Faculty Performance Evaluation in Accredited U.S. Public Health Graduate Schools and Programs: A National Study
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Abstract

Purpose
To provide baseline data on evaluation of faculty performance in U.S. schools and programs of public health.

Method
The authors administered an anonymous Internet-based questionnaire using PHP Surveyor. The invited sample consisted of individuals listed in the Council on Education for Public Health (CEPH) Directory of Accredited Schools and Programs of Public Health. The authors explored performance measures in teaching, research, and service, and assessed how faculty performance measures are used.

Results
A total of 64 individuals (60.4%) responded to the survey, with 26 (40.6%) reporting accreditation/reaccreditation by CEPH within the preceding 24 months. Although all schools and programs employ faculty performance evaluations, a significant difference exists between schools and programs in the use of results for merit pay increases and mentoring purposes. Thirty-one (48.4%) of the organizations published minimum performance expectations. Fifty-nine (92.2%) of the respondents counted number of publications, but only 22 (34.4%) formally evaluated their quality. Sixty-two (96.9%) evaluated teaching through student course evaluations, and only 29 (45.3%) engaged in peer assessment. Although aggregate results of teaching evaluation are available to faculty and administrators, this information is often unavailable to students and the public. Most schools and programs documented faculty service activities qualitatively but neither assessed it quantitatively nor evaluated its impact.

Conclusions
This study provides insight into how schools and programs of public health evaluate faculty performance. Results suggest that although schools and programs do evaluate faculty performance on a basic level, many do not devote substantial attention to this process.


Ongoing and systematic evaluation of faculty performance within academic settings is a relatively new phenomenon. Its origins and motivation are multiple and are influenced by movements patterned in legislation, corporate industry, and the public sector. In the late 1980s and early 1990s, the business and manufacturing sectors coupled an emphasis on the traditional strategic management concepts of identifying organizational “mission” and “goals” with internal performance measurement and management systems. The Malcolm Baldrige National Quality Award originated at this time to recognize high performers in the for-profit sector using such measurement systems. This concept soon began to migrate into the education arena, specifically into higher education. Faculty evaluation, based on the mission of the parent organization, emerged in various guises at academic institutions, including medical schools. In 1998, the Association of American Medical Colleges instituted its own mission-based management program and undertook the quantification of faculty effort in education, clinical productivity, and research. The past two decades have seen substantial activity in planning, implementing, and improving faculty evaluation programs in undergraduate programs and in professional schools.

For more than a decade, several medical schools have been involved in mission-based management and have developed a series of measures intended to reflect the performance of their faculty in various arenas that parallel the goals of their organizations. The driving force seems to have been a desire to bring science to both performance measurement and the allocation of monetary resources based on an equitable system.

In 2005, the Council on Education for Public Health (CEPH) published new accreditation criteria for programs and schools of public health, with emphasis on evaluation metrics and processes, including evaluating faculty performance. Although the CEPH is not prescriptive in how public health schools and programs should do this or what aspects of faculty performance they should cover, there is clearly an expectation that schools and programs of public health should be developing relevant measures of faculty performance, setting targets for acceptable levels of performance, and establishing a process for continuous improvement in this area. Ongoing evaluation and documentation is an important part of the accreditation process.

A comprehensive literature search (e.g., PubMed, CINAHL, EMBASE) did not identify any published study of faculty performance evaluation in schools or programs of public health, so turning to the considerable experience within the medical school community for guidance regarding health care faculty performance evaluation seemed reasonable.
One such report from the academic medicine community, by Garson and colleagues, emphasized the specific goal of developing metrics at the Baylor School of Medicine to “assess and improve” faculty performance in the areas of patient care, research, education, service, and finance. These authors noted that academic faculty members are not accustomed to detailed performance evaluation. The Garson et al paper inspired some of the current study’s questionnaire items regarding how results of the performance evaluation data were reported.

Hilton and colleagues, also from medical education, added a relative value-based (RVB) mechanism to their measurement scheme for more objectivity in assessing value across four areas: teaching, research, administration, and patient care. The RVB system allowed adjustment for the amount of time spent on an activity and provided a mechanism to favor achieving certain goals over others.

The Department of Pathology at the University of California–Davis Medical Center employed a slightly different method of constructing an RVB system. In this system, the relative value was set at the level reflecting the mission (e.g., clinical service, research, teaching, or administration) and was multiplied by the proportion of time spent in that activity by each faculty member. This group established a self-reporting mechanism using a Web-based system. Their tool also inspired some of the items in our questionnaire.

In general, research activities have been more often measured and rewarded than either teaching or service activities. Administrators and tenure committees easily understand metrics such as dollar amounts for research grants and numbers of published papers. However, not everyone agrees on the most appropriate measures, even in research, and no one has yet developed or found similar measures for teaching, administration, or service. A year 2000 paper on faculty performance in medical education focused on evaluation metrics in four categories: (1) teaching (e.g., lecturing in preclinical, clinical, or graduate courses), (2) development of educational products (e.g., developing innovative teaching methods, learning tools, or distance learning), (3) education administration and service (e.g., providing education committee service and leadership), and (4) scholarship in education (e.g., collaborating on educational scholarship—internal or external). That same year, another paper highlighted similar efforts of academic faculty to measure clinical productivity.

All these systems relied, at least initially, on a simple count of activities. However, as these systems evolve and mature, evaluators have been moving toward more comprehensive quality measures. One medical school sets aside 20% of a department’s budget allocation for rewards or incentives based on quality measures. One medical school sets aside 20% of a department’s budget allocation for rewards or incentives based on quality measures. Reiser recommended unbundling faculty time for teaching from clinical and research responsibilities to reflect the merit of teaching from the dean’s perspective and compensate accordingly. In 1989, Ellwein and colleagues suggested adding a quality dimension to the assessment of research publications by including the quality of the journal and the position of the author in the byline. Moreover, some have suggested using Ernest Boyer’s definitions of scholarly activity (scholarship of application, teaching, integration, and discovery) as the appropriate overall matrix for clinician–educators.

We undertook this study in 2007 as a first step in filling the knowledge gap in the area of research in the performance evaluation of faculty of public health. Our overall purpose was to understand the current level and type of faculty evaluation activities in which schools and programs of public health engage. Our specific research objectives consisted of the following:

- collecting and describing baseline data on faculty performance evaluation in CEPH-accredited schools and programs of public health; and
- comparing faculty performance evaluation measurements in schools and programs to identify any patterns.

**Method**

**Study population**

We used a roster of accredited schools and programs of public health available on the CEPH Web site (www.ceph.org) to identify potential study participants. In total, there were 106 CEPH-accredited schools and programs listed (38 schools and 68 programs), all of which were invited to participate.

**Survey instrument development**

Survey instrument development began with a literature review to identify any existing data-collection tools with relevant measures. There were no specific references to existing instruments for faculty performance evaluation in public health education; however, some published articles and reports and the collective experience of our research team, particularly with respect to the CEPH accreditation process, guided the development of major themes of inquiry in teaching, research, and service. The survey comprised three questions on the type of educational unit (school or program), 14 questions on how the school or program measures performance, and four questions on how each uses the performance information. We also provided opportunities for open comment about alternative methods for evaluating faculty performance.

We decided to administer the survey electronically and selected PHP Surveyor software, which allowed formatting based on identified themes. The software also supported an anonymous response function. We pretested the instrument among 10 mid- to senior-level academicians both within and external to (e.g., school of business) the public health field. We asked each colleague to complete the survey and provide feedback regarding the questionnaire’s clarity, appropriateness, and comprehensiveness as well as the total amount of time needed to complete the questionnaire and recommendations for improvement. We finalized revisions based on this feedback in PHP Surveyor.

**Recruitment strategy**

We distributed a brief, individually tailored e-mail cover letter, with an electronic link to the survey, to all 106 points of contact (typically the dean or program director) after loading the letter into the distribution function of PHP Surveyor. The letter introduced the invited population to the study and encouraged everyone to participate; we offered responders an advanced copy of survey findings. PHP Surveyor generated a list of nonresponders to whom we sent as many as two e-mail reminders.
Recruitment efforts occurred during April and May 2007.

**Security of data**

The PHP Surveyor software encrypted all responses and stored them in a central database. Investigators were not able to link individual responses with particular institutions. Furthermore, database access was password protected and limited to only two of us, the principal investigator (R.W.G.) and one co-investigator (D.F.C.). We imported the survey data into SPSS version 14 for analysis. The institutional review board at the Uniformed Services University of the Health Sciences reviewed and approved the protocol as an exempt human use study.

**Analysis of data**

We analyzed all data using descriptive statistics. Additionally, we stratified the data by program or school to compare responses by educational unit using chi-square tests or, when the expected frequencies fell below five in any cell, Fisher exact tests. We considered resultant *p* values below 0.05 to be statistically significant.

Included within the survey were opportunities for respondents to provide responses to open-ended questions. Although comments received reinforced other findings, they did not add additional insight, and we excluded them from this paper.

**Results**

The overall response rate was 60.4% (64) and was similar for schools (23, 60.5%) and programs (41, 60.3%). The CEPH had accredited or reaccredited 26 (40.6%) of the responding schools and programs within the 24 months preceding the survey (March 2005 to March 2007). Of the 41 program respondents, 25 (approximately 61%) were affiliated with a medical school. All respondents indicated that their organizations employed some mechanism for evaluating faculty performance.

The survey included a single question with multiple-choice responses that addressed how individual institutions intended to use information gathered during the faculty performance evaluation process. Although the majority of institutions indicated that they collected these data for specific purposes, there was significant variation in the intended use between schools and programs of public health (Table 1). Fewer than two thirds (40, 62.5%) of all respondents had published any expectations for faculty performance (Table 2). However, nearly three quarters (17, 73.9%) of the schools and more than half (21, 51.2%) of the programs indicated they adjust expectations (typically lower) in one or more areas to recognize exceptional performance in one particular area. For example, a school or program of public health might lower teaching and/or service expectations for a faculty member who demonstrates exceptional research skill by serving as a principal investigator on a large, extramurally funded study.

In regards to what specific measures of faculty performance were in actual use, survey results suggested a preponderance of performance measures related to research, particularly counting the number of grants and publications. Only a third (22, 34.4%) of all respondents made any attempt to judge the quality of the publications (Table 3).

In the area of teaching, nearly all respondents reported that faculty performance assessment comprises student feedback (62, 96.9%) and documentation of actual teaching workload (56, 87.5%) for each faculty member (Table 4). Peer assessment of teaching quality is less common, although nearly half (29, 45.3%) of the respondents indicated they had used peer assessment methods. The sharing of aggregate teaching performance information among administrators and faculty members is quite common. In contrast, sharing this information with students and the general public is rather infrequent across this group of responders.

| Table 1 |
|---------------------------------|-----------------|-----------------|
| **Results of a National Survey of Schools and Programs of Public Health: Use of Faculty Performance Evaluation Information, 2007**
<table>
<thead>
<tr>
<th><strong>Uses of performance evaluation information</strong></th>
<th><strong>School (n = 23)</strong></th>
<th><strong>Program (n = 41)</strong></th>
</tr>
</thead>
</table>
| Individual mentoring/faculty development | 22 (95.7%) | 29 (70.7%)
| Tenure and advancement decisions | 20 (87.0%) | 34 (82.9%)
| Merit pay increases/bonuses | 22 (95.7%) | 23 (56.1%)
| Program improvement | 19 (82.6%) | 28 (68.3%)
| Accreditation | 15 (65.2%) | 25 (61.0%)
| **Table 2** |
| **Results of a National Survey of Schools and Programs of Public Health: Publishing of Minimum Faculty Performance Expectations, 2007**
| **Published minimum expectations for School (n = 23)** | **Program (n = 41)** |
|---------------------------------|-----------------|-----------------|
| Research | 8 (34.8%) | 18 (43.9%)
| Teaching | 11 (47.8%) | 18 (43.9%)
| Service | 5 (21.7%) | 15 (36.6%)
| None formally published | 10 (43.5%) | 23 (56.1%)
| Adjust expectations for exceptional performance in other given area(s) | 17 (73.9%) | 21 (51.2%)

* Of 38 schools and 68 programs, 64 total responded for a response rate of 60.4%.

† All differences between schools and programs were not statistically significant (*p* > 0.05).
Table 3
Results of a National Survey of Schools and Programs of Public Health: Faculty Performance Evaluation in Research, 2007*

<table>
<thead>
<tr>
<th>Does your school or program measure performance in research by</th>
<th>School (n = 23)</th>
<th>Program (n = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documenting number of publications per faculty member?</td>
<td>20 (87.0%)</td>
<td>39 (95.1%)</td>
</tr>
<tr>
<td>Using some process or algorithm that accounts for quantity and quality of publications per faculty member?</td>
<td>8 (34.8%)</td>
<td>14 (34.2%)</td>
</tr>
<tr>
<td>Documenting the number of refereed abstracts or conference presentations?</td>
<td>13 (56.5%)</td>
<td>31 (75.6%)</td>
</tr>
<tr>
<td>Documenting faculty member success in acquiring intramural or extramural funding support for research?</td>
<td>22 (95.7%)</td>
<td>40 (97.6%)</td>
</tr>
<tr>
<td>Documenting student participation in faculty members' research?</td>
<td>14 (60.9%)</td>
<td>29 (70.7%)</td>
</tr>
</tbody>
</table>

* Of 38 schools and 68 programs, 64 total responded for a response rate of 60.4%.
† Represents a statistically significant difference between schools and programs (P < 0.05); all other differences were not statistically significant (P > 0.05).

Finally, in the area of service, virtually every responding institution (62, 96.9%) reported documenting service activities for individual faculty members (Table 5). However, more respondents indicated they used qualitative measures rather than quantitative measures. Only a quarter (16, 25.0%) of responders indicated they assess the impact of service in any manner. For those institutions making an effort to assess impact of service, all were using a numeric count of faculty members’ involvement on external high-level advisory boards or steering groups.

Discussion
This study provides insight into how schools and programs of public health evaluate faculty performance. Results suggest that many schools and programs do not devote a substantial amount of attention to the issue of faculty evaluation. For example, according to this research, public health schools and programs lack explicit performance expectations for faculty, a mechanism to measure quality and not just quantity of scholarly work, transparency in disseminating aggregate performance evaluation information, and attention to measures of the impact of faculty service. Surprisingly, these gaps have not been adequately addressed in the published literature.

In 1984, the General Professional Education of the Physician Committee (GPEP) recognized the need to emphasize and reward contributions of medical school faculty to the "general professional education of medical students."23 This report recommended earmarked budget support for education-related activities, and this recommendation was, in part, a driver for some medical schools to develop mission-based management programs that track, measure, and evaluate faculty performance in teaching, research, clinical care, and administration/service.14 In 2005, CEPH began to include requirements for faculty performance evaluation (e.g., competence in teaching) as part of their accreditation process. This new requirement supported the CEPH goal “to enhance health in human populations”15–16 through three objectives (i.e., promoting quality in public health education, ensuring that educational programs meet standards, and encouraging improvements in education), each of which stresses the (general) education of the health professional and continuous.

Table 4
Results of a National Survey of Schools and Programs of Public Health: Faculty Performance Evaluation in Teaching, 2007**

<table>
<thead>
<tr>
<th>Does your school or program measure performance in teaching by</th>
<th>School (n = 23)</th>
<th>Program (n = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documenting the actual teaching load per faculty member?</td>
<td>20 (87.0%)</td>
<td>36 (87.8%)</td>
</tr>
<tr>
<td>Conducting student evaluations of each course?</td>
<td>23 (100.0%)</td>
<td>39 (95.1%)</td>
</tr>
<tr>
<td>Employing a peer assessment process (faculty observes faculty)?</td>
<td>7 (30.4%)</td>
<td>22 (53.7%)</td>
</tr>
<tr>
<td>Using results of course evaluations for faculty development?</td>
<td>21 (91.3%)</td>
<td>34 (82.9%)</td>
</tr>
<tr>
<td>Sharing aggregate results of course evaluations with:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University administrators</td>
<td>11 (47.8%)</td>
<td>27 (65.9%)</td>
</tr>
<tr>
<td>School/program leadership</td>
<td>20 (87.0%)</td>
<td>36 (87.8%)</td>
</tr>
<tr>
<td>Faculty</td>
<td>15 (65.2%)</td>
<td>29 (70.7%)</td>
</tr>
<tr>
<td>Students</td>
<td>8 (34.8%)</td>
<td>7 (17.1%)</td>
</tr>
<tr>
<td>General public</td>
<td>2 (8.7%)</td>
<td>4 (9.8%)</td>
</tr>
</tbody>
</table>

* Of 38 schools and 68 programs, 64 total responded for a response rate of 60.4%.
** All differences between schools and programs were not statistically significant (P > 0.05).
improvement of that process. These actions by the CEPH seem to mirror the GPEP’s recommendations from 20 years earlier regarding the interest in ensuring that faculty in medical and public health schools place a high priority on the general education of their students.23

Clearly, there are some differences in the spectrum of duties for medical school faculty and for faculty in public health schools or programs. The most obvious is the function of clinical care—whether direct patient care or supervision of trainees—provided by medical school faculty as part of their teaching duties. No real comparison exists within the schools or programs of public health. However, that particular function does not exist for most of the basic science faculty at medical schools either and should not be considered a difference sufficient enough to impede each of the professions from learning from each other in this important area of performance improvement. Research and administration/service usually carry similar expectations within the parent school irrespective of whether it is basic science faculty, clinical faculty, or public health faculty who are involved.

Under the stimulus from the CEPH, schools and programs of public health are now—as medical schools did 25 years ago—facing the difficulty of defining, measuring, and evaluating faculty performance, especially in teaching. We organized the present study to provide the public health community with national-level information on the breadth and depth of faculty evaluation activities within the profession right about the time CEPH changed the emphasis in the accreditation process.

Both schools and programs of public health use faculty performance evaluation information for similar purposes (e.g., tenure, accreditation), with the exception of merit pay increases and faculty mentoring. When considering financial compensation, schools of public health were more likely (95.6%) than programs (56.1%) to consider faculty performance (Table 1). It is unclear why this occurs, but it may be related to greater overall financial independence of schools of public health compared with programs, enabling greater control over merit pay increases. An alternative explanation might be that faculty performance evaluation metrics have been incorporated into the organizational culture and workflow decisions of schools of public health, with programs lagging behind in this area. Schools were also more likely (95.7%) than programs (70.7%) to use faculty evaluations for individual mentoring and faculty development (Table 1). It is unclear why this occurs, but it is possible that schools of public health have more mature and formalized mentoring programs than programs because of their larger size and available resources.

Fewer than half of the schools and programs explicitly publish minimum faculty performance expectations. Of the schools (13, 56.5%) and programs (18, 43.9%) that do, the area of service seems to get the least attention (Table 2). Specifically, only five schools (21.7%) and 15 programs (36.6%) reported establishing minimum performance expectations for service; the comparison is not statistically significant. It is likely that the difficulty in quantifying service leads to fewer metrics. On the other hand, there may simply be too many other competing priorities for faculty members’ time.

The willingness of schools (17, 73.9%) or programs (21, 51.2%) to adjust performance expectations in a given area to compensate for strengths or outstanding success in another suggests a degree of flexibility in the way institutions approach faculty evaluation (Table 2). The increasing emphasis by schools and programs on objectivity and explicit measures of performance as means of evaluating performance provide a level playing field and transparency in the use of these measures. However, some degree of subjectivity always remains, and this is especially true when objective measures are not readily available, not well developed, or not based on consensus.
As expected, almost all schools and programs track faculty publications and success in acquiring funding for research. However, few schools (8, 34.8%) and programs (14, 34.2%) seem to engage in measuring both the quantity and quality of scholarly publications among faculty members (Table 3). Although there are metrics that can be used to measure quality (e.g., journal impact scores) as well as level of contribution in a collaborative effort (e.g., author sequence), applying them to faculty performance evaluation may be challenging, particularly in an interdisciplinary field such as public health.

The evaluation of the teaching that occurs at schools and programs of public health yielded few surprises. Almost all of the responding institutions conducted student course evaluations and used them for faculty development and curriculum improvements. Whereas student course evaluations are widely used, peer assessment and feedback regarding teaching is not commonly practiced in either schools or programs; a comparison of the two is not statistically significant. This might be attributable to a number of reasons: lack of desire or motivation among faculty members to evaluate their peers, difficulty in scheduling the activity, or lack of clear guidelines or structure for peer assessment, among others. We did not construct this survey to shed light on why such patterns exist.

Of interest to us was the degree to which schools and programs disseminate aggregate results of teaching evaluations outside of the school or program. Only one third or fewer of all respondents (15, 23.4%) reported sharing the aggregate findings with students, and fewer than 10% reported sharing the evaluations with the general public (Table 4). This is very consistent with these same institutions’ self-reported predominant reasons for engaging in faculty performance evaluations: for internal purposes, such as program improvement and faculty mentoring. Those institutions that do share aggregate teaching evaluations with the general public are more likely to do so for purposes of recruitment, if teaching can be advertised as a particular strength.

As noted, the majority of schools and programs document faculty participation in service qualitatively. Fewer report any type of quantitative analysis of service activities, and even fewer attempt to measure the impact of such service. It is certainly clear that the primary focus of faculty evaluation is on grant funding and publications in peer-reviewed journals. These activities are a reflection of both institutional reputation and stature as well as the success of the individual in an academic environment. On the other hand, service may be more indicative of a capacity of the institution rather than the involved individual. This perception may have influenced the lag in development and testing of metrics in the area of service. Alternatively, the appeal of voluntary service might decrease in the event of rigorous methods of evaluation.

**Lessons applicable to medical schools and academic health centers**

Medical school faculty may be interested to see how other health-related professionals are wrestling with the problems of defining their teaching contributions in a manner that can be measured for evaluative purposes. It is possible that sharing across these disciplines in the common settings of teaching, whether classroom or clinic, will enhance the focus and the value of measurement systems and will ultimately provide value to both disciplines. It is certain that medical school faculty will face more issues regarding measurement and evaluation of clinical service than will the public health faculty, but the expectations in research will be fairly comparable. On the other hand, public health faculty may have greater experience with administrative service and consultation on large projects; their experience in this area may translate into something useful for medical school faculty. Similarly, public health faculty routinely address the challenges inherent in “systems-based practice,” which is a core competency area of undergraduate and graduate medical education. Because each may benefit from the other, we recommend that interested faculty seek out similarly interested faculty in other disciplines to discuss and cooperate with one another on the development of new measures for the future.

**Limitations**

A limitation of the survey was its cross-sectional approach. Although the authors realized an acceptable survey response rate (60.4%) for measurement, readers do not have a longitudinal picture on likely trends or patterns if data were collected at multiple points in time. However, the absence of comparative data was the driving force behind the design of this research. We are optimistic that scholars will build off this initial work.

Analysis of the 42 nonresponders of the survey did not convey substantially noteworthy information. There were 15 schools of public health (representing 35.7% of the total nonresponders) and 27 programs of public health (representing 64.3% of the total nonresponders). Of the programs of public health, 10 (37.0%) of the nonresponders were affiliated with a medical school compared with 25 (61%) of the respondents. In total, 23 (54%) of the total nonresponder cohort—similar to the 40.6% among responders—had been accredited or reaccredited by CEPH within the 24 months preceding the survey. Formal comparison of responder and nonresponder institutions did not result in any statistically significant findings.

**Opportunities for future research**

We consider this survey to be a first step in conducting research to advance knowledge and practices in the area of faculty performance evaluation, specifically at schools and programs of public health. Four related areas that might warrant further investigation are as follows:

1. Developing and validating a public-health-related algorithm that incorporates a quality component to the evaluation of research publications.
2. Characterizing the underlying purpose and the impact of public release of faculty performance information by schools and programs of public health.
4. Developing a more comprehensive, overarching framework for evaluation of faculty performance in schools and programs of public health as a follow-up to this study.

Finally, even though the impetus for objective measurement of faculty performance is relatively new, there are several professional schools that have as much as a decade of experience in this...
Also, existing systems for measuring clinical performance activity among faculty at a medical school have applicability to faculty evaluation in the public health field. These pioneer efforts can inform policy and procedures in schools and programs of public health to more quickly meet the rising expectations of accrediting organizations, such as CEPH. Similarly, programs and schools of public health could greatly enhance their chances of improving their most important resource within the educational enterprise, our faculty, as well as their most important product, well-trained graduates, for the betterment of public health in America.

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