Findings and Recommendations of

An Organizational Assessment of
The National Institutes of Health
Office of Extramural Research

Prepared for the Deputy Director for
Extramural Research Office of Extramural
Research National Institutes of Health
Department of Health and Human Services

March 2005

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1. Executive Summary

The Deputy Director for Extramural Research (DDER), NIH conducted an organizational assessment of the Office of Extramural Research (OER) in the fall of 2004 to evaluate its strengths and opportunities for improvement. The intent was to identify specific actions OER could take to strengthen its mission, organizational structure, staffing, leadership and management processes, service delivery, job designs, and relationships with stakeholders.

Using the Malcolm Baldrige Criteria for Performance Excellence as the basis of its assessment model, Research and Organization Management (ROM) conducted an evaluation that consisted of (1) empirical assessments involving organizational performance at the division level and individual job suitability, (2) staff interviews, (3) process reviews, (4) customer and stakeholder interviews, (5) meetings with OER staff to educate them in assessment processes and how this knowledge could help improve their individual and collective effectiveness, and (6) discussions of the implications of the completed assessments. Interviews included more than 70 external stakeholders and 50 OER staff. Strengths and opportunities for improvement were identified by Baldrige category (leadership, strategic planning, customer focus, information and analysis, human resources, and process management), and for each of seven divisions within OER.

Strengths identified include a strong ethical culture, committed to public service and to cooperative work, recognized institutional knowledge, trust in management, customer service, use of technology, division-level mission clarity, and leadership competence.

Opportunities for Improvement identified include the clarity of the overall OER mission and vision, stakeholder communication and relationships, management capabilities, organizational structure and resource allocation among the components of OER, planning, performance measurement and, to a lesser extent, team building, roles and responsibilities, and recruitment.

Recommendations include seven strategies to preserve strengths and capture opportunities for improvement. These represent the most important issues to address in the near term and all recommendations provide implementation options depending on available resources:

1. Develop and Communicate OER Strategy
2. Formally Manage Outreach and Communication
3. Enhance Job Design
4. Evaluate Performance
5. Separate Operations from Policy
6. Align Grants Information and Analysis
7. Strengthen OER OD Structure

OER’s ability to improve its operations by implementing these recommendations is fundamentally a measure of leadership. It is incumbent on the DDER to commit the resources and organizational support needed to successfully and fully implement each recommendation. Effective leadership establishes clear vision, shared goals, and high expectations. It lays the foundation for an integrated plan of goal-directed activities to achieve specified results. As recommended in this report, managing based on factual performance and mission achievement measures requires developing an explicit strategy to focus on visible, measurable, and clearly communicated results.
2. Assessment Objectives and Scope

2.1. Organizational Situation

OER is faced with an expanding scope of services (e.g., Loan Repayment Program or LRP), changes in organization and managerial responsibilities (e.g., the Division of Extramural Support Activities or DEAS, eRA), a changed context for NIH management and operations (e.g., Steering Committee, ARAC, Roadmap), and many internal challenges such as the large number of acting directors.

2.2. Assessment Objectives and Scope

The DDER conducted an independent and objective organizational assessment in the fall of 2004 to identify specific actions OER should take to strengthen its mission, organizational structure, staffing, leadership and management processes, service delivery, job designs, and its relationship with stakeholders. The assessment objective was to generate options to improve its managerial and operational effectiveness. The scope of the assessment was to focus on the leadership, management, and administrative functions of the Office of the Director (OD).

3. Assessment Findings

3.1. General Findings

ROM conducted two empirical assessments for each OER division. The first, called Virtual CEO (VCEO), is a business best practices evaluation of strategy, operations, and culture, based on 35 elements that included finance, resource allocation, required technology, customer service, recruitment, values credibility, and the ability to undergo organizational change. A second empirical assessment, called the Harrison Assessment, measures personality, interests, task preferences, interpersonal preferences and work environment preferences compared to normalized profiles for various positions.

3.2. By OER Division

3.2.1. Overview

The VCEO and Harrison Assessments and a prior (1991) management study of OER each contribute to the context for the interviews and process analyses. Findings are summarized below, with details by OER division or Baldrige category described later in this report.

The VCEO assessment compared OER performance in these areas to a national database of more than 2000 public and private organizations. OER ranked at the 30th percentile on average, ranging between the 10th and 50th percentile on most measures, strongly indicating a need to improve the best practices in many of its activities.

Of the 28 OER staff evaluated by the Harrison Assessment against a middle management profile, 16 were found to have a high probability of success, 12 to have probable success, and none to be unlikely to succeed. This distribution of individual suitability for management positions is above
average for public and private organizations. Due to conditions of confidentiality, ROM briefed individuals on their own assessment and their position for assessed criteria against the rest of their office (without identification of other individuals). This allowed staff to see how well their personal, work, or leadership capabilities aligned with those of their colleagues, to discuss the implications of these styles and to develop strategies to mitigate any characteristics that might compromise their effectiveness. No individual results are reported here.

One significant opportunity for improvement revealed by the Harrison Assessments is a high commitment among OER leadership to help others at the expense of personal assertiveness. Helpfulness is appropriate and commendable in a public service organization such as OER, but a lack of personal assertiveness among OER leadership may constrain development of a focused mission, an explicit strategy, and purposeful resource allocation to achieve that mission. This characteristic now permits OER to respond to each request for service with more emphasis on customer service than on overall mission achievement. This paradoxical conflict between two seemingly positive traits, however, leads to overwork and episodic loss of focus, occasionally evident in OER activities and confirmed by external stakeholders. The most effective mitigation strategies, discussed below, are changes in organization, staffing, and explicit mission definition.

3.2.2. Office of the Director for Extramural Research (OD)

Strengths
- The Harrison Assessment shows strong suitability of both the DDER and direct reports for middle management positions, which indicates a high probability of success.
- The OER leadership team (DDER and direct reports) show balanced versatility in management functions such as communication, optimism, motivation, delegation, innovation, organization and strategic acumen.
- The DDER is widely praised for her inclusive, collaborative, and contemplative approach.

Opportunities for Improvement
- The Harrison Assessment indicates some weaknesses in team suitability for management, including stress management capability, enforcing behavior, and personal assertiveness
- Many OER employees say they do not have enough contact with the DDER to understand OER direction and priorities.
- Key advisory functions are missing for human subjects research, operations and management, electronic grants administration, and evaluation.
- Effective management of science and operations in a single office is difficult because of the different required skill sets and perspectives.
- Most external stakeholders (outside of NIH) do not have a clear understanding of the overall OER mission or strategy. External stakeholders do not see a coherent “story” that relates OER success to their own success.
- Many external stakeholders report an erosion of OER leadership in the research community, and they want to see more of the DDER and for her to clarify her positions on policy issues.
- Some NIH stakeholders feel the DDER focuses on policy at expense of operations (notably eRA and DEAS) but often could provide no specific evidence to support this position other than the concern over the performance of eRA and DEAS.
3.2.3. Office of Policy for Extramural Research Administration (OPERA)

**Strengths**
- Staff are highly regarded by stakeholders for knowledge, commitment, and service
- Staff responsibilities are well defined
- Managers and employees feel trust in their managers is critical to their success and respect the integrity and leadership of their current managers
- Managers and staff are confident they know who their customers and what they need

**Opportunities for Improvement**
- Employees do not have a good sense of where OPERA is going in the future and what staff, authorities or processes will be needed to maintain its effectiveness
- Managers feel strongly that lack of planning hinders their ability to make deliberate, well-considered decision about aligning staff and budgets to where they are most needed
- Constraints on recruiting for needed positions hinders the effectiveness of OPERA

3.2.4. Office of Extramural Programs (OEP)

**Strengths**
- Employees feel managers are honest and have the confidence of employees
- The institutional knowledge of OEP staff was frequently cited as a major strength
- The SBIR program was frequently singled out as an effective function of OEP

**Opportunities for Improvement**
- The overall OEP mission is unclear both to external stakeholders and to staff
- Managers and employees disagree over the appropriateness of delegation of responsibilities
- The inclusion of service/operations functions (i.e., LRP, payback) in OEP director responsibility requires a broad skill set in both science and management that may detract from the attractiveness of the position, making it hard to find interested/qualified candidates
- Managers feel strongly that OEP organizational structure is influenced by politics and that OER management has (in the past) not considered how that structure affects its ability to develop, communicate, and monitor compliance with policy
- Both managers and employees are concerned about the lack of results orientation of the performance appraisal process
- There is concern about how the Loan Repayment Program will be managed and coordinated with other similar service functions
- Stakeholders have complaints or concerns about specific OEP functions or individuals, although most are unwilling or unable to suggest whether the solution lies with the individual or the improved management of the function
- There are concerns that training policy is not integrated in a meaningful way with overall OER policy or evaluated in a rigorous way other than to track participation
- Managers and employees disagree on the ability of OEP to implement effective change; managers think this ability is critical but employees feel that the objectives or processes of past changes were not explained.
3.2.5. Office of Laboratory Animal Welfare (OLAW)

**Strengths**
- Overall VCEO performance scores for OLAW equal commercial best practices
- Staff feel that their mission is clear and provides appropriate direction for decision making
- Staff highly respect managers and have confidence in their ability to lead the organization
- Managers and employees feel strongly that they know who their customers are and what they need from OLAW
- External stakeholders uniformly view OLAW staff as helpful and knowledgeable
- There exists a strong internal culture of collaboration and results-orientation
- Internal administrative processes and stakeholder communication are managed efficiently
- The composite Harrison Assessment for the three senior OLAW managers shows balanced versatility of middle management skills.

**Opportunities for Improvement**
- Staffing shortages constrain expansion of education activities and site visit effectiveness
- Staff feel that a clearer statement of why OLAW does what it does and how its activities relate to the overall OER mission would help employees, especially new staff, better understand their respective roles and responsibilities
- It is not clear the extent to which the low level of staffing contributes to an increased risk of non-compliance of grantees

3.2.6. Office of Scientific Affairs (OSA)

**Strengths**
- OSA is seen as fulfilling an important need for responding to increasing input from animal rights advocates

**Opportunities for Improvement**
- Isolation from the rest of OER, specifically animal welfare and communication and outreach functions, may reduce efficiency and coordination, thus effectiveness. OSA should be overseen by the communication and evaluation function recommended for the Office of the Director of OER and not report directly to the DDER.

3.2.7. Office of Reports and Analysis (ORA)

**Strengths**
- Staff feel that the ORA mission is clear and provides a solid basis for decision making
- Managers rate ORA internal culture exceptionally strong, scoring it above 5.0, considered best practice in commercial organizations
- Managers and staff agree that roles and responsibilities and policies and procedures are clearly defined and managed
- Staff feel that management’s trustworthiness, competence, and honesty are among the most important contributors to ORA success
- Staff feel that ORA customer service exceeds customer expectations
Opportunities for Improvement

- Managers feel that organization structure is critical to ORA success but that political considerations have too much influence on organizational decisions.
- Managers and employees agree that building teams, coaching, and recruitment are significant ORA weaknesses.
- Employees feel that the reward systems are important but underperforming.

3.2.8. Electronic Research Administration (eRA)

Strengths

- Managers and employees feel strongly that their mission and vision are clear and this is essential to their success.
- Contractors and federal employees think having the required technologies is important to their success in their jobs and feel that they have these technologies.

Opportunities for Improvement

- Federal employees showed little discrimination of performance (scores ranged very little between the highest and lowest performing function), indicating they are not focused on evaluating operational issues.
- The organization structure is inappropriate for an IT entity like eRA, with too many separate functions and lines of management. ROM recommends consolidation to three main lines, as described in Recommendation 6.
- The numerous executive and advisory groups and committees could be consolidated into a unified IT Steering Committee to focus strategy and better coordinate management’s direction and responsibility.
- Contractors and federal employees disagree widely on how well eRA provides customer service. Employees rate customer service moderately high while contractors rate it very low.
- Contractors feel that the ability of eRA to change is important but relatively low performing; Federal employees consider the ability to change relatively unimportant.
- Managers feel their inability to recruit needed skills in a timely manner significantly compromises their ability to achieve their mission or objectives.
- Performance-based contracts for all IT contractors should be developed and monitored.
- Project costs and budget variances should be monitored and analyzed at least monthly. Tactical plans should include contingencies for possible, but not inevitable, unanticipated project delays.

3.2.9. Office of Administrative Operations (OAO)

OAO includes the Division of Administrative Services (DAS), the Division of Quality Assurance (DQA), and the Division of Extramural Activities Support (DEAS), with the latter two organizations becoming operational on October 3, 2004. Evaluating DEAS and DQA while they were hiring rapidly and setting up procedures would render any evaluation inconclusive so OER asked ROM to defer its assessment of OAO.

OER has asked ROM to conduct a VCEO assessment to identify criticality and performance for strategic, operational, and cultural aspects of each IC’s DEAS staff. This will allow Hub Managers and Supervisors to identify which units need what kinds of support to improve.
performance and any common problems or strengths. It also allows these units to define their performance in organizational metrics in addition to customer service metrics.

3.3. By Stakeholder Comments

ROM interviewed approximately 70 individuals outside of OER. These interviews included perspectives from IC directors, grants management officers, NIH working group members, sponsored program office heads of universities of various sizes, research deans, professional society representatives, and former NIH senior staff. Interviews were scheduled for 30 minutes, although many exceeded one hour. All interviewees were eager to talk at length about their experience with NIH, their understanding of strengths and weaknesses of individuals and offices, and suggestions for improvement. Predominant comments are as follows:

**Strengths**
- OER staff are committed and knowledgeable
- Staff have extremely valuable institutional knowledge
- OER staff work hard to meet needs of customers
- DDER is consultative and willing to listen

**Opportunities for Improvement**
- The OER mission is unclear, with stakeholders suggesting more than 30-40 variations of possible OER missions, indicating that OER does not have powerful or consistent “story” to tell in the research community
- Leadership issues dominate stakeholder suggestions for improvement
- It is unclear who to go to in OER unless you already know someone
- The OER website is effective if you already know your way around, otherwise it is hard to find things with the current search engine (i.e., content is good, navigation is bad)
- Adjectives used to describe OER fall into two camps: (a) dedicated, committed, resourceful, cooperative, helpful, and (b) reactive, stressed, short staffed, unresponsive, unhelpful, paranoid, not listening, distant, and defensive. This indicates that OER’s customers vary widely in both their expectations as well as their current impression of OER performance.
- ROM also asked interviewees to give a letter grades for OER. Responses varied widely but generally were A/B for effort and C/D for effectiveness. Generally, the fewer points of contact with OER (e.g., only had one grants policy presentation), the higher the grade. As the number of interactions with OER and the number of different of types of interactions increased, customer satisfaction with OER service decreased.

3.4. By Assessment Model (Baldrige Criteria) Category

ROM also described OER strengths and Opportunities for Improvement by Baldrige category (Leadership, Strategic Planning, Customer and Stakeholder Focus, Information and Analysis, Human Resource Focus, Process Management, and Organizational Results). However, due to space constraints, these are not summarized in this report.
4. Recommendations

4.1. Overview

ROM recommends specific improvement actions based not only on the findings of strengths and opportunities for improvement summarized above but also on the ability to execute these recommendations in the near term with current staff. Several strategies or actions are theoretically possible but unlikely to overcome existing constraints of time, staffing, or managerial expertise.

Recommendations are presented in two categories. First are strategies whose objective is to preserve OER’s significant strengths. These capabilities and processes should be protected from inadvertent harm caused by implementing strategies intended to improve operational or managerial capabilities. Second are strategies whose objective is to capture an opportunity to improve customer service, enhance staff capabilities, reduce risk, or reduce complexity. These include recommendations to change staffing, organizational structure, management processes, culture, or service functions.

4.2. Recommendations to Preserve OER Strengths

*Protect DDER’s limited time* to engage stakeholders in collaborative discussions by defining the most important activities in which she must be personally and deeply involved. Create a distributed leadership team of OER and, as needed, IC staff, to contribute to the overall OER leadership and management responsibilities.

*Preserve institutional knowledge* by supporting as much cooperative work activity as possible, beyond just cross training, to share tacit knowledge and subtleties of each other’s jobs and institutional knowledge and tacit knowledge.

*Clarify missions* of each division. Although already considered by some offices to be clear and useful for guidance, each mission needs to go beyond a functional statement of activities to serve as a basis for overall OER strategy development.

*Celebrate the strong values* within each division and across OER. Recognize and respect staff for their commitment to go beyond their job responsibilities and scheduled work hours.

*Maintain availability of technology* needed to compute and communicate with each other and customers, including personal communication devices and software applications.

*Act on assessment findings and recommendations* and commit to develop the managerial competencies needed to implement performance improvements.

*Maintain personal access to staff* by stakeholders as much as time allows for those staff in highest demand. Many stakeholders mentioned the same few people they always go to when they need anything from OER, because those people will pass along the request to the right OER or NIH staff. Resist establishing a communication buffer between in-demand staff and stakeholders except to protect the time of those staff and only if alternative customer access points are created.
4.3. Recommendations to Capture Improvement Opportunities

Successful knowledge teams (of which is OER one) share strengths in four features (1) a structure that reinforces its functions, (2) leadership that adheres to a clear vision and manages by a strategy, (3) shared values among staff, including commitment to mission and interpersonal work attitudes, and (4) incentivized goals, where tangible and psychic rewards reinforce mission and values. Although somewhat serendipitous, the seven recommendations summarized below involve one or more of each of these features:

1. Develop and Communicate OER Strategy
2. Formally Manage Outreach and Communication
3. Enhance Job Design
4. Evaluate Performance
5. Separate Operations from Policy
6. Align Grants Information and Analysis
7. Strengthen OER OD Structure

The descriptions provided below are explained in more detail in a separate report to the DDER, including context for the recommendations, reasons for specific recommendations, and guidance in how to implement recommendations. Also excluded here are the relationships between the recommendations and how each leverages others.

4.3.1. Develop and Communicate OER Strategy (Recommendation 1)

First, construct a vision for OER and each of its components. This can be done top-down or bottom-up but should be completed soon (i.e., within a month or two) and with as much staff participation as feasible. Describe what each unit will be and how the research community will be different as a result of OER’s unique contribution.

Second, develop a strategy that guides allocation of budgets, staff, and management attention. Most public service organizations like OER manage by mission rather than strategy; anything that aligns with mission is appropriate to take on. The result is that stakeholders are unclear about priorities, staff are overworked, and management with not enough time to attend fully to any one issue. Strategy should be developed by division directors among their own staff and brought to the DDER for integration.

Third, communicate this strategy (and vision) to OER constituents, most of whom will be affected by its use. Resources, staff, and management time will be allotted in line with the strategy and stakeholders should understand why these decisions are being made.

4.3.2. Formally Manage Outreach and Communication (Recommendation 2)

Coordinate external communication and evaluation out of the office of the DDER to assure continuity of message and consistency with mission and strategy. Stakeholders want to know where OER is going and how it will get there and need a consistent message. Convene a group of research deans or similar individuals to advise the DDER, recommended by several stakeholders, including those who would not be part of the recommended advisory body. Several questioned
where the DDER gets advice other than episodic and issue related contact with societies and other stakeholder groups. They recommended that the DDER meet with a standing advisory body of research deans 2-3 times per year to discuss emerging trends in research, grant making, or biomedical research for which OER needed to be aware.

4.3.3. Enhance Job Design (Recommendation 3)

Based on OER strategy, define what resources and people are needed to carry out discrete parts of the strategy. This includes staffing levels, communication modes, information resources, stakeholder relationships, staff competencies, and the risks inherent in providing resources of various levels. Other components include:

- Develop appropriate management data to support effective staffing decisions.
- Define what types of relationships with stakeholders are needed to carry out strategy priorities and what mechanisms minimize demands on staff time.
- Designate one individual to serve as a communications coordinator across all OER divisions.
- Investigate opportunities for bringing people from ICs, societies or institutions to support OER staff.
- Reduce the cognitive overload of email through technology and protocols.

4.3.4. Evaluate Performance (Recommendation 4)

Commit to measure and show performance in line with OER mission and strategy. Define factors needed to meet OER objectives (e.g., headcounts by function, levels of staff training, management experience or competencies, accessibility of data, strength of relationships with key stakeholders). Establish a simple performance measurement and reporting system and encourage that division directors attend to a vital few metrics, proxies for overall performance. Coordinate development of these measures with strategy development (Recommendation 1).

Establish a function within the OD office, to be managed by staff reporting to the principal Deputy to the OER Deputy Director, to manage formal and informal evaluations of OER as well as communicating results to internal and external stakeholders (Recommendation 2). Credible communication of performance is especially important for OERRM (formerly eRA) and DEAS.

4.3.5. Separate Operations from Policy (Recommendation 5)

Place DEAS, Loan Repayment Program, and Payback under a separate manager who reports to the Director of OAO (see Recommendation 7 for restructuring of the OER OD office). DEAS management changes are already underway with the appointment of a Director of OAO in February 2005. All three of these functions are fundamentally transaction based and would benefit from coordinated oversight.

4.3.6. Align Grants Information and Analysis (Recommendation 6)

The DDER has already changed the organization structure to combine the Office of Reports and Analysis and eRA in to the Office of Electronic Research and Reports Management (OERRM) and named a new Director. Additional critical recommended staff additions are a senior project manager with recent experience in large-scale system restructuring and a Chief Technology
Officer. ROM reviewed the Gartner IV&V report and generally agrees with its findings and recommendations. However, we had some specific business-related comments on the implementation of these recommendations and provided separate comments directly to Izja Lederhendler. OERRM can take four actions.

- Let science rather than technology drive electronic grant administration organization structure and service capabilities.
- Clarify the electronic grants administration mission path, identity, and delivery schedule. In the absence of explicit and consistent information about where eRA is on its schedule or in its ability to deliver expected grants administration services, stakeholders define the criteria for judging whether eRA is delivering value for the costs incurred. One mission suggestion made is “Business in the Service of Knowledge, Knowledge in the Service of Health.”
- Communicate a delivery schedule of specific capabilities to stakeholders. As part of the strategic plan (Recommendation 1), put in place metrics to show tangible progress as a function of available resources.
- Organize OERRM in two lines with separate managers for Reports and Analysis and Electronic Grants Administration, and streamline the current eRA structure to three main organizational units reporting to a Chief Technology Officer:

  Office of Electronic Research and Reports Management (OERRM)
  Office of Strategic Planning (staff to OERRM Director) Office of Reports Management (formerly ORA)
  Division of Statistics and Analysis
  Division of Quality Assurance
  Division of Research Documentation
  Office of Electronic Research Management/Chief Technology Officer
  Division of Design and Development* Division of Systems Management* Division of Project Management and Control*

*Recommended subcomponents of these offices provided separately to OERRM management

4.3.7. Strengthen OER OD Structure (Recommendation 7)

Commit to a model of distributed leadership whereby, in response to an explicit OER strategy (Recommendation 1), the DDER assigns senior staff to one or more areas of responsibility. Create staff positions for three Senior Advisors, each of whom has secondary responsibility for tracking and serving as principal advisor to a division director:

- Senior Advisor for Clinical and Human Subjects Research, most likely an MD, with responsibility to track emerging research needs and coordinate with DHHS/OHRP
- Senior Advisor for Communications and Evaluation, with responsibility for overseeing stakeholder relations and outreach, communications (e.g., OER website and newsletter), functional committee support, federal management mandate reporting (e.g., GPRA, PART, HHS scorecard), and controlled correspondence.
- Senior Advisor for Research Policy and Administration, preferably staffed by an individual with experience in grants policy, with responsibility for managing special projects and coordinating with OPERA, OEP and OERRM.
The DDER has already created a Deputy to the Director of OER position, to whom we recommend the Division of Administrative Services report. The Deputy would logically oversee ethics and, if appropriate, track and advise the DDER on certain IT functions within OERRM, and serve in a role equivalent to a Chief Operating Officer. The recommended structure of the Office of the Director for Extramural Research is as follows:

Director of the Office of Extramural Research
Principal Deputy to the DDER
Division of Administrative Services (DAS)
Senior Advisor for Clinical and Human Subjects Research
Senior Advisor for Communications and Evaluation
Senior Advisor for Research Policy and Administration
Office of Extramural Programs (OEP)
Office of Policy for Extramural Research Administration (OPERA)
Office of Laboratory Animal Welfare (OLAW)
Office of Electronic Research and Reports Management (OERRM)
Office of Administrative Operations (OAO) (oversee DEAS, LRP, Payback)

Integrate OSA into the Communications and Evaluation function. Because differentiation is easier than integration, many organizations are inclined to split off functions. OSA has an important role in communication and responding to FOIA but should not be a direct report to the DDER as it currently is.

4.4. Recommendations on Execution of Improvements

Execution is harder than strategy. Assessment findings and recommendations are only the beginning of the change effort. For these recommendations to improve OER sustainably, the senior leadership must assure that four conditions are met:

1. Articulate the nature of the changes and what they are intended to accomplish, and answer questions about why the changes are needed and how they are to be implemented.
2. Deliberately alter, as needed, the incentive systems to align with the new structure, processes, or expected behaviors. Keeping the same incentives in place and expecting behaviors to change will constrain any intended organizational change.
3. Validate the authenticity of new behaviors by making sure that respected staff, at all levels, are recognized for their new behaviors aligned with the changed organization and show how their behaviors are tied to mission achievement.
4. Provide the resources needed to fulfill new roles and responsibilities, including technology, staffing, communication, work design, and job skills.

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