Influences on VA Researcher Satisfaction

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Highlights

At the request of the former Deputy Chief of Research and Development and the Director of the Health Services Research and Development Service (HSR&D), the HSR&D Management Decision and Research Center (MDRC) conducted case studies to identify factors associated with high researcher satisfaction in VA. We interviewed investigators and research administrators in six VA Medical Centers with high satisfaction scores on the 2002 Survey of Researchers and in four Medical Centers with low survey satisfaction scores. We asked for their opinions about why researcher satisfaction was especially high – or low – in their facility. From their accounts, we identified six factors that distinguish between high and low satisfaction Medical Centers. In contrast with Medical Centers with low researcher satisfaction, Medical Centers with high satisfaction have:

- **Strong Associate Chiefs of Staff for Research and Development (ACOSs/R&D)** who are effective leaders, proactively advocating for the Research Service and for researchers in their facility, maintaining excellent communication with investigators, encouraging collaboration, and facilitating grant processes;

- **Supportive Research Offices** that emphasize customer service by giving priority to meeting researcher needs and actively striving to make their work lives easier;

- **Committed Medical Center leaders** who give priority to the overall academic mission and publicly support research, working to ensure proper funding, protected time and support from other services in the Medical Center;

- **Good collegial relationships** among researchers that enhance their working environment by fostering collaboration, encouraging sharing of equipment and other resources, and facilitating mentoring of young investigators;

- **Strong university ties** that stimulate intellectual collaboration, facilitate resource sharing and promote recruitment;

- **Active VISN leadership and support** through communication, activities and funding.

Infrastructure support is not a distinguishing feature between Medical Centers with high and low researcher satisfaction. Both groups evidence uneven infrastructure support from the Medical Centers. Most researchers in both groups express the need for more adequate space (although some have new, excellent facilities), and most would like more responsive support from departments such as Information Technology, Human Resources, Maintenance, Housekeeping and Purchasing.

Despite their differing levels of satisfaction, investigators uniformly talked about the value of research at their Medical Centers and its contribution to high quality medical care for veterans.

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Background

Since 1998, the Office of Research and Development (ORD) has conducted an annual Survey of Researchers in VA. In 2002, the survey was administered to all VA investigators who had funded research projects in the last three years. As a follow up to the survey, the MDRC was asked to conduct case studies in selected facilities in order to better understand promising practices associated with higher researcher satisfaction. The primary aim of the project was to offer lessons to Medical Centers and VISNs who were seeking to improve the satisfaction of their researchers. The project was not designed to test a theoretically-based model of satisfaction or to validate the quantitative survey tool, but rather to elicit from researchers' descriptions of promising practices in an exploratory manner and thus to identify inductively those factors that appear to contribute to researcher satisfaction.

Methods. The case studies were conducted in 10 sites. The sites were selected on the basis of their scores on two scales from the 2002 Survey of Researchers: satisfaction with support from the local facility (Local Support) and satisfaction with VISN leadership (VISN Leadership). These two scales were selected because they are most likely to be within the control of Medical Center and VISN leaders, our target audience. We selected six sites with scores significantly higher than the national average on one or both of the two survey scales (high outliers). We also selected four sites with scores significantly lower than the national average on both scales (low outliers) to help us identify factors that are likely to distinguish high-outlier sites rather than appearing in all sites. As shown in Appendix A, the high-outlier scores on Local Support range from 3.41 to 3.80 while the low-outlier scores range from 2.83 to 2.92. On VISN Leadership, the high-outlier scores range from 2.69 to 3.58 while the low-outlier scores range from 1.95 to 2.20. Also shown in Appendix A as background information, the low-outlier sites tend to be significantly lower than the national average on other scales as well as on the two used to select the sites.[1]

In each site, we conducted semi-structured telephone interviews with the ACOS/R&D, the Research Administrative Officer (AO) and four to six principal investigators. The investigators were selected by the Research Office in each site. We requested representation from the four former Research Services: Medical, Health Services, Rehabilitation and Cooperative Studies. We asked the informants why they thought researcher satisfaction was especially high – or low – in their facility and probed for specific examples to illustrate their opinions. We also interviewed the VISN manager responsible for research for the Network at three of the six high-outlier sites about VISN perceptions of and contributions to researcher satisfaction. The interview results were augmented by the comments written in response to an open-ended question about satisfaction in the 2002 Survey for the case study sites.

As context for the qualitative findings, Appendix A presents profiles of the case study sites in three areas: 1) scores on the seven summary scales from the 2002 Survey of Researchers; 2) levels of research activity and Research Office staffing, drawn from data compiled by the HSR&D Health Economics Resource Center (HERC) to inform its analysis on optimizing research administrative offices for ORD; 3) the funded Research Centers and Research and Education Centers in each site, compiled from several public VA sources.

The factors described in this report represent the dominant patterns reported by multiple informants at the interview sites. There are some exceptions and differences in points of view to the findings outlined here, but the findings appear robust.

Organization of the report. The report begins with two brief case examples of a high-outlier and low-outlier site to provide an overview of the differences and similarities among sites. The next six sections look at the factors that distinguish among high and low outliers. Each section summarizes the informant opinions about that factor in high-outlier sites and low-outlier sites, and presents examples of specific activities undertaken that contribute to researcher satisfaction on

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[1] The full reports of the 2002 Survey of Researchers can be found at http://www.colmr.research.med.va.gov/resources/org_surveys/vha_researchers.cfm.

that factor in high-outlier sites. These are followed by sections on infrastructure issues and on informant views on the value of research to medical care in VA. The report ends with a discussion reflecting on all issues in the report.

Case Study Examples

The emphasis in this report is on identifying factors that contribute to high researcher satisfaction. While this approach is useful analytically, it does not provide a picture of how the factors interact in the Research programs and the larger Medical Centers within which they operate. Therefore, we offer brief descriptions of two sites, one high outlier and one low outlier, to paint pictures that can serve as backdrops, or contexts, for considering the individual factors in more detail in the following sections.

High-Outlier Example

The high-outlier example is a Medical Center in the Midwest with a large Research Program, with annual funding of $6.123 million for 60 projects, averaged over FY00-02. It scored significantly higher than the national average on Local Facility Support and higher than the national average on VISN Leadership Support – though not by a significant amount. According to informants, the site has a history of strong Research leadership. The ACOS/R&D, who has been in the position for two years, is viewed as an able and effective leader who has both a clinical practice and active research agenda. The previous ACOS/R&D "had set the course for excellence."

The Research Office has 10.5 FTE, with 9.5 of those funded with dedicated research administration dollars, called 101 dollars. Research Office staff are described as outstanding, dedicated staff who provide comprehensive "anticipatory" support to investigators. They provide administrative/clerical support to investigators, including assistance through the university IRB process that VA uses. In addition, a rigorous new internal merit review process was introduced to assist investigators in submitting successful proposals. The site has a Research and Education Foundation.

According to the ACOS/R&D, the two things that allow the Research Office to succeed are:

- *An excellent relationship with the affiliate—a sharing of resources including space.* The campuses are co-located, with VA and the affiliate having a closely intertwined relationship — both in terms of intellectual and nuts and bolts (e.g., working agreements). VA has a joint Research Day with the affiliate.

- *Supportive Medical Center leadership.* The Director is very supportive of the research mission and the Chief of Staff is a merit-funded researcher. Both appear to be aware of the kind of clinical investigators the Research Service likes to see in VA.

Of note, the high researcher satisfaction in this site does not depend on either a fine physical plant or Veterans Equitable Resource Allocation (VERA) funding. The Research space in this facility, by all accounts, ranges from "inadequate to horrible." The VERA funding does not come directly back to Research.

Opinions about VISN leadership and support are reserved because the VISN has new leadership. In the past, apparent interest in research was "imperceptible."

Low-Outlier Example

The low-outlier example is a Medical Center, also in the Midwest, with a moderate-size Research program, with annual funding of $1.484 million for 18 projects, averaged across FY00-02. It scored significantly lower than the national average on Local Facility Support and on VISN Leadership Support. The site has recently had leadership and staffing changes at all levels, with a new VISN Director, Medical Center Director, acting ACOS/R&D, and Research Office staff. The low satisfaction scores reflect opinions about the past situation.

The former ACOS/R&D, who was in the position for about eight years, retired after 35 years with VA. Past leadership was described as "ineffective" and "without the vision that allows research to grow."

The Research Office has 6.5 FTE, with 4 of those funded with 101 administrative dollars. A weak team in the Research Office has been replaced, but informants report that they are still in need of additional and better quality clerical and data management staff. Clerical and administrative deficits are reportedly exacerbated by the fact that investigators have two IRB processes to contend with, one at the University and one at VA. While the IRB process is considered reasonable, researchers are burdened by the paperwork and would like to see some streamlining.

Informants describe the current Medical Center Director as supportive. Under the previous Director, however, research support had declined. Protected time and space are still issues. Lab space is often off-site, resulting in a fractured research atmosphere. Support from Human Resources and Information Technology is reported to be a problem for some researchers.

There is a strong tie with the affiliate. However, the University may not be utilizing VA researchers in the best way. There is a need for developing a long-term view of partnering to encourage junior investigators.

Researchers have no knowledge of the role of the VISN. There was, however, great dissatisfaction that VERA dollars were not coming back to support research. The acting ACOS/R&D believes that the new VISN Director will make a difference.

Without exception, informants reported that things are changing and moving in the right direction. They expect their satisfaction levels in the next survey to reflect the positive leadership and staff changes.

Factor 1. Strong ACOS/R&D Leadership

High Outliers: The ACOS/R&D is a strong leader who proactively advocates for the Research Service and for the researchers in his/her facility.

By the informants' accounts, the lynchpin of a Research program with satisfied investigators is an effective and proactive ACOS/R&D. Most investigators in the high scoring facilities describe their ACOS/R&D as a strong leader with a long-term view. They describe this leadership in terms of effective advocacy for research and researchers, excellent communication with investigators, encouragement of collaboration and facilitation of grant processes. They maintain that the role of the ACOS/R&D is essential to researcher satisfaction — despite other potentially negative conditions (e.g., poor facilities). Advocacy by the ACOSs/R&D is both general, promoting the value of the research mission, and specific, working to obtain funding, protected time and infrastructure support. The ACOSs/R&D spend a substantial percentage of their time working as ACOS and define an activist role for themselves at the Medical Center, at the VISN level and with the University affiliates in order to promote VA's research mission.

In the informants' words:

> *When your ACOS calls to tell you he thinks your grant will get funded (instead of writing a quick memo) then it's a big deal. You feel like what you're doing is important, and you feel appreciated and empowered. (Investigator)*

> *So long as you know that your leadership supports the research you are engaged in, you are happy. (Investigator)*

> *Academic medicine is in a recession. Leadership support is important, more for attitude than research. The ACOS needs to be proactive to minimize the pain and suffering from regulations. If ORCA tells us to do something, we will, but we will rethink the process to minimize the load on researchers. (ACOS/R&D)*

> *All investigators want is time, space and money—and our job is to keep that flowing. (VISN Academic Affiliate Liaison and former ACOS/R&D)*

Low Outliers: The ACOS/R&D is not a strong leader and advocate.

In contrast with the sites with high researcher satisfaction, the sites with low researcher satisfaction have ACOSs/R&D who are not strong advocates for research and researchers. In the low-outlier sites, the ACOS/R&D in the near past were seen as weak leaders who lacked vision and did not guide the service effectively. Three out of the four low outliers have recently appointed an acting ACOS/R&D: one site in which the ACOS/R&D was over 80 years old when he retired, one site that had an acting ACOS for six years who was being replaced with another acting ACOS/R&D after an investigation, and one site that was just coming off a research recovery program.

Most informants report serious deficiencies in the former ACOS/R&D, or the "revolving door" of acting ACOSs/R&D. These deficiencies range from the ACOSs/R&D stagnating in the job after many years of service, to non-researchers who did not understand the need for, and therefore did not develop, appropriate infrastructures to encourage grant development or to support grant submission and management to individuals who acted mainly in self-interest. Lack of communication underpins many of the complaints; perceptions of unfairness underlie others.

In the words of the informants:

> *Without a strong ACOS/R&D to advocate for research, there is no Medical Center interest in or support of research. (Investigator)*

> *In three years here I have never met the ACOS/R&D. (Investigator)*

Our ACOS/R&D and office are essentially worthless. (Investigator)

We have a micromanaging acting ACOS who exploits his position. (Investigator)

We could benefit from a monthly meeting of all researchers to know what's going on. (Investigator)

Examples of ACOS/R&D leadership activities. At sites with high levels of researcher satisfaction, the ACOS/R&D regularly:

✓ Advocates for research and researchers, both within the Medical Center and at the University and VISN levels (e.g., communicates value to Medical Center leaders and advocates for money, space and time; recognizes researchers' accomplishments);

✓ Routinely communicates with investigators (e.g., surveys investigators about their needs; sends routine emails to researchers with grant, Research Office and other information; includes researchers in committees and decision making; communicates examples of hospital and VISN support to staff and investigators);

✓ Facilitates grant proposal success rate (e.g., establishes streamlined IRB processes through joint IRB with university, rigorous pre-review, mentors others through the process);

✓ Facilitates grant management processes (e.g., provides clerical and administrative support);

✓ Encourages collaboration among investigators (e.g., creates opportunities for informal interaction among researchers; takes an active interest in and finds appropriate mentors for new clinicians and scientists);

✓ Advocates for strong collaborative arrangements with University affiliates (e.g., related to time, space, money, IRB processes);

✓ Takes an active role on search committees for Medical Center Directors and Chiefs of Staff;

✓ Establishes a not-for-profit foundation/corporation (e.g., to maximize use of funds for rapid, flexible hiring, purchasing core equipment, start-up grants, renovations, funds for travel to professional meetings).

Leadership characteristics of the ACOS/R&D. At sites with high levels of researcher satisfaction, the ACOS/R&D is described in the following terms:

✓ Devotes a substantial percentage of his/her time to the role of ACOS/R&D — and cares about this part of the job;

✓ Has a long-term view about building research capacity;

✓ Always takes the side of the researcher;

✓ Is experienced;

✓ Demonstrates good interpersonal and communication skills;

✓ Conducts research (and understands the problems with research);

✓ Is at a stage is his/her career where he/she is ready to foster the careers of others;

✓ Is visible at the Medical Center and VISN levels;

✓ Makes decisions quickly, efficiently and fairly.

Factor 2. Supportive Research Office

High Outliers: The Research Office emphasizes customer service and actively supports researchers.

Medical Centers with high levels of researcher satisfaction have at least one ingredient in common: informants describe a Research Office that demonstrates an ingrained philosophy of customer service; that is, it gives priority to meeting researcher needs and making their work lives easier. Research Office staff see researchers as customers. Informants talk about the leadership characteristics of the ACOS/R&D setting the tone for the Administrative Officer (AO), and the role of the AO setting the tone for the staff and the day-to-day operations of the Research Office and interactions with investigators. Research Offices in facilities with high researcher satisfaction work actively to smooth administrative requirements, provide information and facilitate interaction with other services. Several sites in this group also have non-profit research and education foundations, which strengthen their flexibility in supporting research.

The Research Offices in these sites, according to informants, are key to reducing the perceived burden of the IRB process. While office staff and investigators report that the IRB process is onerous, those in high outliers see it is a necessary process, and one for which researchers receive the hands-on assistance they need to make it workable. Staffing for the IRB workload, whether there is one or multiple IRBs, appears to be the key to researcher satisfaction with the process. One site, for example, after abolishing IRB reciprocity with its University affiliate (it was not audit proof), established its own second IRB and hired an additional staff person to accommodate the increased workload.

Investigators in many labs report that longevity of Research Assistants (RAs) is an important ingredient to their personal success. Therefore, Research Offices that work to make VA the employer of choice for RAs (e.g., allowing flex schedules, involvement in lab meetings, decision making related to policy changes or renovation schemes), according to informants, can make a difference to researchers.

Longevity of Research Office leaders and staff is also generally considered a benefit in high-outlier sites. "Old hands" have historical perspectives and have a depth of experience related to VA rules and regulations, hiring policies, ways to streamline processes, etc. In at least one Research Office, the outstanding characteristics and the role of the ACOS/R&D and the AO (an "old hand") as described by investigators were virtually interchangeable and indistinguishable. One investigator suggested that all AO's in the VA system be trained by his AO. (There may also be a negative aspect to longevity, as described below.)

In the words of the informants:

> *Why are we here? To serve the investigator. (ACOS/R&D)*

> *Our philosophy is one of service — a customer-oriented focus. Our job is to make the researcher successful. Staff policy is to never say no. There can always be a compromise or some portion of the problem that can be helped. (AO)*

> *We have our hands on the submissions until we think the committee will approve them. (AO)*

> *If there is a plant problem in the lab, instead of just preparing a work order, someone goes up to see the situation and follows through until the work has been completed satisfactorily. (AO)*

> *If the Research Office fails to solve your problem, your attitude is so different because you know that he/she went to bat for you. We have survived in this bad physical facility and it is because of the people. You can get by. (Investigator)*

The Research Office might be called a human protection fanatic — but that has protected us over time. The IRB process is not perceived as a major barrier or hold up. (Investigator)

The process has become more and more onerous but the Research Office really tries to keep all of the paperwork and bureaucracy to a minimum. (Investigator)

Low Outliers: The Research Office seems overwhelmed and is not seen as successfully supporting investigators.

In the low-outlier sites, the investigators complain about the burden of paperwork and a lack of high-level administrative and clerical support. In each of these sites, almost every informant speaks extensively about the exponentially increasing burden of administrative and clerical work – and about the lack of support by the Research Office in grant submission, compliance and in grant management. The lack of clerical and administrative support is reflected in the higher level of difficulty that investigators report with IRB processes. Researchers in those sites that use both VA and affiliate IRBs, resulting in double the work for investigators, report being even less satisfied with the process. Lack of in-service training for AOs was cited as a deficiency.

In some instances, the informants note that Research Office staff are friendly and "do the best that they can," given the short staffing they perceive. While Research Office staffing is cited as a problem in terms of being able to provide sufficient clerical and administrative support, informants in one site heap praise on the ACOS/R&D and staff for doing the best they can do under the circumstances.

From the AOs' accounts, the Research Offices generally feel burdened and short-staffed. The ACOS/R&Ds and AOs rarely used the term "customer service" when describing their jobs and the Research Office role and functions.

In low-outlier sites, some informants describe longevity as a double-edged sword: the benefits of perspective and experience are reversed if long-time staff lose interest and energy in their positions. As described by informants, some staff (ACOS, AO and/or others), when they have been there too long and are near retirement, can become too comfortable, stagnate, and lose their effectiveness. In the low-outlier sites, informants report that nothing was done to offset these problems until too late.

In the words of the informants:

As a researcher I spend an awful lot of time doing paperwork and jumping through hoops. I do all the clerical work myself and it is time consuming. Forms are always changing so that it is hard to keep up with. (Investigator)

The local Research Office needs to be better equipped and staffed to help facilitate both the pre-award and post-award stage. (Investigator)

Sometimes the IRB is overloaded. We have to go through two if you have a University grant. And staff doesn't always advise us properly. (Investigator)

AO provides minimum support to researchers in their endeavors to get more funds.(Investigator)

The AO is great — but the people under her are not as helpful and skilled — this frustrates researchers. (Investigator)

We are understaffed—workload has increased but there is not enough staff to keep up — however we have more support now than we have had in previous years. Staff is overwhelmed and need more help. Staff in the Research Office work well together and are dedicated to serving researchers. We need two clerk positions. Teamwork and customer satisfaction are very important. I have an open door policy. I am there to help. (AO)

Examples of Research Office support activities. Examples of the routine activities and actions undertaken by the AO and staff in the Research Office, under the direction of the ACOS/R&D, at sites with high levels of researcher satisfaction include:

✓ Sets up administrative structures to reduce the bureaucratic hassles of doing research and to streamline and implement regulations in ways that don't compromise the timing or design of the investigators' work;

✓ Provides as much clerical and administrative support as possible (e.g., travel paperwork, art layout for scientific poster presentations, grant submission support through pre-review and formal IRB review process, electronic forms, grant management support);

✓ Reads, digests and adapts regulations to local situation for investigators;

✓ Serves as interface between investigators and hospital services;

✓ Hires own support staff (e.g., maintenance technicians, housekeeping, etc.) for the Research Service.

Attributes of Research Office staff. As described repeatedly by informants at the sites with high levels of researcher satisfaction, the Research Office staff are:

✓ Highly motivated and committed (e.g., will come in on weekends if needed; work in undesirable space);

✓ Knowledgeable of VA rules and regulations, hiring policies, funding opportunities, etc.;

✓ Skilled managers: organized and efficient;

✓ Friendly;

✓ Receptive to researchers' ideas, taking constructive criticism, "even if it means a little more work for us;"

✓ Visible at the Medical Center leadership level (front office and service chiefs);

✓ Proud of the Research Program*: "*it's not just a job; it is something I want to see blossom and seen as a quality program."

In some cases, AOs have a science background.

Factor 3. Committed Medical Center Leaders

High Outliers: The Medical Center Director and Chief of Staff are committed to the overall academic mission and actively support research.

Although it may be transparent to the investigator, strong support from Medical Center leaders is important to researcher satisfaction because, according to informants, it affects their funding, protected time and support from other services in the Medical Center. Until now, the Director and Chief of Staff have recruited, hired and held accountable the ACOSs/R&D and, in high-outlier sites, the individuals they have hired have been strong. The Medical Center leadership have been responsible for allocating VERA research dollars, and in most high-outlier sites have used some of these funds for research.

Even as responsibilities move to the Office of Research and Development, Medical Center leaders remain important to researcher satisfaction. In the high-outlier sites, according to informants, supportive facility leaders advocate for research across the Medical Center and with the VISN. The support can be direct by providing, for example, adequate office, lab and clinical research space, or by giving priority to recruiting clinician researchers.

Support can also be indirect, expressed by setting a tone for department heads and staff across the Medical Center. When leaders promote the research mission internally, the hospital staff reportedly treats research as an integral part of the hospital and investigators as valued members of the team. This affects, according to informants, the infrastructure support provided to researchers by Human Resources, Information Technology, Purchasing, Housekeeping, as well as Nursing and other Clinical Services. While because of budget constraints, the Medical Center might still have inadequate resources to meet the needs of research, the attitude of leadership appears to trickle down to all hospital department managers and staff, contributing to a climate that is sympathetic towards researchers.

Medical Center leaders also determine the amount of protected time physician researchers have to conduct research (versus to provide clinical care to patients). Universally the availability of time within a normal workday and workweek to conduct research is a high priority to researchers. And, at some of the outlier sites, investigators expressed their gratitude to service chiefs and colleagues — including non-researchers — who go out of their way to cover clinic for them when needed, even though resources are tight and staffing is short.

In the words of the informants:

> *Our COS is a VA merit-funded researcher who is aware of the kind of clinical investigators we like to see in VA. The Medical Center Director is equally supportive. Even though there is no revenue stream that comes directly back, we get some support services from the hospital and some through the Research Office and their grants. We have inadequate, horrible space. It's dreadful, but there is satisfaction in spite of the facilities. (Investigator)*

> *The culture here is one where there is an expectation that staff participates in research and people are recruited with that as a consideration. The COS is very supportive of the research mission and service leaders are passionate about recruiting investigators to support the research mission. Every director we have had has recognized the importance of protected time for research. Even though we are not a large Research Program we are on the Center Director's radar screen. (ACOS/R&D)*

> *Research is not a side business. (Investigator)*

> *The Medical Center Director is truly supportive, even though we are broke.*
> *The front office respects the investigators' protected time. That's so important. (Investigator)*

*My colleagues who aren't doing research understand that research cuts into my time —
and they are willing to make allowances. (Investigator)*

*Collegial support definitely makes a difference. It affects the day-to-day hassle factor and
the value the institution puts on research. The lack of pressure that VA-funded
investigators feel to spend increasing amounts of time in clinical venues, taking away
from research — the hospital has helped protect us. (Investigator)*

Low Outliers: The Medical Center Director and Chief of Staff do not evidence a strong commitment to research.

Most investigators in low scoring facilities describe lack of Medical Center support of research as
central to low satisfaction. Medical Center leaders at these sites reportedly see research as a
"side business" rather than an integral part of the Center's mission. The high number of acting
ACOSs/R&D in these sites, as described earlier, are cited as examples by informants of the low
priority the Medical Center leadership give to research. Investigators blamed lack of interest and
attention from the Medical Center leadership for allowing these situations to develop and continue
without monitoring. (The emerging reorganization of ACOS/R&D accountability to ORD should
impact this condition.)

When Medical Center leaders do not promote the value of research, according to informants,
middle managers appear to resent research and see it as a frivolous use of money. There is an
attitudinal problem of a "dichotomy between research and patient care" that translates from top
management through middle management to staff in general who do not view providing service to
research as a priority.

In the words of the informants:

*The lack of Medical Center leadership is apparent by the lack of respect by other hospital
support departments (e.g., housekeeping, maintenance, IT, personnel, etc.).
(Investigator)*

*I can't even comment on the Medical Center Director's support for research. The COS
talks about research in a very peripheral way — I don't know of any actions he has taken.
(Investigator)*

*If the Medical Center Director had taken an active role, things could have been different
— he has never shown interest. After the last satisfaction survey results we thought he
would come and take a look. It has been an uphill battle. (Investigator)*

*Colleagues who do not conduct research are not terribly supportive of research.
(Investigator)*

*There is a perception that research is not really part of the Medical Center — it is a
stepchild. We need to educate and integrate research into the family of services in the
Medical Center so that everyone can take pride in research. (AO)*

Examples of Medical Center leadership activities. At sites with high levels of researcher
satisfaction, the Medical Center leaders:

✓ Advocate for research and researchers within the entire Medical Center community and the
   VISN, ensuring respect for the enterprise and support for their work environment;

✓ Use VERA dollars to support research;

✓ As needed and as funds allow, assist in building new space and renovating old space;

✓ Provide for sufficient protected time for research;

✓ Take an active role in research (e.g., leader attends 50-80% of the R&D Committee
   meetings);

✓ Are engaged in and knowledgeable about IRB and other compliance issues (e.g., participates in surveys; provides, loans, or pays for compliance staff members to assist research, etc.);

✓ Provide personal recognition to researchers (e.g., verbally, or with hand-written notes, congratulate researchers on grant successes);

✓ Are evidence-based in the development of hospital policies (e.g., use health services researchers to answer organizational and management questions).

Characteristics of Medical Center leaders. In the high-outlier sites, the Director and Chief of Staff are individuals who:

✓ Care about the education and research mission of VA;

✓ Are verbal about their support of research;

✓ Back up their support with actions related to funding, space and protected time.

In some cases:

✓ Chiefs of Staff and Medical Center Directors have research in their own backgrounds;

✓ Chiefs of Staff are currently conducting research.

Factor 4. Collegial Relationships

High Outliers: A good collegial relationship among researchers promotes a positive working environment.

While in the words of one informant, "collegiality probably isn't the determining factor" in high researcher satisfaction, it definitely contributes to it. Collegiality — that is, the active, informal interaction and exchange of ideas among colleagues — both within VA and with the university affiliate, in itself appears to enhance satisfaction by increasing intellectual stimulation and enjoyment of work. Informants also talk about collegiality enhancing their work environment and productivity by fostering collaboration on research projects; encouraging sharing of equipment and other resources; and facilitating the mentoring of young investigators.

Two conditions foster collegiality in high-outlier sites according to informants. The first is physical proximity. Medical Centers with one or two centrally located research labs and offices and Medical Centers that enjoy geographic co-location with their university affiliates generally report high levels of collegiality among researchers at VA and with the affiliate because, by their accounts, the physical proximity encourages informal interaction.

The second condition is the role of the ACOS/R&D. In high-outlier sites, the ACOSs/R&D encourage collegiality among researchers by creating opportunities for researchers to meet and mix, even at facilities without physical proximity. Building on these informal interactions and relations, the ACOSs/R&D also stimulate collaboration, sharing and mentoring. For example, some ACOSs/R&D, by informant accounts, encourage and structure senior investigator mentoring of new investigators — that is, experienced researchers putting young investigators before themselves in terms of career advancement and promotion, and nurturing them up through the ranks in the system.

In the words of the informants:

> *The collegial atmosphere here is the thing that makes it work. That is something I do enjoy. Due to the interdisciplinary nature of my research I can get hold of the people I need. It is excellent. (Investigator)*

> *It is astounding to me how easy it is for me, a junior faculty, to approach senior faculty. They have time. It is a relaxed atmosphere. People aren't scratching tooth and nail. It is a nurturing environment. What is lacking in infrastructure is more than made up on both sides (VA and university). There is a family-like atmosphere.* (Investigator)

> *This is a two-way street and everyone is willing to chip in if necessary. (Investigator)*

> *We are all required to have an appointment at the university — so practically everyone who works at VA is interested in research. Whenever I approach a researcher to collaborate on a project they always say yes. There is not a lot of fighting. (Investigator)*

> *We have a close relationship with our affiliate and there is collegiality within VA, but the important relationships are those with investigators with similar expertise and interest. They work together and sometimes can share space and equipment. (ACOS/R&D)*

Low Outliers: Collegial relationships can be difficult to develop and maintain in settings that include multiple affiliates and scattered VA research offices and labs.

Collegial relationships that can enhance the work environment and productivity are weak or missing in low-outlier sites. Based in Medical Centers with scattered research labs and offices and Medical Centers that do not enjoy geographic co-location with their university affiliates, the low-outliers generally are unable to spark collegial relationships. Offices and lab space scattered among different floors or in different buildings on and off the Medical Center campus — or in the case of university affiliates located miles away from the Medical Center — can fragment even the best intentions to build collegiality. There is lack of spontaneous discussion in offices and

hallways. Even more formal and scheduled meetings such as journal clubs are not well attended because of the burden of travel time and parking. In addition, some of the low-outliers are small research enterprises that lack the critical mass of investigators with the same or similar interests that contribute to a collegial environment.

The lack of collegiality among researchers also limits the mentoring of young researchers. The inability to easily mix with ones' colleagues can contribute to the lack of mentoring reported in low-outlier sites.

In the words of the informants:

> *Lack of space fractures collegiality, as researchers have to find space located off-site. HSR&D researchers are more of a collective service and physically located together more so than medical researchers. (Investigator)*

> *Collegial support is non-existent here. For me personally there is no one else interested in my area of research (Investigator)*

> *I don't have a whole lot of interaction outside my specialty. Others are nice and supportive when I do interact. There may be some competitiveness especially over space issues. (Investigator)*

> *The researchers are so spread out that they can't interact. (ACOS/R&D)*

> *I would like to learn more from others. (Investigator)*

Examples of activities that encourage collegiality. At sites with high levels of researcher satisfaction, collegiality is encouraged by:

✓ Sharing practical things as technician job descriptions;

✓ Having co-located office and lab space; sharing lab space, equipment, etc.;

✓ Holding conferences to learn about others and their common interests;

✓ ACOS/R&D taking the lead to get groups together to collaborate on proposals;

✓ Having helpful pre-review processes by peers;

✓ Sponsoring research days and mini-research days to keep researchers, affiliates (and hospital staff) in touch with each other's work.

Factor 5. Strong University Ties

High Outliers: Strong ties with university affiliates stimulate intellectual collaboration and facilitate resource sharing.

A strong university tie is an important positive factor associated with researcher satisfaction. The ties include functional relationships built at all levels, from physically-connected buildings to joint faculty appointments, multiple working agreements and shared activities, and often, a consolidated IRB process.

Informants cite a number of advantages to developing and nurturing ties with top-notch university affiliates. A strong relationship:

- Facilitates administrative-level coordination that reduces paperwork, (e.g., joint IRB committees);

- Provides the means for improved physical resources (e.g., shared core facilities and equipment, lab and office space);

- Enables teaching between hospitals;

- Provides an additional pool of human subjects;

- Permits collaboration on research projects (especially important at VA's lacking a critical mass or the right complement of investigators in specialty areas);

- Permits the development of interdisciplinary proposals (e.g., with departments of public health, biostatistics, health management and economics, engineering);

- Attracts high quality, and sometimes nationally known, VA researchers.

Geographic proximity to the affiliate enables relationships not otherwise feasible. All of the high-outlier sites are co-located with their affiliates and report strong ties with the university. Co-location (on the same campus or perhaps across the street) allows for a free flow and exchange of resources. However, as one ACOS/R&D stated: "We can't really take credit for that!" Where feasible the campuses have been connected with skyways, bridges or tunnels — and the leaders of the institutions can take credit.

While the significance of physical proximity cannot be overstated, the attitude of the leaders and the development and nurturing of a good working relationship also appears to be a critical dynamic of this important factor.   Relationships between university leadership and Medical Center leadership (Director, COS, Service Chiefs, ACOS/R&D) are important to strong academic affiliations.

In the words of the informants:

> *It is a closely intertwined relationship, both in terms of the cerebral part and the nuts and bolts. (ACOS/R&D)*

> *The level of affiliation between us is rather extraordinary. I am confident our productivity and success with awards is a function of our affiliation ties. (Investigator)*

> *There is a seamless boundary between us. (Investigator)*

> *Strong ties with the university enable us to attract high quality investigators. (Investigator)*

> *Having a critical mass of people between the VA and university makes for a much more successful environment. (Investigator)*

Low-outlier sites: Relationships with university affiliates are weak or are compromised by other factors.

Reports from low outliers about their university affiliations range from "the affiliation is a real disappointment" to "the ties are very strong — that is not the problem." Of the four low-outlier sites, two report serious problems related to multiple university affiliations, all located at a distance from VA.   In the third site, also not co-located with its affiliate, informants give mixed reviews about the affiliation, with some informants describing the ties as good, but the AACOS/R&D commenting that he isn't sure that the university utilizes the VA research people in the best way they can.   In the fourth site, which is co-located with its affiliate, informants report a very good relationship. They cite dual appointments, shared facilities and equipment, collaboration on projects, and use of the affiliate IRB. However, because of other reported challenges facing this site, especially weak leadership from the former ACOS/R&D and low interest from the previous Medical Center Director, the strong affiliate ties do not appear to be associated with high researcher satisfaction in other areas.

Problems related to university ties at low-outlier sites appear to have three root causes:

- *Lack of geographic proximity.* Without geographic proximity, practical demands of time and convenience override the free flow of exchange between sites (e.g., driving time, parking, amount of formal and informal time spent together).

- *Multiple affiliations (and in some cases without formalized relationships).* Multiple affiliations appear to dilute the ability to develop strong ties and working relationships, resulting in uneven ties. And for those without a formal affiliation, neither institution is invested in a major way.

- *Lack of strong ACOS/R&D and Medical Center leadership.* Without strong VA leadership to develop and nurture the relationships, close ties can only be developed on an individual department or investigator level.

In the words of the informants:

> *We need more collegial support outside VA. (Investigator)*

> *The affiliation is an extreme disappointment. In part this is related to lack of physical proximity. (Investigator)*

> *Skilled investigators at the university don't see VA as an integral part of the medical post. We are a frontier outpost. A good or young researcher doesn't think, 'I should try to develop my Research program at the VA.' (Investigator)*

> *We are an off-site facility. Our VA is not on the campus of either affiliate. So we are fractured in that we have researchers in both locations and it is very hard to reach critical mass. (ACOS/R&D)*

> *Starting over I would not affiliate with more than one university. I might build a better relationship with one university and focus resources there so as not to slice the pie too thin — even to the point of locating a research facility at that institution, even if that meant eliminating one affiliation. I would choose between affiliates based on maximizing the output for both parties — so the affiliation might not be the strongest research institution. I would locate as physically close to the affiliate as I could and work to set the ground rules so that both institutions had a chance to define roles. I would work to improve physical infrastructure and then I would recruit. (ACOS/R&D)*

Examples of VA/affiliate activities.   At high-outlier sites, the links include:

- ✓ Multiple working agreements (MOAs) for IPAs (university staff to VA) and core equipment/facilities sharing and financial support; shared space; joint purchasing or leasing; space rental at $1/year;

✓ Joint appointments; shared responsibilities for clinic;

✓ Direct university support for VA researchers (e.g., secretarial; labs, computer network extended to VA; staff bridged on university payroll for benefits);

✓ Consolidated IRB process;

✓ Joint seminars, conferences, research days, at both sites.

Factor 6. Active VISN Leadership and Support

High Outliers: The VISN provides leadership and financial support for research, albeit often transparently to investigators.

Despite the relatively strong ratings of VISN leadership in the Survey of Researchers in the high-outlier sites, the VISN does not appear to be a strong factor in most investigators' satisfaction. In a few cases, investigators' high ratings of VISN support are based on direct experiences. In two sites where investigators have direct interaction with the VISN –- one in which VISN leaders sponsor programs to engage local investigators directly and the other where Research is co-located with the VISN office — the VISN has a presence. Investigators in these sites provide first-hand, positive examples of VISN leadership, activities and financial support. In another site, two investigators talk about the presence of a Mental Illness Research and Evaluation Center (MIREC) as an influence on their awareness of and positive opinions about the VISN. MIRECs have formal recognition programs, and MIREC directors are often leaders in the VISN and other researchers look to those people to "make things happen through VISN leadership."

Often, however, investigators (as distinct from ACOSs/R&D and AOs) are not clear about the VISN's role in supporting research. Generally their favorable impressions of VISN support are influenced by factors other than direct interaction or knowledge of specific actions:

- In four of the six high-outlier sites, investigators' opinions are shaped by positive reports from the ACOS/R&D about the VISN relationship and specific instances of support to the investigators, (e.g., VERA allocations and special VISN funding, results of VISN-wide research meetings, etc.).

- When local Medical Center support is good, research life is generally good and therefore often investigators assume — without any direct evidence or examples — that VISN support is also good.

- When a supportive local leader (Medical Center Director, COS or ACOS/R&D) moves to the VISN level it is assumed, without any direct evidence, that the VISN is supportive.

Thus, the most specific information about VISN support for research comes from the ACOSs/R&D and the AOs. One of the areas of support they emphasize is financial support, especially VERA funding. Over the years some investigators have become "VERA funding savvy." They understand that the Medical Center Directors and the VISN Directors "make money" because of research done at the Medical Center. The Research Office now uses that knowledge as leverage to negotiate for funds and other support. Further, all parties reportedly recognize that adequate space and protected time help to recruit new clinician researchers.

In the words of the informants:

> *All I know is the reports we get from the ACOS/R&D that we do get support. The VERA dollars are controlled by the VISN. My understanding is that our VISN is very generous to get us these dollars. (Investigator)*

> *The VISN and the Front Office get us protected time. (Investigator)*

> *The VISN Director has changed the culture to remember that our mission includes research and education. (AO)*

> *My satisfaction is due to local staff and the R&D Committee, liaison work done by the director of the MIREC and what they do to help work with the VISN. (Investigator)*

> *There is an FTE squeeze in the Network. We had a frank discussion of its impact on protected time. We can't create more money, but it helps to discuss the problem. (ACOS/R&D)*

High Outliers: From the VISN point of view, more work is needed to improve researcher satisfaction.

In three of the six sites that are high outliers on VISN support, we also talked with the VISN officials responsible for research, who gave us examples of support they provide to facilities that they believe are responsible for the rating of high VISN support. (Appendix B provides details of these examples as well as those provided by local informants.)

It is noteworthy that VISN leaders in some high-outlier sites, regardless of the satisfaction survey scores, are not satisfied with their actual level of involvement with researchers. For example, the staff member responsible for research at one VISN observed that the lowest areas of satisfaction in his VISN were on survey items related to recognition and awards, and described his plan to add such a program.

In another high-outlier site, the VISN leader described several attempts at Network-wide activities for research that were not successful due to "lack of interest" on the part of researchers in the Network (e.g., educational programs, inventories and other kinds of outreach). In his experience, investigators are too focused and too busy to do general outreach unless they or someone else needs specific cooperation — and then they are glad to help.

In yet another high-outlier site (where high scores are attributed by informants to the fact that the current Network Director was previously a supportive COS at the informant site), the VISN leader described how difficult it is for investigators in a geographically large VISN to know what the VISN may or may not do.

Some VISNs report that they are consciously not engaging in certain support activities. For example, funding new researchers through seed grants can be a double-edged sword when a Medical Center is at capacity. Without infrastructure capacity to absorb additional research projects, seed grants don't make sense, space being a major limiting factor for the Research Service at many Medical Centers.

In addition, there are no seed grant programs in one VISN where VERA research dollars are already distributed directly back to research. (Note: This site may still consider some additional support in recognition and award programs.)

According to the VISN informants:

> *The Network Director is a physician so research is a priority to him. All of these things wouldn't have happened without his support. He is involved in many national committees. (VISN liaison)*

> *Supporting the ACOS and his/her office has been our priority up to now. Now we want to get closer to the researcher and we will work on a recognition program for individual researchers and programs. (VISN liaison)*

> *It is a matter of communication. I am not personally in communication with researchers. I have just added the ACOS/R&D to my routine mailgrams with COSs, and I am committed to meeting with the ACOS/R&D and some researchers whenever I am on site at the Medical Center. It's not that [researcher satisfaction] isn't important but I am more interested in patient satisfaction. I like the idea of recognizing/rewarding individual researchers — I think I'll do that. (VISN liaison)*

Low Outliers: The VISN is not seen as providing support for research.

For the investigators and one acting ACOS/R&D, the low opinions of VISN leadership and support in low-outlier sites seem to reflect a lack of VISN presence in their work lives: they have no information about the VISN and its role, and they see no evidence of its support. For some, it appears that the low rating for the VISN is an extension of their low rating of facility support.

For the other informants, the low opinions of VISN support are illustrated with specific examples (e.g., being on VISN committees whose recommendations were ignored; seeing that research is never on the VISN equipment list; the VISN's disinterest in university affiliations). In addition, one ACOS/R&D talked about the trickle-down effect of lack of support from the VISN leadership translating to lack of support for Research from the Medical Center Director.

In the words of the informants:

> *I don't even know who they are or what they are supposed to do. We hear about the money that is supposed to be passed through. We have never seen any VISN money. I understand it is supposed to offset salaries to do research. No one can show us that — there is no evidence of it. I guess it is buried in there somewhere. (Investigator)*

> *I've never heard any information from the VISN at all — unless it came diluted as a directive from the Director or Clinical Director. I was on a VISN committee once that talked about research but nothing came to fruition. (Investigator)*

> *I don't know what a VISN is. (Investigator)*

> *I think that local and VISN-level support goes together. We are low on both. (ACOS/R&D)*

> *Until researchers see the Network do something, such as provide money for a new research facility, there won't be a higher satisfaction level. (ACOS/R&D)*

Examples of VISN overall and leadership support activities. At sites with high levels of researcher satisfaction, there are reports of the following VISN programs and activities:

✓ Provision of financial resources (e.g., VERA allocation, seed, bridge and infrastructure grants, support to establish Centers);

✓ Network-wide ad hoc and permanent planning committees/meetings (e.g., health care advisory, technology advisory, financial planning, academic affiliate, research roundtables with Director, work groups, conference calls, AO meetings);

✓ Leadership involvement (e.g., attends academic affiliations, R&D and other committee meetings; accessible at Medical Centers, attends Research Day; recognizes researchers' accomplishments);

✓ VISN involvement with IRB/compliance issues (e.g., consolidated IRB; network compliance officer; funding for local officers);

✓ Routine communications (e.g., mailgrams, email, through the ACOS/R&D);

✓ VISN-wide education (e.g., regular teleconferences, reports of study results, etc.);

✓ Inventory of researchers and projects (with the university affiliate);

✓ Regional researcher satisfaction surveys (with local HSR&D Center).

Infrastructure Support

Medical Center support of research infrastructure needs is not a distinguishing feature of high-outlier sites.

Even with the commitment and leadership of the Medical Center Director and the advocacy of the ACOS/R&D and Research Office, there may simply be inadequate resources to support research. Infrastructure concerns – such as facility maintenance, support on personnel issues and information systems — are usually evident in both high- and low-outlier sites. Only one site reports that it enjoys spectacular facilities and infrastructure support. The others describe their space as "poor," "needs renovation," "a problem," and one reports that it is "variable." Most informants report that they need better support from administrative services, especially Human Resources (HR) and Information Technology (IT).

Space problems are a priority in most sites. Issues range from not enough to old, un-renovated and thus inadequate lab and office space. Lack of funds for renovation or building construction programs is typically blamed on the VISN and the Medical Center Director. Making do with inadequate space is sometimes ameliorated by working closely with the affiliate to rent space. Others just make do.

Uneven or poor support from IT, HR, Maintenance, and other departments is identified as the other recurring problem. IT and HR are most often criticized. (It does appear, however, that at sites with state-of-the-art electronic clinical records, support from Information Technology is rated more highly.)

Despite the occurrence of infrastructure problems in both groups of sites, the reactions to them differ. In high-outlier sites, lack of support is often blamed on VA's overall financial constraints — not the individual departments or staff. Positive Medical Center leadership, by informant accounts in high-outlier sites, results in sympathetic support staff — even if they are too stretched to provide a high level of support to investigators. The Research Office at high-outlier sites is also credited with trying the best they can to take up the slack and act as a buffer when interaction with other departments is required. Researchers at high-outlier sites also express more understanding that dwindling resources for health care are dwindling nationally — and that the Medical Center's first priority is to fund care of veterans.

In the low-outlier sites, there was no mention of specific activities undertaken by the Medical Center in relation to infrastructure support. There were also minimal comments about the Research Office or Medical Center leadership working to solve these issues. There was only one comment that the Medical Center leadership was not to blame for the lack of adequate space.

Researchers who are based in Research Centers and Research and Education Centers at both high- and low-outlier sites generally report having better space and infrastructure support than other informants because, by their accounts, they are more self-sufficient and operate more independently, often with their own support staff. Some centers, however, feel that they are discriminated against and are not receiving the same level of support as other researchers.

In the words of the informants at high-outlier sites:

> Support is variable. We have a new building so that the investigators there have great space — the rest are in old, functional but not optimal space. IT is well below the level I would like. HR is not bad. We have our own housekeeper for Research. Engineering and building management are pretty good. (ACOS/R&D)

> VA's are facing huge deficits and therefore there is not a lot of money going to research. Clinical, not research is the priority. (ACOS/R&D)

> The hospital infrastructure support is excellent. IT is excellent, but the personnel system in VA is not supportive of a rapidly growing, aggressive research environment. It's an incredible bureaucratic hurdle and it's not conducive to a research environment. (Investigator)

> *We don't have enough space — we've been promised it for 20 years. There is local support but not VISN or CO support. HR support is good. Hospital IT doesn't support us — they don't have the resources to support the hospital. (Investigator)*

> *We have grown enormously so our success has caused strains in the system. (ACOS/R&D)*

In the words of the informants at low-outlier sites:

> *The aging facilities are not adequate to support research. We are scattered and need one modern building. HR is woefully under-funded and that is the favorite thing to complain about. (ACOS/R&D)*

> *We have successful interactions with IRM (protocols, electronic charting, etc). We have some frustrations with accounting issues. Some hospital departments are stronger than others are and some more responsive than others. We have space issues and renovating lab space would enhance the Research Program. (ACOS/R&D)*

> *It's slow. You need to be a squeaky wheel. In particular HR doesn't understand the research cycle and how quickly one must hire. (Investigator)*

Examples of infrastructure support activities. In both groups of sites, informants gave examples of infrastructure support and strategies for obtaining that support:

✓ HR understands that incentives are needed to hire people into Research;

✓ HR shifts RAs around when there is no grant funding so we can keep them in VA, even if not in the same job;

✓ HR assists with advertising for positions, doing paperwork, affirmative action, etc., but plays a minor role in identifying employees (done by Research Office);

✓ One IT staff member can be paged for help;

✓ University workstations are available at VA with university technician support (at no cost to the investigator); a full electronic medical library can be accessed from VA offices;

✓ Facilities maintenance group approaches old facility with "how can we make this work?";

✓ The Research Service runs a parallel network to the hospital (to make up for Medical Center deficiencies);

✓ Research Office pays the Medical Media Department a stipend to support researchers;

✓ Research has a space committee that makes decisions (e.g., based on funding with a set of criteria everyone understands with policy approved by the R&D Committee);

✓ The Research Office conducts infrastructure reviews;

✓ Research has its own housekeeping staff;

✓ ACOS/R&D reminds other departments that Research is part of the Medical Center mission and that they are getting VERA dollars;

✓ The Research Office, with hourly user fees, pays for core research facilities and upkeep directly from research grants;

✓ The Research Office usually facilitates and is the active go-between related to infrastructure issues (IT, HR, space, maintenance, etc.).

The Value of Research to Medical Care

High and low outliers agree on the value of research at their own facility and at VA nationally.

To complement our information gathering on the factors that affect researcher satisfaction, we asked all informants about the ways in which research adds value to the medical care provided to veterans in their Medical Center. High and low outliers agree on the value of research at their own facilities and at VA nationally. And even though the satisfaction level of investigators related to their own work at low-outlier sites is lower, they are as eloquent as investigators at high-outlier sites about the value of VA research — and why they work at VA instead of in the private sector.

The words of a few informants give a sense of the larger set of responses:

> *This is easy: VAMC has used joint appointments in order to bring in clinical investigators — the value is that we get on VA staff the best and brightest of VA and affiliate national and international staff who then provide clinical care to veterans. Without research funds these folks would not likely serve on VA staff. (ACOS/R&D)*

> *Research is important to the patient care mission: Having clinician/researchers who are constantly asking questions helps provide clinicians who are looking at the current literature — and that gets translated to patient care. Having research brings clinical trials to our rural population that wouldn't have access to them. Someone with a rare disease not seen in our area can participate in a national trial. Clinical trials are also important to the nursing personnel. It requires that nurses be current on new practices and stay on their toes. The physician staff is going to expect more of nursing in a research than in a non-research facility. Under current funding procedures it helps the budget. I try not to see research as a money thing, but it is — but it is good to help patient care. (AO)*

> *Researchers think differently: They are more analytic in research and practice. They are more deliberate and rigorous being sure the information is solid before making a decision. Researchers are better clinicians on the whole. (Investigator)*

> *Research is intellectually stimulating and it keeps clinicians at the forefront of their field — and we can bring these therapies back to the vets. For example in my area of Parkinson's I can offer surgeries that are available in only a few hospitals in the U.S. (Investigator)*

> *The Research Program allows VA to bring into the fold much more qualified and motivated physicians. In the absence of the researcher, the pool of clinicians would be very different. (Investigator)*

> *Patients benefit. They get to see the leaders in the field. (Investigator)*

> *Most who go into academic medicine want to do research. We just love to do it. Research enhances the reputation of the institution and that attracts staff who don't even want to do research. It enhances the overall academic environment. It is more invigorating to be at a place where research is done. (Investigator)*

Summary and Discussion

Working from the opinions of investigators and research administrators in our case study sites, we identified six factors that they report contribute to researcher satisfaction. Each of these factors show clear differences between sites with high and low scores on the 2002 Survey of Researchers, with the factors as they appear in the high outliers providing a profile of what a high-satisfaction site looks like. These factors can be clustered under three themes that often appear to work together: leadership, administrative and infrastructure support, and collegiality.

Leadership

In order to do their work, researchers and the research enterprise need money, space, and protected time. Responsible for providing for basic system needs are senior managers — VISN leaders, Medical Center leaders and the Associate Chiefs of Staff for R&D. According to our informants, the leadership – or lack thereof – in supporting Research at any one of these management levels makes a difference in the satisfaction reported by front-line investigators. (It should be noted that researchers are not always aware of the actual locus of leadership support. In most cases where researchers feel supported, they attribute that support to their ACOS/R&D. If the ACOS/R&D publicly reinforces the role of the VISN and/or the Medical Center in supporting research, then researchers are more likely to attribute support beyond the Research Service.)

The most important link in the leadership chain is the ACOS/R&D. High-outlier sites have strong ACOSs/R&D who are described by their investigators as effective leaders who: proactively advocate, within the Medical Center and the VISN, for the Research Service and for researchers; maintain excellent communication with investigators; encourage collaboration; and facilitate grant processes. They also oversee effective Research Offices (as described below). In low-outlier sites (where the ACOSs/R&D all were or are being replaced), informants are critical of the former ACOSs, citing not enough time devoted to that role, not being researchers or conducting research, and/or not putting their ACOS role and researchers above their other interests. According to our informants, able and effective ACOSs/R&D, more than any other leaders, are responsible for the success of the research enterprise and the satisfaction of the researchers.

However, ACOSs/R&D cannot operate in a vacuum. Their leadership efforts are affected by the support for Research shown by the leaders above them, especially in the Medical Center.

The impact on research of support from the Medical Center Director and Chief of Staff is far-reaching. At high-outlier sites, informants report that Medical Center leaders give priority to the overall academic mission and publicly support research. Medical Center leaders have been responsible for the allocation of VERA research dollars for protected time, space and renovations. At some high-outlier sites, Medical Center leaders have the financial resources to ensure adequate lab and office space for researchers. However, even at high-outlier sites with flagrantly inadequate space, researchers report that they know that local leaders back them and are doing everything in their power to garner needed resources. More generally, Medical Center leaders, by their public attitude towards the research mission, can either encourage or discourage collegiality and support for research from other services such as Information Technology, Human Resources, Engineering, and, in some cases, from other clinicians. Without strong Medical Center leadership support, the task of running a successful research enterprise with satisfied researchers may be virtually impossible for the ACOS/R&D.

VISN leadership support also facilitates research, although the link is not as strong as the other leadership links, and the VISN role is unknown to many front-line researchers. Among high-outlier sites, there are a few instances where the VISN interacts directly with the local Research Services and individual investigators (for example, by direct funding of research projects), an interaction that, according to informants, results in high satisfaction with VISN leadership. There are also examples where the VISN does not interact or communicate directly with front-line investigators but the ACOS/R&D effectively provides that link making them aware of VISN support. More generally, if the life of the researcher is good, the researcher often

assumes, without direct evidence, that support is there. Network Directors who have conducted research appear to informants to be more actively supportive of research.

At low-outlier sites, researchers have no information about the VISN, have had negative experiences with VISN efforts, or see no evidence of support from the VISN either in financial assistance or active endorsement of the research mission. Low VISN support and low Medical Center support seem to go together in our case study sites. In some opinions, the lack of support from the VISN directly influences the lack of support from the Medical Center Director. Lacking VISN support, the Medical Center leaders seem less likely to have the time, money or energy to put behind their own support of the research enterprise.

Administrative and infrastructure support

Researchers benefit if they receive support for the administrative needs of their projects from the Research Office and for their infrastructure needs from the Medical Center. There are clear differences between high- and low-outliers in their reports of the administrative support they receive from the Research Office, but not in the infrastructure support they receive from the facility.

Research Offices in high-outlier sites emphasize customer service and actively assist researchers. Research Offices at low-outlier sites seem overwhelmed and not as successful in supporting researchers. Informants in the two groups of sites were very different in their emphases on paperwork and administrative burden, and on Research Office staffing levels.

Paperwork abounds in all VA research enterprises, especially since the advent of increasing regulations for human subject and animal protection as well as safety and security concerns. The 2002 Survey of Researchers indicates that respondents in low- and high-scoring facilities were roughly equally dissatisfied with the amount of paperwork. Yet paperwork and administrative hassles were mentioned far less frequently among respondents in high-outlier sites. The role of the Research Office appears to account for the difference. In the high-outlier sites, the Research Offices have developed processes for streamlining paperwork and assisting investigators through the administrative requirements; for example, by deliberately streamlining the IRB process, rigorous pre-review processes, and by sorting and digesting information that is passed on to investigators.

Informants in the low-outlier facilities talked frequently about things they cannot do because their Research Offices are understaffed. Yet, the Research Office staffing in these facilities, in relation to both their level of funding and number of projects, does not appear to be worse than the staffing of the high-outlier facilities, as shown in Appendix A. With one exception, the low-outlier sites have smaller Research Programs than the high outlier sites and thus have fewer 101 administrative Research Office staff. However, they were more likely to add to their Research Office staff with funds from other sources. Looking at both FTE per funding and FTE per number of projects, by both 101 FTE and all Research Office FTE, the low-outlier sites do not appear to be relatively worse off than the high-outlier sites. It could be that these proportions do not tell the whole story, and that to be effective, a Research Office needs a critical mass of staff that the low-outliers are not meeting. Or it could be that the perceptions of understaffing at low-outlier sites would be eased if they changed their operations and followed some of the strategies used by the high-outlier sites.

As a side note, the existence of Research Centers (Rehabilitation R&D COE; HSR&D COE, TREP and REAP) and Research and Education Centers (MIREC, GRECC) at a Medical Center adds a layer of complexity to the Research Service. All our case study sites have Centers, though the high-outlier sites have more, as shown in Appendix A. The presence of a Center appears to affect researcher satisfaction, though not in a consistent direction.   Informants in a Rehabilitation R&D COE, for example, report that they feel isolated and like a stepchild of the Research Service. In contrast, informants in one small research enterprise reported that the MIREC offers the leadership, critical mass of research effort and enhanced infrastructure that would not otherwise be present or available to them. Informants involved with a REAP comment

positively on the enhanced infrastructure the REAP made available. The role of Centers in the Research Service bears further consideration.

Despite the prevalence of infrastructure problems across sites, there are clear differences between the high and low outliers in researchers' attitudes toward these problems. Poor infrastructure support — lack of support from other departments and inadequate space — head the list of complaints that detract from researcher satisfaction in many sites, both high and low outliers. With one or two exceptions, investigators complain about inadequate support from other departments such as Information Technology, Facilities Maintenance, Housekeeping, Purchasing and Human Resources. In addition, while two sites report reasonable, or even spectacular, lab and office space, most report space that ranges from inadequate to horrible. Deficiencies include dilapidated space, not enough space, and labs and offices scattered throughout the campus. Inadequate space also limits the expansion of Research Programs. Success is said to breed success, but at VA, space may limit expanding a successful enterprise. Lack of physical space is reported at both high- and low-outlier sites. According to informants, VISN support, Medical Center leadership and funding are needed to remedy this problem.

Researchers in high-outlier sites appear more positive in the face of infrastructure deficiencies for two reasons, both linked to strong leadership. First, informants report that the ACOSs/R&D and the Research Offices at high-outlier sites are for the most part able to buffer front-line investigators from the lack of support from other departments, either by taking on the work usually done by, or by acting as an interface so that researchers do not have to interact much with the other departments. Second, according to informants, by creating an atmosphere of support for research, Medical Center leaders establish a tone of collegiality across the Medical Center that includes researchers as part of the team. From this perspective, researchers seem to understand the space and financial constraints facing the Medical Center, seem more forgiving of the lack of resources and of the limitations of the support departments, and appear to deal with daily operational hassles in a positive way. At low-outlier sites that report that they do not enjoy the same kind of backing from leadership, there appears to be less of a reservoir of good will to temper their frustrations and researchers appear to relate only to the poor space and the inhospitable treatment they receive from staff in support departments.

Collegiality

Collegiality among researchers — that is, the active, informal interaction and exchange of ideas among colleagues — also contributes to researcher satisfaction, according to informants. There are clear differences in the amount of collegiality, both within VA and with university affiliates, reported by the high- and low-outlier sites.

At high-outlier sites, good collegial relationships within the Research Service promote a positive working environment. According to informants, collegiality increases intellectual stimulation, fosters collaboration, encourages sharing of equipment and other resources, and facilitates mentoring. The intellectual stimulation and potential for collaboration that results from close ties with ones colleagues in the Research Service — even without formal project collaboration — contributes to a more positive working environment. Collegiality can also foster formal and informal mentoring of young investigators by the ACOS/R&D and other investigators, an important aspect of the work life of young investigators, and ultimately of the success of the Research Service. Collegial relationships that can enhance the work environment are weak or missing in low-outlier sites.

Collegiality within the Research Service is often related to physical space. Researchers in many of the low-outlier sites do not have contiguous space with other researchers. Offices and labs are scattered throughout the building or campus. Therefore informal conversations and even chance meetings in hallways are unlikely. Investigators are more likely to work in isolation. If the ACOS/R&D is not working proactively to overcome these obstacles, it is unlikely that collegiality among researchers can be improved.

In addition, in some instances, informants related collegiality within the Research Service to a critical mass of researchers. In small facilities – often unable to expand research activities

because of the lack of available space — informants talk about how the lack of a critical mass of investigators limits the ability of researchers to find colleagues with whom to collaborate (both partners within their specialty and outside their specialty for multi-disciplinary projects) and limits their mentoring of junior staff. Social aspects of collegiality also reportedly suffer — especially if lab and office space is scattered among different floors or buildings. The exception is one small Research Program (in a low-outlier site), where researchers take advantage of the fact that their small group is very collegial. They describe themselves as a very tight knit group, with both the disadvantage and advantage that they all know each other and are in the same boat, even if there are few colleagues with whom to formally collaborate.

Collegiality is also enhanced by university affiliations, though the university affiliations are much broader than collegiality. The relationship between ties with university affiliates and researcher satisfaction is multi-faceted. Strong university ties stimulate collaboration, facilitate resource sharing and promote recruitment. There are clear differences in the ties with the affiliate universities reported by informants in high- versus low-outlier sites. More collaboration is reported at high-outlier sites, including formal collaboration on research projects, and shared space, equipment, clinical resources and sometimes support staff. In some, but not all of the high outliers, a coordinated IRB process, either through a joint IRB or using the university's IRB, is also a contributing factor to satisfaction due to less paperwork required. Probably the critical factor in the development and maintenance of the strong ties reported is geographic proximity — usually on the same campus, separated only by a tunnel or a bridge. Co-location enables the close intellectual ties and collaboration that can occur formally (e.g., joint conferences, journal clubs, etc.) and informally (e.g., around the proverbial water cooler). Low outliers report weaker ties with affiliates in large part because they are not co-located. Barriers include such practicalities as driving to and parking at the affiliate for meetings. In more than one low outlier, ties are fractured further by having multiple affiliations, none of which is satisfactory.

The priority placed by the Medical Center leadership on developing and maintaining university ties may help or hinder these relationships. The strong affiliate relationships have, in most cases, a long history developed over the years by Medical Center leadership, the ACOS/R&D and more recently the VISN leadership. It is unclear whether it would be possible for strong Medical Center and ACOS/R&D leadership who have inherited long-distance relationships to bridge that gap.

As a summary note, a number of investigators at different sites with high satisfaction scores commented on how much better the life of the researcher is at VA than at the university affiliate. In some cases VA has better clerical support, easier hiring policies and procedures, and a more nurturing environment for researchers. This observation may also contribute to researcher satisfaction — the grass is not always greener.

Appendix A
Comparison of High- and Low-Outlier Sites

Outlier group:	Low outliers				High outliers					
Medical Center:	1	2	3	4	5	6	7	8	9	10
Survey scale scores[2]										
Support from Local Facility	2.90▼	2.83▼	2.83▼	2.92▼	3.41	3.54▲	3.72▲	3.42	3.80▲	3.64▲
VISN Leadership	1.95▼	2.16▼	2.08▼	2.20▼	3.58▲	3.38▲	3.21▲	3.46▲	2.69	2.98
Overall VISN Support	1.91▼	1.90▼	2.03	2.10▼	3.30▲	2.92▲	2.79▲	3.02▲	2.40	2.64
Natl. Research Office Support	2.87	2.58▼	2.54▼	2.81▼	3.65	3.67▲	3.28	3.34	3.24	3.26
ORCA Functions	2.58	2.58	2.82	2.62▼	2.89	3.18▲	3.00	2.91	2.77	2.87
Protected Time for Research	2.89	2.42▼	3.12	2.41▼	2.75	3.50▲	3.08	3.40	3.30	3.71▲
Own Research Work	3.40	3.11▼	3.22▼	3.18▼	3.83	3.78	3.70	3.80	3.76	3.72
Research staff and levels of activity[3]										
101 administrative funds FTE	4	5	4	6	0	7.5	10	7	9.5	9.07
All research office FTE	6.5	9	6.13	7	3	8.25	12	7	10.5	10.07
Mean research dollars (in 1000s) FY00-02	$1,484	$1,645	$2,851	$3,155	$1,111	$3,332	$5,157	$5,579	$6,123	$7341
Dollars (in 1000s)/ 101 FTE	$371	$329	$713	$526	NA	$444	$516	$797	$645	$809
Dollars (in 1000s)/ RO FTE	$228	$183	$465	$451	$370	$404	$430	$797	$584	$729
Mean # research projects FY00-02	18	9	33	30	11	30	73	59	60	80
Projects/ 101 FTE	4.4	1.9	8.25	4.9	NA	4	7.3	8.4	6.4	8.8
Projects/ RO FTE	2.7	1.0	5.4	4.2	3.7	3.6	6.1	8.4	5.7	7.9
Research and Education centers at each site[4]										
RR&D COE						√	√	√		
HSR&D COE						√[5]		√		√
HSR&D REAP			√						√	
HSR&D TREP				√						
MIREC (VISN-level)		√			√		√	√		
GRECC	√			√		√		√		√

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[2]   Source: 2002 Survey of Researchers, Management Decision and Research Center, 2002. The scales used in the site selection are in bold. ▲ indicates a score significantly (p<.05) above the national average; ▼ indicates a score significantly (p<.05) below the national average.

[3]   Source: Health Economics Resource Center survey and data compilation, 2002.

[4]   √ indicates the presence of a center in that site.

[5]   This Center of Excellence is sponsored jointly by HSR&D and RR&D.

Appendix B

Examples of VISN Activities to Support Research

VISN provision of financial resources:

- ✓ A workable VERA allocation method — dollars are redistributed exactly the way they were earned;
- ✓ Start up funds (seed grants) for investigators (e.g., those without peer-review grants before);
- ✓ Financial support/grants for infrastructure (e.g., building research facilities, renovation and remodeling of labs and office space, equipment purchase, Research Office staff hires, etc.);
- ✓ Bridge grants for investigators between projects;
- ✓ Financial support for establishing Centers (E.g., Centers of Excellence, Minority Health Centers, etc.);
- ✓ VISN monies directly transferred to Research programs in financial difficulties;
- ✓ When necessary, supports protected time (e.g., for a Center grant application).

VISN-wide planning committees/meetings:

Ad Hoc

- ✓ Sub-committee, (made up of all ACOSs/R&D), to award new researcher money from VISN budget (carved out of medical care money above and beyond research allocation);
- ✓ Technology Advisory Groups tackle particular issues and then disband (composed of ACOS/R&D, one or two scientists from each Medical Center and University Deans).

Permanent

- ✓ Academic Affiliate Committee meets quarterly to deal with R&D issues at local sites that impact affiliations (e.g., IRB, satisfaction issues, etc.);
- ✓ Health Care Advisory Committee (all COSs in VISN — some are researchers). All VISN decisions go through this group;
- ✓ Quarterly research roundtable meetings with Network Director (face to face twice annually), to discuss compliance, scientific findings, translation to clinical care, researcher satisfaction, portfolio, etc;
- ✓ Network research workgroup and a telephone conference call monthly or every two months to discuss issues such as compliance;
- ✓ AOs Network-wide twice annual meeting to discuss making operations better and how the VISN can support that effort.

Personal involvement of VISN leadership:

Network Director (or VISN Liaison to Research Service):

- ✓ Attends (some) (75%) of Academic Affiliations Advisory Group meetings;
- ✓ Is available for site visits from outside visitors;
- ✓ Attends Research Day;
- ✓ Meets with some individuals being recruited;
- ✓ Is committed to meeting with ACOS/R&D and some investigators when on site at Medical Centers;

- ✓ Recognizes researchers' publications and other accomplishments (e.g., notes, phone calls, etc.);

- ✓ Advances certain high-level issues to CO (VISN has more clout than one Medical Center Director or ACOS/R&D does);

- ✓ Doesn't micromanage.

VISN involvement with IRB/compliance issues:

- ✓ Network-wide consolidated IRB in development to encourage multi-site studies (in at least one instance this effort is driven by the VISN);

- ✓ Assists with compliance issues with a VISN-wide compliance officer (as a resource to RO administrative staff and for national representation), funding for local compliance officers, etc.;

- ✓ Assists investigators through human subjects Research programs.

Routine VISN-related communications:

- ✓ Information is regularly forwarded to the Research Office for action;

- ✓ VISN Director mailgrams ACOSs/R&D and COSs;

- ✓ VISN charges ACOSs/R&D to communicate with researchers about VISN-level activities;

- ✓ ACOS/R&D communicates comments/policy, etc., from the VISN to investigators and research staff by email.

VISN-wide education:

- ✓ VISN–wide educational programs, in some instances sponsored by the COE;

- ✓ Educational programs related to study results to all Chiefs of Staff, Nurse Executives, associate directors, etc. The information is then taken back to the R&D committee;

- ✓ Regular teleconferenced programs.

Other VISN activities:

- ✓ Inventory of researchers and projects undertaken in coordination with the University;

- ✓ Regional researcher satisfaction surveys in conjunction with HSR&D.