 5.5 percent increase.

- Statewide personal health care spending was reported, in current dollars, at $6.6 billion in 1980, $19.0 billion in 1990, and $26.0 billion in 1995.

- Over the entire period from 1980 to 1998, HCFA reported that the average annual increase in personal health care spending was 8.8 percent in Massachusetts. That is just slightly below the U.S. rate of 9.0 percent.

Per person

- Personal health care spending per capita in Massachusetts in 1998, we calculate, was $4,887—up from $3,162 in 1990. This is a rise of 54.6 percent. See Exhibit 2.

- Personal health care spending in this state in 1998 was **30.0 percent above the national per capita average** of $3,760. See Exhibit 3.

- That made per capita personal health care spending in Massachusetts **higher than in any other state, by a substantial margin.** (See Exhibit 4.) Next highest was New York, at 25.5 percent above the national average.

- Health spending per person here was 20-22 percent above the U.S. average in the early 1980s. It then climbed for steeply, reaching 29.6 percent above in 1989—and **reaching a new peak in 1998** at 30.0 percent above the U.S. (See Exhibit 5.)

- **Massachusetts health spending per person remained between 27 and 30 percent above the national average from 1989 to 1998.**

- **The past decade of managed care, price competition, and hospital closings to cut costs in Massachusetts have given citizens growing**

health care insecurity and have given caregivers worsening financial margins. But costs have remained exactly where they were—30 percent above the national average.

2. Estimates of personal health care spending for 1999 and 2000

- Building on the $4,887 estimate for 1998 spending per person, we offer rough estimates forward. These estimates assume that health spending here grew in 1999 and in 2000 at just two-thirds of the average annual pace HCFA reported for 1980-1998[3]:

  - Personal health spending in Massachusetts in 1999, we estimate, was $5,173 per resident.

  - In the year 2000, we estimate, spending on personal health care in Massachusetts will reach $5,477 per person.

3. Total health care spending

- Total health care spending is more than personal health care. The total also includes the costs of health insurors' profits and administration, health facility construction, health research, and public health efforts. Nationally, from 1996 to 1998, personal health care spending accounted for 89 percent of total health care spending. Or, looking from the other direction, total health spending was one-eighth larger than personal health care spending.[4]

- Including insurance costs, construction, public health, and research costs, **total health spending here in 2000 will reach $6,154 per person.**[5] See Exhibit 6.

- Statewide, we conservatively project that **total health spending in the Commonwealth this year will amount to $37.8 billion.**

- Total health spending in Massachusetts actually may well be even higher than these projections. That is because research spending and possibly other elements of total health spending—such as public health efforts—are above the national average in this state.

4. International comparisons

- We look back to 1996 to make comparisons with other nations. The estimated Massachusetts total health spending level in 1996 of $4,993 per person[6] meant that this state's costs were nearly double (93 percent above)

those of Switzerland, the nation with the next highest health care spending, after the U.S.A.[7] (See Exhibit 7.)

- **Massachusetts health costs were nearly triple (2.8 times) the median among the 20 wealthy democracies with the highest health costs.** Massachusetts health care costs were roughly three and one-half times the level in the U.K. in 1996.[8]

- Because health costs here are higher than in any other any state in the nation with the highest costs, **the new federal data confirm that Massachusetts health costs are the highest in the world.**

5. Health spending as a share of the economy

- Spending on personal health care in Massachusetts amounted to 12.9 percent of Gross State Product (GSP) in 1997, the last year for which GSP is available. That was 8 percent above the national average of 11.9 percent.

- Massachusetts is a wealthy state—GSP per resident here in 1997 was the 6th highest among the states. So this state's extraordinary health spending did not represent as large a burden on the economy as it would have in a less wealthy state; the ratio of personal health spending here to GSP was 17th highest among the states.

- The most common measure of health spending as a share of the economy uses total health spending, not personal health spending alone. **Total health spending in 1997 reached about 14.5 percent of GSP in Massachusetts — so more than one dollar in every seven here was consumed by health spending.** The national average was 13.4 percent.

- Owing to the economy's rapid expansion, those proportions were down slightly from the 1996 figures of 13.6 percent nationally and 14.7 percent in Massachusetts. The nation's economy grew faster than health expenditures in 1994, 1996, and 1997, but the reverse is usual. Although the 1998 state-level data are not available, health spending nationally rose again in 1998 to 13.5 of Gross Domestic Product (GDP).[9]

- Since 1980, the nation's health care costs have soared from 8.9 percent of GDP in 1980 and 12.2 percent of GDP in 1990 to the 13.5 percent of 1998.[10] With health spending now apparently increasing far faster than in the mid-nineties, its burden on the economy is likely to rise sharply as economic growth slows. This state's extraordinarily high health care costs mean that another deep recession could pose enormous problems for Massachusetts.

B. Health Spending by Type of Care

This section provides highlights of the new evidence on Massachusetts health care spending by type of care.[11] It covers spending levels, how they compare with the national average and other states, and how they have changed over time.

Hospital care

- Spending on hospital care in Massachusetts totaled $1,839 per person in 1998, according to the HCFA data. (Note that these data include not only acute hospitals but also rehabilitation, psychiatric, and other long-stay facilities.) See Exhibit 8.

- **Hospital spending here was fully 30.8 percent above the U.S. average.**

- In 1980, hospital spending here had been 41.8 percent above the U.S. average. The Massachusetts excess over the U.S. average in per person hospital spending declined gradually in most years thereafter, reaching 28.9 percent in 1996, and then rose slightly in 1997-1998 to 30.8 percent. See Exhibit 9.

- Hospital spending per person in Massachusetts ranked second among the states in 1998, after North Dakota. (See Exhibit 10.)

- When only acute care hospitals are considered, Massachusetts remains highest in the nation, at 42.3 percent above the national average, according to data provided by the hospitals to the American Hospital Association.[12]

- Hospital spending had ranked first here in 1980, and again in 1990 and 1995. From 1996 to 1998, Massachusetts hospital spending per person still exceeded that of every state but one (North Dakota, where hospital costs apparently are boosted by substantial use of long-term-stay beds).

- Hospital costs were 55.0 percent of all personal health care spending in Massachusetts in 1980, highest in the nation. But hospitals' dominance of health spending began to diminish in the mid-1980s. By 1998, hospitals' share of health care spending in the state had declined to 37.6 percent—just above the national average of 37.4 percent, and a share matched or exceeded in 31 states.

Non-hospital care overall

This category includes all personal health care other than hospital care.

- Non-hospital health care spending per person in Massachusetts had been just 3.2 percent above the national average in 1980, and 6.8 percent above in 1985.

- But non-hospital spending rose sharply relative to the U.S. average during the late 1980s, and steadily thereafter. **By 1998, non-hospital spending in Massachusetts exceeded the national average by the biggest gap yet seen—29.5 percent**. (See Exhibit 9.)

- Thus, while Massachusetts hospital spending moved gradually closer to the national average, **the slight progress on hospital costs has been more than offset by the rapid rise of non-hospital costs.** As Exhibit 9 shows, non-hospital costs rose sharply enough to boost Massachusetts health spending per person from 20 percent above the U.S. average in the early 1980s to 30 percent above by the mid-1990s.

- In 1980, Massachusetts ranked 13th among the states in spending per capita on non-hospital care. **By 1998, per person spending on non-hospital care in Massachusetts had risen to second-highest among the states.**[13]

- Ranking second in the nation on both non-hospital and hospital costs meant Massachusetts personal health spending remained highest among the states.

Physician and other professional services

- Spending on physician and other professional services (excluding dental care) in Massachusetts in 1998 was $1,354 per person, 23.6 percent above the U.S. average.

- That equaled spending in California and was exceeded only in Minnesota. These are three of the first states where managed care penetrated deeply.

- Spending on the services of physicians and other professionals has risen steadily relative to the national average since 1980. That steady rise is generally paralleled by the rise in non-hospital costs, as shown in Exhibit 11.

- In 1998, spending on physicians and other professionals amounted to 27.7 percent of all personal health care spending in Massachusetts, just slightly below the 29.1 percent national average. (Spending per person is greater than in all but one other state, though, because our total health care spending is so high.)

- This represented a substantial rise in physicians' share of health spending here. In 1980, spending on physician care and other professional services

had been 17.2 percent of personal health care spending in Massachusetts—the lowest share in the nation.[14]

Nursing home care

- Spending in 1998 on Massachusetts nursing home care—the third-largest category of health care spending, after hospital and physician services—was 78.6 percent above the national per capita average. That was down from double the national average in 1990, as shown in Exhibit 12.

- Massachusetts ranked third highest among the states in nursing home spending per person.

Home health care

- Home health care spending per person here in 1998 was $163 per capita. That reflected **an actual cut in home care spending per person** from $203 in 1996—a drop of almost one-fifth.

- Most states suffered a drop in spending per person on home care from 1996 to 1998, the HCFA data show. Massachusetts had the fourth-largest per capita drop in dollars for home care, we calculate, though ten states had larger percentage declines.

- Per capita home care spending here was 50 percent above the national average in 1998. Massachusetts had been 76.4 percent above the national average in 1994. (See Exhibit 12.)

- Even with the recent drop, 1998 home health care spending per person in Massachusetts ranked third among the states.

Prescription drugs

Drug costs per person jumped by almost one-fifth from 1997 to 1998. Over the two decades, they rose from slightly below the national average during most of the 1980s to slightly above the national average in the 1990s.

- **Prescription drug spending in Massachusetts rose 19 percent from 1997 to 1998, up to $353 per person.** Spending in 1997 was $297 per person.

- While per capita prescription drug spending here was slightly below the national average during most of the 1980s, it was slightly above average throughout the 1990s. (See Exhibit 13.)

- **Per person spending on prescription drugs in Massachusetts reached 5.4 percent above the national average in 1998, higher than in any previous year.**

- In these 1998 data, Massachusetts ranked 16th among the states in prescription drug spending per person.[15]

Please note: These data include only the cost of drugs bought in drug stores, in other retail outlets, and by mail order. The cost of medications used in hospitals and nursing homes is counted in those facilities' costs. Prescription drug costs are included within the larger category of "drugs and medical non-durables," or medical supplies.

Summary of health spending

The pie-chart in Exhibit 14 shows the allocation of 1998 personal health care spending in this state among the different sectors of care.

The following table presents the statewide and per capita levels of spending in Massachusetts in 1998 for each type of health care reported on by the U.S. Health Care Financing Administration. It also shows how spending here compares to the national average, and to other states.

Personal health care spending in Massachusetts, 1998

	Spending Statewide (Millions of $)	Spending Per Mass. Resident	Spending Per Capita -- Massachusetts as a Percentage of U.S. Average	Rank among States in Spending Per Capita
Personal health care	$30,039	$4,887	130.0%	1
Hospital	$11,305	$1,839	130.8%	2
Non-hospital	$18,734	$3,048	129.5%	2
Physicians/professionals	$8,322	$1,354	123.6%	2 (tied)
Dental care	$1,472	$239	120.2%	
Nursing home care	$3,568	$580	178.6%	3
Home care	$999	$163	150.2%	3
Drugs and non-durables	$2,882	$469	104.0%	
Prescription drugs	$2,172	$353	105.4%	16
Vision care	$347	$56	98.4%	
Other personal health care	$1,144	$186	157.6%	

Note: "Non-hospital" care includes all the categories that follow; the category "drugs and non-durables" includes the sub-category of prescription drugs.

Sources: Statewide figures are as reported by U.S. Health Care Financing Administration. Per capita figures and Massachusetts-U.S. ratio are Access and Affordability Monitoring Project calculations from HCFA data, using population figures provided by HCFA.

II. EXPLAINING HIGH MASSACHUSETTS HEALTH COSTS

This new evidence on Massachusetts health care costs, along with other new data, suggests that at least five possible explanations of the state's high costs—and therefore the cost-cutting strategies based on some of those explanations—are largely incorrect.

Excess numbers of hospital beds, service to patients from out-of-state, publicly-financed research, high caregiver profits and incomes, and high HMO reserves do not explain high costs.

A. Inadequate Explanations

1. Excess Hospital Capacity Cannot Explain This State's Costs

Massachusetts hospital costs remain far above the national average, even though they have declined as a share of overall health care costs. Hospitals and beds have been closed—so many that there is reason to fear a shortage of beds and of ER capacity in the months and years ahead. The state's bed-to-population ratio fell to almost 13 percent below the national average in 1998. The strategy of closing hospitals and closing beds in order to contain overall health costs does not seem to have worked well.

- Massachusetts has been cutting hospital beds faster than most states. Yet that has not helped to contain overall health care costs. Personal health care spending per capita in Massachusetts was rising relative to the U.S. average even as the state's bed-to-population ratio fell well below the national average.[16]

- Massachusetts has had fewer hospital beds per capita than the national average since 1989. As we have previously documented, there has been no excess of hospital beds here over the national average—so an excess of hospital beds cannot be a cause of this state's excess in per capita health care costs or hospital costs.[17]

- In 1998, according to data provided by hospitals to the American Hospital Association, Massachusetts had only 2.7 acute care beds per thousand citizens, down from 4.5 beds per thousand in 1980.

- The 1998 level of 2.7 acute care beds per thousand was 12.9 percent below the national average.[18]

- Between 1980 and 1998, as noted earlier, hospitals' share of health spending fell substantially. Massachusetts saw a steep rise in non-hospital spending, accompanying a modest decline in hospital spending relative to the U.S.

average, as Exhibit 9 displayed. That exhibit also showed the consequent sharp rise in overall health spending, which pushed Massachusetts to 30 percent above the nation in health spending per person.

- These trends reveal that managed care and the strategy of de-hospitalizing care—moving care out of hospitals—have failed as cost-containment tools. Substituting non-hospital care for hospital care has not succeeded in bringing Massachusetts health care costs any closer to the national average.

2. Out-of-state Patients Account for Small Share of Massachusetts Costs

Massachusetts hospital officials, among others, have often disputed analyses of per capita health costs such as this report provides. They claim that spending on *caregivers* in the state includes substantial sums for care of patients from outside the state. Therefore, they assert, dividing figures for in-state spending by the number of Massachusetts *residents* substantially over-estimates actual per capita spending levels here.

But in years past, examination of spending by state of patient residence, rather than spending by caregiver location, has also shown Massachusetts to have the highest costs in the nation. The state-of-residence spending analysis through 1998 is still underway at HCFA. However, the most recent comparable analysis, by Basu, reported $3,333 in per capita 1991 personal **health spending for residents of Massachusetts, higher than in any other state**.[19]

This was not far below (2.7 percent below) the 1991 per capita figure of $3,427 in personal health care spending by caregiver location—that is, spending on Massachusetts caregivers divided by the Massachusetts population.

Clearly, border-crossing by patients coming into Massachusetts for care was not greatly raising health spending in this state. After subtracting the cost of out-of-state care for Massachusetts residents in 1991, a net of $565 million was spent within the state on care of people from other states. This amounts to just 2.7 percent of 1991 Massachusetts personal health spending, indicating that health care was not a substantial export industry in the state—despite the industry's common claims to the contrary.

Analysis of further data presented by Basu[20] reinforces this point. The (gross) share of health spending in Massachusetts incurred for people from outside the state in 1991 was just slightly above the average for all states (5.12 percent as compared to 4.78 percent). Indeed, strikingly, we find that compared with the percentage in Massachusetts, the *share* of total personal health care expenditures incurred by out-of-state patients was larger in fully 27 states.

But the Massachusetts outflow rate—the share of personal health spending for

Massachusetts residents that was incurred outside the state—was lower than in all but three other states. (Those were California, Hawaii, and Texas, all of which have geography that keeps border-crossing in both directions below the national average.) The Massachusetts outflow was about half the national average (2.44 percent as compared to 4.73 percent).

Thus, it appears that the net inflow of patients in Massachusetts (measured by personal health spending) exceeds that of most states simply because the Massachusetts outflow rate is so low. Rather than having an unusually large share of its patients coming from elsewhere, Massachusetts has had an unusually small share of its residents seeking care outside their home state.

In a similar vein, we previously examined hospital admissions in Massachusetts and reported that the net inflow of out-of-state patients represented only at most five percent of total admissions.[21]

The assertion of Massachusetts hospitals and others that health care here is a major "export" industry, serving many patients from other states, goes back well into the 1980s and earlier. So such a pattern should have shown up—if it existed—in the 1991 data used in the last HCFA analysis of border-crossing. No such pattern was visible. We await the forthcoming HCFA study of more recent data on border-crossing—health spending by state of patient residence—but a huge change since 1991 seems unlikely.

3. Research

Some individuals and groups have suggested that high Massachusetts health care costs are explained in part by the state's strong biomedical research community. The new federal data on personal health spending exclude all publicly-financed research and some private research, construction, net costs of private insurance (for administration and profit), and government public health activities. Massachusetts health care remains costliest in the nation even after removing these costs. Most private research dollars paid to hospitals and other caregivers remain included in personal health spending.

4. Caregivers' profits and incomes

Massachusetts personal health spending is high even though our caregivers' profits and incomes are relatively low. To improve profit and income through higher payments—higher revenues—it would have cost over $2 billion to bring Massachusetts caregivers up to national profit and income levels in 1998. These would be recurring costs, not one-time costs.

Hospitals. High personal health care spending per person in Massachusetts is not attributable to high hospital profits. Massachusetts hospitals' financial margins were lowest in the nation in 1998, we have found.[22]

Massachusetts hospitals have been complaining about low payments. But we calculate that it would have cost $649 million in 1998 alone to bring Massachusetts hospitals' revenues up to levels that would provide for profit margins equal to the national average in 1998.

A less costly approach would be to lower the costs of hospital care.

Nursing homes and home health agencies. Nursing homes providing one-quarter of Massachusetts nursing home beds are bankrupt. Nursing homes have reported considerable difficulty in paying enough to attract and recruit enough well-qualified workers.[23] The cost of bringing our state's nursing homes up to national levels of profitability and appropriate levels of staffing have not been quantified. These costs would be considerable. The same may well be true for home health agencies.

Physicians. Massachusetts physicians are said to earn 38 percent less than their counterparts nationally. It would cost slightly over $1.4 billion this year alone to bring Massachusetts physicians up to U.S. average incomes.[24]

5. HMOs' reserves.

Most large Massachusetts HMOs suffer low financial reserves. While the total costs of rebuilding reserves have not been quantified, they are considerable, probably totaling some hundreds of millions of dollars. This rebuilding would be a one-time cost, not a recurring one. Rebuilding reserves is generally thought to require premium increases.[25]

B. Probable Causes of High Costs

Our state's high health costs are manifested in high insurance premiums.[26] Premiums reflect the costs of paying the very substantial sums garnered by out state's caregivers. They reflect the costs of serving Massachusetts patients, not patients from out of state.

Some may try to explain away some or all of the high costs of health care in Massachusetts. But they remain a fact, as the new HCFA data again demonstrate. If some of the costs are attributable to training a great number of resident physicians, to over-reliance on hospitals for costly outpatient services, or to other forces, those are only formal explanations. They leave Massachusetts patients, workers, employers, and governments obliged to pay these high costs.

Further, these formal explanations apply only to hospital care. They do not begin to address why Massachusetts' ***non-hospital*** personal health spending per person was 29.5 percent above the national average in 1998—as discussed above—almost as far above as was hospital spending itself.

Looking beyond the formal explanations, what are the dynamics that have made Massachusetts health care so costly?

Generally, Massachusetts health care has evolved toward a pattern of relatively elaborate and expensive patterns of care. It is not clear that our extra spending buys commensurate extra quality or outcomes.

Why did our care become so elaborate and costly? There are no villains here. No one woke up one morning and asked, "How can we make the costs of health care in Massachusetts the highest in the world?" Rather, two contributors to high costs that stem from benign intentions seem to have predominated. A third factor is discussed as well.

1. Physician services

The first contributor is that our state has many more physicians per 1,000 residents than the nation as a whole. While there is considerable disagreement about the number of physicians in active practice at any one time (owing to questions about the underlying Massachusetts data, and perhaps about data in other states), the trends over time are striking, as are the comparisons to the nation as a whole.

Looking over time:

- Massachusetts had 18,079 active non-federal physicians at the end of 1985, and 24,597 at the end of 1997. That was a rise of 36.1 percent in twelve years.[27]

- Our physician-to-population ratio also rose sharply. This state had 2.54 patient care physicians for every one thousand residents at the end of 1985. This rose to 3.48 per thousand by the end of 1997.[28] This was an increase of 37.0 percent.

Second, looking across the states and the nation:

- Nationally, the number of active non-federal physicians rose about 24 percent from 1985 to 1997—just two-thirds as fast as in this state.

Massachusetts leads the nation in doctors per 1,000 residents, as it has for most of the past few decades. Our 3.48 patient care physicians per 1,000 residents in 1997 gave us the highest ratio of any state, and more than one and a half times the national ratio of 2.24 per 1,000.[29] [30]

- So our state had 55.4 percent more patient care physicians per 1,000 residents than the nation as a whole at the end of 1997, up from a 41.1 percent excess at the end of 1985 (and up from a 38.0 percent excess in 1986).

- Further, Massachusetts has been increasing its lead over the other states—New York and Maryland—that have almost as many patient care physicians per 1,000 residents as Massachusetts.[31]

- Indeed, from 1985 to 1997, while the nation as a whole added 0.44 patient care physicians per 1,000 residents, Massachusetts gained 0.94. That meant Massachusetts increased its ratio of patient care physicians per thousand people more than any other state did, even though this state started with the highest ratio.[32]

Decades ago, the state's powerful Blue Shield plan prohibited participating physicians from billing patients above the fees recognized by Blue Shield. This constituted a form of price control. In the 1980s, state government legislated a similar prohibition when doctors bill Medicare patients. A combination of many physicians and relatively low prices probably encouraged Massachusetts physicians to gradually evolve toward a relatively elaborate and costly pattern of care.

In summary: Today, as in the past, Massachusetts is first among the states in active non-federal physicians and also in patient care physicians per 1,000 residents. The growth in our physician supply exceeds the national average, even exceeding that of the two states most closely trailing us in physicians per 1,000 residents. By one important measure, growth here has been greatest of any state.

2. Reliance on costly teaching hospitals

The second contributor is the dominance of hospital care by teaching institutions. It is generally agreed that Massachusetts relies heavily on teaching hospitals to provide inpatient acute care services.[33] This stems in part from the role of generous benefactors in helping to launch so many teaching hospitals. It also reflects the presence of four medical schools.

In a 52-city study of hospital closings from 1936 though 1997, we found that teaching hospitals are more likely to survive, decade after decade. Hospitals

located in African-American neighborhoods are likelier to close. Both findings hold after controlling for other factors. (In Massachusetts, we found that hospitals in lower income communities have been likelier to close.)

We found that efficient hospitals are not more likely to survive. Indeed, the more efficient hospitals have been likelier to close, decade after decade, even after controlling for case mix in recent decades. During the 1990s, when price competition was supposed to affect survival more powerfully than ever before, we found that hospitals with more money in their financial reserves were significantly more likely to remain open, after controlling for other factors. This does not look like survival of the fittest. It might be called survival of the fattest.

Over time, more care is being concentrated in costly teaching hospitals, as community hospitals close or cut services. The result is a more costly and less geographically accessible pattern of care.[34]

3. Substitution of non-hospital costs for hospital costs

We note that drops in Massachusetts hospital costs, relative to the national average, have been somewhat more than offset by increases in non-hospital costs relative to the national average. This is not widely acknowledged. The reasons for the rise in non-hospital costs are not well understood. They are in large part attributable to the growth in payments to physicians, as noted earlier.

It seems that we may have been moving the problem from one place to another. This matter demands investigation.

III. WHAT DO THE DATA MEAN?

A decade of cost-cutting efforts relying on managed care, price competition, and hospital closings, have left the extraordinarily high health care costs in Massachusetts just where they were—30 percent above the national average. The strategies widely advocated throughout the 1990s, and embodied in state legislation and policy here, have not succeeded in bringing Massachusetts health costs down closer to the U.S. average.

These strategies have also come at the price of growing medical insecurity for patients, and caregivers' complaints that they are in worsening financial shape. Hospitals and nursing homes report disadvantageous margins, and many indeed appear to be in potentially dangerous condition. Physician representatives are also complaining of inadequate incomes.

Further, these problems are occurring during a tremendous economic boom—though one that left many patients uninsured, especially until the state's recent expansions of public programs. When the economy inevitably slows, the budget crunches facing caregivers, the stresses facing patients and caregivers, and health care's burden on the pocketbooks of employers, government, and patients will all intensify.

Caregivers today assert that more money is needed to cover their costs and to increase their profit margins. Massachusetts caregivers often complain that their margins are narrower than the national averages for their industries. Some physicians argue that their incomes are well below the national average. But with this state's already high costs, providing still more money to bring all caregivers up to their respective national averages seems impossible.

HMO premiums in our state are rising to cover the HMOs' own high costs and low reserves. They would have to be raised much higher still to address caregivers' demands.

Massachusetts is playing catch-up to rebuild HMOs' financial reserves. This state will have to play catch-up again if it is to pay hospitals, nursing homes, and home health agencies more money.

But we have shown that Massachusetts health care spending is enough already to provide all needed health services to all patients. It is already enough to sustain all needed caregivers.[35]

We suggest that a combination of strategies can allow our state to finance the care that works for all the patients who need it, without increasing spending:

- Legislate lower drug prices, but protect drug makers and their research by guaranteeing revenues and profits. All prescriptions are filled but spending does not rise appreciably.

- Pool the various streams of public and private dollars that now finance health services into one reservoir. Use these dollars to entitle all residents of the Commonwealth. The cuts in administrative and clinical waste that would accompany these and related strategies would be sufficient to finance all needed care and actually reduce total spending by roughly $1 billion annually.

- Taking important steps—described by Litvak and Long—to improve hospital management will enhance efficiency and save very substantial sums.[36]

The latest data on high health care costs in Massachusetts should serve as a loud warning that more money for business as usual is unaffordable. We must take steps to consolidate and extend recent gains in coverage, to protect insurors and caregivers, and to hold down increases in insurance premiums. Despite our state's high costs, many Massachusetts caregivers and HMOs are financially vulnerable. We must make health care durably affordable to all who live here—and identify and safeguard all needed caregivers—before the shock of the next recession destabilizes the health services on which we all depend.

APPENDIX

How do these new state-level data from the federal Health Care Administration (HCFA) compare with previous estimates?

HCFA's previous state-level health care spending estimates extended only to 1993. The Access and Affordability Monitoring Project and other analysts concerned with health care policy in this state have therefore estimated Massachusetts health costs for recent years.

- As we have reported in the past, the previous HCFA estimates showed 1993 health spending per person in Massachusetts to be 29 percent above the U.S. average.[37] We have asserted that this gap has probably persisted.[38] The new estimates confirm that personal health spending here remained between 28 and 30 percent above the national average from 1993 to 1998.

- Our 1997 projection of 1998 personal health care spending in the state was $30,164,000,000—only four-tenths of one percent above the new HCFA estimate of $30,039,000,000.[39]

- The $6,154 projection of *total* health spending per person in Massachusetts in 2000 is very close to our previous estimate that this year's total health spending per person here would reach $6,100.[40]

- The $37.8 billion projection of statewide total health spending here in 2000 matches our past estimate putting this year's total at $38 billion.[41] (Note, again, that this is a conservative projection; the ratio of total to personal health spending is likely to be higher in Massachusetts than nationally.)

NOTES

[1] Eugene Litvak and Michael C. Long, "Cost and Quality under Managed Care: Irreconcilable Differences?" *American Journal of Managed Care*, Vol. 6 (2000), pp. 305-312.

[2] United States Health Care Financing Administration, 1980-1998 State Health Care Expenditures Estimates, 29 September 2000, posted on-line at http://www.hcfa.gov/stats/nhe-oact/stateestimates/

[3] HCFA reported an average annual rise in personal health care spending in Massachusetts of 8.8 percent (using current dollars—that is, without factoring out overall inflation). This figure is for growth in statewide, aggregate health spending, but this state's slow population growth means that overwhelmingly reflects the rise in spending per person.

[4] Calculations from U.S. Health Care Financing Administration, "Highlights, National Health Expenditures, 1998," Table 3, http://www.hcfa.gov/stats/nhe-oact/hilites.htm

[5] This assumes that the national ratio applies in Massachusetts—that is, that personal health spending here of $5,477 amounts to 89 percent of total health spending. As noted in the text, this is probably a conservative assumption. Since spending on medical research, especially, is higher here than nationally, the excess of total health spending over personal health costs may well be higher.

The following table summarizes our projections to 1999 and 2000, and our estimates of total health spending, as just described.

	Personal Health Care Spending Per Capita in Mass.	**Total Health Spending Per Capita in Mass.**	**Total Health Spending, Statewide, in Mass.**
			$ billion
1996	$4,444	$4,993	$30.4
1997	$4,657	$5,232	$32.0
1998	$4,887	$5,491	$33.8
1999	$5,173	$5,813	$35.7
2000	$5,477	$6,154	$37.8

[6] AAMP calculation from HFCA personal health spending data for Massachusetts, again using the national ratio, personal health spending is 89 percent of total health spending.

[7] OECD *Health Data 98*. See www.oecd.org.

[8] Calculations from OECD *Health Data 98*. See www.oecd.org. In 1996, in addition to the 20 nations shown in the Exhibit, the OECD also included Spain, Portugal, the Czech Republic, Greece, Hungary, Korea, Poland, Mexico, and Turkey (in descending order of per capita health care spending).

[9] U.S. Health Care Financing Administration, "Highlights, National Health Expenditures, 1998," Table 1, http://www.hcfa.gov/stats/nhe-oact/hilites.htm

[10] U.S. Health Care Financing Administration, "Highlights, National Health Expenditures, 1998," Table 1, http://www.hcfa.gov/stats/nhe-oact/hilites.htm

[11] Categories are the same as those used in the U.S. Health Care Financing Administration's National Health Expenditure Accounts. For what services are included in each category, see *State Health Expenditure Accounts: Sources and Methods*, http://www.hcfa.gov/stats/nhe-oact/stateestimates/method.htm

[12] Alan Sager and Deborah Socolar, *Massachusetts Hospital Costs per Person Have Risen Much Faster than the National Average, 1997 – 1998,* Boston: Access and Affordability Monitoring Project, Boston University School of Public Health, 15 December 1999.

[13] Connecticut ranked first.

[14] New York and Pennsylvania, two other high cost states with dominant hospital industries, had been second and third lowest in the share of 1980 health spending going to physicians and other professional.

[15] Spending in top-ranked New Jersey, home to several large prescription drug makers, and in some other states with the highest prescription drug spending per resident may reflect the presence of large mail order facilities that fill prescriptions for out of state patients.

[16] Calculations from American Hospital Association, *Hospital Statistics,* Chicago: The Association, various years, and U.S. Bureau of the Census population data.

[17] See, for example, Access and Affordability Monitoring Project, *Massachusetts Hospital Costs Per Person Have Risen Much Faster Than the National Average, 1997-1998*, Boston: The Project, 16 December 1999; Alan Sager and Deborah Socolar, "Massachusetts Should Identify and Stabilize All the Hospitals Needed to Protect the Health of the People," testimony to the Massachusetts Joint Committee on Health Care, 20 May 1999; Access and Affordability Monitoring Project, *Before It's Too Late: Why Hospital Closings Are Becoming a Problem, Not a Solution-- Early Findings from the Massachusetts Hospital Reconfiguration Study*, 2nd edition, Boston: Boston University School of Public Health, 2 June 1997; Alan Sager and Deborah Socolar, "The realities and myths of `dehospitalization,'" *Boston Business Journal*, 9 May 1997; Alan Sager and Deborah Socolar, "Imprudent and impatient: Are hospitals closing too fast and for insufficient reason?" *Boston Sunday Globe*, Focus section, 27 April 1997; Alan Sager, Deborah Socolar, and Peter Hiam, *Paying for Our Mistakes: Wrong Incentives Help Boost 1989 Hospital Costs and Use*, Boston: Boston University School of Public Health, 2 July 1991.

[18] See Alan Sager and Deborah Socolar, *Massachusetts Hospital Costs per Person Have Risen Much Faster than the National Average, 1997 – 1998,* Boston: Access and Affordability Monitoring Project, Boston University School of Public Health, 15 December 1999, calculated from Table 2.

[19] Joy Basu, "Border -crossing Adjustment and Personal Health Care Spending by State," Health Care Financing Review, Vol. 18, No. 1 (Fall 1996), p. 225.

[20] Joy Basu, "Border -crossing Adjustment and Personal Health Care Spending by State," Health Care Financing Review, Vol. 18, No. 1 (Fall 1996), tables 8 and 9.

[21] Access and Affordability Monitoring Project, *Hospital Expenses: Massachusetts vs. the United States*, Boston: The Project, Boston University School of Public Health, 11 September 1990; Access and Affordability Monitoring Project, *The World's Most Expensive Hospitals: One-Fifth of Massachusetts Hospital Costs Appear Unjustified*, Boston: The Project, Boston University School of Public Health, 1 February 1991.

[22] Alan Sager and Deborah Socolar, *Massachusetts Hospital Costs per Person Have Risen Much Faster than the National Average, 1997 – 1998,* Boston: Access and Affordability Monitoring Project, Boston University School of Public Health, 15 December 1999, calculated from American Hospital Association data.

[23] Secretary William O'Leary's Health Finance Working Group, *Proposed Findings on Nursing Homes,* Draft of 24 July 2000.

[24] Authors' calculations. These will be provided on request.

[25] Secretary William O'Leary's Health Finance Working Group, discussions, August – September 2000; for a general summary, see Secretary William O'Leary's Health Finance Working Group, *Preliminary Report on Financial Conditions in the Insurance Market,* draft of 15 September 2000.

[26] Secretary William O'Leary's Health Finance Working Group, discussions, August – September 2000; for a general summary, see Secretary William O'Leary's Health Finance Working Group, *Preliminary Report on Financial Conditions in the Insurance Market,* draft of 15 September 2000.

[27] American Medical Association data reported in Bureau of the Census, *Statistical Abstract of the United States, 1988 and 1999 editions,* Washington: Government Printing Office, 1988 and 1999, Table 145 (1988) and Table 197 (1999).

[28] Calculations from American Medical Association data reported in National Center for Health Statistics, *Health, United States, 1999*, Hyattsville, Maryland, 1999, Table 102, http://www.cdc.gov/nchs/products/pubs/pubd/hus/tables/99hus102.pdf.

[29] Calculations from American Medical Association data reported in National Center for Health Statistics, *Health, United States, 1999*, Hyattsville, Maryland, 1999, Table 102, http://www.cdc.gov/nchs/products/pubs/pubd/hus/tables/99hus102.pdf.

[30] The data on the supply of physicians in each state are compiled by the American Medical Association, which relies on records of physicians licensed in each state. It is worth noting, in passing, that the Massachusetts Medical Society has raised two types of questions about the data for Massachusetts: The Society has asserted that the AMA data include physicians not currently practicing in the state, and that the overall supply figures ignore regional and specialty differences. The Society has sponsored studies of the accuracy of the data base from which the supply figures are drawn—the records of physicians licensed through the state's Board of Registration in Medicine. Excluding physicians who have retired, moved out of state, and the like reduces the state's physician supply. See Massachusetts Medical Society, *Massachusetts Patient Care Physicians: 1991 Statewide Supply Profiles,* Waltham: The Society, October 1992.

But comparable studies of the physician supply figures for other states can be expected to show reductions as well. William A. Lybrand, conversation with Alan Sager, 26 October 1992.

[31] Calculations from American Medical Association data reported in National Center for Health Statistics, *Health, United States, 1999*, Hyattsville, Maryland, 1999, Table 102, http://www.cdc.gov/nchs/products/pubs/pubd/hus/tables/99hus102.pdf.

[32] Calculations from American Medical Association data reported in National Center for Health Statistics, *Health, United States, 1999*, Hyattsville, Maryland, 1999, Table 102, http://www.cdc.gov/nchs/products/pubs/pubd/hus/tables/99hus102.pdf. Not surprisingly, the percentage increases were larger in several other states, most of which had far fewer physicians per 1,000 residents to begin with.

[33] See, for example, Secretary William O'Leary's Health Finance Working Group, *Preliminary Report on Financial Conditions of Hospitals,* draft of 12 May 2000.

[34] Alan Sager and Deborah Socolar, *Before It's Too Late: Why Hospital Closings Are Becoming a Problem, Not a Solution-- Early Findings from the Massachusetts Hospital Reconfiguration Study*, 2nd edition, Boston: Boston University School of Public Health, 2 June 1997.

[35] Solutions for Progress and Access and Affordability Monitoring Project, *Universal Comprehensive Coverage: A Report to the Massachusetts Medical Society*, December 1998, http://www.massmed.org/pages/2lewin.pdf. See also, Alan Sager, Deborah Socolar, David Ford, and Robert Brand, "More Care at Less Cost," *Boston Globe*, Focus, 25 April 1999.

[36] Eugene Litvak and Michael C. Long, "Cost and Quality under Managed Care: Irreconcilable Differences?" *American Journal of Managed Care*, Vol. 6 (2000), pp. 305-312.

[37] Access and Affordability Monitoring Project calculations from unpublished Health Care Financing Administration data accompanying Katharine Levit and others, "State Health Expenditure Accounts: Building Blocks for State Health Spending Analysis," *Health Care Financing Review*, Vol. 17, No. 1 (Fall 1995), pp. 201-254.

See, for example, Alan Sager, Deborah Socolar, David Ford, and Robert Brand, "More Care, at Less Cost," *Boston Sunday Globe*, Focus Section, 25 April 1999; Solutions for Progress and Access and Affordability Monitoring Project, *Health Care Costs in Massachusetts, 1966-1996 and projections through 2005*, *A Report to the Massachusetts Medical Society*, November 1997.

[38] See, for example, Alan Sager, "Getting on Top of Health Problems: Opportunities for Action," Massachusetts Blue Cross, 14 January 2000.

[39] In 1997, building on HCFA data for this state through 1993, and using reported hospital and nursing home costs to 1995-96, we estimated health spending in Massachusetts through 1996, with alternative projections forward to 2005.[39]

This work was done in collaboration with Robert Brand and David Ford, of Solutions for Progress, in Philadelphia. Solutions for Progress and Access and Affordability Monitoring Project, *Health Care Costs in Massachusetts, 1966-1996 and projections through 2005*, *A Report to the Massachusetts Medical Society*, November 1997.

We focused on our Projection C, as the most probable course (and used it as the basis of our analysis documenting that Massachusetts is already spending enough to provide health care for all). We projected 1998 personal health care spending in the state at $30,164,000,000, or just four-tenths of a percent above the new HCFA estimate of $30,039,000,000.[39]

[40] Alan Sager and Deborah Socolar, "The Real Cost of an HMO Cure," *Boston Sunday Globe,* Focus Section, 23 January 2000.

[41] Alan Sager and Deborah Socolar, "The Real Cost of an HMO Cure," *Boston Sunday Globe,* Focus Section, 23 January 2000.