New England Journal of Public Policy

Volume 13 | Issue 2 Article 6

3-23-1998

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Cover Page Footnote

We thank Bruce Cryan, John Donahue, Mark Peterson, Bill Waters, and Don Williams for their helpful comments. We are indebted to John Dickens of the Maine Department of Human Services, Edmond Duchesne of New Hampshire 's Health Services Planning and Review Board, and Stan Lane of the Vermont Health Care Authority for providing much of the comparative data on state CON program performance.

Institutional Design and Regulatory Performance

Rethinking State Certificate of Need Programs

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The success of state efforts to control rising health care costs depends on the incentives contained in the legislative design of regulatory policies and in the administrative capacity and autonomy of state agencies. States have regulated the construction and expansion of health care facilities and services for more than two decades through "certificate of need" (CON) programs designed to limit the diffusion of expensive new medical technologies and to avoid the duplication of health care facilities. Although the cost-control record of state certificate of need programs has been widely criticized, Rhode Island's experience with a reformed CON process from 1985 to 1995 suggests that properly designed capital expenditure controls can impose order on the rapid diffusion of new medical technologies. Staunch political opposition from health providers, however, raises serious questions about the ability of state officials to implement such reforms. In the end, Rhode Island's experience with capital expenditure regulation in the1980s and 1990s underscores the importance of institutional design and policymaking capacity on regulatory performance.

The 1974 passage of the Health Planning and Resource Development Act, Public Law 93-641, marked the federal government's first comprehensive effort to regulate the behavior of health providers. While earlier federal planning efforts in the 1960s lacked teeth, P.L. 93-641 required hospitals to obtain a certificate of need (CON) from state health planning agencies before undertaking significant capital projects. State CON programs required applicants to demonstrate both the need for their projects and their consistency with goals of an overall health system plan. Through the CON process, state planners sought to impose orderly development on the health care industry, expand access for the poor and in geographically underserved regions, reduce duplicate and underutilized services, and above all, control health care costs. In the eyes of their critics, however, CON programs have stifled competition, failed to control costs, and had little effect on access to health care.[1] Opposition from health providers, coupled with recurring doubts about the cost-control record of state and local planning agencies, led to the termination of federal support for health planning in 1986.[2] The end of federal support for health planning produced a range of responses at the state level. Although some states replaced federal dollars with state funds, and a few states increased their

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regulatory efforts by strengthening existing CON statutes, thirteen states abandoned health planning and certificate of need activities altogether after 1986. The prevailing view of state capital-expenditure controls is summarized by Randall Bovbjerg, who concludes that "the evidence that CON in practice has accomplished any useful social objectives is very weak."[3]

On closer inspection, however, certificate of need programs offer several lessons for policymakers. The design of regulatory institutions structures the incentives and opportunities for state officials, industry groups, and other interested parties in the regulatory process. In most instances, the creation of CON programs represented a departure for the states from their traditional role of licensing health providers to a more active regulatory mode. The development of state CON programs required legislatures and health bureaucracies to rethink the limits of public authority and to develop new state capacities. As such, state efforts to control health care costs through capital-expenditure controls afford an opportunity to examine the impact of institutional design on policy development and implementation.

Beginning in 1984, Rhode Island established an aggregate ceiling on capital costs subject to certificate of need review, known as the CONCAP, in an effort to control hospital capital expenditures and rationalize the diffusion of new medical technologies. Despite a documented record of cost containment, a proposal to eliminate the state's capital budget cap passed the General Assembly with broad-based support from the executive branch, the hospital industry, and third-party insurers a decade after its introduction. We explore the political evolution and programmatic success of CON in Rhode Island through the use of data from a series of semistructured, open-ended interviews with public and private officials conducted during the summer and fall of 1992.

All the participants in the state's CON process, including representatives of Blue Cross, Ocean State Physicians' Health Plan, the Hospital Association of Rhode Island, the state Health Services Council, and the state Department of Health agreed to be interviewed for this project. To assure their expression of their candid opinions, respondents were guaranteed anonymity. Data on the performance of state CON programs over the past decade and state and national data on the fiscal health of the hospital industry are also included to place Rhode Island's cost-control record in both a regional and a national context. In retrospect, the rise and demise of Rhode Island's innovative controls on capital expenditures for health care providers illustrate the constraints facing state regulatory agencies in an uncertain political and fiscal environment.

A Framework for Analyzing State Cost-Containment Programs

In recent years, the rediscovery of institutions within mainstream political science has underscored the significance of program design in structuring policy outcomes.[4] The design of the regulatory process and the scope of state enabling legislation shape both the politics and the performance of state CON programs. As Lawrence Brown notes, "In general CON labors under heavy burdens as a cost constraining technique, but . . . under specific and favorable conditions it may rise above its liabilities."[5] Several conditions, in particular, influence the effectiveness of state controls on capital expenditures. First, the presence, and level, of threshold requirements for reviewing capital projects, for example, exempting projects costing less than $1 million from CON review, affects the ability of state regulators to control capital-related costs by limiting the number of projects subject to regulatory approval. Where review thresholds are high, only major

renovations or construction require state review. Conversely, if the review threshold is set too low, state regulators are vulnerable to charges of micromanaging institutions, as even minor repairs or service enhancements, such as upgrading existing telephone systems, are subject to regulatory oversight. In 1992, review thresholds for hospital capital projects in New England ranged from $300,000 in Vermont to $8.5 million in Massachusetts.[6] While several states required that all new equipment purchases undergo a CON review, others exempted purchases of less than $1 million.

Second, state CON programs can also foster discipline by establishing a budget constraint for decision makers; in an open-ended system, regulators have few incentives to challenge the prerogatives of providers backed by supportive community groups.[7] A ceiling on capital costs forces decision makers to prioritize projects and approve only those that offer the highest relative benefits. Unlike an open-ended CON process, the regulatory process under a capital cap becomes a zero-sum game for providers in which the approval of an additional proposal automatically reduces the pool of funds available to other institutions. As David Young argues, "the failure of CON programs to control costs is largely because of lack of competition for a limited pool of resources."[8]

Third, the success or failure of hospital regulatory efforts in controlling systemwide costs also depends on the number of payers or providers subject to regulatory review. If only acute-care hospitals are required to participaate in certificate of need review, nonhospital providers, such as freestanding surgical centers, dialysis centers, diagnostic imaging facilities, and similar ventures, may gain a competitive advantage that undermines support for the system. Furthermore, unless CON controls apply to nonhospital providers, states find it impossible to control systemwide health care costs, for physicians and hospitals have an incentive to shift care to unregulated nonhospital settings. Since the scope of state regulatory powers is defined by statute, the ability of policymakers to contain costs through certificate of need review is ultimately a political question.

Fourth, the external environment in which regulatory programs operate affects both their performance and their long-term prospects for survival.[9] The continuation of health planning and certificate of need programs in more than thirty-five states after the expiration of federal support for health planning in 1987 is a puzzle, for both state and federal policymakers have increasingly favored market-oriented solutions rather than regulatory ones over the past decade. State CON programs must balance the competing and often contradictory expectations of service consumers with the needs of resource providers who sustain their activities.[10] This dependence on external resources leaves public officials at the mercy of potentially hostile groups whose long-term interests conflict with the state's desire to control costs.[11] The recurring fiscal woes of many state governments in the late 1980s and early 1990s produced an annual ritual in which agencies scrambled to cope with threatened (or actual) cuts by squeezing out inefficiencies or identifying new revenue sources.[12] Although the statutory recognition granted to government agencies, coupled with their established relationships with legislators and support from clientele groups interested in controlling health care costs, for example, third-party insurers, favor organizational survival, CON programs remain extremely vulnerable.[13] As regulatory programs that must wrestle with complex issues, state CON controls are typically low in salience for the public at large.[14] Furthermore, since capital expenditure regulation impinges on the managerial autonomy of health providers, CON programs often find themselves with few supporters and many critics.

Finally, the administrative capacity of state regulatory programs has a powerful

impact on policy outcomes.[15] Specialized knowledge and expertise have become prerequisites for the development of effective regulatory policies in the health care industry. The complexities of the contemporary hospital reimbursement process, coupled with the inherent difficulty in objectively evaluating the "need" for new health care facilities and sophisticated new medical technologies, foster a technocratic decision-making process that relies on data, forecasts, and evidence of clinical outcomes.[16] Many observers, however, remain openly skeptical about the ability of state governments to compete effectively with well-financed interest groups and policy think tanks in developing and modeling the impact of various policy choices.[17] Skeptics suggest that the limited administrative capacity of American political institutions, particularly those at the subnational level, represents a formidable obstacle to effective policy making. State legislatures and bureaucracies were regarded for decades as backwaters of cronyism and patronage politics. While times have changed, and state governments are increasingly sophisticated in their ability to draft, implement, and evaluate policy choices, the development of state administrative capacities remains uneven. In some states, policy development lies in the hands of quasi-academic think tanks or working groups in which well-educated, highly trained professional policy analysts apply the tools of their trade to developing and assessing various policy options. In other states, acquiring professionally staffed agencies remains a goal, not a reality, as key appointments are made without regard to policy expertise or prior experience in the field.

The professionalism and expertise of state agencies, however, depend on the resources available for hiring and retaining talented staff.[18] In particular, the adequacy of state compensation and the level of staff support emerge as critical issues for building institutional capacity over time. Unless they can compete for talent with the private sector by paying comparable salaries, regulatory agencies find it difficult, if not impossible, to hire skilled employees with professional training in law, public policy, and health economics. Once hired, professionally trained staff must have sufficient resources like space and administrative and computing support to compete with private-sector lobbying groups and think tanks. In the absence of these essential resources, state regulatory agencies are likely to serve as stepping-stones to the private sector, which offers the most capable employees a chance to hone their skills before moving up to more lucrative opportunities outside state government.[19]

Widespread departures from its top management positions can leave a regulatory agency without a clear sense of direction, hardly a situation predisposed to the development and implementation of innovative public policies. Sapolsky, Aisenberg, and Morone's case study of hospital rate setting in New Jersey concluded that "it is less difficult to bring together a talented group for designing a new program than to hold one together for the arduous task of program implementation and refinement. The reward for even a brief association with an interesting project is often a much better position elsewhere."[20] When a state's resources are overwhelmed by the private sector, the stage is set for interest groups to dominate the regulatory process. Leadership stability is also vital for the ongoing success of state regulation. Effective leaders can energize an organization by clearly defining a unifying sense of purpose and mission and by mobilizing support for their goals among significant external constituencies.[21] Leadership can take many forms, from charismatic public salesmanship to behind-the-scenes efforts at coalition building. In either case, however, frequent changes in leadership can create uncertainty among client groups concerning the agency's direction and policy priorities. Under such circumstances, legislative leaders and interest group representa-

tives are reluctant to make long-term commitments to support the agency's agenda, for new leaders or an interim administration may pursue a quite different agenda.[22] As a result, short-term administrators face a credibility gap — if others do not expect them to remain in their positions long enough to carry out their stated goals, they find it difficult, if not impossible, to back new regulatory initiatives.

The specialization of state policymaking expertise includes both the degree of institutionalization in a state legislature and the division of labor among distinct working groups or units in state government. State legislatures vary considerably in their degree of institutionalization. While legislative service is a full-time job with possibilities for career advancement in some states, in other states legislators serve only part time for little pay and few perks. In addition, while some state legislatures have developed highly differentiated committee systems that foster specialization among their members, others have not.[23] The extent of staff support for both committees and individual members also influences the ability of legislators to serve as proactive players in policy development.[24] Part-time legislatures with limited staff support and few specialized committees find it more difficult to develop and oversee specialized regulatory programs than full-time legislatures with narrowly defined committee jurisdictions and a cadre of personal and committee staff.

The Political Evolution of Certificate of Need in Rhode Island

Although many groups have supported health facilities planning in Rhode Island over the past three decades, each had its own vision of how the process should work. As a small state with a population of just over one million persons, Rhode Island is home to eleven acute-care hospitals, four of which are located in the capital city of Providence. The Rhode Island Department of Employment Training and Security estimates that one of every nine workers in the state is employed in the health care industry. Rhode Island's hospitals are a major force in the state's economy. Data provided by the Hospital Association of Rhode Island (HARI) indicated that the state's hospitals employed more than 23,000 people in 1994; Rhode Island Hospital (a founding member of the Lifespan hospital network) is the state's largest private employer. Over the past two decades, the hospital industry has emerged as one of the state's most influential lobbying groups whose paid lobbyists develop and track legislation affecting its membership, testify at hearings, and coordinate grassroots lobbying campaigns with the association's member hospitals. During the 1980s, hospitals grew displeased with the CON process and chafed under the state's strict capital expenditure controls. HARI's political advantages were compounded by the fact that until 1994 the 150 members of Rhode Island's legislature served only part time and received only $5.00 a day for their efforts; with little professional staff support available to individual members and committees, legislators are forced to rely heavily on testimony and information provided by interested parties in formulating legislation.[25]

During the past decade, Rhode Island hospitals, like their counterparts in other states, made a difficult adjustment from a system of retrospective, cost-based reimbursement to one in which providers are paid prospectively or at a steep discount from quoted charges. By the end of the 1980s, however, Rhode Island hospitals were in a precarious fiscal position. For example, they were found to have relatively low levels of financial liquidity when they were compared with similar U.S. institutions.[26] They ranked forty-sixth in the nation in days of cash on hand and forty-seventh in their

overall operating margin.[27] Capital spending particularly fell far behind both national and regional averages, although Rhode Island's teaching hospitals had the eighth highest number of medical residents per thousand members of the population in the United States in the late 1980s.[28]

Prior to the mid-1980s, Rhode Island's hospital industry had not witnessed the intense competition that accompanied the expansion of for-profit hospital chains, managed care, and alternative delivery systems. Until that time, the private health insurance market was dominated by Blue Cross and Blue Shield of Rhode Island, which insured more than 85 percent of the population not covered by government-sponsored programs like Medicare and Medicaid despite modest inroads by two fledgling HMOs.[29] Blue Cross, in turn, was a key player in the state's prospective rate-setting program, which determined both individual hospital budgets and an overall ceiling on hospital expenditures each year. No preferred provider organizations operated in the state during the 1970s and 1980s. While four ambulatory surgical centers were licensed during the 1980s, two were limited to providing abortion services and gynecological surgery. Furthermore, no for-profit hospitals or national hospital chains currently operate hospitals in Rhode Island, although both Columbia/HCA and Tenet proposed to acquire nonprofit institutions in 1996 and 1997. While Columbia/HCA's controversial bid to purchase Roger Williams Medical Center failed, Tenet's proposed merger with Landmark Medical Center still awaits regulatory approval.

Rhode Island health planning has a long history dating back to the mid-1960s; private planning efforts predated the passage of federal and state certificate of need legislation. In general, hospitals have favored private planning initiatives that do not threaten their autonomy and opposed planning functions lodged within the Department of Health as unnecessary intrusions on medical practice. In 1968, Rhode Island became the second state in the nation to regulate hospital capital projects. The legislature's decision to regulate capital construction won the endorsement of the hospital industry and a special legislative commission appointed to study the rapid increase in hospital charges during the 1960s. At the time, hospitals viewed CON as a less onerous alternative to state rate setting despite the inherent risks involved in ceding regulatory authority to the state. Hospitals also favored CON as a means to limit competition in the state's health care system, for "providers have seen some merit in entry barriers as a means of turf protection and therefore have generally given CON at least their tacit support."[30] Blue Cross and Blue Shield of Rhode Island, for its part, enthusiastically supported facilities planning as a means to control its costs in the past two decades. As the state's dominant third-party health insurer, Blue Cross continued to hold more than 70 percent of the nongovernment health insurance market in the early 1990s despite recent inroads by the state's two largest health maintenance organizations, United Health Care (formerly Ocean State Physicians' Health Plan) and Harvard Community Health Plan of New England, formerly the Rhode Island Group Health Association. Unlike neighboring states like Massachusetts, however, few business groups and other third-party payers played a major role in health care policy debates during the 1980s and 1990s.[31]

In the early 1970s, Rhode Island's fledgling health planning programs received a significant boost as a result of the federal government's decision to embrace health planning and certificate of need as its principal cost-control strategy. Under an amendment sponsored by Senator Claiborne Pell, the state was exempt from requirements mandating local citizen planning boards to assess the need for proposed projects in the context of statewide health plans. As a result, funds that were channeled to local health

systems agencies in other states were allocated to the Rhode Island Department of Health (DOH), generating a windfall to support its nascent planning activities. The department's early initiatives reflected a strong commitment to rational planning but showed little sensitivity to the political ramifications of its policy prescriptions. This political naïveté was reflected in the development of the state's first comprehensive health plan, which proposed a radical restructuring of health care delivery. The draft health plan that was released to the public in 1980 immediately agitated providers, which drummed up support in their local communities to meet the perceived threat. The plan proposed, for example, to eliminate "excess capacity" in the state's hospital bed supply and to restrict the number of surgeons who could practice in the state.[32] Employees and patients of hospitals targeted for closure or service reductions jammed public hearings across the state to plead their case.[33]

The public forums about the draft health plan were raucous affairs that drew hundreds of local residents; at one meeting in southern Rhode Island, local police were called to escort the planners out of town after a tumultuous hearing during which angry residents charged that the state's proposal to close "surplus" hospitals would result in layoffs for hundreds of local residents. As one DOH senior planner recalled, "In the early years we didn't know what we were doing; we didn't look at the political obstacles, just our rational models." After a dose of political reality, subsequent plans of the department backed away from some of its more controversial proposals. Rather than decertifying beds, the DOH elected to promote competition among health providers to transform the state's hospital industry during the 1980s. In the decade after the publication of the state's first draft health plan, a combination of mergers, closures, and service conversions reduced the number of licensed Rhode Island hospital beds by nearly 13 percent, from 3,461 in 1980 to 3,015 in 1993.[34]

Imposing Competition from Above

By the early 1980s, a growing body of evidence suggested that "CON laws and health planning [had] made little difference in costs, quality, or access to health care."[35] Although the state's CON process provided for a case by case review of proposed capital projects on the basis of need, in the absence of limitations on the number of new capital projects, CON controls had a limited impact on systemwide costs. The limitations of Rhode Island's existing CON legislation were readily apparent during the debate over an application from Women & Infants' Hospital in Providence to replace its aging facility in the early 1980s. As one senior hospital administrator recalled, "No one had ever envisioned the replacement of a hospital, but dropping out of the sky was a $50 million project." In response, officials at the Department of Health called for efforts to strengthen the CON process by imposing a statewide capital budget cap on all new construction projects.[36] The department's proposal to strengthen the CON process won the endorsement of a special legislative commission, chaired by state representative Anthony Carceri, to study health care capital expenditures. In its 1982 report to the General Assembly, the commission argued that the "health care system, like individuals, must be held more closely to the discipline of a budget." In 1984, both chambers endorsed a statewide capital expenditure limit with unanimous support for the Health Care System Affordability Act (84-H-7103) despite opposition from HARI.

Two factors played a significant role in the legislature's decision to expand the scope of certificate of need in Rhode Island. The DOH enjoyed unusual influence and prestige

within the state bureaucracy as an agency that provided unbiased and sophisticated analyses. Federal planning funds, which exceeded $1 million per year in the late 1970s and early 1980s, enabled the DOH to hire a cadre of planners and policy analysts to develop a number of innovative databases on health care costs, utilization, and outcomes. In addition, the department enjoyed strong support during the 1980s from several prominent legislators and from the executive branch, which added legitimacy to its policy recommendations. As one senior DOH official noted, these relationships "helped a great deal in terms of support for our budgets and proposed legislation."

The Health Care System Affordability Act established a statewide ceiling on hospital capital expenditure projects. Under the CONCAP, each certificate of need application approved by the state's Health Services Council (HSC) reduced the amount available for other projects; the cost of interest and depreciation for all projects under review was not allowed to exceed the CONCAP amount negotiated annually by the hospital association, Blue Cross, and the state Medicaid program. After 1984, all CON applications subject to CONCAP review were evaluated in a single batch each year to foster a comparison of each proposal. In addition to establishing a ceiling on total capital expenditures in 1984, the enabling legislation required the HSC to review proposals for (1) new facilities in excess of $600,000, (2) increases of ten or more acute-care beds or 10 percent of existing capacity, (3) the addition of services that increase operating expenses by $250,000 or more, and (4) the acquisition of health care equipment requiring an expenditure of more than $400,000.[37] Finally, the 1984 legislation directed the state's HSC to first review applications on the basis of need and then rank order each on the basis of its relative merit. After this priority ranking was completed, each project would be approved in order until the annual CONCAP budget was exhausted. The Health Services Council, however, was not required to fully deplete the CONCAP negotiated by the participants in the state's prospective reimbursement program — Blue Cross, the state's hospital association, and Medicaid. Each certificate of need approval reduced the amount available for other projects, thus creating a zero-sum game among applicants. The actual dollar limit of the CONCAP reflects the estimated cost of the annual capital-related operating expenditures, interest, depreciation, and leasehold expenses negotiated during the state's prospective rate-setting process.

Rhode Island's amended CON process was designed to determine both the public need and the affordability for each proposal. The initial review of a project is usually conducted by one of the Office of Health System Development's two project review committees, which make written recommendations to the full Health Services Council. The HSC has the option of approving, rejecting, or modifying a proposal. The HSC recommendation is then forwarded to the director of HSC for a final determination. Although the director is free to accept or reject the recommendation, few of the council's decisions have been overturned.

Two other types of review are designed to make the CON process more flexible and responsive to both routine and unusual needs. Applicants may apply for expeditious review of projects that are designed to meet emergencies and other urgent public health needs. The CON statute also provides for an accelerated review of projects that present a prima facie demonstration of need and affordability, for example, in the case of projects proposing a one-for-one replacement of equipment. Projects approved under an accelerated review are not subject to the CONCAP priority listing procedure, and they are allowed to draw first from the amount budgeted by CONCAP. Both forms of priority review have been criticized by providers for offering an unfair advantage to some appli-

cants, for institutions able to demonstrate that their projects fit the criteria for either expeditious or accelerated consideration leapfrog over other projects on the HSC's priority ranking scale.

The Success of CON in Rhode Island

Current perceptions of CON's failure as a cost-control strategy are largely based on assessments of program performance during the 1970s. Previous efforts to measure CON program performance have been criticized for their inability to show that the imposition of capital controls made a difference in either a state's level of capital expenditures or the fiscal condition of its hospitals.[38] Most studies confined their discussion to the percentage of projects that were approved, denied, modified, or withdrawn.[39] Rhode Island's CON process became more stringent after the adoption of the CONCAP; the overall approval rate for CON applications fell from 84 percent in the five years preceding 1984 to less than 70 percent from 1985 to 1990.[40] Between 1990 and 1992, the state Health Services Council approved twenty of the twenty-fix CON applications it received from hospitals, but denied petitions to construct a bone-marrow transplant facility and additional cardiac catheterization laboratories. Savings from hospital projects that were either modified, denied, or withdrawn exceeded $68 million in capital costs and $25 million in annual operating costs from 1971 to 1986.[41]

While Rhode Island compares favorably with other states in this regard (see Table 1), measurements of process say little about a program's effectiveness. Other indicators, including equity financing ratios, occupancy rates, and capital-expense ratios, offer better measures of the impact of CON on hospitals' capital-related operating costs. Projects approved by the Health Services Council from 1984 to 1994 reduced hospitals' interest expenses by increasing institutions' equity participation, or "down payment," on new projects to nearly 40 percent of total approved capital expenditures.[42] A higher percentage of equity funding, in turn, constrains costs by reducing the expenses associated with servicing capital debts.

Various indicators of hospitals' fiscal health can be used to gauge the impact of Rhode Island capital-expenditure controls, for CON programs can affect hospital investment patterns in several ways. First, CON review may deny institutions' applications to

Table 1

CON Application Review Outcomes, Selected States

State (years)	Approved (%)	Withdrawn, Denied, or Modified (%)	N
Maine (1982–1992)	295 (81.0)	69 (19.0)	364
New Hampshire (1982–1991)	69 (77.5)	20 (22.5)	89
Rhode Island (1979–1983)`	47 (83.9)	9 (16.1)	56
Rhode Island (1984–1992)	47 (72.3)	18 (27.7)	65
Vermont (1984–1993)	117 (88.6)	15 (11.4)	132

Sources: Maine Department of Human Services; New Hampshire Health Services; Rhode Island Office of Health Systems Development; Rhode Island Department of Health; and Vermont Health Care Authority.

build new facilities, add equipment, or expand services, resulting in a savings of both capital costs and ongoing operating costs associated with the proposed project. Second, CON approval may be conditional, in that hospitals may be required to modify their initial proposal by lowering costs, meeting well-defined national standards, guaranteeing access to underserved populations and the uninsured, and fulfilling other goals defined by the review panel. Furthermore, "the very existence of certificate of need acts as a deterrent to frivolous or obviously misdirected projects. Few institutions are likely to expend the time, energy, and money to traverse the complex certificate of need process for a project which cannot withstand the test of public scrutiny."[43]

A comparison of various indicators of capital-related costs for New England hospitals is shown in Table 2. Capital-related costs for Rhode Island's eleven acute-care hospitals fell well below national and regional averages in the decade following the enactment of the CONCAP. The capital-expense ratio describes the cost of interest and depreciation relative to an institution's total operating expenses, since higher values for the ratio indicate a higher level of indebtedness and lower values are indicative of both fiscal health and fewer long-term obligations. The median capital expense ratio for state hospitals (0.05) was the lowest in the region and the second lowest in the United States in 1992, indicating that the state's hospitals had an unusually low level of debt relative to their counterparts in other states.[44] The second column in Table 2 presents the median values of hospitals' debt-service-coverage ratio, which measures institutions' ability to repay the costs of both interest charges and principal payments. Higher values indicate a greater ability to meet their financing commitments; the debt-service ratio is also the single most important indicator of debt capacity used by bond- rating agencies.[45] While the median debt-service-coverage ratio for Rhode Island hospitals exceeded the national median, the state ranked fourth among its New England neighbors. The state's relatively poor performance on this indicator, however, is not owing to high levels of capital investment but to the fact that Rhode Island hospitals have a low net income relative to institutions in other states as a result of the high proportion of Medicare and Medicaid patients served by the state's nonprofit institutions.

The utilization rate of health care facilities also provides insight into the effectiveness of Rhode Island's strengthened capital-expenditure review process. Since CON programs subject proposed capital investments and service changes to a comprehensive

Table 2

Hospital Capital Expenditures in New England, 1992

State	Capital Expense Ratio	Debt Service Coverage	Equity Financing Ratio
Connecticut	0.057	5.57	0.720
Maine	0.071	2.96	0.503
Massachusetts	0.084	2.54	0.316
New Hampshire	0.088	4.40	0.492
Rhode Island	0.050	3.23	0.507
Vermont	0.074	4.36	0.589
U.S. Median	0.079	3.16	0.535

Source: W. Cleverly, *1993 Almanac of Hospital Financial and Operating Indicators* (Columbus, Ohio: Center for Healthcare Industry Performance Studies, 1993).

review process, states with effective CON programs would be expected to have, on average, a more efficient use of existing facilities. Despite growing competition in Rhode Island's health insurance marketplace and a national trend toward lower utilization of inpatient services, the median occupancy rate for Rhode Island's acute-care hospitals exceeded both the regional and national medians. The state's median occupancy rate of 68.9 percent was the fifth highest in the nation in 1992. The high utilization of existing health care facilities reflects the fact that Rhode Island did not experience a surge in the construction of ambulatory surgical centers, freestanding imaging centers, and new hospital facilities following the termination of federal planning programs in 1987.

In addition, because projects must pass more stringent tests before institutions can break ground or add new services, hospitals in states with aggressive CON programs should be older than their counterparts in other states. Again, evidence indicates that CON controls in Rhode Island have had a demonstrable effect. The median age of the state's acute-care hospitals, 9.51 years, is considerably higher than the national median and the median of all other states in the region except Connecticut. In 1992, the average age of Rhode Island's hospitals' fixed assets was the third oldest in the nation.[46]

The effectiveness of Rhode Island's certificate of need process can be traced to a steady expansion of the scope of projects subject to regulatory review. In 1978 the law was amended to include most other health providers, including freestanding ambulatory and surgical centers. Debates over the construction of the latter particularly proved to be highly controversial in recent years, as the director has rejected proposals to build additional for-profit centers in the state because of concerns about an existing overcapacity of outpatient surgical facilities and the potential impact of "cream skimming" by the centers on the financial stability of existing institutions.

Change and Continuity in Rhode Island's CON Program

Rhode Island's success in controlling capital outlays would be expected to strengthen the opposition of providers to the capital-review process and increase its vulnerability in an uncertain fiscal climate. Although hospitals initially supported CON as a less onerous alternative to rate-setting controls, by the mid-1980s the process significantly circumscribed institutions' managerial autonomy. Hospitals strongly objected to the CONCAP process on the grounds that it unnecessarily limited their freedom to react to a changing market for health services. CONCAP survived for nearly a decade without major revisions through strong support from both the legislature and the senior management of the Department of Health. From 1987 to 1992, the General Assembly made several largely technical changes in the CON law. Health care providers gained an important concession in 1991 when the length of the review process was capped at 120 days (91-H-6712). The legislature also limited the scope of the CON program by raising the financial thresholds for projects subject to review (91-H-6652) and by exempting certain nursing and home health care providers from the process. In 1993, the legislature also exempted new state health care facilities from CON review (93-S-499). The legislature, however, refused to approve wholesale exemptions for cancer treatment facilities (91-S-1073) and for repeal of fees for CON reviews for equipment (91-H-5599).

One critical challenge facing organizations lies in managing the transition from program start-up to successful implementation.[47] State government bureaucracies are particularly vulnerable to problems of program implementation, because budget cuts, interest group opposition, and lucrative opportunities in the private sector often lead to a revolving door through which employees use state employment as a training ground for better-paying private-sector jobs. Innovative state programs are often victims of their own success, for "the presentation of new ideas often brings the designers widespread attention and career opportunities to serve in a larger jurisdiction . . . The reward for creativity draws talent away from state government at the point when ideas are being implemented and refined."[48] The Department of Health's tendency to promote from within was a critical element in preserving its commitment to CON, for it promoted the development of an institutional memory rooted in health planning. During the 1980s and 1990s, the DOH managed to attract and retain talented administrators and analysts to oversee and refine the CON process. Senior department officials drew upon the cadre of health planners that developed the state's health plans in the 1970s to assume leadership roles. By the early 1990s, several officials in the senior management team, including the deputy director, the associate director for health services regulation, whose office oversees the CON program, and the chief of the Office of Health Systems Development had fifteen or more years' experience with health planning and facilities regulation.

Political support for CON, however, eroded in the early 1990s. As Rhode Island's economy stumbled into a recession, state agencies were forced to cope with successive rounds of budget cuts, personnel layoffs, and furloughs.[49] The Hospital Association of Rhode Island, for its part, had sought to modify the CONCAP law since its passage, arguing that the statewide expenditure ceiling "could constrain the retooling process necessary for hospitals to adjust to the new [competitive] environment." HARI's 1988 *Environmental Assessment for the Hospitals of Rhode Island* noted "growing disillusionment with many aspects of certificate of need and particularly with the CONCAP program" among its members.[50]

The ongoing opposition of the health care industry was amplified by a growing anti-regulatory sentiment in the state's business community. Business leaders had been expressing a concern over the antibusiness reputation of the state, which, it was widely believed, adversely affected the state's ability to attract new industry and investment. The Rhode Island Public Expenditure Council, a watchdog group supported by several of the state's largest employers, repeatedly cited unwarranted government regulation as detrimental to the state economy. In addition, critics charged that the CON process was increasingly driven by political rather than policy considerations.[51] In 1992 and 1993, local hospitals viewed proposals to build freestanding surgical centers in three cities as a direct threat to their survival. Several hospital mergers and compacts contributed to a climate of uncertainty in the hospital industry and brought the Health Services Council into the public limelight.

The HSC had always been a politically sensitive body. Fifteen of its twenty-two members are appointed by either the governor or the leaders of the General Assembly. Although members are not appointed for set terms and can be replaced any time, the council was seldom subject to overt political pressure. One hospital vice president commented in 1992 that "the process was always political, but it was discrete. Now it seems that anything goes." In 1993, a total of nine HSC members — 41 percent of its total membership — were replaced. The timing of the appointments also raised questions. In

June 1993, two members were abruptly replaced amid a heated discussion over a proposal to build a rehabilitation hospital in Warwick. Less than six months later, three members were replaced during an acrimonious debate over a proposed outpatient surgical center in the town of Johnston. The HSC itself may have added to the perception of undue political influence by issuing decisions based on what appeared to be incompatible objectives. In approving one proposed surgical center in Providence, the HSC sought to promote consumer choice and competition. Several month later, the council rejected a proposed surgical center in Johnston, citing concerns about the effects of competition on St. Joseph Hospital. This struggle was played out before an increasingly cynical public that had recently witnessed several major scandals involving highly placed officials, including the former governor, the chief justice, and the chief court administrator.

In 1994 Governor Bruce Sundlun asked the director of DOH to prepare legislation to modify the CON process. According to Peter Dennehy, the governor's principal health policy adviser, the Sundlun administration was increasingly concerned about the state's slow rate of economic growth. In this climate, the governor viewed CON as a burden for one of the few growth industries in the state. After a series of meetings between the DOH staff and the governor's office, the Sundlun administration drafted legislation that significantly revised the CON process by eliminating the CONCAP. The bill, 94-S-2841, was introduced as part of the governor's legislative package and passed the Senate by a 45 to 0 margin and the House by 75 to 0 in June, ending Rhode Island's experiment with global budgeting for hospital capital expenditures ten years after it began. Although the types of projects subject to review by the Health Services Council remains essentially unchanged, the number of projects eligible for approval under the revised statute is unlimited. In the words of a former DOH official, the General Assembly's action, at the governor's request, had "pulled the teeth of the CON program."

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The rise and demise of Rhode Island's reformed CON process offers several useful lessons for other states. First and perhaps foremost, Rhode Island's CON program demonstrates the effectiveness, if not the necessity, of a budget cap for controlling health care providers' capital expenditures. In particular, opportunities to "outmaneuver" the Rhode Island's CON process were sharply curtailed after the introduction of the CONCAP in 1984. A ceiling on capital costs forces decision makers to prioritize programs and choose the most cost-effective projects. Since the merits of each application are judged relative to others, capital caps place much greater emphasis on the opportunity costs of forgone projects. Unlike an open-ended CON process in which an unlimited number of projects could be approved if they demonstrated need, the CONCAP emphasis on statewide affordability created a zero-sum game for providers. Under these circumstances, the approval of an additional proposal automatically reduced the funds available for other institutions' projects.

Second, although the effectiveness of CON programs can improve with age as personnel gain experience and sharpen their skills, the ability of any regulatory initiative to succeed in the face of opposition from the regulated industry depends on the institutional capacity of the implementing agency.[52] In the long run, the effectiveness of state CON programs depends on their ability to recruit and retain key personnel. Building the institutional capacity of state CON programs, however, requires a commitment from policymakers inside and outside the implementing agency.[53] The fiscal crisis that beset

the Rhode Island state government in the early 1990s buffeted the DOH even though the program had a stable source of funding from providers' application fees. Furloughs, wage and hiring freezes, and restrictions on the purchase of new equipment contributed to sagging morale among program personnel. In addition, turnover had a significant impact on the Office of Health Systems Development after the end of federal support for health planning. Although Rhode Island had assembled an impressive health planning and regulatory infrastructure during the 1970s and 1980s, the state did not replace federal health planning funds after the repeal of P.L. 93-641. Without continued funding, several experienced planners and regulators left for jobs in the private sector; others stayed with the department and received promotions to senior management positions. The CON program managed to retain a core group of experienced analysts but was unable to replace those who departed. Simultaneously, new productivity demands emerged after legislative changes in 1991 shortened the review period from 210 to 120 days.

Providers, for their part, used their considerable resources to outlast the Department of Health via an incremental approach to the review process. Several institutions reapplied successfully for CON approval after addressing the comments and critiques raised by the Health Services Council and program staff during the review of the initial application. Rhode Island DOH staffers do not dispute the fact that those who reapply often win approval, but they nevertheless defend the process. As one senior policymaker noted, "Sometimes tenacity pays off. It's not necessarily because the CON process has been worn down, but because we're disseminating technology in a planned way." A singular focus on the rate of project denials may be counterproductive, for the deliberations that accompany the CON review process often lead to concessions by providers that expand access to services or lower program operating costs. Modifications, not merely rejections or withdrawals, must be seen as significant successes for CON programs, particularly if they increase hospitals' equity participation in proposed projects or lead to reductions in staffing and operational costs.

In other cases, however, state officials were handicapped by the program guidelines that had been established through collaborative planning arrangements. In 1993, for example, the DOH was forced to approve two competing proposals to establish cardiac catheterization laboratories at two Providence hospitals. The approvals came despite concerns about the duplication of facilities and the clinical appropriateness of existing procedures because both applicants had met the formal criteria established by the state's Cardiac Care Advisory Committee (CCAC) in the mid-1980s. Under the criteria established by the CCAC, a hospital could demonstrate that a proposed catheterization lab was "needed" if the applicant's existing labs were operating at more than 90 percent of their designed capacity and the utilization rate for all facilities in the system exceeded 80 percent. The CCAC, which was heavily dominated by cardiac surgeons who were sympathetic to calls for expanded capacity, made it impossible for the Health Services Council to reject projects on the basis of need, although several design and financing issues led both institutions to reapply after the HSC rejected their initial proposals in 1992.

The legislature and executive branch consistently supported CON in Rhode Island until the mid-1990s despite growing opposition from health providers. Although changes in party control often lead to policy shifts, the 1984 election of Rhode Island's first Republican governor in more than a decade had a negligible impact on DOH's activities. Instead, department funding was nonideological and nonpartisan. In addition,

the active participation of such respected former legislators as Representative Anthony Carceri on the state Health Services Council provided CON with greater legitimacy. The retirement of several prominent legislative supporters of health planning, coupled with a high rate of turnover among experienced members of the HSC in the early 1990s, made the CON program increasingly vulnerable to attacks from its critics. The departure of the program's legislative patrons was particularly significant, for apart from prominent party and committee leaders, individual legislators had no personal staff at their disposal. In the context of a highly partisan legislature in which power was concentrated in the hands of the House and Senate leadership, members actively sought advice from lobbyists and colleagues with acknowledged policy expertise on complicated issues.[54] With the retirement of several prominent CON supporters from the legislature and the replacement of experienced members of the Health Services Council in the early 1990s, the influence of the hospital industry grew steadily.

Third, CON also fell victim to what Martha Derthick and Paul Quirk have described as "the politics of ideas."[55] During the 1980s, both industry groups and senior state officials within the Department of Health embraced market-oriented, competitive solutions as the most effective means of controlling health care costs. Enrollment in managed care plans rose steadily after 1980; by 1994, Rhode Island, with 27.6 percent, had the ninth highest rate of HMO penetration in the nation. Entry regulation, by contrast, was seen as a costly administrative burden on health providers and as an anticompetitive device that hospitals could use to establish entry barriers for alternative delivery systems.[56] In contrast to other states, projects proposed by noninstitutional providers were also subject to CON review in Rhode Island; elsewhere, hospitals sought to circumvent the process by acquiring equipment in stages, collaborating with private physicians, and establishing parent corporations.[57]

CON programs, however, need not play a reactive role that stifles innovation. The Rhode Island Department of Health initiated a request for proposals (RFP) process to evaluate new submissions in identified areas of need in the late 1980s to assist institutions in long-range planning. RFPs for magnetic resonance imaging (MRI), cardiac catheterization units, rehabilitation services, and home health care were issued during the 1980s to make the state's CON process more proactive in its orientation. The use of RFPs balanced the demand for new technologies with the state's continuing emphasis on cost containment. In the case of MRI facilities, a nonprofit network emerged as a cost-effective solution to the desire of community hospitals to obtain advanced imaging capabilities in the mid-1980s. A consortium of ten hospitals joined to share MRI technology through a mobile network that provided portable MRI units for each hospital at least two days per week. Participating hospitals were spared the full cost of building a permanent facility and hiring specialized staff, since radiologists employed by the network performed and analyzed MRIs at each hospital. The result was a compromise acceptable to all parties, as the state's tertiary care centers were allowed to construct permanent MRI facilities, and institutions in outlying communities were afforded access to the latest technology. The CON process simultaneously facilitated the diffusion of new technology, minimized hospitals' financial obligations, and avoided unnecessary duplication of equipment and health care personnel.

While a preset ceiling on moneys available for capital projects such as the CONCAP can increase the effectiveness of capital-expenditure review, CON alone cannot bring hospital costs under control, as capital projects account for only a small portion of institutions' total costs. Furthermore, as Arnold Relman noted nearly a decade ago, "The

chief cause of the cost crisis [in American medicine] is not so much the price as the ever increasing volume and intensity of medical services being provided in outpatient settings and hospitals."[58] Physicians exercise considerable control over the volume of services performed by hospitals; economic analyses of physician and hospital behavior over the past two decades by Joseph Newhouse, Mark Pauly, and others suggest that in the absence of well-defined and commonly accepted protocols for treatment, doctors can essentially "create demand" for profitable diagnostic and surgical procedures to maximize their incomes. In fact, the president of the American College of Cardiology confirmed this suspicion when he noted that "important economic incentives are at work in some of these increases in rate of procedure utilization."[59]

In recognition of the continued need for some regulation of health care capital expenditures, both certificate of need programs and local health planning regained popularity in the early 1990s after their more than a decade under siege. While some states repealed their CON legislation in the late 1980s, Delaware, Florida, and Georgia all expanded the scope of their CON programs between 1989 and 1991.[60] While most observers share Sapolsky's view that "physicians, and more relevantly, hospital administrators, quickly discovered that the planning system could be outmaneuvered [and that] . . . the system was not much of an obstacle once the consultants were called in to advise," the cost-containment record of capital expenditure regulation in Rhode Island suggests that the prevailing wisdom about certificate of need has to be reexamined.[61] The principal historical shortcoming of state CON programs was the placing of too much hope on a program with multiple objectives to control health care costs.

The proliferation of new technologies, from magnetic resonance imaging facilities to cardiac catheterization labs, provides a constant reminder that new, often expensive procedures that offer institutions lucrative opportunities to increase patient volume are constantly being created. A number of states imposed moratoria on new hospital construction after the end of federal health planning subsidies in 1986. Such actions, however, are blunt tools for controlling the diffusion of new technologies because they did not discriminate between projects with proven clinical benefits and demonstrated need and less essential proposals. In contrast, CON imposes rationality on the diffusion of new technologies and the introduction of new services by providing an institutional mechanism to evaluate the demand for new capital. In the absence of CON, hospitals' desire to increase their market penetration and reputation through the acquisition of promising new technologies and renovations of maternity and outpatient surgical facilities has the potential to devolve into a technological arms race between competing institutions.

Using recent studies as a benchmark, state regulators are beginning to apply the guidelines developed by outcome researchers in evaluating CON applications based on the appropriate utilization of existing services. Recent studies of the appropriate utilization of cardiac catheterization, coronary angioplasty, and other specialized diagnostic and therapeutic procedures in recent years have been driven, at least partially, by reimbursement. In particular, payer status — private insurance, Medicaid, self-pay — is strongly associated with patients' utilization of health services. Studies of cardiac catheterization, carotid endarterectomy, and coronary angiography found that many surgical procedures were either "inappropriate" or of "uncertain" clinical value.[62] In the absence of evidence that proposed services have a significant impact on patient outcomes, the state may use the CON process to identify potentially unnecessary and costly facilities and discourage the overutilization of specialized and expensive procedures.

Capital-expenditure review is likely to play a significant role in controlling costs over the next decade, for after the demise of the Clinton administration's health care reform package, the focus of attention has again shifted to the states. Rhode Island's experience with CON provides evidence that a comprehensive approach to capital-expenditure review, including an ongoing facilities planning process, "batch" review of applications, and a cap on capital-related operating expenditures, offers policymakers an effective institutional mechanism to control costs. In the wake of mounting evidence that the adoption of new technologies has fueled health care inflation over the past decade, capital-expenditure review still offers policymakers one of the few institutional levers to shape the organization and delivery of health care services.

We thank Bruce Cryan, John Donahue, Mark Peterson, Bill Waters, and Don Williams for their helpful comments. We are indebted to John Dickens of the Maine Department of Human Services, Edmond Duchesne of New Hampshire's Health Services Planning and Review Board, and Stan Lane of the Vermont Health Care Authority for providing much of the comparative data on state CON program performance.

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