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# PROPOSALS TO CONTROL HIGH-COST HOSPITAL MEDICAL STAFFS

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by W. Pete Welch and Mark E. Miller

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**Prologue:** *To address the rapid growth in physician spending, Medicare reformed its payment methods with a resource-based relative value scale and national volume performance standards (VPS). Volume performance standards provide some restraint in the growth of physician spending, but they define the entire nation as the risk pool and ignore the wide variations that exist in practice style. This paper by Pete Welch and Mark Miller outlines a refinement of the VPS approach that creates cost containment incentives for the medical staffs of hospitals with a high volume of physician services per admission. Incentives thus are targeted to small groups of physicians with an organizational structure to respond to these incentives. The Health Security Act, the Clinton administration's short-lived health care reform proposal, contained a provision to limit Medicare payments to medical staffs whose volume of physician services per admission exceeds a set target. This provision was based on the work of Welch and Miller; although the Health Security Act did not survive the summer of 1994, its legacy in this area remains in several of the bills under debate in Congress. Welch, who is a senior research associate at The Urban Institute, received his doctorate in economics from the University of Colorado. During his tenure at The Urban Institute he and his colleagues have developed a physician cost-of-practice index, from which the Medicare fee schedule has drawn heavily. He worked on the White House Health Reform Task Force in early 1993. Miller, who holds a doctorate in public policy from the State University of New York at Binghamton, is also a senior research associate in The Urban Institute's Health Policy Center. He primarily studies hospital and physician payment issues such as prospective payment methods for hospital outpatient departments, geographic variation in use of physician services, and comparisons of Medicare and private physician fees.*

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**Abstract:** Several health care reform bills would limit Medicare payments to high-cost medical staffs, that is, physicians in hospitals with a high volume of physician services per admission. In a given year, Medicare's payment to the physicians on each hospital's medical staff could not collectively exceed a limit defined as a certain percentage above the national median. Limits of various forms are used in other parts of the Medicare program. This policy would combine cost containment incentives with a clear organizational structure. In addition, medical staffs could be provided with detailed information on their practice styles.

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To help finance health care reform, the Clinton administration's Health Security Act proposed several ways to reduce Medicare spending. One of these proposals (Section 4114) involved limiting payments to physicians practicing in hospitals with a high volume of physician services per admission (high-cost medical staffs). This limit was intended as a moderate incentive for hospital medical staffs to control the volume of services per admission.<sup>1</sup>

The Health Security Act's proposal on medical staffs was recently included in the health reform bills approved by the House Ways and Means Committee and the Senate Finance Committee. Variations of this proposal may be included in other reform bills or in future budget reduction bills. In this paper we describe a generic medical staff proposal, the issues surrounding it, and the design options that policymakers could consider in developing legislation. We describe, analyze, and critique the Health Security Act proposal as a vehicle for understanding the concept more generally.<sup>2</sup>

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### Variation In Volume Per Admission

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Volume performance standards (VPS) will provide some restraint in physician expenditures. In proposing VPS, Congress explicitly called for research on refinements that define smaller risk pools than the nation (such as states). One promising risk pool is the hospital medical staff (that is, all of the physicians who practice in a given hospital). More than a third of Medicare physician expenditures occur during hospital stays.

Our earlier work found considerable variation in case-mix-adjusted expenditures per admission at the metropolitan area level.<sup>3</sup> For instance, in 1989 physician services per admission cost \$948 in San Francisco hospitals, in comparison with \$1,580 in Miami hospitals. Subsequently, we used relative value units (RVUs) instead of expenditures (deflated for geographic variation in fees), because the former directly measures volume and intensity. This section presents the RVU-based analysis at the hospital level.<sup>4</sup> RVUs currently are used in the Medicare physician fee schedule.

We linked physician claims to hospital admissions using Medicare beneficiary identification numbers and dates of service. RVUs were summed for each admission. We calculated average RVUs per admission for each diag

nosis-related group (DRG), yielding national relative weights. Using the admission-level data, the RVUs and DRG-based relative weights were summed to the hospital level. The ratio of the sums (RVUs and weights) is case-mix-adjusted RVUs per admission for a given hospital. For consistency with the Health Security Act proposal, RVUs per admission also were adjusted for teaching status and for large numbers of poor and uninsured patients (disproportionate-share status).

Considerable variation exists among hospitals in volume per admission, even after adjusting for case-mix, teaching status, and disproportionate-share status. By construction, 50 percent of the hospitals have volume per admission of at least 100 percent of the median (Exhibit 1). The variance, however, is noteworthy: 27 percent of the hospitals have volume per admission of at least 120 percent of the median, and 4 percent have volume per admission of at least 150 percent of the median. Few of the hospitals that are well above the median are located in rural areas.

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### The High-Cost Medical Staff Proposal

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Controlling the volume and intensity of physician services should begin with hospital medical staff, for three reasons. First, an episode of care can be clearly defined around a hospital stay. Second, an episode of care can be adjusted for case-mix using DRGs. Third, and most fundamental, the medical staff is an existing organizational structure that can be used to facilitate physician collaboration in containing costs. No other structure universally exists for physician services.

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**Exhibit 1**  
**Distribution Of Hospitals By Volume Per Admission, 1992**

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Volume per admission (as percent of the median)	Percent of hospitals		
	Urban (n = 2,605)	Rural (n = 2,296)	Total (N = 4,901)
Less than 70 percent	2.0%	36.5%	18.1%
70-80 percent	3.0	20.6	11.3
80-90 percent	4.9	15.7	9.9
90-100 percent	8.6	13.0	10.7
100- 110 percent	14.7	8.3	11.7
110-120 percent	18.6	3.9	11.7
120 - 130 percent	18.3	1.3	10.3
130- 140 percent	13.7	0.4	7.5
140- 150 percent	8.1	0.2	4.4
More than 150 percent	8.1	0.1	4.4

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**Source:** National Claims History System, 5 percent sample of U.S. claims, 1992.

**Note:** The volume of physician services is measured in terms of relative value units (RVUs). Volume per admission is adjusted for case-mix, teaching status, and disproportionate-share status and is normalized to the national median of 33.6 adjusted RVUs per admission.

For such an approach to work, physicians (or, more precisely, their claims) must be linked to a hospital; the collective performance (volume per admission) of each medical staff must be measured; payment limits must be set; and each medical staffs performance must be compared with an appropriate limit. Because it is not known in advance whether a medical staff will exceed its limit, the payment mechanism must maximize the chance that these limits are not exceeded. This could be accomplished by withholding a portion of physician payments. Finally, a mechanism must be devised to return these funds to medical staffs or their member physicians when the limits are not exceeded.

**Defining medical staff and performance measures.** Conceptually, a medical staff would consist of all physicians practicing in a given hospital. The Health Security Act proposal required that each physician claim indicate the hospital in which the service was performed. Thus, physician services, rather than physicians per se, would be linked to hospitals.

A medical staff would be held collectively responsible for all Medicare physician services delivered to hospital inpatients.<sup>5</sup> As noted, the performance standard would be defined in terms of volume per admission, measured as RVUs per admission. RVUs per admission would be adjusted for case-mix using DRGs in the same manner as in the Medicare prospective payment system (PPS), except that the DRG weights would be based on physician, not hospital, services. The proposal also would make adjustments for teaching activity and disproportionate-share status. Hereafter, "volume per admission" refers to RVUs per admission adjusted for case-mix, teaching status, and disproportionate-share status.

**Setting high-cost limits.** Payment limits for high-cost medical staffs have several precedents in Medicare. Section 223 of the 1972 Medicare Amendments was Congress's first attempt to control hospital facility costs. Implemented in 1974, Section 223 reimbursed costs (adjusted for factors such as urban or rural location) but only up to a ceiling of 112 percent of the national average. Limits now are used in other parts of the Medicare program as well, such as home health agencies, skilled nursing facilities, and rehabilitation and psychiatric hospitals.

Limits for medical staffs would be set as follows: The Health Care Financing Administration (HCFA) would calculate the volume per admission for each hospital in the country and rank them accordingly, from the highest to the lowest.<sup>6</sup> Limits then would be defined in terms of the volume per admission of the median hospital; Specifically, payment limits would be set at 125 percent of the national median for urban hospitals and 140 percent of the national median for rural hospitals. Hospital medical staffs exceeding the appropriate limit would be designated as "high cost."

As part of its normal claims payment process, HCFA would withhold 15

percent of the payment for each physician service delivered by a high-cost medical staff. Reconciliations would be made the following year. A withholding mechanism would allow HCFA both to pay physician claims in a timely fashion and to link payments to performance. Withholding is widely used in health maintenance organizations (HMOs), which typically withhold 15 to 20 percent of payment.<sup>7</sup>

For a physician on two medical staffs—one high cost, the other not—the withhold would apply only to services delivered in the hospital with a high-cost staff. Financial risks are similarly separated for physicians who belong to more than one individual practice association (IPA), a type of HMO. As discussed below, however, membership on more than one medical staff is less common than one might think.

**How the policy would work.** The Health Security Act contained the following high-cost medical staff policy: In 1997 HCFA would designate certain hospital medical staffs as “high cost” on the basis of their 1996 performance. In 1998 HCFA would apply the 15 percent withhold to services delivered (in 1998) by physicians on these high-cost staffs. In 1999 HCFA would compare the services actually delivered in 1998 with the 125 or 140 percent limit, as appropriate. For each medical staff below the limit, the entire withhold would be returned with interest. For each staff above the limit, part or none of the withhold would be returned, depending on how far above the limit its 1998 volume turned out to be.<sup>8</sup> All returned funds would be returned to each medical staff as a whole, which could then decide how to allocate the money among its physicians.<sup>9</sup>

The cycle would restart every year. In 1998, for example, HCFA would designate certain medical staffs as “high cost,” based on their 1997 performance. In 1999 it would apply the withhold to services delivered in those hospitals in 1999. In 2000 it would compare the physician services delivered in 1999 with the limit and return withheld payments as appropriate.<sup>10</sup>

Each medical staff would be required to select a fiduciary agent to receive withheld funds returned by HCFA and distribute them to physicians. The agent would be chosen by each hospital’s medical executive committee.

To accept the organizational realities of medical staffs, the proposal included the following: (1) High-cost staffs would not need to accept fiduciary responsibilities until withheld funds were returned in mid-1999. That is, they would have eighteen months to organize after being designated as “high cost.” (2) High-cost staffs would have responsibility only for allocating withheld amounts to individual physicians; HCFA would continue to make 85 percent of the basic payment to individual physicians. (3) High-cost staffs could request HCFA to return any withheld funds directly to physicians by prorating according to each physician’s services.

Two other provisions are noteworthy. (1) Medicare beneficiaries would

continue to pay 20 percent of the total Medicare payment.<sup>11</sup> (2) To evaluate a medical staffs performance in a timely manner without giving medical staffs an incentive to submit claims after some cutoff date, all physician claims for a year would have to be submitted within ninety days of the end of that year.

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### Potential Problems And Modifications

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Within the general thrust of a high-cost medical staff policy, policy-makers face a number of choices, such as whether to adjust volume per admission for teaching status. We point out several ways in which the recommendations in the Clinton plan could be modified.<sup>12</sup>

**The “notch” problem.** The relationship between a medical staffs volume per admission and its penalty creates two problems. Consider two urban medical staffs, one of which has a volume per admission of 125 percent (at the limit) in 1996 and the other a volume of 124 percent. Under the Health Security Act proposal, 15 percent of payment in 1998 would be withheld for services performed in the first hospital but not in the second. (This is similar to income thresholds for welfare eligibility, which economists refer to as a “notch.”) If the first medical staff remains at 125 percent in 1998, it would receive all of its withheld funds back. In spite of the return of the withhold, some might consider this arrangement unfair.

An alternative is to establish several withhold percentages. For instance, medical staffs between 115 and 125 percent of the national median would face a 5 percent withhold; those between 125 and 135 percent, a 10 percent withhold; and those above 135 percent, a 15 percent withhold. In 1998 each staffs volume per admission would be compared with the 125 percent limit. In the example above, because the staff at 125 percent would face a withhold that is five percentage points more than its neighbor at 124 percent, the perceived inequity would be lessened.

A second problem pertains to very high-cost medical staffs. Above 147 percent of the median, an urban medical staff faces no penalty at the margin. For instance, if a medical staff decreased its volume per admission from 155 to 150 percent, its penalty would not change. (About 4 percent of medical staffs exceed 150 percent.) This could be resolved by increasing the withhold for very high-cost medical staffs, such as applying a 25 percent withhold to any staff whose volume continually exceeds 150 percent.<sup>13</sup>

**Teaching and disproportionate-share status.** PPS adjusts payments upward for teaching and disproportionate-share hospitals because these hospitals have higher expenses, other things being equal. This suggests that the volume-per-admission limit for these hospitals might also be adjusted upward under a high-cost medical staff policy. The Health Security Act

proposal would require adjustment for these factors but does not specify adjustment factors or a methodology for devising them.

Given that the PPS adjustment for teaching and disproportionate-share status drew upon regression analysis, we regressed volume per admission (including the RVUs of residents' services) on these and other variables, such as number of beds. The regression suggests a teaching adjustment of at least four percentage points: That is, when the intern- and resident-to-bed ratio increases by ten percentage points, the adjustment might increase by at least four percentage points. The disproportionate-share coefficient appears to be positive but small. The PPS assumption that patients in disproportionate-share hospitals have substantially higher severity of illness is not apparent from these data on physician services. Because technical analysis might not definitely resolve the disproportionate-share issue, policymakers may decide to revisit it.

PPS includes other adjustment factors as well: location (rural, small urban area, and large urban area), rural referral status, and sole community hospital status. The Health Security Act proposal recognized location explicitly and the other two characteristics implicitly. Rural hospitals would face a more liberal volume-per-admission limit—140 percent (instead of 125 percent) of the national median. One rationale for this is that rural hospitals tend to have fewer admissions, and thus their volume per admission varies more. Rural referral and sole community hospitals, by virtue of being rural hospitals, are implicitly protected by the higher rural limit. Non-PPS adjustment factors obviously could also be considered.<sup>14</sup>

**Regional variation.** There was considerable geographic variation in adjusted cost per admission when PPS was implemented, and there was considerable variation in fees for certain procedures when the Medicare physician fee schedule was implemented. In both cases, Congress enacted transitions. A high-cost medical staff proposal also could incorporate a transition mechanism to account for the considerable regional variation in volume per admission.

The PPS transition involved the blending of hospital-specific, regional, and national rates. Under the high-cost medical staff policy, a blend of the national median and each regional median could be calculated for each region. During a transition period, medical staffs in a region might be held to 125 percent of the national median (for urban staffs) or the blended median for the region, whichever is higher.

Beyond the issue of transition, the Physician Payment Review Commission (PPRC) has expressed concern over the complete elimination of regional variation.<sup>15</sup> However, several things should be kept in mind: (1) This policy would not eliminate variation, as it would not affect variation below the limit. (2) The PPRC expressed the reasonable concern that high

volume per admission could be the result of low admission rates, suggesting a negative correlation. However, volume per admission and admission rates are positively correlated.<sup>16</sup> (3) For some time now, Medicare has been moving toward national administrative procedures and payment rates—for example, national rates in both hospital payment and physician fees. This policy would be another step in that direction.

**Cost outliers.** Unlike PPS, the Health Security Act's medical staff proposal did not recognize outliers, but it did limit the financial liability of a medical staff (to 15 percent of inpatient claims). PPS defines outlier cases in terms of days or costs and reimburses hospitals more than the DRG payment amount. An outlier policy protects hospitals from the impact of a few high-cost cases and ensures that access is not denied to beneficiaries with potentially complex medical conditions. A high-cost medical staff policy might recognize high-cost admissions similarly. Under an outlier policy, RVUs per admission above a particular threshold would be excluded from the performance standard.<sup>17</sup>

Technically, the withhold serves as a built-in cap on the liability of each medical staff: No staff can lose more than the 15 percent withhold. Although this cap can be thought of as a staff-level outlier policy, it may not ensure access to patients who appear to require many services. If policy makers deem that medical staffs need additional protection from high-cost cases, an outlier provision would be helpful.

**Unbundling and windows.** One of the problems of holding medical staffs responsible for physician services delivered during a hospital stay is that some of those services may end up being delivered outside of the hospital. That is, when a medical staff is held responsible for a "bundle" of services, it may "unbundle" them. To forestall this, Medicare could define "windows" around the hospital stay (both before and after) and hold medical staffs responsible for services delivered in that time frame.<sup>18</sup>

**Stability of volume per admission over time.** So far we have referred to high-cost medical staffs as if they had the same performance year after year. Suppose, however, that a medical staff's performance varied substantially from year to year for no apparent reason. In that case, a staff's volume per admission and the withhold returned might be largely the result of chance rather than deliberate changes in practice style. The rationale for any medical staff policy would be weakened, as would physician morale.

Two results speak to this concern. First, volume per admission in consecutive years is highly correlated ( $r = .97$ ). Second, of the medical staffs designated as high-cost in one year, 84 percent would have remained high-cost in the following year.<sup>19</sup> Hence, a staff's performance is not likely the result of pure chance.

**Quality of care.** Whenever cost controls are proposed, there is fear that

quality of care will be compromised. Despite the fact that physicians would not profit individually from reducing services under a high-cost medical staff policy, physicians would be financially better off if services are provided conservatively.<sup>20</sup> It should be kept in mind, however, that the policy would not reward medical staffs for reducing volume to the national median, much less below the national median. Rather, it would give them an incentive only to reduce volume to the limit, 25 percent above the national median (for urban hospitals). Also, the policy would apply only to Medicare admissions, which account for one-third of total admissions. To the extent that a physician has a single style of practice for all patients, the fact that he or she also has non-Medicare admissions should moderate any reaction to such a policy.

Another source of concern is the alignment of financial incentives of the hospital administration and its physicians toward cost containment. PPS now gives hospitals an incentive to contain costs, but Medicare's fee-for-service payment gives physicians the opposite incentive. A useful (albeit incomplete) precedent is HMOs, which have incentives to contain both hospital facility and physician costs. Although they typically do not construct internal incentives around inpatient physician services, HMOs need to get hospitals and physicians working together for cost containment, and they apparently do so without serious quality problems. If policymakers are still concerned with quality of care, they might consider changing the penalty structure. For instance, for every percentage point above the limit, a medical staff might lose half a percentage point of withheld payments. This would partially align the incentives for hospitals and physicians.

Finally, a precedent and an infrastructure are already in place to monitor quality of care. Peer Review Organizations (PROs), which initially only reviewed the necessity of admissions, now also review quality and appropriateness of care. In its review of PROs, the Institute of Medicine concluded that the program "should be improved and built on, not dismantled" and that it should focus more on quality issues and less on cost.<sup>21</sup>

**Shifting admissions and medical staff affiliation.** Another concern that arises under a high-cost medical staff policy is that physicians may shift admissions out of hospitals with high-cost staffs to avoid the penalties. If such shifting occurred on a broad scale, the viability of certain hospitals could be threatened.<sup>22</sup> Although it is impossible to predict with any certainty the degree to which physicians will shift admissions, our research and that of others provide a useful background. Shifting admissions can occur in two ways: shifting admissions among existing hospital affiliations, or gaining and then shifting to new affiliations. In discussing this issue, it is convenient to distinguish between the short run—the period in which physicians' affiliation patterns are largely fixed—and the long run—the

period in which affiliation patterns can change.

Large-scale shifting of admissions in the short run is most likely to occur if physicians already have multiple affiliations. We examined affiliation patterns using 100 percent national data on Medicare admissions. Medicare attending physicians average 1.56 affiliations, and on average physicians have 90 percent of their admissions in a single hospital.<sup>23</sup> Thus, physicians now tend to have few affiliations and do most of their work in one hospital.

To shift admissions in the short run, a physician must be a member of at least two medical staffs, one of which is designated high cost and one of which is not. Using the national Medicare admissions file, we calculated the number of "shiftable" Medicare admissions in each hospital with a high-cost staff. In the average hospital with a high-cost medical staff, shiftable Medicare admissions represent 28 percent of all Medicare admissions and 11 percent of total (Medicare and non-Medicare) admissions. In all hospitals, 11 percent of Medicare admissions were shiftable.

Although some may presume that physicians have complete flexibility in admitting patients to hospitals, patient preferences influence admission patterns. In addition to hospital size and quality of care, patients typically prefer hospitals near their homes.<sup>24</sup> Physicians risk losing patients if they arbitrarily admit patients to more distant hospitals. Locational convenience is a major determinant of hospital choice for physicians as well. Physicians choose hospitals near their offices to minimize travel time and maximize patient care time.<sup>25</sup> In the long run, physicians may continue to admit patients to the same hospitals in part because of familiarity with colleagues and hospital routines.<sup>26</sup>

Again, it is important to bear in mind that the high-cost medical staff policy pertains only to Medicare admissions. Thus, to assume that physicians would shift admissions or change affiliations in the face of their established patterns is to assume that they would do so for (potentially) a minority of their inpatient caseload.

In the long run, more shifting can occur when physicians obtain new affiliations. However, acquiring new affiliations is not simple and is likely to become more difficult as hospitals take the granting of affiliations more seriously.<sup>27</sup> Several court cases have held hospitals liable for the quality of care provided by their staff physicians—legal precedent requires hospitals to screen potential candidates and periodically review their credentials. Pressure from insurers, increasing numbers of physicians, and competition among hospitals also have led to more restricted granting of affiliations. Some hospitals now engage in medical staff strategic planning (selecting staff to maximize the provision of certain services) and economic credentialing (selecting staff to provide efficient care).

A medical staffs oversight of affiliations is likely to be further strength-

ened by a high-cost medical staff policy. Although such a policy increases an individual physician's incentive to acquire more affiliations, it reinforces a medical staffs incentive to restrict affiliations. Our research shows that a greater degree of variation in volume per admission is explained by individual physicians than by the medical staff collectively, suggesting that high-cost staffs are merely collections of high-cost physicians.<sup>28</sup> Hence, hospitals might be reluctant to grant new affiliations to these physicians.

**Administrative complexity.** A likely reaction to this proposal is that it is too complex. Such a judgment implicitly compares this proposal to other proposals that would simply reduce Medicare payment rates across the board. However, physicians typically consider such reductions unfair, as they penalize the efficient along with the inefficient. If the proposal is considered on its own merits, there are relatively few administrative changes from the current system: Carriers would have to pay claims differentially according to hospital identification numbers, sum the RVUs of those claims at the end of the year, and return withheld funds to medical staffs. However, there would be no change in the liability for beneficiaries. Medical staffs would have to disburse returned withheld funds. To simplify this process, the staff would have the option of prorating payments to physicians based on their percentage of services delivered during the year.

Granted, the administrative burdens would not be trivial. Just as with the implementation of PPS and the physician fee schedule, implementation would entail hard work on the part of HCFA staff and carriers and would necessitate additional resources. But given the likely savings, the administrative burdens and costs would be justified.

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## Physician Profiling

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The Health Security Act's high-cost medical staff proposal was intended to encourage physicians to practice medicine judiciously. For such a policy to be effective, physicians need not only incentives to control volume per admission but also precise information on the services they deliver. The analysis of such information is termed physician profiling. The PPRC has recommended physician profiling for both cost containment and quality assurance.<sup>29</sup>

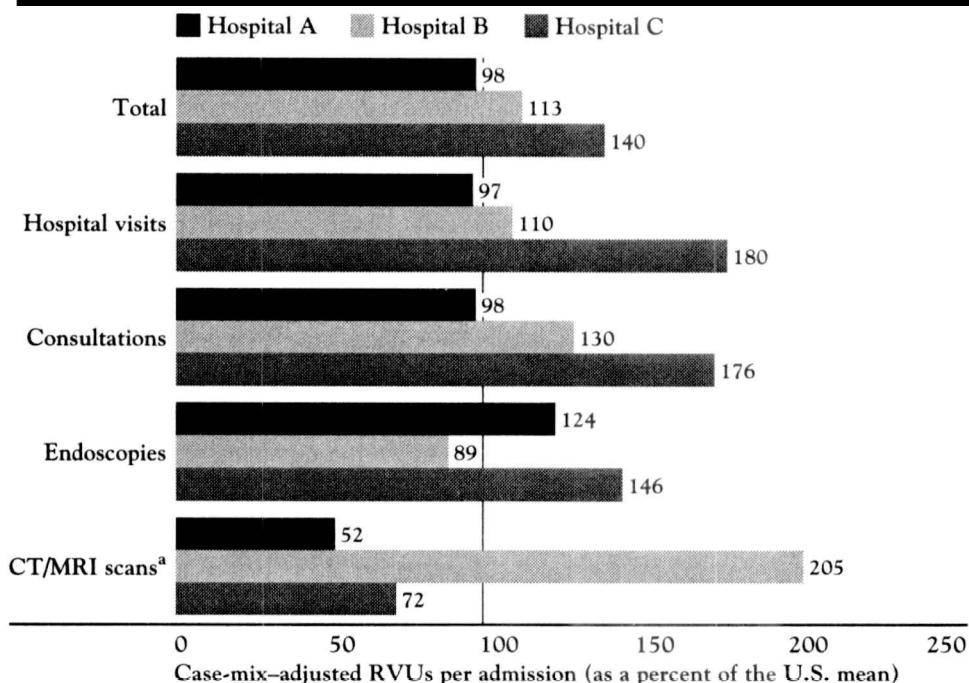
Elsewhere we have developed a technique to profile physicians for inpatient services.<sup>30</sup> Consistent with the medical staff proposal, the key profiling variable is case-mix-adjusted RVUs per admission. The average RVUs of a medical staff are calculated and compared with the averages of other medical staffs in the same metropolitan area, the same state, and the nation. Profiling then can be disaggregated by type of service; for instance, medical staffs could be compared in terms of diagnostic services per admission.

Thus, profiling can identify those services for which volume per admission exceeds state and/or national norms. Physician profiling such as that demonstrated in Exhibit 2 would help medical staffs to identify where their practice patterns need adjustment.

**Education: the first step.** Some may criticize the high-cost medical staff proposal as punitive, in that payment would be arbitrarily withheld from certain medical staffs. However, the policy offers ample time for physicians to change their practice style and thus incur no penalty. Legislative reforms are not likely to go into effect before 1998. Until then, profiling can act as a first step, educating physicians about practice styles.

HCFA could present data in 1995 on physician services delivered in 1994 by publishing the volume per admission for each hospital. In addition, HCFA could give profiling results to medical staffs by type of service, in an effort to educate staff physicians. Volume per admission in 1996 would be used to designate certain staffs as "high cost" for the purpose of withholding payment in 1998; thus, the staffs are likely to take profiling seriously.

**Exhibit 2**  
**Physician Services In Three Florida Hospitals**



Source: National Claims History System, 100 percent of Florida claims, July-December 1991.

Note: The U.S. mean is 100 percent.

<sup>a</sup> CT is computed tomography; MRI is magnetic resonance imaging.

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## Implementation Issues

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The high-cost medical staff policy as envisioned in the Health Security Act would combine cost containment incentives with a clear organizational structure, which could be supported by detailed information. Since hospitals need a formal process for granting clinical privileges to physicians to be accredited, the membership of a medical staff is already delineated.<sup>31</sup> Although this structure is insufficient to enable medical staffs to completely control the behavior of their members, it is a starting point for implementation of a policy designed to change physician practice patterns.

Physicians practicing in major teaching hospitals already have much of the structure needed to transfer group-level incentives to individual physicians. These structures, known as faculty practice plans, would allow university hospitals to respond to the policy by controlling volume and, in turn, to train physicians in a more cost-conscious environment. Physicians practicing in community hospitals also would have a collective incentive to strengthen their structures, although such physicians are not as well organized as faculty practice plans are. Initially, this might take the form of reviewing applications for privileges, applying peer pressure to high-cost practitioners, and judging whether new capital equipment might increase physician volume. Later, medical staffs might strengthen the power of their medical directors to implement profiling and utilization review. In sum, medical staffs now have enough structure to implement a cost containment policy, which would in turn stimulate the development of more structure.

One long-term advantage of a medical staff policy is its potential impact on Medicare Part A expenditures for hospital services, which is nearly six times as high as Part B spending for inpatient physician services—about \$81 billion versus about \$14 billion in 1994.<sup>32</sup> Spending on hospital services appears to complement, not substitute for, spending on inpatient physician services.<sup>33</sup> That is, slower growth in one tends to be accompanied by slower growth in the other. Thus, a medical staff policy that controls inpatient physician costs may help to control hospital facility costs, too.

**Future directions.** If, after such monitoring and analysis, a high-cost medical staff policy is found to be successful in controlling volume per admission without harmful effects, the policy could evolve in two directions. The policy could be extended to surgery performed in hospital outpatient departments and ambulatory surgical centers, although there are several potential problems with expanding in this direction. It sometimes is difficult to link physician claims to outpatient surgery facilities. Also, ambulatory surgical centers face less oversight and regulation than hospitals face. Their medical staffs may be less well defined, resulting in greater potential for shifting surgical procedures among facilities. These difficulties

suggest that outpatient services should not be included in the first generation of medical staff policies.

A high-cost medical staff policy also could evolve beyond Medicare. Any all-payer system could, in principle, contain such a policy. This would give physicians on high-cost medical staffs an incentive to control the physician services for all of their admissions, not just for Medicare admissions.

Several legislative initiatives now before Congress propose setting a national global budget as a cost containment strategy. On a conceptual level, such initiatives address the true problem: health care costs in the aggregate. But they lack a mechanism to translate national goals into physician behavior at the bedside. The danger of global budgeting is that, while conceptually comprehensive, it has not been developed beyond the level of theory in this country, although global budgets have existed for years in Europe and Canada. Even if the United States were much smaller, intermediary organizations and policies would be required before full-scale global budgeting could be implemented. In principle, HMOs could achieve some of the goals of global budgeting if all Americans were enrolled in them. In the absence of complete HMO enrollment, however, a high-cost medical staff policy is one way to give substance to cost containment goals; in the absence of a complete system overhaul, such a policy is a reasonable next step in cost containment.

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## NOTES

1. Generally, the terms hospital and medical staff can be used interchangeably, because a hospital cannot function without its physicians, and a medical staff cannot function without a hospital. It is only when a hospital's physicians act corporately, for example, when reviewing practice patterns, that we use the term *medical staff*.
2. For a critique of the Health Security Act proposal, see Physician Payment Review Commission, *Annual Report to Congress*, 1994 (Washington: PPRC, 1994).
3. W.P. Welch et al., "Geographic Variation in Expenditures for Physicians' Services in the United States," *The New England Journal of Medicine* (4 March 1993): 621-627.
4. For a complete discussion, see M.E. Miller and W.P. Welch, "Analysis of Hospital Medical Staff Volume Performance Standards: Technical Report," Working Paper 6210-01 (Washington: The Urban Institute, March 1993).
5. All services covered by a global surgery fee would be treated as having been delivered on the date of surgery.
6. This ranking would take place after adjustment for case-mix, teaching status, and disproportionate-share status.

7. A.L. Hillman, "Financial Incentives for Physicians in HMOs: Is There a Conflict of Interest?" *The New England Journal of Medicine* (31 December 1987): 1743-1748.
8. The proportion of the withhold returned would be such that the staff would just meet the limit; that is, no staff would be brought below the limit.
9. Medicare's treatment of providers that face cost reimbursement limits (for example, skilled nursing facilities and home health agencies) offers a precedent here. For those providers, Medicare makes a payment based on its estimate of by how much a facility is expected to exceed the limit. Reconciliation is done at the end of the year, as it would be for high-cost staffs.
10. In each year, a staffs performance would be compared to the 1996 median. Note also that beginning in 2000 the limit for urban hospitals would decrease to 120 percent of the national median.
11. The Health Security Act included a provision that eliminated balance billing.
12. For other analyses of Medicare policies on inpatient physician services, see J.B. Mitchell, "Physician DRGs," *The New England Journal of Medicine* (12 September 1985): 670-675; J.B. Mitchell and R.P. Ellis, "Alternative Payment Systems for Hospital Medical Staffs," *Inquiry* (Spring 1992): 21-32; and W.P. Welch, "Prospective Payment to Medical Staffs: A Proposal," *Health Affairs* (Spring 1989): 34-49.
13. As mentioned below in the context of quality of care, the penalty structure could be changed such that a staff would lose half a percentage point of withheld funds for every percentage point above the limit. Because urban staffs up to 179 percent would have an incentive at the margin to contain volume, this would weaken the incentives for high-cost staffs but increase them for very high-cost staffs. To see this, let R be the volume per admission (as a percentage of the national median) at which none of the 15 percent withhold would be returned. For every point above the limit ( $R - 125$ ), half a point is lost, up to  $.15$  times R.
14. Certain classes of specialty hospitals, such as psychiatric hospitals, are excluded from PPS, but they were not excluded from the Health Security Act's proposal. Given the special nature of these hospitals, we suggest that they be initially excluded from the high-cost policy.
15. PPRC, *Annual Report to Congress*, 1994.
16. Welch et al., "Geographic Variation in Expenditures for Physicians' Services."
17. A minor weakness of any outlier provision is that it would increase the complexity of calculating the performance of each medical staff, because physician claims would have to be linked to a specific admission, instead of to a hospital. Then RVUs would be summed at the admission level prior to being truncated. This would not have to be done prior to paying a physician claim; it would only have to be done prior to returning any withheld payments.
18. For a complete discussion of physician services in windows, see M.E. Miller and W.P. Welch, "Physician Charges in the Hospital: Defining Episodes of Care for Controlling Volume Growth," *Medical Care* (July 1992): 630-645. Note that under PPS, hospitals are responsible for certain services delivered to patients within three days of admission.
19. The first result is based on a 100 percent file in seven states. The second result involves the same variable and national database used in Exhibit 1, except that an additional year of data was used here.
20. Quality of care should not be discussed solely in terms of incentives. The professional socialization of physicians emphasizes quality, which dampens any tendency to cut quality. In fact, this tendency, which can be helpful when there are financial incentives to contain costs, is a major problem when there are incentives to increase costs.
21. Institute of Medicine, *Medicare: A Strategy for Quality Assurance*, vol. 1 (Washington: National Academy Press, 1990), 195-196.
22. Perhaps the hospitals of greatest concern are those that serve large numbers of poor and

- uninsured patients. As noted, the Health Security Act proposal included PPSlike adjustments for disproportionate-share hospitals as well as for teaching hospitals.
23. M.E. Miller and W.P. Welch, "Physician Hospital Privileges: Implications for a Medical Staff Policy," Working Paper 6210-06 (Washington: The Urban Institute, February 1994). The 1992 MedPAR contains 100 percent of Medicare admissions and includes both the hospital identifier and the Unique Physician Identification Number (UPIN) of the attending physician. These two data elements allow us to count the number of hospital affiliations of each physician.
  24. M.A. Cohen and H.L. Lee, "The Determinants of Spatial Distribution Patterns in Local Hospital Markets," *Medical Care* 23 (1985): 27-38; M. McGuirk and F.W. Porell, "Spatial Patterns of Hospital Utilization: The Impact of Distance and Time," *Inquiry* 21 (1984): 84-95; and H.S. Luft et al., "Does Quality Influence Choice of Hospital?" *Journal of the American Medical Association* 263 (1990): 2899-2906.
  25. L.R. Bums and D.R. Wholey, "The Impact of Physician Characteristics in Conditional Choice Models for HospitalCare," *Journal of Health Economics* (May 1992): 43-62. The literature points out that it is possible that physicians choose their office location after selecting the hospital with which they wish to be affiliated.
  26. *Ibid.*; and L.R. Bums and D.R. Wholey, "Factors Affecting Physician Loyalty and Exit: A Longitudinal Analysis of Physician-Hospital Relationships," *Health Services Research* (April 1992): 1-24.
  27. S.P. Nash, A.D. Mullaney, and S.P. Murphy, "Medical Staff Credentialing," in *Physician's Survival Guide: Legal Pitfalls and Solutions* (Washington: National Health Lawyers Association, 1991).
  28. Miller and Welch, "Physician Hospital Privileges." This result is based on an analysis of variance of volume per admission for a sample of physicians with more than one affiliation, controlling for individual hospitals and individual physicians.
  29. PPRC, *Annual Report to Congress, 1992* (Washington: PPRC, 1992), chap. 10.
  30. H.G. Welch, M.E. Miller, and W.P. Welch, "Physician Profiling: An Analysis of Inpatient Practice Patterns in Florida and Oregon," *The New England Journal of Medicine* (3 March 1994): 607-612.
  31. Joint Commission for the Accreditation of Healthcare Organizations, *Accreditation Manual for Hospitals* (Chicago: JCAHO, 1992).
  32. Miller and Welch, "Physician Charges in the Hospital;" and House Committee on Ways and Means, *Overview of Entitlement Programs: 1993 Green Book* (Washington: US. Government Printing Office, 1993).
  33. J. Holahan, A. Dor, and S. Zuckerman, "Has PPS Increased Medicare Expenditures on Physicians?" *Journal of Health Politics, Policy and Law* (Summer 1991): 335-362; and T. Menke, "Impacts of PPS on Medicare Part B Expenditures and Utilization for Hospital Episodes of Care," *Inquiry* (Summer 1990): 114-126. Both papers found that PPS acted to reduce physician expenditures, suggesting that hospital and physician costs are complementary. Recently, Medicare contracted with four hospitals for coronary bypass surgery; see R. Winslow, "Medicare Tries to Save with One-Fee Billing for Some Operations," *The Wall Street Journal*, 10 June 1992, A1, A8 Medicare makes a predetermined payment as one check to the hospital and one to physicians. Physicians are responding by containing physician costs; in particular, consultations are down by 25 percent. Physicians also are working with the hospitals to control facility costs.