Physician Satisfaction with Formulary Policies: Is it Access to Formulary or Nonformulary Drugs that Matters Most?

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Objective: To assess physician satisfaction with Department of Veterans Affairs (VA) formulary policies and to examine the correlation between physician satisfaction and perceived access to formulary and nonformulary medications.

Study Design: Cross-sectional survey with specific questions on access to formulary and nonformulary medications. Statistical analyses included assessment of associations between physician satisfaction and various measures of access.

Participants and Methods: Initial sample of 4015 staff physicians working in VA healthcare facilities. Responses were received from 1812 (49%) of the 3682 physicians in the final eligible sample population.

Results: Most clinicians (72%) reported that their local formulary covered more than 90% of the medications they wanted to prescribe. Most (73%) agreed that drug restrictions were important to contain costs, and 86% agreed that it was important for VA to choose "best-value" drugs. Respondents reported an 89% approval rate for nonformulary drugs, though 31% indicated that approvals routinely took 3 or more days. We found strong associations between physician satisfaction and self-reported approval rates for nonformulary drugs ($P = .001$), timely approval of nonformulary requests ($P < .001$), and percentage of nonformulary prescriptions as a proportion of overall prescriptions at a regional level ($P < .01$). There was no significant correlation between physician satisfaction and number of medications added to regional formularies or with drug costs per unique patient.

Conclusions: VA physicians were generally supportive of VA formulary policies including choosing best-value drugs to control pharmaceutical expenditures. Nevertheless, access to nonformulary drugs and timely approval of requests for nonformulary medications were strong predictors of clinician satisfaction and support for cost-containment measures.

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Many large insurers, Medicaid programs, and other healthcare providers employ drug formularies to help control costs.[1] There is a broad perception that formularies are not only disliked by physicians but that they also impede access to needed pharmaceuticals.[2,3] However, physicians' beliefs about drug formularies and access to medications have not been well studied. Little is known about how formulary management affects physician satisfaction.

In 1999, the Veterans' Affairs (VA) Pharmacy Benefits Management Strategic Healthcare Group surveyed physicians to gauge the effects of the VA National Formulary.[4] The results suggested that implementing the National Formulary did not adversely affect patient care, pharmaceutical access, physician workload, or resident training.[4] These findings were subsequently supported by more comprehensive assessments from the Institute of Medicine (IOM)[5] and the United States General Accounting Office (GAO).[6]

Nonetheless, concerns were raised about variations, particularly concerning nonformulary agents, across Veterans Integrated Service Networks (VISNs, or regional groups of VA hospitals and clinics).[5,6] More specifically, the GAO and IOM noted differences among VA regions in the size and extent of formularies and in nonformulary approval processes.[5,6] It was unclear to what extent these variations affected prescribing practices, clinician satisfaction, and access to medications.

In an attempt to better understand these issues and improve VA formulary policies, VA's Pharmacy Benefits Management Strategic Healthcare Group, in cooperation with the RAND Survey Research Group, surveyed physicians on perceived effects of and satisfaction with local formulary and nonformulary policies. We were specifically interested in whether satisfaction with formulary-associated practices mirrored self-reported and/or objective measures of access to pharmaceuticals.

METHODS

Survey Development and Implementation

As in the 1999 study,[4] we developed the questionnaire in collaboration with the RAND Survey Research Group and the VA Pharmacy Benefits Management Strategic

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Healthcare Group. We incorporated several questions from our first survey and added questions about nonformulary access similar to those utilized in the GAO survey.[6] Our goal was to elicit feedback in the following content areas: (1) Pharmacy and Therapeutics (P&T) committees' responsiveness to providers, (2) extent of formulary restrictions, (3) access to nonformulary medications, and (4) attitudes toward pharmaceutical-related cost-containment measures.

Responses to questions were scored on a 5-point scale, which usually ranged from "strongly agree" to "strongly disagree." As in the first survey, respondents provided demographic and practice information including age, gender, number of prescriptions ordered per week, location (by VISN), years of VA service, number of half-day outpatient clinics per week, employee status (full- or part-time), and whether they practiced in other healthcare systems with formularies or were members of VA P&T committees.[4]

To gain information about access to medications, we asked the following: "In the past 6 months, how many times were you unable to obtain a prescription drug (formulary or nonformulary) that you thought was the best choice for one of your patients?" We then asked, "In the most recent incident, how much of a decline in health status did the inability to prescribe the drug(s) cause your patient?" Response options were "no decline," "small but insignificant decline," "somewhat significant decline," and "very serious decline." These two questions were modeled on those used by the Kaiser Family Foundation in a 1999 survey.[7]

To evaluate access to nonformulary drugs specifically, we asked, "In the past 6 months, how many times did you request a nonformulary prescription that you thought was best for a patient?" This was followed by "Of these requests, how many were approved?" To assess waiting times for nonformulary approvals, we asked, "On average, how long does it take you to receive routine approvals for nonformulary drugs?"

A draft survey was pilot tested on a convenience sample of 9 physicians from VA Greater Los Angeles Healthcare System, and modifications were made prior to finalization. The final 2-page survey (36 items) is available from the corresponding author.

We mailed surveys to all physicians in the sample population (see below) in April 2000. Physicians who did not respond were sent a second survey approximately 6 weeks later. A third mailing was sent approximately 8 weeks after that to those participants who had still not responded. Responses were confidential, with RAND Survey Research Group collecting the data. Data transferred to VA did not include participant identifiers, apart from demographic and practice information. This protocol was approved by RAND's Human Subjects Protection Committee.

Sample Population

The initial sample population (n = 4015) was selected in February 2000 from the VA physician-employment database. This file listed all attending/staff clinicians' types of service and employment locations as of September 1999. We randomly selected clinicians from within 5 general employee categories, as listed in the database: (1) generalists (n = 1881), defined as physicians listed as family practice, general internal medicine, internal medicine, geriatrics, and preventive medicine; (2) internal medicine specialists (n = 839), including cardiology, endocrinology, gastroenterology, infectious diseases, nephrology, and rheumatology specialists; (3) neurologists (n = 226); (4) physical medicine and rehabilitation practitioners (n = 146); and (5) psychiatrists (n = 923). Since each sample represented 50% of the total in each category, our sample provided a broad spectrum of clinicians likely to be affected by formulary and nonformulary decisions.

Of the 4015 physicians to whom surveys were initially sent, 41 were retired, were no longer with VA, or did not prescribe medication. Two physicians had died. Another 290 physicians were not located at their last known VA addresses and, because their packets were not forwarded internally to another VA address, we considered them to be no longer practicing in VA. Thus the final eligible sample population was 3682 physicians, with an overall response rate of 49% (1812/3682). As noted in our prior survey study,[4] many responding clinicians described their specialty differently than that which was initially obtained from the VA database. For example, many listed as internists described themselves as internal medicine subspecialists. **Table 1** provides self-reported characteristics from responding clinicians.

Data Analysis

We first used principal components analysis[8] to group closely related questions in order to reduce the data to linear combinations representing latent factors. Rather than using sample-specific weights, however, we averaged the raw data across the specific items to create subscales in the metric of the original scale. We then used Cronbach's α[9] to determine the internal consistency across the identified items for each subscale. The scale groupings were (1) satisfaction with formulary practices (7 items), Cronbach's α score = .87; (2) attitude toward cost containment (2 items), α = .68; and (3) attitude toward cost sharing (2 items), α = .67. One other scale, prescription factors, had an α score of less than 0.6 (α = 0.49) and was therefore excluded. The

cost-sharing scale was not utilized for the present analysis.

We then evaluated whether self-reported (subjective) responses regarding access to formulary and nonformulary drugs were associated with satisfaction and with attitudes toward cost containment. We hypothesized that higher self-reported approval rates and faster approval times for nonformulary drugs, as well as greater ease in obtaining needed drugs, would be associated with greater satisfaction and more support for formulary policies. For approval rates, we aggregated self-reported data by region (VISN) and divided by tertiles: (1) low approval rate (66.1%-80.8%) for nonformulary medications, (2) moderate approval rate (81.3%-84.3%), and (3) high approval rate (84.6%-92.8%). For approval times, we used the following, based on 3 response categories in the survey: (1) less than 24 hours, (2) 24 to 72 hours, and (3) more than 72 hours. We also looked at clinicians' reports of the number of times that they had been unable to obtain a prescription drug (formulary or nonformulary) in the previous 6 months. In this analysis, we divided respondents into 2 groups, those who reported having been unable to obtain a needed drug 0 to 2 times in the previous 6 months and those who reported 3 or more instances.

Table 1. Responding Physicians' Self-reported Characteristics*

Demographic Variable	Total (n = 1812)
Male, n (%)	1285 (73)
Primary specialty, n (%)	
General internal medicine	530 (30)
Internal medicine subspecialty	574 (32)
Neurology	81 (5)
Psychiatry	417 (24)
Geriatrics	76 (4)
Other	100 (6)
Employee status, n (%)	
Full-time	1339 (75)
Part-time	457 (25)
Member VISN or local P&T committee, n (%)	195 (11)
Practicing in system with formulary, apart from VA, n (%)	379 (21)
Number of prescriptions per week, mean (SD)	108.8 (132.2)
Age in years, mean (SD)	48.6 (10.0)
Years of VA service, mean (SD)	11.4 (7.9)
Number of half-day outpatient clinics per week, mean (SD)	5.1 (3.4)

*Percentages indicate valid percentages of responses by category (ie, excluding missing responses to specific questions). Because of rounding, percentages may not all total 100.
VISN indicates Veterans Integrated Service Networks; P&T, pharmacy and therapeutics; VA, Veterans Affairs

We next assessed whether available quantifiable measures regarding access to pharmaceuticals at the VISN level were associated with physician satisfaction and perceptions of cost containment. We hypothesized that clinician satisfaction and support for formulary policies would correlate positively with more new formulary additions, pharmaceutical expenditures, and higher nonformulary prescription rates as a proportion of overall prescriptions. For these analyses, we aggregated data at the VISN level because, at the time of the survey, formulary policies were typically determined by VISNs in accordance with P&T committees at individual facilities. The following measures were available: (1) number of new drugs added to each VISN formulary from June 1997 to September 2000 (range 7-77), per updated GAO data;[6] (2) nonformulary prescriptions, as reported by each VISN, as a proportion of overall prescriptions (average 3.0%, range 1.4%-7.2%); and (3) pharmaceutical cost per unique patient in fiscal year 2000 (average $599, range $425-$711).

As we did with the other data, we divided these variables into tertiles. Categories for VISN formulary additions included low (average 16.5 new medications, range 7-24), middle (average 29.7 additions, range 26- 35), and high (average 52 additions, range 40-77). Tertile categories for nonformulary scripts were low (1.4%-2.2%), middle (2.2% -3.6%), and high (3.7%-7.2%). Tertile categories for pharmaceutical costs per year were low ($424-$540), middle ($570-$602), and high ($603-$711).

For all the above analyses, we compared mean scale scores for each tertile using analysis of variance.

RESULTS

Self-Reported Access to Formulary and Nonformulary Drugs

Approximately 76% of respondents referred to their local formulary and 77% to their VISN formulary, while only 14% had referred to the National Formulary (data not in table). **Table 2** illustrates the range of answers to individual questions. Most clinicians (72%) reported that their facility's formulary covered more than 90% of the medications that they wanted to use. Most physicians (73%) agreed that drug restrictions were important for containing costs in VA, and a large majority (86%) agreed that it was important for VA to choose the best value among drugs within a drug class. Approximately 24% felt that their formulary interfered with provision of medically necessary care.

Table 2. Physicians' Perceptions of Formulary, Nonformulary, and Cost-containment Policies*

Statement	Response (%)			
	Agree	Neutral	Disagree	Don't Know
My facility's Pharmacy and Therapeutics Committee is responsive to the concerns of prescribers.	61	19	17	2
Information about my facility's formulary decisions are sent to providers in a timely manner.	52	19	27	3
My facility's formulary covers most (> 90%) of the medications that I want to use in my daily practice.	72	9	19	1
My facility's formulary interferes with my ability to give medically necessary care to my patients.	24	23	53	0
It's difficult to get nonformulary drug requests approved at my VA facility.	40	20	38	2
In general, my patients can obtain nonformulary drugs when medically justified.	69	14	16	2
Nonformulary requests at my facility are approved, when clinically indicated, in a timely and efficient manner.	58	18	21	2
Drug restrictions are a necessary component for containing costs in the VA.	73	14	13	1
There are too many drug restrictions at my facility.	32	29	38	1
It is important for the VA to save money, when possible, by choosing the best value among "me-too" drugs (such as "statins," H_2 blockers, ACE inhibitors).	86	9	4	1
Tablet-splitting for selected drugs is a reasonable way to reduce overall pharmacy costs.	69	14	15	3
The VA should have higher patient copayments for nonformulary drugs.	40	23	32	5
The VA should have higher patient copayments for sildenafil (Viagra).	50	25	14	12

*Responses are to individual questions not subscales. Participants were asked to indicate how strongly they agreed or disagreed with each of the statements above. Responses were scored on a 5-point Likert scale from "strongly agree" to "strongly disagree," which has been simplified for analyses and presentation to a 3-point scale: Agree (incorporating "strongly agree" and "agree"), Neutral (neither agree nor disagree), and Disagree ("strongly disagree" and "disagree").
Percentages indicate valid percentages of responses by category. Because of rounding, percentages may not all total 100.
VA indicates Veterans Affairs; H_2, histamine H_2 antagonists; ACE, angiotensin converting enzyme.

A substantial minority (40%) reported difficulty obtaining nonformulary drugs, though fewer (21%) reported that nonformulary requests were not approved in a timely manner (Table 2). The approval rate, based on averages for requests (11.4) and approvals (10.1), was approximately 89% (**Table 3**). Most approvals (69%) were completed in less than 72 hours, though 19% reportedly took one week or longer. A minority of providers (31%) reported being unable to obtain a needed drug more than twice in the past 6 months, and 2% reported a serious decline in health status as a result of the most recent incident (Table 3).

Access to Pharmaceuticals and Satisfaction with Formulary Practices

Physician satisfaction was strongly associated with self-reported access to medications, particularly access requiring approval of nonformulary drugs: with a lower score indicating greater satisfaction, the lowest tertile of approvals had a mean satisfaction-scale score of 2.7, the middle group had a mean scale score of 2.6, and the group with the highest approval rate had a mean scale score of 2.5 ($P < .001$, **Table 4**). Satisfaction was also strongly associated with the inability to obtain prescription drugs (formulary or nonformulary), with a mean satisfaction-scale score of 2.3 for inability to obtain a needed drug 2 or fewer times and a mean scale score of 3.2 for 3 or more instances ($P < .001$) in the preceding 6 months. Perceived harm to a patient as a result of inability to obtain a medication was negatively associated with satisfaction with formulary practices. Finally, the mean satisfaction-scale scores concerning routine approval times for nonformulary requests were 2.3 for approvals in less than 24 hours, 2.6 for approval times of 24 to 72 hours, and 3.0 for approval times of 72 hours or more ($P < .001$, Table 4).

The number of drugs added at the VISN level did not correlate significantly with satisfaction with formulary

policies. For example, mean satisfaction-scale scores were 2.7 for physicians in the VISNs with the fewest additions to their formularies and 2.6 for those in VISNs with the middle and the highest numbers of formulary additions (P = .08). A similar nonsignificant result was noted for pharmaceutical cost per patient (P = .39). On the other hand, clinician satisfaction was positively associated with the proportion of nonformulary prescriptions at the VISN level (P = .01, Table 4).

Additionally, we found that rapid approval of nonformulary requests (P < .001) was associated with greater support for cost-containment measures, but self-reported approval rates (P = .13) were not. Though increased pharmaceutical expenditures at the VISN level did not influence clinicians' views of cost containment (P = .53), the proportion of nonformulary prescriptions (P < .001) and the number of additions to the VISN formulary (P = .006) were both associated with more supportive views (Table 4).

Table 3. Self-Reported Formulary and Nonformulary Processes and Outcomes

Survey Question	Response
In the past 6 months, how many times did you request a nonformulary prescription that you thought was best for a patient?	11.4 (16.6)*
Of these requests, how many were approved?	10.1 (15.1)*
On average, how long does it take you to receive routine approvals for nonformulary drugs?†	
Within 24 hours (%)	38
24 to 72 hours (%)	31
72 hours to 1 week (%)	13
1 to 2 weeks (%)	8
More than 2 weeks (%)	10
In the past 6 months, how many times were you unable to obtain a prescription drug (formulary or nonformulary) that you thought was the best choice for one of your patients?†	
None (%)	43
1 to 2 times (%)	25
3 to 5 times (%)	17
> 5 times (%)	14
In the most recent incident, how much of a decline in health status did the inability to prescribe the drug(s) cause your patient? (n = 1017)†	
No decline (%)	30
Small but insignificant decline (%)	46
Somewhat significant decline (%)	21
Very serious decline (%)	2

*Value expressed as mean (SD).
†Percentages indicate valid percentages of responses by category. Because of rounding, percentages may not all total 100%.

DISCUSSION

Decisions on VA formulary development involve an iterative process between the 22 VISNs and the VA's national Pharmacy Benefits Management Strategic Healthcare Group and its Medical Advisory Panel.[4] The VA's National Formulary forms a core pharmaceutical coverage package that may be selectively expanded by VISNs to meet local needs and resources. The end product, or facility formulary, is implemented by local P&T committees. Local committees are responsible for assuring timely assessment of nonformulary requests and are responsible for representing their facility's interests to the VISN. Thus, while coverage of pharmaceuticals is based primarily on regional (VISN) and national decisions, local P&T committees are more likely to determine relative access to an agent and how it is to be used. From their point of view, VA providers deal with only 1 formulary in daily practice and have 1 committee, the local P&T, overseeing their nonformulary waivers.

Across the VA healthcare system, regional variance could be expected in 3 general ways. First, the number of drugs added to the National Formulary by different VISNs might vary. Second, VISNs might have different restrictions for formulary and nonformulary drugs. For example, while one VISN or facility might have explicit criteria for use of a particular formulary or nonformulary drug, another VISN or facility might allow prescribing privileges to only certain specialists. Third, different VISNs, or facilities within those regions, might utilize different approval mechanisms and procedures (eg, paper versus electronic requests, different designated approvers) for drugs requiring prior approval, typically nonformulary agents.

Similar variations were found by the IOM and the GAO when they evaluated the VA formulary management process.[5,6] For example, from June 1997 to March 2000, the 22 regions added pharmaceuticals at a highly variable rate, from a low of 5 to a high of 63.[6] Moreover, nonformulary expenditures and approval rates varied, even though about 90% of drugs used by VISNs were on the National Formulary.[6] These differences afforded us an opportunity to explore how and to what degree these variations in access were associated with clinicians' perceptions of formulary and nonformulary processes. We found that it is not pharmaceutical coverage *per se* that impacts clinicians but how coverage decisions and nonformulary policies are implemented.

This survey, like our earlier study, was not designed to answer the question of what impact formularies have on

Table 4. Association Between Clinician Satisfaction and Cost-containment Scales and Measures of Access to Pharmaceuticals*

	Satisfaction Scale Score		Cost-containment Scale Score	
Factor	**Mean**	***P***	**Mean**	***P***
Approval Rate for Nonformulary Prescription				
Low (66% - 81%)	2.7	<.001	2.1	.13
Middle (81% - 84%)	2.6		2.0	
High (85% - 93%)	2.5		2.0	
Approval Time for Nonformulary Prescription				
Less than 24 hours	2.3	<.001	1.9	<.001
24 to 72 hours	2.6		2.0	
More than 72 hours	3.0		2.1	
Percentage of Nonformulary Prescription				
Low (1.4% - 2.2%)	2.7	.01	2.1	<.001
Middle (2.2% - 3.6%)	2.6		2.0	
High (3.7% - 7.2%)	2.6		1.9	
Drug Cost Per Patient ($)				
Low (424-540)	2.7	.39	2.1	.525
Middle (570-602)	2.6		2.0	
High (603-711)	2.6		2.0	
Additions to VISN Formulary				
Low (7-24 drugs)	2.7	.08	2.1	0.006
Middle (27-35 drugs)	2.6		2.0	
High (40-77 drugs)	2.6		2.0	
Inability to Obtain Prescription				
2 or fewer times	2.3	<.001	1.9	<.001
3 or more times	3.2		2.2	
Decline in Health Status				
None	2.4	<.001	1.9	<.001
Small but insignificant	2.9		2.2	
Somewhat significant	3.3		2.3	
Serious	3.8		3.0	

*Lower scores indicate greater satisfaction or greater agreement on cost containment.
VISN indicates Veterans Integrated Service Networks.

patient care, a question others have debated.[10-13] Rather, we wanted to identify the perceived strengths and weaknesses of an existing pharmacy benefits management system within a structured managed care environment. We believe our results are highly relevant in that regard, as pharmacy benefits programs will be a part of healthcare practices for the indefinite future, and managed care is becoming ever more aggressive in terms of closing formularies and/or developing preferred lists with multitiered copayment structures.[1] In fact, part of the proposed Medicare drug benefit debate is not whether but which pharmacy benefits management group(s) should run the program.[14,15] On the other hand, private-sector clinicians often deal with different patient populations, clinical practices, and malpractice liability concerns, as well as multiple formularies and preferred lists. These clinicians may therefore be less willing to limit themselves to preferred or formulary drugs. That said, the general question of how formulary management can be optimized still applies. As Schulman and colleagues noted, critical evaluations are necessary for transparency and accountability of such programs.[16]

While a vast majority of VA clinicians were satisfied with local formulary oversight, consistent with the generally positive results noted in previous surveys,[4,6] the present study highlights the substantial effect of access to nonformulary drugs, or impaired or slow access to such drugs, on VA physicians' support for formulary policies and formulary decision making. This finding, to our knowledge, is novel and is all the more interesting because in VA the use of nonformulary medications is low compared to that of formulary agents. In most VA regions nonformulary drugs represent less than 4% of total prescriptions. Moreover, requests for nonformulary medications are, by self-report, relatively infrequent, averaging around 1.5 per month. Yet actions on this type of request appear to influence providers' satisfaction more demonstrably than actions concerning formulary agents. Indeed, timely and relatively open access to nonformulary drugs appears germane not only to clinician satisfaction with formulary practices but also to support of important cost-containment policies.

Why then do providers appear to be so influenced by what is *not* on formulary? Formularies are useful for determining routine pharmaceutical coverage, using available evidence on safety and efficacy—and effectiveness, when data is available—while considering costs and/or cost effectiveness. In addition, a properly configured P&T committee represents covered providers and patients.[17] Consequently, most pharmaceuticals with good evidence of safety and efficacy, and those that are routinely needed in daily practice, are likely to be available, though perhaps with local restrictions.[18] Our

respondents stated as much: only 19% indicated that their facility's formulary covers less than 90% of the medications used in daily practice, and only 17% viewed their P&T committees as unresponsive to providers (Table 1). This suggests that local VA formulary practices incorporate local/regional scopes of practice, as was also concluded by the IOM and the GAO.[5,6]

On the other hand, the designation of a drug as nonformulary, often because of safety, efficacy, or cost concerns, implies some method of active control or monitoring, such as prior authorization.[16] This may be or may be perceived as an undue burden, especially if the process itself appears slow or nonresponsive. We suspect that clinicians view the overall formulary process not by what they can routinely get but rather by what they cannot easily obtain. Our data (Table 4), for example, indicate that relatively small changes in reported approval rates and approval times, as well as the ability to obtain needed drugs (formulary or nonformulary), affect clinicians' satisfaction and attitudes toward cost containment to a greater extent than pharmaceutical expenditures per patient or the number of formulary additions. Thus, we believe that access to pharmaceuticals is critically important to clinicians and that access cannot be measured simply by the size of the pharmacy coverage package.

Of course, this should not be taken to mean that pharmacy benefits managers or healthcare systems must always agree with prescribing clinicians. There are many facets to formulary management, not the least of which is to guide cost-effective and safe prescribing.[17,19] Formulary policies and waiver approvals must balance access with guidance on new, relatively untested pharmaceuticals, while dealing with aggressive marketing practices,[20] rising drug costs,[21] and increasing copayments for consumers.[22] But, whatever the decision on individual requests, P&T committees—and/or the individuals or groups delegated to make nonformulary decisions on a day-to-day basis—should be responsive and rapid in their deliberations. This responsiveness appears to improve clinician support for various pharmacy benefits management programs, a conclusion that should not be lost on private entities that attempt to mitigate drug costs[16] and promote patient safety.[19]

Even with the general level of support for VA policies noted in our survey, respondents did not always convey positive impressions of formulary processes. For example, 24% of respondents expressed that the formulary interfered with their ability to give medically necessary care to patients, and 32% felt that there were "too many drug restrictions at my facility." We found similar discontent in our original survey in 1999,[4] with 25% of providers reporting disagreement with the statement: "In general, I can prescribe the drugs that I consider are needed for my patients." It would be interesting to try to ascertain which drugs are particularly difficult to obtain or are overly restricted. More generally, though, it is important to keep in mind that formularies and preferred lists, and the organizational structures for managing pharmaceutical coverage, are not very popular among clinicians, especially those practicing in private settings.[23] Without doubt, many issues influence levels of satisfaction with formulary and nonformulary policies.

Of particular concern in our study was the finding that 56% of respondents were unable to obtain a needed medication at least once within 6 months, and 2% perceived a serious decline in a patient's health due to the most recent incident. To provide some context, responses to a similar question posed to private providers indicated that within a 6-month period 75% were unable to obtain a prescription drug thought best and that 5% of patients subsequently had a serious decline.[7] In any case, it is not surprising that clinicians who perceive that their patients have been harmed would also be much less satisfied with formulary policies and much less inclined to support cost-containment policies (Table 4). These data should compel pharmacy benefits managers to constantly re-evaluate processes and procedures with providers and/or P&T committees in order to assure that patients are able to obtain needed medications.

It would help to compare our findings discussed here to responses of private-sector clinicians, though anecdotal reports suggest an extremely negative view of pharmacy benefits management in private-practice settings. As a general rule, clinicians view cost containment with great suspicion.[24-26] For example, one poll reported that 73% of 324 respondents felt that managed care formularies were undesirable because of the perceived focus on cost containment and not on quality of care.[2] Yet Kaiser Permanente's high compliance rate with formulary medications (98%) is thought to be at least partly due to the degree of buy-in by clinicians.[27] VA and Kaiser Permanente providers, however, deal with 1 formulary system and are employed by their respective healthcare systems. Private-sector clinicians encounter many formularies and preferred lists[23] and generally provide fee-for-service care or are under managed-care contracts. We suspect that these factors also influence perceptions about pharmacy benefits, though further research in this area is obviously required.

Nonetheless, our data suggest that healthcare systems and pharmacy benefits management firms should be responsive and transparent in implementing both nonformulary and formulary policies. VA, for example, is now requiring VISNs to report approval rates and assessment

times for nonformulary requests. In addition, beginning in 2002, formulary designation of any new medical entity required concurrence among VISN formulary leaders and the national pharmacy benefits management in order to standardize access to pharmaceuticals throughout VA.

This study had several important limitations. First, although 49% is a respectable response rate for a physician survey, nonresponse bias is still a possibility. Due to database limitations, we were unable to compare responders' and nonresponders' demographic and practice characteristics to further evaluate the potential bias. Even so, similarities to our previous data[4] and to GAO data[6] tend to affirm that the responses mirror perceptions of VA physicians at large. Second, as with our previous study,[4] the authors have an interest in the study results and may have inadvertently introduced bias into the methodology, analysis, or data interpretation, though we attempted to mitigate this potential by completing the study with the RAND Survey Research Group. Third, we focused on attending-level clinicians but did not include trainees. Responding clinicians did, however, spend much of their time in ambulatory care, which was our focus. Fourth, nearly all VA physicians order medications electronically through provider order entry, and the formulary status of drugs is usually readily available, thus encouraging them to prescribe formulary medications. Moreover, in private community settings providers often deal with multiple formularies and preferred lists and may therefore have very different sensitivities to managed care practices and formulary size and coverage.

For all these reasons, caution should be used in applying our findings to private sector and/or to pharmacy benefits models used in other healthcare settings even though we would expect these general issues to pertain to private providers working with many pharmacy benefits programs.[23] Lastly, we assessed pharmaceutical access with proxy measures such as drug costs per patient and nonformulary drug prescriptions as reported by each VISN; this was the best information that we had available at the time. We did not attempt to verify whether VISNs correctly designated formulary and nonformulary drugs. This would make little difference as long as the designation was consistent within each VISN. Other more refined measures might lead to different findings, and we encourage other healthcare groups to reproduce our work.

In conclusion, we found that VA providers' satisfaction with pharmacy benefits practices appears to be strongly influenced by the degree of access to medications, especially nonformulary medications, and by the rapidity of nonformulary review processes. Attitudes appeared little influenced by increases in the size of the formulary or by the overall amount spent on pharmaceuticals. Further research is required to better understand how to improve waiver processes, but the implication for VA pharmacy benefits managers, and perhaps for other similar models of pharmacy benefits management, is that timely access to clinically justified medications, especially nonformulary medications, may assist in implementing cost-containment and safety programs, not to mention bolstering physicians' support for formulary practices.

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