

# Assessing Satisfaction Among Providers in a VA Network

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Recent changes in the VHA's delivery system have made access for patients a priority—but what have been the effects on provider morale? The results of this cross-sectional survey indicate efforts must focus on improving physician leadership and enhancing provider autonomy.

In recent years, the VHA has launched a number of national initiatives for improving quality and access to health care. These changes include the implementation of an electronic medical record (the computerized patient record system [CPRS]), the adoption of advanced clinic access (ACA) practices that change patient appointment scheduling procedures and create a system of structured consultations, and the establishment of satellite community-based outpatient clinics (CBOCs). In addition to these nation-wide programs, regional networks, such as the VA Midwest Health Care Network (VISN 23), have integrated patient care across professional and clinical disciplines, expanded the use of midlevel providers, and aggressively

implemented ACA to provide open access for scheduling.<sup>1,2</sup>

Although these changes were designed to improve patient care, little is known about their effects on clinical providers. Research findings in a number of organizational settings other than the VHA suggest that many of these types of changes have potentially detrimental effects on the satisfaction and commitment of health care providers.<sup>3-5</sup> In particular, organizational changes may be perceived negatively if they create the perception of a loss of control and autonomy among health care professionals or if they place restrictions on professionals' ability to meet personal standards of patient care.<sup>6,7</sup>

A number of research studies highlight the importance of provider satisfaction. Higher levels of provider satisfaction improve patients' trust, confidence, adherence to provider recommendations,<sup>8-10</sup> and satisfaction with care.<sup>11</sup> Studies also suggest that lower provider satisfaction results in physicians working fewer hours and increased turnover among both physicians and nurses.<sup>12,13</sup>

Furthermore, providers typically have an understood "compact" with employers with regard to their expectations about income, hours, and practice conditions. Likewise, organizations have expectations about physician compliance with clinical and operational standards. When these

two sets of expectations clash, dissatisfaction occurs. In particular, when clinicians believe organizational restrictions force them to deliver substandard care, they experience professional dissonance that gives rise to professional dissatisfaction.<sup>14-17</sup>

For all of these reasons, measuring provider satisfaction has become more critical than ever for the VHA. No studies measuring VHA provider attitudes, however, have been published since many of the major organizational changes were introduced. Rather, studies have focused on nurses' satisfaction,<sup>14,18</sup> leadership burnout,<sup>19</sup> and workplace culture.<sup>20</sup>

In this article, we describe a performance improvement project within VISN 23 that focused on provider satisfaction. Its objective was to generate a tool that individual VISN 23 facilities could use to assess provider satisfaction and guide additional improvement efforts in clinical operations. Whenever possible, the team sought to incorporate validated satisfaction scales into the tool. For domains in which validated instruments did not exist (particularly with regard to various aspects of clinical operations), it was necessary to develop our own scales.

## DEVELOPING THE SURVEY

The study team (T.W., E.J., and G.S.) queried a sample of front-line physicians and advanced practice clini-

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cal staff to identify the concerns that should be included in the provider survey that would serve as our assessment tool. The team also reviewed published studies to determine key areas expected to contribute to provider satisfaction and to ensure appropriate wording of survey items.<sup>16,21–29</sup>

Based on this literature review, the team incorporated into the survey published satisfaction scales addressing the following areas: autonomy, time/stress, physician leadership, status/prestige, organizational identification, patient relations/altruism, relations with other professional staff, global satisfaction, resources, and stress (Table 1).<sup>25–29</sup> Responses to individual items within each of these satisfaction scales were based on five-point Likert scales.

Because numerous operational issues—such as the burden and benefits of CPRS, sharing of patients with physicians in the local community, and timeliness of access to diagnostic services—were not sufficiently addressed in previously validated measures, the study team developed new survey items for these issues. These new items were reviewed by all team members to ensure readability and alignment with the concerns identified by the front-line providers. The new items were then grouped into the following operational domains: ACA, CPRS, hospital practice, mid-level support, CBOCs, and comanaged care (Table 2). As with the satisfaction scales, responses to items in the operational domains used five-point Likert scales.

The survey also included questions about the type and level of nursing support available, as well as demographic items to collect data on provider attributes, such as clinical service line (primary care, mental health, or specialty medicine), profession (physician, physician assistant

[PA] or advanced registered nurse practitioner [ARNP], or clinical psychologist or clinical social worker), facility type (main facility versus CBOC), practice type (hospital, mixed, or outpatient only), years of service, and academic affiliations. In addition, other items were included to gather useful information for the facility and service line leaders (including an additional “service line” operation domain)—but the findings on these items are beyond the scope of this article.

The survey went through the usual approval process, which included review by network physician leaders and the network bargaining unit leadership. As a result of this process, the survey was formatted to ensure anonymity of the responses. Four affiliated faculty in primary care, four in specialty medicine, two in mental health, and two affiliated midlevel providers in internal medicine completed the survey to ensure readability. These responses were not included in the final analyses.

In the final stage of development, the survey was programmed as a web-based instrument, with certain questions customized to certain professions and service lines. For instance, some of the midlevel support items were intended specifically for PAs and ARNPs and some were intended for all non-physician providers taking the survey. The web-based survey was configured so that the appropriate items would appear based on the profession indicated by the respondent.

## STUDY DESIGN

### Setting and participants

VISN 23, the setting for our performance improvement project, is composed of eight health care systems in the upper Midwest (Iowa, Nebraska, South Dakota, North Dakota, and

Minnesota). Together, these eight systems include three large academic medical centers, five smaller rural and community hospitals, and numerous CBOCs. A total of 762 providers were invited to participate in the survey, including 462 physicians, 167 PAs and ARNPs, and 133 clinical psychologists and clinical social workers. Of these providers, 760 were engaged in clinical practice in one of the following three service lines: primary care (421), mental health (240), or specialty medicine (99). The remaining two providers were physicians who were double boarded in psychiatry and primary care.

### Survey administration

The web-based survey was fielded for 31 days, beginning in mid-September 2005. Potential participants were sent invitations and reminders through the VHA e-mail system. In addition, pop-up links to the survey were programmed to appear when invitees logged on to CPRS.

### Data analysis

Using the five-point Likert scale responses, mean scores were determined for individual satisfaction scales and operational domains. For items that expressed a negative sentiment, it was necessary to use “reverse scoring” to ensure that higher scores consistently correlated with positive responses. Some items offered respondents additional “not applicable” or “don’t know” options; these responses were not included in the calculation of mean scores.

For purposes of comparison, we calculated both VISN-wide and facility-wide mean scores for individual survey items as well as satisfaction scales and operational domains. We also calculated and compared mean scores according to the subgroups of profession (physician, PA/ARNP, and

**Table 1. Satisfaction scale survey items<sup>25-29,a</sup>**

**Autonomy<sup>25</sup>**

- Clinical guidelines restrict my freedom to practice.<sup>b</sup>
- Administrative reviewers rarely question my professional judgments.<sup>b</sup>
- I have a say in what medications are listed in the formulary.<sup>b</sup>
- My patients receive imaging services in a timely manner.<sup>b</sup>
- My patients receive procedures in a timely manner.<sup>b,c</sup>
- My patients receive subspecialty evaluations in a timely manner.<sup>b,c</sup>
- I have a say in the types of diagnostic tests and procedures that are required for subspecialty evaluations.<sup>b,c</sup>
- Patients referred to me have had the appropriate evaluations prior to my consultation with them.<sup>b,c</sup>

**Time/stress<sup>29</sup>**

- I have enough time to manage the “administrative” portion of my clinical practice.<sup>b,c</sup>
- I have so much work to do that everything can not be done well.<sup>b</sup>
- I am able to spend a sufficient amount of time with each patient.<sup>b</sup>
- I am overwhelmed by the needs of my patients.<sup>b</sup>
- Time constraints keep me from developing good patient relations.<sup>b</sup>
- I am able to provide good continuity of patient care.<sup>b,c</sup>
- I see an appropriate number of outpatients during a typical day in clinic.<sup>b,c</sup>

**Physician leadership<sup>26</sup>**

- How well does your section chief/direct supervisor understand your problems and needs?<sup>d</sup>
- How well does your section chief/direct supervisor recognize your potential?<sup>d</sup>
- Regardless of how much formal authority he or she has built into his or her position, what are the chances that your section chief/direct supervisor would use his or her power to help you solve problems at work?<sup>e</sup>
- Again, regardless of the amount of formal authority your section chief/direct supervisor has, what are the chances that he or she would “bail you out” at his or her expense?<sup>e</sup>
- I have enough confidence in my section chief/direct supervisor that I would defend and justify his or her decision if he or she were not present to do so.<sup>b</sup>
- How would you characterize your working relationship with your section chief/direct supervisor?<sup>f</sup>

**Status/prestige<sup>26</sup>**

- I am satisfied with the amount of physician input into major organizational decisions.<sup>g</sup>
- Providers are appreciated by nonclinical staff in the organization.<sup>g</sup>
- I am praised in the community for the nature of my work.<sup>g</sup>

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psychologist/social worker) and clinical service line (primary care, mental health, and specialty medicine). Next, we calculated correlation coefficients (using the Pearson product moment correlation test) between global satisfaction and: (1) the other satisfaction scales, (2) the operational domains, and (3) individual survey items. Finally, we looked for significant correlations between demographic and practice characteristics and the various satisfaction scales and operational domains.

We used Microsoft Excel 2003 (Microsoft, Inc., Redmond, WA) and Stata SE Version 8.2 (Stata Corp., College Station, TX) to collect data and calculate descriptive statistics, correlation coefficients, and *P* values. Statistical significance was defined as a *P* value less than .05. These analyses were approved by the University of Iowa Institutional Review Board.

**RESPONSE RATES**

Of the 762 providers invited to take the survey, 471 (62%) completed and submitted responses. All health care systems and facilities that comprise VISN 23 were represented in these responses, with individual facility response rates ranging from 47% to 80%. Response rates by subpopulation ranged from 50% to 90% (mental health, 55%; primary care, 56%; specialty medicine, 90%; physicians, 50%; PAs/ARNPs, 84%; and psychologists/social workers, 50%).

**SATISFACTION SCORES**

Overall, the VISN mean (SD) global satisfaction score was 3.66 (0.75). A slightly (but statistically significantly) higher mean global satisfaction score was reported by mental health providers (3.76) than by either specialty medicine (3.72) or primary care (3.58) providers (*P* < .001) (Figure 1). There were no statistically signifi-

**Table 1. Satisfaction scale survey items<sup>25-29,a</sup> (continued)**

<p><b>Organizational identification<sup>26</sup></b>                  When someone criticizes my clinical team/service, it feels like a personal insult.<sup>b</sup>                  I am very interested in what others think about my clinical team/service.<sup>b</sup>                  When I talk about my clinical team/service, I usually say “we” rather than “they.”<sup>b</sup>                  My clinical team’s/service’s successes are my successes.<sup>b</sup>                  When someone praises my clinical team/service, it feels like a personal compliment.<sup>b</sup>                  If a story in the media criticized my clinical team/service, I would feel embarrassed.<sup>b</sup></p>
<p><b>Patient relations/altruism<sup>27</sup></b>                  I find my present clinical work personally rewarding.<sup>b</sup>                  Without me my patients would not get the care they need.<sup>b</sup>                  What I do every day really makes a difference in my patients’ lives.<sup>b</sup>                  I am able to provide high quality care to my patients.<sup>b</sup>                  I am having a positive impact on a needy population.<sup>b</sup></p>
<p><b>Relations with other professional staff<sup>25,h</sup></b>                  My [PA<sup>i</sup> and ARNP/psychologist and social worker/physician] colleagues are a good source of professional stimulation.<sup>b</sup>                  I get along well with my [PA and ARNP/psychologist and social worker/physician] colleagues.<sup>b</sup>                  My [PA and ARNP/psychologist and social worker/physician] colleagues value my unique perspective in practice.<sup>b</sup>                  My [PA and ARNP/psychologist and social worker/physician] colleagues are an important source of personal support.<sup>b</sup>                  [Nonproviders/Nonphysicians] in my practice:<sup>b</sup></p> <ul style="list-style-type: none"> <li>• Support my professional judgment.</li> <li>• Are an important source of personal support.</li> <li>• Are not accommodating.</li> <li>• Reliably carry out clinical instructions.</li> </ul>
<p><b>Global satisfaction<sup>25</sup></b>                  I find my present clinical work personally rewarding.<sup>b</sup>                  Overall, I am pleased with my work.<sup>b</sup>                  Overall, I am satisfied in my current practice.<sup>b</sup>                  My current work situation is a major source of frustration.<sup>b</sup>                  My work in this practice has not met my expectations.<sup>b</sup></p>

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patient relations/altruism (3.96), relations with other professional staff (3.90), organizational identification (3.89), resources (3.47), time/stress (3.25), autonomy (3.13), physician leadership (3.12), and status/prestige (2.72). For the operational domains, VISN mean satisfaction scores were highest for CPRS (3.49), followed by hospital practice (3.26), ACA (3.29), CBOCs (3.22), midlevel support (3.19), and comanaged care (2.96).

As with global satisfaction, mean scores for the autonomy, physician leadership, resources, and time/stress satisfaction scales were significantly lower ( $P < .001$ ) among primary care providers compared with mental health and specialty medicine providers. The mean score for the status/prestige satisfaction scale, which was low for all groups, also was significantly lower for primary care providers than for mental health providers ( $P = .04$ ). There were no significant differences in the mean scores for the patient relations/altruism, relations with other professional staff, or organizational identification satisfaction scales.

Primary care providers also reported significantly lower mean scores ( $P < .001$ ) than either mental health or specialty medicine providers for most operational domains—namely, ACA, comanaged care, hospital practice, CBOCs, and midlevel support (Figure 2). The satisfaction scores for CPRS were not significantly different between the service lines.

When the Pearson correlation coefficients between global satisfaction and satisfaction with other scales and domains were calculated, the highest correlations were found for time/stress and autonomy (0.54 and 0.51, respectively). The strongest correlation between global satisfaction and an individual survey item (0.51) was found for the question, “How satisfied are you with your say

cant differences between the global satisfaction scores, however, when they were analyzed by profession (physician, PA/ARNP, or psychologist/social worker), provider attributes (years of service, main facility

versus CBOC, or academic affiliation versus no academic affiliation), and level of nursing support.

VISN mean scores for the satisfaction scales were highest (most favorable) for stress (4.04), followed by

**Table 1. Satisfaction scale survey items<sup>25–29,a</sup> (continued)**

**Resources<sup>28</sup>**

How satisfied are you with:<sup>k</sup>

- Your say in the organization and management of your clinical practice?
- Health information management systems (medical records)?
- The telephone paging system in your medical practice?
- The equipment for clinical procedures?
- The supplies of your clinical practice?
- The pharmacy service of your clinical practice?
- The imaging services of your medical center?

**Stress<sup>28</sup>**

In the last month, how often have you felt:<sup>9</sup>

- You were unable to control important things in your life.
- Confident in your ability to handle personal problems.
- Things were going your way.
- Difficulties were piling up so high you could not overcome them.

<sup>a</sup>All items used five-point Likert scales for responses. For some questions, additional options for “not applicable” or “don’t know” were offered, but these responses were not included in the calculation of mean scores. <sup>b</sup>Response options were: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; or 5 = strongly agree. <sup>c</sup>Item also was counted in the advanced clinic access operational domain. <sup>d</sup>Response choices were: 1 = not at all; 2 = a little; 3 = moderately; 4 = mostly; or 5 = fully. <sup>e</sup>Response choices were: 1 = none; 2 = small; 3 = moderate; 4 = high; or 5 = very high. <sup>f</sup>Response choices were: 1 = extremely ineffective; 2 = worse than average; 3 = average; 4 = better than average; or 5 = extremely effective. <sup>g</sup>Response options were: 1 = rarely; 2 = occasionally; 3 = sometimes; 4 = fairly often; or 5 = very often. <sup>h</sup>Items in this scale were customized according to the respondent’s profession. <sup>i</sup>PA = physician assistant. <sup>j</sup>ARNP = advanced registered nurse practitioner. <sup>k</sup>Response choices were: 1 = very dissatisfied; 2 = dissatisfied; 3 = neutral; 4 = satisfied; or 5 = very satisfied.

in the organization and management of your clinical practice?” When analyzing scores according to demographic and practice characteristics, we found that providers with assigned nursing support had higher satisfaction scores with clinical resources and autonomy than did providers with other types of nursing support. Additionally, staff who had served more than 10 years with the VA reported higher status/prestige scores.

**EXPLORING THE UNDERLYING FACTORS**

Our survey findings indicate that, in VISN 23, overall provider satisfaction does not differ significantly based on the profession, practice attributes,

or affiliation status of the front-line provider. Satisfaction does appear to vary according to service line, however, with mental health providers reporting significantly higher global satisfaction compared with primary care and specialty medicine providers. Regardless of professional category, primary care providers reported significantly lower satisfaction on multiple satisfaction scales and operational domains than their mental health and specialty medicine counterparts.

These relatively lower scores for primary care providers are worrisome for the VHA, given the strong correlation with global satisfaction in this survey and the importance of

issues like autonomy, resources, and status/prestige to overall professional satisfaction and retention.<sup>12,13,23,30–32</sup> Without access to satisfaction scores from providers in a non-VA network, we cannot determine whether lower levels of satisfaction are specific to primary care providers in the VHA or whether they are common in other settings as well.

Nevertheless, it’s possible to speculate about some factors that are unique to the VHA and may contribute to the dissatisfaction of primary care providers. For example, the VHA has more clinical performance measures and explicit practice standards for primary care than for either mental health or specialty medicine. In addition, within the VHA, ACA specialty agreements and structured consultations typically create more work for primary care providers—who must complete the electronic consultation template, increase their skills to manage more complex patients, and perform additional testing prior to referral for specialty care—than for their mental health and specialty medicine colleagues. The reasoning behind adding more structure to the “prework” prior to specialty consultations is that such shifting will—in theory—increase primary care competence in delivering more complex care, increase access into specialty care, and enhance organizational efficiency.<sup>2,30,33–38</sup> The lower scores for autonomy and resources further suggest that primary care providers often may view practice innovations designed to improve quality (such as VHA practice guidelines) and efficiency (such as ACA clinical service agreements and the VA formulary) as impeding, rather than supporting, the provision of quality care.

Mean satisfaction scores were below neutral in two areas of the survey—an unusual finding for em-

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**Table 2. Operational domain survey items<sup>a</sup>**

**Advanced clinic access (ACA)**

- My patients receive imaging services in a timely manner.<sup>b,c</sup>
- My patients receive procedures in a timely manner.<sup>b,c</sup>
- My patients receive subspecialty evaluations in a timely manner.<sup>b,c</sup>
- I have a say in the types of diagnostic tests and procedures that are required for subspecialty evaluations.<sup>b,c</sup>
- Patients referred to me have had the appropriate evaluations prior to my consultation with them.<sup>b,c</sup>
- I have enough time to manage the “administrative” portion of my clinical practice.<sup>b,d</sup>
- I am able to provide good continuity of patient care.<sup>b,d</sup>
- I see an appropriate number of outpatients during a typical day in clinic.<sup>b,d</sup>
- The consults I receive from primary care have been evaluated according to the primary care service agreements.<sup>b</sup>
- While at work, how often do you have any of the following experiences?<sup>e</sup>
  - Feel the size of your panel keeps you from providing high quality care.
  - Have no place to add an acute patient to your schedule.
  - Can easily discharge your patients back to the primary care clinic.

**Midlevel support**

- While at work, how often do you have any of the following experiences?<sup>e</sup>
  - Wish that you could receive more clinical teaching from your supervising or collaborating physician.
  - Receive effective teaching from your supervising or collaborating physician.
  - Have a dedicated time for teaching from your supervising or collaborating physician.
  - Obtain the requested clinical guidance when you need it from your supervising or collaborating physician.
  - Meet resistance when you attempt to transfer patients out of your practice to a physician when you feel it’s warranted.

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scores for both status/prestige and comanaged care may be related to their increased number of initial contacts with veterans who are newly enrolling in the VHA.

Overall, providers reported relatively higher levels of satisfaction, with no significant differences between clinical service lines, in several important areas: patient relations/altruism, relations with other professional staff, stress, organizational identification, and CPRS. The higher scores for altruism might be expected, given the VA’s mission to serve a disadvantaged population. The satisfaction with CPRS is less expected, however. It suggests, encouragingly, that VA providers generally see value in electronic medical records, despite the time required for provider input of data.

**THE NETWORK’S RESPONSE**

When the assessment and analyses were completed, the network executive leadership council made responding to the concerns identified by the satisfaction survey—particularly the lower satisfaction among primary care providers—a priority for the medical center directors within the network. To aid in this goal, we developed both facility-specific and service line-specific reports that allowed local physician leaders to review their mean scores both by the individual survey items and by the operational domains and satisfaction scales. The study team also recommended priority areas for each facility to consider as they developed local response plans and performance improvement projects.

Improving the effectiveness of physician leaders was identified as the key strategy that could have a broad, favorable impact on provider satisfaction, including satisfaction with many aspects of operations. This was believed

employee satisfaction surveys. These two areas, status/prestige and comanaged care, were particularly low in all provider subgroups. This may be attributable, in part, to the VHA’s long history as a hospital-based organization. In such practice environments, nursing and pharmacy departments typically operate independently and, as such, may not be focused on maxi-

mizing provider efficiency. Additionally, the low comanaged care scores likely reflect conflicted expectations between the VHA and veterans. For instance, many veterans wish to use the VHA as a pharmacy-only service, while the VHA is focused on providing comprehensive, physician-directed care. The fact that primary care providers reported significantly lower

**Table 2. Operational domain survey items<sup>a</sup> (continued)**

<p><b>Comanaged care</b> While at work, how often do you have any of the following experiences?<sup>e</sup></p> <ul style="list-style-type: none"> <li>• Feel burdened by the time you spend reviewing the outside medical records of comanaged patients for medication issues.</li> <li>• Have conflicts with patients over nonformulary medication.</li> <li>• Have difficulties getting medical records from non-VA providers.</li> <li>• Feel burdened by the difficulties in obtaining the specific usable images from non-VA providers.</li> </ul>
<p><b>Hospital practice</b> While at work, how often do you have any of the following experiences?<sup>e</sup></p> <ul style="list-style-type: none"> <li>• Receive effective communication from the discharging clinical teams when your patients are discharged from acute care (hospital or emergency room).</li> <li>• Find that hospital orders were not completed in a timely fashion.</li> <li>• Have to delay a hospital discharge because needed evaluations are not completed.</li> </ul> <p>I have the resources needed to provide excellent hospital care in this institution.<sup>b</sup></p>
<p><b>Computerized patient record system (CPRS)</b> An update of CPRS training from a knowledgeable clinician would improve my efficiency in clinic.<sup>b</sup> I can get adequate support to use CPRS efficiently in clinic.<sup>b</sup> I feel the benefits of CPRS for patient care outweigh the additional time required to use the system.<sup>b</sup></p>
<p><b>Community-based outpatient clinics (CBOCs)</b> CBOC providers are valued as much as main facility providers.<sup>b</sup> CBOC patients have timely access to subspecialty evaluation and treatment.<sup>b</sup></p>
<p><sup>a</sup>All items used five-point Likert scales for responses. For some questions, additional options for “not applicable” or “don’t know” were offered, but these responses were not included in the calculation of mean scores. <sup>b</sup>Response options were: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; or 5 = strongly agree. <sup>c</sup>Item also was counted in the autonomy satisfaction scale. <sup>d</sup>Item also was counted in the time/stress satisfaction scale. <sup>e</sup>Response options were: 1 = rarely; 2 = occasionally; 3 = sometimes; 4 = fairly often; or 5 = very often.</p>

to be the case, in part, because effective physician leaders play a crucial role in ensuring that implementation of clinical and operational standards intrudes only minimally on providers’ clinical practices. Additionally, the network leaders recognized the importance of effective physician leaders in making the compact between provid-

ers and their organization (that is, expectations about pay, hours, working conditions, and quality) explicit and mutually acceptable, in order to diminish potential dissonance.<sup>12,13,32,39,40</sup>

As part of this strategy, the VISN 23 education service line collaborated with the network chiefs of staff to develop a training curriculum for

physician leaders. This curriculum currently is underway with an initial class of 20 physicians. The network also has directed each facility to create action plans to respond to facility-specific survey data. Another assessment of provider satisfaction, preferably including additional VA health care systems, is planned for 2009. The intent is to follow provider satisfaction assessments longitudinally, in order to assess the impact of efforts by facilities to respond to identified concerns.

**SURVEY LIMITATIONS**

The most important limitation of our survey is the lack of comparative data from facilities outside of VISN 23 or the VHA. Having such data would have improved the generalizability of the survey findings. Because respondents included providers from three clinical service lines at each main facility in the network, however, it was possible for local leaders to perform both interfacility and intrafacility comparisons of survey data.

This study also was limited by the fact that neither the survey instrument, as a whole, nor the operational domains within the survey have been validated.

**IN SUMMARY**

Provider satisfaction reflects multiple critical aspects of health care operations and delivery. Because lower levels of provider satisfaction have potentially negative effects on operational efficiency, provider retention, health care costs, and patient loyalty, health care facilities and networks likely would benefit from longitudinal assessments of provider satisfaction.

We have demonstrated that it is possible to develop an easily administered survey of provider satisfaction as part of ongoing performance improvement measures. The relatively lower

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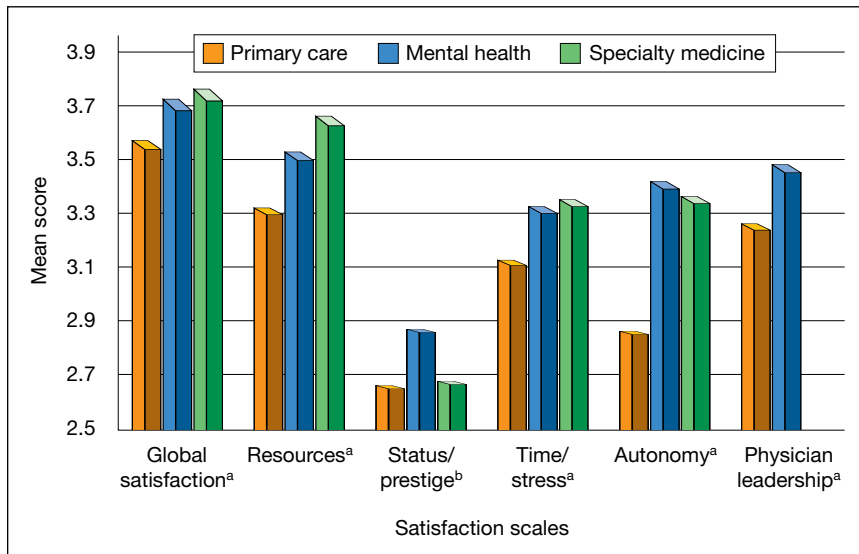


Figure 1. Satisfaction scales for which mean scores were significantly different between clinical service lines. <sup>a</sup> $P < .001$ . <sup>b</sup> $P = .04$  between primary care and mental health. No statistical significance was found between primary care and specialty medicine.

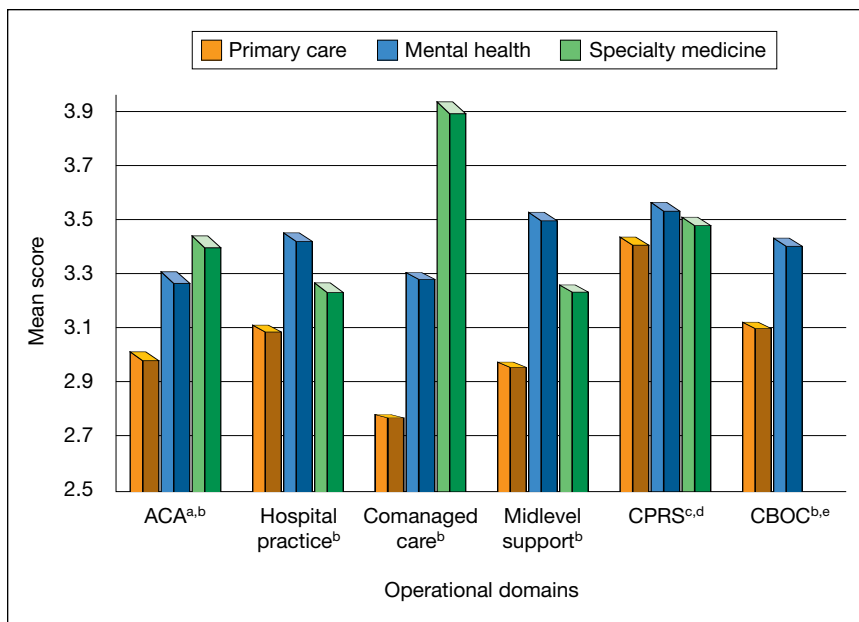


Figure 2. Operational domain scores by clinical service line. <sup>a</sup>ACA = advanced clinic access. <sup>b</sup> $P < .001$ . <sup>c</sup>CPRS = computerized patient record system. <sup>d</sup>Differences were nonsignificant. <sup>e</sup>CBOC = community-based outpatient clinic.

scores for primary care providers across multiple satisfaction scales and domains suggest that primary care

satisfaction is suffering—a finding that carries other potentially negative implications.

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**REFERENCES**

1. Lukas CV, Meterko M, Lowcock S, et al. Monitoring the progress of system integration. *Qual Manag Health Care*. 2002;10(2):1–11.
2. Schall MW, Duffy T, Krishnamurthy A, et al. Improving patient access to the Veterans Health Administration's primary care and specialty clinics. *Jt Comm J Qual Saf*. 2004;30(8):415–423.
3. Ahluwalia S, Offredy M. A qualitative study of the impact of the implementation of advanced access in primary healthcare on the working lives of general practice staff. *BMC Fam Pract*. 2005;6:39.
4. Chehab EL, Panicker N, Alper PR, Baker LC, Wilson SR, Raffin TA. The impact of practice setting on physician perceptions of the quality of practice and patient care in the managed care era. *Arch Intern Med*. 2001;161(2):202–211.
5. Larsen AC. In the public interest: Autonomy and resistance to methods of standardising nurses' advice and practices from a health call centre in Perth, Western Australia. *Nurs Inq*. 2005;12(2):135–143.
6. Attree M. Nursing agency and governance: Registered nurses' perceptions. *J Nurs Manag*. 2005;13(5):387–396.
7. Solberg LI, Crain AL, Sperl-Hillen JM, Hroschikowski MC, Engebretson KI, O'Connor PJ. Effect of improved primary care access on quality of depression care. *Ann Fam Med*. 2006;4(1):69–74.
8. DiMatteo MR, Sherbourne CD, Hays RD, et al. Physicians' characteristics influence patients' adherence to medical treatment: Results from the Medical Outcomes Study. *Health Psychol*. 1993;12(2):93–102.
9. Kravitz RL, Hays RD, Sherbourne CD, et al. Re-

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- call of recommendations and adherence to advice among patients with chronic medical conditions. *Arch Intern Med.* 1993;153(16):1869-1878.
10. Kravitz RL, Bell RA, Azari R, Krupat E, Kelly-Reif S, Thom D. Request fulfillment in office practice: Antecedents and relationship to outcomes. *Med Care.* 2002;40(1):38-51.
  11. Haas JS, Cook EF, Puopolo AL, Burstin HR, Cleary PD, Brennan TA. Is the professional satisfaction of general internists associated with patient satisfaction? *J Gen Intern Med.* 2000;15(2):122-128.
  12. Landon BE, Aseltine R Jr, Shaul JA, Miller Y, Auerbach BA, Cleary PD. Evolving dissatisfaction among primary care physicians. *Am J Manag Care.* 2002;8(10):890-901.
  13. Landon BE, Reschovsky JD, Pham HH, Blumenthal D. Leaving medicine: The consequences of physician dissatisfaction. *Med Care.* 2006;44(3):234-242.
  14. Sales AE, Sharp ND, Li YF, et al. Nurse staffing and patient outcomes in Veterans Affairs hospitals. *J Nurs Adm.* 2005;35(10):459-466.
  15. Murray A, Montgomery JE, Chang H, Rogers WH, Inui T, Safran DG. Doctor discontent. A comparison of physician satisfaction in different delivery system settings, 1986 and 1997. *J Gen Intern Med.* 2001;16(7):452-459.
  16. Murray JP. Physician satisfaction with capitation patients in an academic family medicine clinic. *J Fam Pract.* 1988;27(1):108-113.
  17. Nadler ES, Sims S, Tyrance PH Jr, Fairchild DG, Brennan TA, Bates DW. Does a year make a difference? Changes in physician satisfaction and perception in an increasingly capitated environment. *Am J Med.* 1999;107(1):38-44.
  18. Alexander JA, Lichtenstein R, Oh HJ, Ullman E. A causal model of voluntary turnover among nursing personnel in long-term psychiatric settings. *Res Nurs Health.* 1998;21(5):415-427.
  19. Mirvis DM, Graney MJ, Kilpatrick AO. Burnout among leaders of Department of Veterans Affairs medical centers: Contributing factors as determined by a longitudinal study. *J Health Hum Serv Adm.* 1999;21(3):390-412.
  20. Harmon J, Scotti DJ, Behson S, et al. Effects of high-involvement work systems on employee satisfaction and service costs in veterans healthcare. *J Healthc Manag.* 2003;48(6):393-406.
  21. Stevens F, Diederiks J, Philipsen H. Physician satisfaction, professional characteristics and behavior formalization in hospitals. *Soc Sci Med.* 1992;35(3):295-303.
  22. Soo Hoo WE, Ramer L. Development of the physician satisfaction survey instrument. *J Healthc Qual.* 1998;20(3):34-38.
  23. Pathman DE, Williams ES, Konrad TR. Rural physician satisfaction: Its sources and relationship to retention. *J Rural Health.* 1996;12(5):366-377.
  24. Mackesy R. Physician satisfaction with rural hospitals. *Hosp Health Serv Adm.* 1993;38(3):375-386.
  25. Linzer M, Konrad TR, Douglas J, et al. Managed care, time pressure, and physician job satisfaction: Results from the physician worklife study. *J Gen Intern Med.* 2000;15(7):441-450.
  26. Lichtenstein R. Measuring the job satisfaction of physicians in organized settings. *Med Care.* 1984;22(1):56-68.
  27. Konrad TR, Williams ES, Linzer M, et al. Measuring physician job satisfaction in a changing workplace and a challenging environment. SGIM Career Satisfaction Study Group. Society of General Internal Medicine. *Med Care.* 1999;37(11):1174-1182.
  28. Freeborn DK. Satisfaction, commitment, and psychological well-being among HMO physicians. *West J Med.* 2001;174(1):13-18.
  29. Bertram DA, Hershey CO, Opila DA, Quirin O. A measure of physician mental work load in internal medicine ambulatory care clinics. *Med Care.* 1990;28(5):458-467.
  30. Murray M, Tantau C. Redefining open access to primary care. *Manag Care Q.* 1999;7(3):45-55.
  31. Misra-Hebert AD, Kay R, Stoller JK. A review of physician turnover: Rates, causes, and consequences. *Am J Med Qual.* 2004;19(2):56-66.
  32. Landon BE, Reschovsky J, Blumenthal D. Changes in career satisfaction among primary care and specialist physicians, 1997-2001. *JAMA.* 2003;289(4):442-449.
  33. Bundy DG, Randolph GD, Murray M, Anderson J, Margolis PA. Open access in primary care: Results of a North Carolina pilot project. *Pediatrics.* 2005;116(1):82-87.
  34. Conviser R, Murray M, Lau D. Medicaid managed care reimbursement for HIV and its implications for access to care. *Am J Manag Care.* 2000;6(9):990-999.
  35. Kilo CM, Triffletti P, Tantau C, Murray M. Improving access to clinical offices. *J Med Pract Manage.* 2000;16(3):126-132.
  36. Murray M, Berwick DM. Advanced access: Reducing waiting and delays in primary care. *JAMA.* 2003;289(8):1035-1040.
  37. Murray M. Patient care: Access. *BMJ.* 2000;320(7249):1594-1596.
  38. Murray M, Tantau C. Same-day appointments: Exploding the access paradigm. *Fam Pract Manag.* 2000;7(8):45-50.
  39. Keating NL, Landon BE, Ayanian JZ, Borbas C, Guadagnoli E. Practice, clinical management, and financial arrangements of practicing generalists. *J Gen Intern Med.* 2004;19(5 pt 1):410-418.
  40. Reschovsky JD, Hadley J, Landon BE. Effects of compensation methods and physician group structure on physicians' perceived incentives to alter services to patients. *Health Serv Res.* 2006;41(4 pt 1):1200-1220.