

Advancing Public Health Finance: Closing 100-Year Gaps in Education, Training, and Financial Assessment Methodologies



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EXECUTIVE SUMMARY

Gaps in the application of finance theory and concepts to the field of public health are profound. The system is saturated with illustrations. Principally, public health education in finance is fundamentally flawed. Courses in public health educational programs do not provide students with a basic understanding of finance principles or content to sufficiently reflect the uniqueness of public health. The vast majority of finance courses in Master of Public Health programs include content related to hospitals and *not* to public health. Furthermore, the remaining courses focus on private sector, as opposed to public sector finance. Recent research took a closer look at schools of public health finance courses and quantified that over 60% of finance courses in those MPH programs fell into this category.

Sustainability of the public health system is highly dependent on the financial health of state and local public health agencies. However, in addition to the absence of valid data sets, there are no existing standards to measure financial health or to triage potential fiscal risk to these agencies. When compared to practices by system partners, there is a *100-year gap* in the introduction of methodologies to measure financial performance and in the professional development of the public health financial management workforce. Also, technology — such as the public health finance website — is not designed or sufficiently supported to advance key objectives necessary to transfer knowledge on finance that may exist in the system.

The purpose of this project was to scan the field of public health to identify methods for advancing the application of finance theory and concepts to the profession. Four primary areas of review framed this examination:

SECTION I – Finance Content in Academic Public Health Program

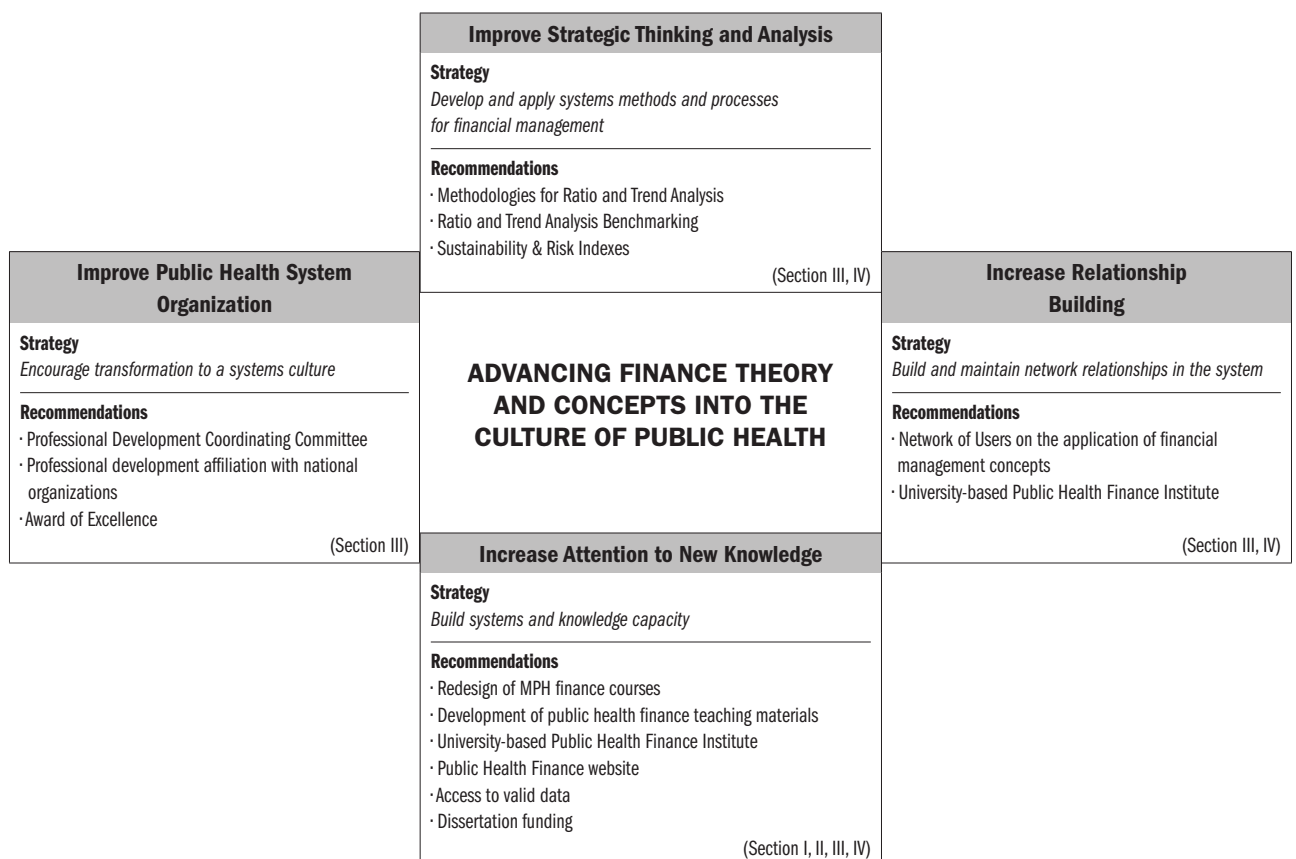
SECTION II – Course Revision and Curriculum Development Requirements

SECTION III – Building Methods and Capacity for Public Health Financial Management

SECTION IV – Introducing a New Public Health Finance Website

A systems thinking perspective was used to address the lack of capacity in public health to apply finance concepts. Such an approach addresses underlying problems in complex adaptive systems through strategies and actions that impact the entire system as opposed to individual activities within the system. Framing recommendations in this plan is the following systems thinking model (Figure 1) that incorporates strategies for improving quantitative analysis, education, training, financial management capacity, and the transfer of knowledge through web-based technology. Recommendations are detailed in the four sections and a summary budget is provided at the end of the report.

Figure 1: Systems-thinking model and recommendations for advancing finance theory and concepts in public health.



Finance Content in Academic Public Health Programs

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Our overall conclusions regarding graduate public health programs are as follows: First, current coursework fails to provide a basic finance foundation for all public health students. Second, the courses typically provided to management concentration students fail to cover six essential areas of competence: (1) the public health perspective and context, (2) public budgeting, (3) the acquisition and management of grants, (4) public accounting and reporting, (5) program management, and (6) assessing the financial status and performance of public organizations.

INTRODUCTION

BEGINNING WITH THE 1988

release of the Institute of Medicine's (IOM) landmark report, *The Future of Public Health*, a series of efforts were set in motion to reexamine and refine the practice of public health in America.¹⁻³ Over the subsequent twenty years, great strides have been made in defining the field of public health, improving its value to the nation, and developing its role as an academic discipline.

Every day, the nation's public

health system delivers an array of highly varied health services for the American people. When assessing the performance of this system, it must be recognized that public health services are provided within a fiscally constrained environment. To make the most effective use of the existing resources and to develop new resources, public health managers must possess finance skills relevant to their field.

Public health finance is defined as "acquiring, managing, and utilizing scarce resources to improve the health of populations."⁴ Public health managers at all levels, including senior leadership, unit administrators, finance specialists, and program managers, are engaged in financial activities, yet often lack formal finance education. Evidence from the public health community indicates that management as a whole is lacking in the finance skills and tools that are commonly used by managers in the private sector and in many public

sector organizations. For example, the 2008 Trust for America's Health Report noted that hospitals, school systems, and colleges and universities have established uniform financial analysis and management practices, and that a similar effort is critical to advancing public health finance.⁵

Of the three pillars of public health infrastructure (workforce, information and data systems, and organizational capacity), the workforce is the element through which academic institutions have the greatest opportunity to contribute to strengthening the system's essential components. Each year, America's schools of public health and other accredited programs in the field graduate more than 7,300 students.⁶ By teaching these students finance skills tailored to the needs of public health managers, higher education can provide a core group of workers with an educational foundation that enhances the ability of the public health system to meet its goals.

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The purpose of this paper is to assess the finance-related educational needs of public health managers and to determine the best format and structure to embed these concepts in academic public health programs. Note, however, that education through academic programs addresses only long-term knowledge needs and hence is but one component of a full array of educational interventions that also include continuing professional education and on-the-job training.

The paper begins with a review of public health organizations and managerial workforce. Then, the finance competencies established for public health managers are reviewed. The next section discusses the finance competencies identified for managers in fields similar to public health and compares these competencies with those for public health managers. The goal here is to identify the competencies, and hence educational requirements, that are unique to public health managers.

Next, the paper examines current finance content in public health educational programs, including both management and non-management tracks. With the finance competencies specified for public health managers and the current curriculum content identified, deficiencies in public health finance education are highlighted.

The paper then recommends an approach for correcting identified educational deficiencies, outlines the potential problems in-

herent in implementing the recommendations, and discusses the role of academic program accreditation in achieving curricula change. Finally, the paper concludes with a discussion of success measures and further research needs. The end result is a road map for academic leaders to ensure that the next generation of public health managers obtains the finance skills needed to most effectively utilize and develop resources for the promotion of the nation's health.

THE PUBLIC HEALTH SETTING AND WORKFORCE

To better understand the body of finance knowledge, skills, and abilities required by public health managers, it is helpful to first understand the unique nature of public health and its workforce.

The practice of public health is a complex endeavor characterized by a number of factors that affect finance knowledge requirements. Perhaps the most important of these factors is that public health services are provided through a broad range of organizations from both the public and private sectors. On the governmental side, public health agencies are found at the local, state, and national level. Each level of government provides a different mix of services with varying degrees of overlap depending on the locale. For example, some local public health agencies are highly autonomous entities with the ensuing management responsibilities resting with the local en-

tity, while others are branches of a centralized state agency receiving significant technical and managerial support from their parent organizations.

On the private sector side, governmental public health agencies both contract with private organizations as well as engage in fee-for-service activities that require these agencies to act like and, in some situations, compete with private sector organizations. In addition, private organizations such as the American Heart Association are involved in many activities directly related to public health. The mixture of public and private sector activities means that public health managers must have finance skills that span both public and private domains.

The diversity of the organizations and functions involved in providing public health services leads to a management workforce that is equally diverse. Managers in public health organizations come from a wide variety of educational and professional backgrounds. Most commonly, managers in the public health sector are not trained in management but rather are professionals in other fields who also have managerial responsibilities. For example, public health managers are often physicians, nurses, or other professionals such as health education specialists or environmental health professionals.

In addition to the breadth of professional backgrounds of the workforce, the educational level varies greatly among public health managers. A 2009 survey of local health departments found that only half of the finance specialists held a master's degree in public health management or some other business-related field. The remainder held baccalaureate degrees (25 percent), held

master's degrees unrelated to business or administration (17 percent), or were not college graduates (8 percent).⁷ Data on the educational backgrounds of general public health managers are not readily available. However, the diversity of professional and educational backgrounds of the public health management workforce, coupled with differing knowledge requirements for general managers and finance specialists, suggests that efforts to improve finance knowledge and skills be pursued through a multifaceted approach, including academic education.

PUBLIC HEALTH FINANCE COMPETENCIES

A key element in identifying public health finance educational requirements is the finance competencies that are required of public health managers. Contemporary examinations of essential financial competencies for public health managers trace their lineage back to the 1993 report released by the Public Health Faculty/Agency Forum.⁸ While the finance recommendations of this panel were stated only in general terms, they did serve to lay the foundation for a greater understanding of the field of public health finance.

The development of the public health finance field burgeoned during the early 2000s as critical stakeholders began to place a higher priority upon the financial dimensions of public health practice. Public health agencies were faced with the financial challenges presented by providing new or expanded services required for bioterrorism response, infectious disease pandemics, and caring for the uninsured. At the same time, competition for fund-

ing from both governmental and private sources obligated public health organizations to do more with less, thus creating the need for increased efficiency of resource use. In addition, there was a growing movement among all sectors of public service to enhance financial accountability and transparency in the management of financial and other resources.

In one of the early competency studies, Gillespie and colleagues conducted a survey of twelve public health managers to assess whether the 60 finance competencies developed for the Saint Louis University Master of Health Administration (MHA) program adequately covered the areas deemed necessary for success in the profession.⁹ Findings indicated that the competencies created for the MHA program covered many of those deemed necessary for public health managers, but they did not address thirty-five other factors that predominantly reflect the "public" dimension of public health finance. Thus, only 63 percent of the finance competencies needed by practicing public health managers were included in the MHA program.

Over the last several years, researchers and practitioners from across the nation collaborated in a series of studies that drew on secondary analysis of existing public health finance competencies as well as the collection of original data through surveys, focus groups, and expert panels. The goals of this work were to consolidate the results of previous efforts and to develop a better understanding of public health finance competencies. These efforts culminated in the 2009 publication by Honoré and Costich of consensus public health finance competencies.¹⁰

The Honoré and Costich work consists of three domains supported by a detailed listing of essential competencies. Although its focus is on public health finance, the list adopts an organizational systems (holistic) perspective that is reflected in the way the competencies interrelate finance with strategy, operations, human resources, information systems, law, ethics, and cultural competence. Another feature of the list is that it delineates differences in the competencies needed between various levels of management not based on breadth of knowledge but rather on the depth and proficiency required within a competency. Because of its currency and the strength and integrity of the process used to develop the list, we will use the Honoré and Costich competency framework as a guide in developing a model for public health finance academic education.

COMPARISON OF PUBLIC HEALTH COMPETENCIES TO THOSE OF SIMILAR PROFESSIONAL FIELDS

The practice of public health constitutes a blending of what may be categorized as traditional public sector activities and those activities more often associated with delivery of private sector health services. As a consequence of this dual nature, the management of public health organizations and programs can be characterized as a merger of the realms of public administration and health services management. Thus, we can learn from and build upon the experience base of these two distinct fields to help understand the finance educational requirements of public health managers.

To begin, we examined the

certification and knowledge (competency) requirements of five professional organizations in the fields of public administration and health services management. The groups selected are widely recognized in their respective fields and are representative of the professional areas being considered. The five groups are the (1) American College of Healthcare Executives (ACHE), (2) American College of Medical Practice Executives (ACMPE), (3) International City/County Managers Association (ICMA), (4) Healthcare Financial Manage-

“The provision of public health services is basically a hybrid activity with both public and private sector attributes as well as a few attributes that exist distinctly within the purview of public health.”

ment Association (HFMA), and (5) Government Financial Officers Association (GFOA). Note that these groups cover both public (ICMA and GFOA) and private sectors (ACHE, ACMPE, and HFMA) and both general managers (ACHE, ACMPE, and ICMA) and financial specialists (HFMA and GFOA).¹¹⁻¹⁵

Despite the wide divergence in terminology and methods across the comparative analysis, there is a great deal of overlap in the finance competencies among the five professional groups. For example, all groups define differences in depth and proficiency levels between general managers and financial specialists. Also, the public and private groups generally agree in the breadth of finance knowledge required for all managers, but the depth of knowledge viewed as essential for general and financial managers is different, reflecting the different nature of their job responsibilities.

Although there is general agreement within the public and private sector groups as to required competencies, a number of notable differences exist. While a small percentage of these differences constitute disparate views as to essential knowledge areas, most merely reflect differences in specific skills needed within knowledge areas. These contrasts arise primarily because of the differing environmental contexts in which public and private managers operate. In one of public administration’s seminal works, Allison noted that “Public and private sector management overlap considerably in their practice, yet significant differences remain particularly at the finer level of application, which inescapably makes them distinct professions.”¹⁶

While there are few major differences between the competencies for health services managers and public administrators, there are numerous examples of differences in required skills and abilities. In other words, the application of basic finance knowledge differs because of differences in environmental context, particularly differences in organizational structure, governance, and financing. These differences, in large part, drive the variation in the skill sets needed by public and private sector managers.

Appendix 1 contains the comparative analysis of the public health competencies to those of the similar professional groups. Only competencies that were specifically mentioned or were conceptually developed in sufficient detail so as to be clear in intent were included in the analysis. Competency areas that do not overlap are identified. In addition, qualitative differences are considered when the actual application

of a competency would differ even though the general description is essentially the same.

Unfortunately, the nature of competency comparisons inevitably introduces the possibility of some degree of error in interpretation, especially when the competencies are formatted and described in different ways. This problem is complicated by the fact that the public health competencies are constructed with a holistic view of finance. The result is that a number of competencies considered under public health finance may fall under different areas of management in the comparison groups.

The breadth of finance-related competencies defined as essential for public health managers overlaps considerably with both the health services management and public management defined competencies. While there is considerable unanimity among the six groups considered, the public health competencies align more closely with public administration than with health services management. This difference is reflected by the fact that 26.8 percent of public health finance competencies are not addressed by health services management groups while only 12.2 percent are not covered by public sector management groups. All of the competencies not addressed by public sector management groups are also not covered by health services management groups, so this 12.2 percent set of competencies are unique to public health.

The 26.8 percent difference that exists between public health and health services management competencies falls into two general areas: those related to public sector activities and those related to activities that are uniquely

public health oriented. Three examples of public sector differences in competencies are the use of economic (program) evaluation techniques, knowledge of grants acquisition and management, and budgeting for disasters. Public health unique competencies constitute 12.2 percent of the list not covered by health services management. For the most part, these competencies reflect the application of specific public health knowledge, such as plans for disaster response.

An additional 34.2 percent of public health competencies are addressed by the health services management groups but represent qualitatively different practices; that is, different applications of the competencies. Again, such differences are related to the public sector nature of public health organizations. For example, financial accounting methods and reporting requirements are substantively different for public and private sector organizations, primarily because of the needs of the different stakeholders who use the information.

In comparison to the qualitative differences in practice between public health and health services management, only an additional 14.9 percent of public health competencies are qualitatively different than those proposed by the public administration field. These differences arise in the areas of performance measurement and the entrepreneurial function of identifying private revenue sources. The public health competencies adopt a view of performance measurement and revenue generation that is more like the private healthcare sector than the public sector.

Overall, these findings support the position that the provision of public health services is basically

a hybrid activity with both public and private sector attributes as well as a few attributes that exist distinctly within the purview of public health.

CURRENT FINANCE EDUCATION IN PUBLIC HEALTH AND SIMILAR FIELDS

Management education in the field of public health has evolved considerably over the last fifty years. Prior to the 1960s, public health administration was a field focused solely on the laws, regulations, and context of the programs administered by governmental public health agencies. Beginning in the late 1960s, this vision began to expand, growing to encompass the multifaceted organizational composition of the public health system and its ties to private sector healthcare. In this same era, the focus on specific public health programs, which had dominated the curricula in prior years, gave way to the inclusion of more general management content reflective of MHA programs. This movement constituted one of the earliest fundamental connections between the contemporary MPH and MHA management curricula, a tie that became stronger as MHA programs began to migrate from their traditional homes in schools of business to schools of public health.

To analyze the current finance content in academic public health, health services administration, and public administration programs, we conducted a review of the catalogues and syllabi for the top twenty graduate programs, as rated by *U.S. News & World Report*, for each discipline. (These programs are listed in Appendix 2.) A similar review was

conducted on the finance curricula of these programs at the undergraduate level if such programs were offered. The findings were then contrasted against each other and against the public health finance competencies identified by Honoré and Costich. The goals of this comparison were to identify (1) weaknesses in finance content in current public health programs and (2) course content areas in similar fields that may be relevant to public health programs.

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Graduate Programs

Public health is a more heterogeneous field in terms of students' professional focus than either public administration or health services administration. Of the roughly 22,500 students enrolled in public health programs in 2008, those focusing on management (3,285) composed only about 15 percent of the overall student body.⁶ This implies that 85 percent of public health students should be considered as a separate cohort from the management concentration students as their course requirements and career goals are different.

As shown below, none of the

Academic Discipline	Level of Programs Requiring at least 1 Course	Level of Programs Requiring >1 Course	Level of Programs Offering Elective Finance Courses
MPH (Non-Management)	None	None	Moderate
MPH (Management)	All	High	Moderate
MHA	All	All	Moderate
MPA	All	Moderate	Moderate

Note: Scale is based on five categories: All (100% of programs), High (99-80%), Moderate (79-60%), Low (59-1%), None (0%)

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graduate public health programs currently require finance content for non-management concentration students. However, all programs do require management concentration students to take at least one finance course. By contrast, all MHA and most MPA programs require all students to take at least two finance courses. The availability of elective coursework related to finance is relatively evenly spread between the different fields with the majority of programs in all of the disciplines that offer such courses.

Comparing the existing course content of the top 20 programs in public health with the competencies developed by Honoré and Costich reveals significant areas of weakness. Competencies not covered include the acquisition and management of grants, budgeting for disaster scenarios, integrating budgeting with strategic and financial planning, as well as those that relate finance to the perspective and context of public health. Qualitative differences between the competency standards and the current curriculum are more extensive and are entirely founded on the differences between management in a public and a private environment. Among the most significant of these are differences in accounting and reporting requirements, budgeting processes, and the specific financial metrics used to assess an organization's financial status and performance.

Looking at the comparison across disciplinary fields, it is

striking to note that current public health finance and health services administration finance courses are virtually identical in focus and content, while public administration finance courses take a notably different direction. Because the current public health finance courses typically either mimic, or are, MHA finance courses, many relevant content areas are absent. There are a small number of schools offering electives that appear to provide content that is more aligned with public finance, but even these do not appear to fully address the uniqueness of the public health field. Existing course material from public administration programs could address many of the identified areas of weakness in the public health curriculum, but still would not cover those elements that are unique to public health.

Our overall conclusions regarding graduate public health programs are as follows: First, current coursework fails to provide a basic finance foundation for all public health students. Second, the courses typically provided to management concentration students fail to cover six essential areas of competence: (1) the public health perspective and context, (2) public budgeting, (3) the acquisition and management of grants, (4) public accounting and reporting, (5) program management, and (6) assessing the financial status and performance of public organizations.

Undergraduate Programs

Baccalaureate programs for all three of the disciplines are relatively new in comparison to their graduate level counterparts. All of the programs in each of the three fields of study require finance coursework. Unlike the variation in the number of required courses that was seen across fields among the graduate programs, there was a high degree of uniformity in that one finance course is required at all schools across disciplinary fields. In every case, the undergraduate offerings tend to mirror the finance content of the graduate level courses within their discipline. As in the graduate programs, the finance curricula are virtually identical for bachelors programs in public health and health services administration. Public administration again has its unique finance content with a much greater focus on budgeting issues than the other fields examined.

THE NEED FOR UNIQUE PUBLIC HEALTH FINANCE EDUCATION

Our review of both graduate and undergraduate curricula indicates that the current courses offered in public health programs do not provide (1) all students with a basic understanding of finance principles and (2) management concentration students with finance content that sufficiently reflects the uniqueness of public health. While an MHA-focused finance course offers excellent coverage of many key areas relevant to public health managers, it fails to adequately address students' needs in areas that demonstrate both the traditional public finance component and those elements unique to public health.

Given the diversity of backgrounds of public health managers, it is essential to consider the finance education needs of the 85 percent of public health graduate students that currently are not required to take any finance coursework. In the current environment, a premium is placed on the ability of managers at all levels to both effectively and efficiently use resources to meet mission goals. If finance education is not required for all public health students, the future epidemiologists, biostatisticians, environmental health, and behavioral sciences specialists will be ill-equipped to take the reins as public health managers. Furthermore, they will be deprived of key knowledge that would help them better perform their functional area responsibilities. Financial accountability, transparency, and performance are unrealistic goals if the investment is not made to develop the necessary human capital to pursue those ends.

PROPOSED DELIVERY FORMAT

Because of the importance of sound financial practices in all organizations, it is essential that appropriate finance content be an integral part of public health education. This section proposes a format for incorporating that content into the curricula.

Graduate Programs

All public health graduate programs should, at a minimum, include one finance course. Furthermore, to be of maximum value to students, this course should be designed for and dedicated to public health students. Such a course might be titled “fundamentals of public health finance.” Courses

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that are generic in nature, such as those titled “finance,” “accounting,” or “healthcare finance or accounting,” or something similar, do not include all the content necessary to meet public health finance competencies.

Of course, generic finance content, such as corporate finance and accounting courses, is better than no content at all, and healthcare finance content is better than generic finance content. Still, to ensure that all public health graduate students have the knowledge, skills, and abilities needed, specific public health finance courses must be created that cover all relevant topics. Furthermore, these courses must be a required part of the public health curricula for all public health students regardless of concentration.

In addition to the fundamentals finance course taken by all public health students, students that are enrolled in management concentrations require a depth of knowledge that goes beyond the introductory level, and hence such students should be required to take a second finance course. This statement is confirmed by the fact that students in health services administration programs generally are required to take at least two courses related to healthcare finance. Often, second finance courses include significant casework, because the best way to truly understand a subject (short of on-the-job training) is to work relevant cases. A second course allows public health man-

agement students to solidify their understanding of basic finance concepts, expand their knowledge base, and, most important, attain the skills and abilities needed to apply the concepts learned in the first (fundamentals) course.

UNDERGRADUATE (BACHELORS) PROGRAMS

Although the finance content in public health undergraduate programs is not as well documented as for graduate programs, the competencies identified by Honoré and Costich remain valid whether those individuals receive their initial academic education in undergraduate or graduate programs. Thus, it is apparent that undergraduate public health programs, like graduate programs, should include a public health specific finance course.

Because of the inherent differences in undergraduate and graduate students and educational processes, it is likely that the undergraduate public health finance course would be at a somewhat less rigorous level than the graduate course. However, the topic coverage of the undergraduate course would be very similar to that of the graduate fundamentals course.

Certificate Programs

Academic certificate programs in public health vary widely in purpose, format, and content. For example, some programs are targeted to current on-campus stu-

dents, while others focus on distance education for working professionals. In most certificate programs, students are required to take several courses (often five) that span the key areas of public health. Some programs require students to take a public health administration course that encompasses all areas of management including finance, while others do not.

Because of the limited number of courses required in certificate programs and the lack of uniformity in structure and purpose, it is impossible to assess the role of

the-job training. Conversely, those finance specialists with the appropriate academic background who lack public health education must gain environmental knowledge through continuing education and on-the-job training.

REQUIRED RESOURCES, IMPEDIMENTS, AND ADMINISTRATIVE PROCESSES

While there is considerable evidence to support the need for specific public health finance education, there are impediments involved in implementing this strategy. One impediment involves the entwined nature of public health management programs and health services administration programs. Of the 40 accredited public health programs in 2008, 20 of them also offered MHA degrees. Within the programs reviewed for this paper, 12 out of 20 offered both degrees. This cohabitation of public health and healthcare administration programs creates the impetus for a single finance course to be offered to both cohorts.

Another potential impediment is the limited number of student credit-hours available within the public health curricula. Requiring students in all public health concentrations to take an additional course may present difficulties with already filled course allotments. This issue must not only be considered in relation to existing curriculum requirements but also in terms of how additional course(s) would mesh with accreditation requirements.

Of course, the development and delivery of one or more specific public health finance courses requires both human and educational resources. Unfortunately, at this point in time, many academic

departments that have, or would have, responsibility for teaching public health finance are operating under severe fiscal constraints. Ideally, each public health school (or program) would have on its faculty a dedicated member with the academic credentials, experience, and time to develop specific public health finance courses. However, at many institutions, this ideal does not exist. Still, to ensure the best possible education of students, public health colleges and programs must, when available, commit the human resources required to ensure that finance course(s) specific to public health are developed and included in the curriculum. The use of adjunct faculty to teach these courses may be a way to conserve full-time faculty resources, but the implications of this approach must be evaluated on a case-by-case basis.

Finally, there remains a lack of teaching materials dedicated to public health finance. Until such materials are available, faculty members who are assigned public health finance course responsibilities must create their own course content and syllabus as well as all required teaching materials. Readily available educational materials would ease the task of creating and teaching unique public health finance courses. One possible template for supplemental material exists in public administration finance coursework. However, while superimposing a public administration framework upon existing healthcare finance courses would address the public dimension, it would not provide a contextual understanding of public health. Additionally, it would not cover those elements that are unique to public health finance.

The creation and delivery of

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finance education in such programs. However, if a certificate program specializes in public health management, it clearly is appropriate to include at least one specific public health finance course in the curriculum.

Finance Specialists

Up to this point, we have not addressed the educational requirements of public health finance specialists. In all fields, finance specialists require knowledge and skills that significantly exceed those required of generalist managers. Thus, many finance specialists in fields similar to public health have degrees in either accounting or finance or both. Public health finance specialists that do not have such academic backgrounds must gain the requisite skills through continuing professional education and on-

new public health finance courses requires academic approval as set forth in institutional regulations. Most universities require that new courses be developed at department level and submitted for approval first at college level and then at university level. In addition, universities that are part of state systems often require approval or course number assignment (or both) at the board of regents or system level. Although the approval process can be lengthy, it rarely results in denial. Thus, required approval is rarely as much of an impediment to the creation of new courses as is the lack of curriculum “space” or resources.

ACCREDITATION REQUIREMENTS

Schools of public health and their component programs, as well as related programs outside of such schools (primarily MPH programs), are accredited by the Council on Education for Public Health (CEPH). Currently, 42 schools and 79 separate programs are accredited.¹⁷

CEPH's objectives are (1) to promote quality in public health education through a continuing process of self-evaluation; (2) to assure the public that institutions offering graduate instruction in public health have been evaluated and judged to meet essential standards; and (3) to encourage improvements in the quality of public health education. To be accredited, programs must demonstrate educational excellence, which, according to CEPH, relates directly to proficiency in practice. Graduates should be prepared to begin professional careers with a level of competence appropriate to their education and previous experience, and to

stay current with developments in public health and related fields.

The most effective way to ensure that appropriate finance content is embedded in public health programs is to make that an accreditation requirement. Currently, CEPH defines the areas of knowledge basic to public health as biostatistics, epidemiology, environmental health sciences, health services administration, and social and behavioral sciences. Additionally, health services administration is described as planning, organization, administration, management, and evaluation and policy analysis of health and public health programs. CEPH requires that all professional (masters) students demonstrate an understanding of the basic knowledge areas and that these areas be integrated into all degree curricula.

Within each knowledge area, programs must establish required competencies that define what a successful learner should know and be able to do upon graduation. Furthermore, competencies should describe in measurable terms the knowledge, skills, and abilities a successful graduate will demonstrate at the conclusion of the program. The relationships between competencies and designated learning objectives (the incremental learning experiences at the course and experiential levels that lead to the development of the competencies) should be explicit.

A program may develop its own competencies or may adopt competencies that have been promulgated by recognized public health organizations. In public health areas where there is profession-wide acceptance of specific competencies, the program must subscribe to those competencies or justify their modifica-

tion. Competencies should guide the curriculum planning process as well as be the primary basis for measuring student achievement. Required competencies may change over time as practice changes, and programs must periodically assess changing needs to assure the continued relevance of their curricula to practice.

There are two accreditation agencies similar to CEPH in mission and type of program accredited. Because of similarities in educational programs, it is useful to consider their approach to accreditation requirements, espe-

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cially as they pertain to finance. The first agency is the National Association of Schools of Public Affairs and Administration (NASPAA), which currently accredits 158 masters programs through its Commission on Peer Review and Accreditation.¹⁸ As with CEPH, NASPAA does not list specific competencies. Rather, it lists five required domains which programs use as a starting point for establishing programmatic competencies. Finance is not specifically mentioned in the required domains, but is implicit in several domains such as to lead and manage in public governance and to analyze, synthesize, think critically, solve problems and make decisions.

The second similar agency is

“Success can be measured by the number of public health schools and programs that require students to take public health-specific finance courses.”

the Commission on Accreditation of Healthcare Management Education (CAHME), which accredits graduate healthcare management programs.¹⁹ Currently, 74 programs are accredited by CAHME. CAHME's criteria for accreditation is very similar to CEPH and NASPAA, in that CAHME specifies 19 healthcare management content areas, but allows the individual programs to create required competencies. Unlike CEPH and NASPAA, however, CAHME specifically includes financial analysis and management as one of the content areas.

In summary, CEPH accreditation currently requires that public health students meet program established competencies in the area of health services administration, which is described as planning, organization, administration, management, and evaluation and policy analysis. However, the specific competencies are left to individual programs. Although it can be argued that the finance function is inherent in the description of health services administration, the best way to motivate public health programs to incorporate relevant finance content into their curricula would be to specifically include the finance function in its description of health services administration.

SUCCESS MEASURES

The true success of any academic program is measured by the professional success of its graduates. Thus, the long-term success of the inclusion of unique public health finance content into public health education requires that future managers be prepared to deal with new and demanding financial challenges, including an increasing demand for services, resource constraints, and the requirement for more accountability and transparency. Unfortunately, this success measure takes years to achieve and is very difficult to assess.

In the short-run, success can be measured by the number of public health schools and programs that require students to take public health-specific finance courses: the greater the proportion of colleges and programs that offer such courses, the greater the success of this initiative. Of course, as discussed earlier, resource restrictions will probably impede success, at least initially. However, positive actions by the accreditation agency (CEPH) can provide a significant impetus to the process.

As a precursor to the measures listed here, it is essential that the public health field recognize finance as an area of study vital to mission accomplishment. Furthermore, the finance education of students must recognize the unique nature of public health. This recognition can be mea-

sured by the amount of research and publications related to public health finance.

NEED FOR ADDITIONAL RESEARCH

Although this paper documents the need for dedicated finance education of public health students, it does not translate the public health finance competencies into detailed areas of study.

A logical follow on to this paper would use the public health competencies, as well as practices, identified by Honoré and Costich to develop specific learning objectives and course content. The end result would be syllabus templates for two public health finance courses. The first syllabus would lay out the detailed content for a fundamentals course, which is applicable to all public health students. The second syllabus would provide a detailed guide for the second course, which applies to management concentration students.

In addition to syllabi, it would be useful to develop bridge materials that could be used by faculty to add public health content to existing finance courses. This would allow faculty to more easily transform current courses to conform to the framework developed in this paper. Without such materials, faculty may not have the time or resources available to make the transition.

Another potential area of research would be the development of additional information regarding the current state of public health finance education and the problems inherent in implementing program specific finance courses. Finally, it would be very useful to have more information on the educational backgrounds of generalist public health manag-

“A logical follow on to this paper would use the public health competencies, as well as practices, to develop specific learning objectives and course content. The end result would be syllabus templates for two public health finance courses.”

ers. This information would help structure the educational and training interventions needed to insure that the managerial workforce has the needed finance competencies. It is envisioned that survey methodologies would be used for these final two areas of research.

CONCLUSIONS

Although the field of public health is highly diverse, it can be characterized as a blend of public and private activities dedicated to improving the nation's health. To accomplish the ever expanding number of tasks required by this mission, public health managers must utilize the limited amount of fiscal resources available as efficiently as possible, which requires financial literacy within the managerial workforce.

Currently, finance education in public health academic programs does not provide future managers with the necessary knowledge, skills, and abilities needed to meet the finance competencies required of public health managers. This educational shortfall arises because most public health students are not required to take a finance course. Furthermore, the courses that are taken, typically by management concentration students, fail to include all content relevant to the field of public health.

To correct these deficiencies, it is recommended that, at a minimum, all public health students take one finance course and management concentration students take two finance courses. As important, the finance courses offered to public health students should be specific to public health, as opposed to more generic courses offered as part of other programs.

It is recognized that resource limitations at academic institutions create impediments to the creation and teaching of dedicated public health finance courses. Still, over the long run, the best way to ensure that future public health managers possess requisite finance skills is to begin the process in academic programs. The recognition of the importance of the finance function by the public health program accreditation body can provide an impetus for programs to increase and improve finance content.

REFERENCES

1. Institute of Medicine. *The Future of Public Health*. Washington, DC: National Academy Press; 1988.
2. Institute of Medicine. *The Future of Public Health in the 21st Century*. Washington, DC: National Academy Press; 2003.
3. Moulton AD, Halverson PK, Honoré PA, Berkowitz B. Public health finance: a conceptual framework. *J Public Health Manag Pract*. 2004; 10(5): 377-382.
4. Honoré PA, Amy BW. Public health finance: fundamental theories, concepts, and definitions. *J Public Health Manag Pract*. 2007; 13(2): 89-91.
5. Shortchanging America's health 2008: a state-by-state look at how federal public health dollars are spent. Trust for America's Health Web site. <http://healthyamericans.org/reports/shortchanging08/>. April 2008. Accessed January 29, 2010.
6. Annual Data Report 2008. Association of Schools of Public Health Web site. <http://www.asph.org/document.cfm?page=749>. Accessed January 30, 2010.
7. Costich JF, Honoré PA, Scutchfield FD. Public health financial management needs: report of a national survey. *J Public Health Manag Pract*. 2009; 15(4): 307-310.
8. Sorensen AA, Bialek, RG eds. *The Public Health Faculty/Agency Forum: Linking Graduate Education and Practice—Final Report*. Gainesville, FL: University Presses of Florida; 1991.
9. Gillespie KN, Kurz RS, McBride T, Schmitz HH. Competencies for public health finance: an initial assessment and recommendations. *J Public Health Manag Pract*. 2004; 10(5): 458-466.
10. Honoré PA, Costich JF. Public health financial management competencies. *J Public Health Manag Pract*. 2009; 15(4): 311-318.
11. ACHE healthcare executive: competencies assessment tool 2010. American College of Healthcare Executives Web site. http://www.ache.org/pdf/nonsecure/careers/competencies_booklet.pdf. Accessed January 30, 2010.
12. The American College of Medical Practice Executives. *The ACMPE Guide to the Body of Knowledge for Medical Practice Management*. 2003.
13. ICMA practices for effective local government. International City/County Managers Association Web site. <http://icma.org/main/bc.asp?bcid=120&hsid=11&ssid1=2495>. Accessed January 30, 2010.
14. HFMA finance suite. Healthcare Financial Management Association Web site. <http://www.healthstream.com/hfma.financesuite.html>. Accessed January 30, 2010.
15. Content and specifications of exams. Government Finance Officers Association Web site. <http://www.gfoa-cpfo.org/content.html>. Accessed January 30, 2010.
16. Allison G. Public and private management: are they fundamentally alike in all unimportant respects? In: Land F, ed. *Current Issues In Public Administration*. St. Martin's Press; 1994: 16-32.
17. Council on Education for Public Health. Council on Education for Public Health Web site. <http://www.ceph.org>. Accessed January 30, 2010.
18. National Association of Schools of Public Affairs and Administration. National Association of Schools of Public Affairs and Administration Web site. <http://www.naspaa.org>. Accessed January 30, 2010.
19. Commission on Accreditation of Healthcare Management Education. Commission on Accreditation of Healthcare Management Education Web site. <http://www.cahme.org>. Accessed January 30, 2010.

“In addition to syllabi, it would be useful to develop bridge materials that could be used by faculty to add public health content to existing finance courses.”

Appendix 1

Comparison of Finance Competencies for Public Health and Similar Fields

"X" indicates the competency is required by the organization

"-" indicated the competency is not required by the organization

"*" indicates a qualitative difference in the competency compared to public health

"1" indicates a qualitative difference in the competency compared to public management fields

"2" indicates a qualitative difference in the competency compared to ACMPE, HFMA, and GFOA

Public Health Finance Competencies (Honore & Costich, 2009)	ACMPE Finance Competencies	ACHE Finance Competencies	HFMA Finance Competencies	ICMA Finance Competencies	GFOA Finance Competencies
Demonstrate knowledge of general accounting principles and standards	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Gathers, interprets, and reports financial data and communicates data & information according to standards	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Assesses the financial status of the organization and develops any necessary corrective measures	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Develops budgets and financial data according to prescribed submission formats and specifications	X ^{*1}	X ^{*1}	X [*]	X	X
Use cost and managerial accounting	X	X	X	X	X
Use economic evaluation approaches	—	—	—	X	X
Applies these skills to the practice of public health	—	—	—	—	—
Assesses budget activities and their relationship to the operational and program goals of the organization	X [*]	X [*]	X [*]	X	X
Incorporates knowledge of grants accounting	—	—	—	X	X
Integrates knowledge of the grant-making process with financial management practices	—	—	—	X	X
Applies knowledge of basic financial and business processes (e.g., procurement, accounts payable, accounts receivable)	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Applies management evaluation methods and performance measurement to monitor program performance and track achievement of program objectives	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Demonstrates the knowledge and ability to manage monetary resources	X	X	X	X	X
Promotes financial accountability and transparency	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Ensures the accuracy of financial accounting systems and financial information	X	X	X	X	X
Functions as the financial expert for organization	X [*]	X ^{*2}	X	X ^{*2}	X
Defines business and IT requirements and maintains an integrated financial management system to ensure the generation of timely, accurate, and consistent financial information	X	X	X	X	X
Uses available resources (e.g., financial data, budget information, financial management concepts, information systems etc) to increase program effectiveness by conducting analysis and developing viable solutions to complex program management issues	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Assess risks (e.g., IT liability)	X	X	X	X	X
Implements appropriate management control systems including a quality assurance program	X ^{*1}	X ^{*1}	X ¹	X [*]	X [*]
Supports the audit function by assisting program auditors and using audit information for program improvement	X	X	X	X [*]	X [*]
Promotes public health finance as a profession	—	—	—	—	—
Leads the process of identifying new funding sources, revenue streams, and product lines and provides advice on strengthening and maintaining the existing ones	X ^{*1}	X ^{*1}	X ^{*1}	X [*]	X [*]
Develops policies and procedures to ensure compliance with regulations and the issuance of accurate financial information	X ^{*1}	X ^{*1}	X ^{*1}	X	X
Demonstrates knowledge of legislative processes, policy setting, and political issues	X	X	X	X	X
Articulates fiscal implications of policies	X	X	X	X	X
Maintains current information on national, state, and local issues and pending policies that may impact public health financing	X	X	X	X	X
Recognizes strategic planning process and the relationship to budget formulation and sustainability planning	X	X	X	X	X
Accesses the needs and satisfaction of stakeholders and customers and makes recommendations to implement improvements that enhance the delivery of services and achievement of desired outcomes	X ^{*1}	X ^{*1}	X ^{*1}	X	X

FINANCE CONTENT IN ACADEMIC PUBLIC HEALTH PROGRAMS

Public Health Finance Competencies (Honore & Costich, 2009)

	ACMPE Finance Competencies	ACHE Finance Competencies	HFMA Finance Competencies	ICMA Finance Competencies	GFOA Finance Competencies
Displays and promotes ethical practices	X	X	X	X	X
Understands and values cultural competence	—	—	—	—	—
Sets the strategic financial direction of the organization	X	X	X	X	X
Identifies the relationship between strategic planning, budgeting, and financial management	—	—	—	X	X
Develops plans for the role of the finance, business, and administrative functions during the disaster response situations	—	—	—	X	—
Trains the workforce on finance, business, and administrative concepts	—	—	—	—	X
Assesses financial information needs of decision makers	X	X	X	X	X
Articulates the mission and role of public health	—	—	—	—	—
Complies with human resources legal and regulatory requirements	X* ¹	X* ¹	X* ¹	X	—
Develops succession plans	—	—	—	X	—
Applies system thinking concepts effectively	X	X	X	X	X
Demonstrates proficiency in basic business software applications	X	X	X	X	X

Appendix 2

Listing of Reviewed Graduate Programs

(Programs rated in top 20 by U.S. News & World Report)

* Ranked in 2007

** Ranked in 2008

Denotes that program offers both MPH and MHA degrees

Top 20 Programs Master of Public Health*	Top 20 Programs Master of Health Administration*	Top 20 Programs Master of Public Administration**
Johns Hopkins University #	University of Michigan	Syracuse University
Harvard University	University of Minnesota	Harvard University
UNC-Chapel Hill #	UNC-Chapel Hill	Indiana University-Bloomington
University of Washington #	University of Pennsylvania	Princeton University
University of Michigan #	University of Washington	University of Georgia
Columbia University	Virginia Commonwealth Univ.	Univ. California-Berkeley
Emory University	Univ. Alabama-Birmingham	University of Kansas
Univ. California-LA	Northwestern University	University of Michigan
Univ. California-Berkeley #	Univ. California-Berkeley (SPH)	Univ. of Southern California
University of Minnesota #	Univ. California-Berkeley (Haas)	Carnegie Mellon University
University of Pittsburgh #	Univ. California-LA	Duke University
Univ. Texas-Houston	Johns Hopkins University	New York University
Boston University	New York University	University of Chicago
Tulane University #	Ohio State University	American University
Univ. Illinois-Chicago #	St Louis University	Columbia University
Univ. Alabama-Birmingham	University Missouri-Columbia	George Washington Univ.-Washington D.C.
Yale University	Boston University	Georgetown University
University of Iowa #	University of Iowa	SUNY-Albany
George Washington Univ. #	Washington Univ.-St Louis	Univ. California-LA
Univ. of South Florida #	Duke University	University of Minnesota

Course Revision and Curriculum Development Requirements

| Peter J. Fos, PhD, MPH

There appears to be a disconnect between what is emphasized in academic public health education and the expectations in public health practice. The typical MPH curriculum contain very little content on management functions, especially regarding public health finance.

INTRODUCTION

ACADEMIC PUBLIC HEALTH

programs are continually under review and modification to meet the needs of students and the nation's health. The typical educational model in public health for entry into public health practice is at the graduate level in schools of public health or programs in medical schools or universities (e.g., Master of Public Health, MPH; Master of Science in Public Health, MSPH; Doctor of Public Health, DrPH; Doctor of Philosophy, PhD; and Doctor of Science, ScD). This graduate school model has become the gold standard in academic public health education. Given this, public health curriculum has been modified as

a response to the demands of public health practice and associated accreditation requirements.

However, there appears to be a disconnect between what is emphasized in academic public health education and the expectations in public health practice. Most people working in public health practice have little or no formal training in public health. According to the Association of State and Territorial Health Officials four out of five current public health workers have not had formal training for their specific job functions.¹ As a result, MPH graduates entering public health practice degree are often placed in management and leadership positions. The typical MPH curriculum (with the possible exception of public health management programs) contain very little content on management functions, especially regarding public health finance.

A recent review of graduate and undergraduate public health curricula has shown that public

health education programs "...do not provide (1) all students with a basic understanding of finance principles and (2) management concentration students with finance content that sufficiently reflects the uniqueness of public health."² Additionally, this report discovered that managers in public health agencies are expected to effectively and efficiently use resources. Without an adequate finance education public health managers will not be able to meet job performance expectations

In Trust for America's Health report, *Shortchanging America's Health 2008: A State-by-State Look at How Federal Public Health Dollars are Spent*, it is stated that less money is being spent on maintaining and improving health each year.³ In fact, the report cites an article in the *Journal of Public Health Management and Practice* which highlights the importance of public health finance and its role in efficiently allocating resources to support improv-

ing and maintaining the nation's health.⁴

It appears that academic public health education, as a rule, has not fully embraced the need for curricula in management and finance. This section will address the issue of public health practice expectations and more fully describe this apparent disconnect which is resulting in less than fully prepared MPH graduates in the area of public health finance.

COMPETENCIES

Public health practice expectations have been articulated as competencies. Competencies are constructs of a range of attributes manifested as skills, knowledge, or abilities to perform tasks. In fact, the Institute of Medicine (IOM) addressed core competencies in 2002 in its report, *Shaping the Future of the Public's Health in the 21st Century*.⁵ Competency sets were described in the IOM report as follows: a) core: basic public health skills to perform essential public health functions, b) function-specific: leadership, management, supervisory, and support staff, c) discipline-specific: professional and technical specialties, d) subject-specific (within a discipline), e) workplace basics: includes literacy, writing, presentation skills, and computer literacy.

Core competencies are configured into eight major categories: (1) analytic/assessment skills, (2) policy development/program planning skills, (3) communication skills, (4) cultural competency skills, (5) community dimensions of practice skills, (6) public health science skills, (7) financial planning and management skills, and (8) leadership and systems thinking skills. The financial planning and manage-

ment skills address a broad spectrum of competencies, and all of the competencies in this category are related directly to public health finance. Those specific to public health finance include:

a) develops a programmatic budget, b) manages programs within current and forecasted budget constraints, c) develops strategies for determining budget priorities, d) evaluates program performance, e) uses evaluation results to improve performance, and f) prepares proposals for funding from external sources. Other important competencies are: applies public health informatics skills to improve program and business operations, negotiates contracts and other agreements for the provision of services, uses cost-effectiveness, cost-benefit, and cost-utility analyses in programmatic prioritization and decision making.⁶ These competencies indicate the need for academic public health education to include an emphasis on public health finance.

On the basis of outcomes from related research,⁷ educators generally agree that competency- or outcomes-based education can improve individual performance, enhance communication and coordination across courses and programs, and provide an impetus

for faculty development, curricular reform, and leadership in educational innovation.⁸ Additionally, explicitly specified, action-oriented behavioral competencies can significantly enhance learning and assessment outcomes.⁹ Consequently, several initiatives have been launched to

identify and specify competencies for graduates of educational programs in the health professions.¹⁰

An Association of Schools of Public Health (ASPH) survey conducted in 2004 of all of its accredited United States schools of public health assessed extent to which the schools were offering curriculum content in the 8 areas recommended by the IOM. The survey results indicated that schools of public health were offering content in these areas. The survey also indicated a positive responsiveness to the new public health challenges and to the needs of the field.

Historically, academic public health education began in the early 1900s in the United States, with the first school of public health established in the 1920s. The advent of academic public health education was characterized by infectious diseases, which resulted in the development of curriculum in epidemiology, vital statistics, environmental health, and public health administration. These courses developed into disciplines, programs, and academic departments.

Since the 1920s health problems, and major causes of death, have changed from infectious to chronic diseases. This change has been accompanied by changes in curriculum. These changes have been a result of aging of the population and the increase in the number and types of chronic diseases. Attention has been placed on lifestyle behavior, as well as the study of chronic diseases, the effects of smoking, obesity, lack of exercises, and environmental

“This section will address the issue of public health practice expectations and more fully describe this apparent disconnect which is resulting in less than fully prepared MPH graduates in the area of public health finance.”

issues. Prevention of disease is an outcome of this focus and has resulted in public health curricula modification.

Over the past few years, public health core competencies have joined student learning outcomes as guiding principles for curricula development. Accredited schools and programs in public health have adopted MPH core competencies. The ASPH initiated its Core Competency Model Development Project for the MPH degree in 2004 with support from the CDC.¹¹

In general, the MPH curriculum in schools and programs of public health has traditionally been organized around 5 core

disciplines focus on a) biostatistics, b) environmental health sciences, c) epidemiology, d) health policy and management, and e) social and behavioral sciences. The interdisciplinary/cross-cutting competencies address a) communication and informatics, b) diversity and culture, c) leadership, d) public health biology, e) professionalism, g) program planning, and h) systems thinking.

The MPH core competencies are related to the core curriculum in the program. An example list of MPH core competencies are as follows: 1) monitoring health status to identify and solve community health problems, 2) diagnosing and investigating health problems and health hazards in the community using an ecological framework, 3) informing, educating, and empowering people about health issues, 4) mobilizing community partnerships and action to identify and solve health problems, 5) developing policies and plans that support individual and community health efforts, 6) using laws and regulations that protect health and ensure safety, 7) linking people to needed health services and assure provision of health care when otherwise unavailable, 8) evaluating effectiveness, accessibility and quality of personal and population-based health services, 9) conducting research for new insights and innovative solutions to health problems, and 10) communicating effectively with public health constituencies in oral and written forms.

Dr. Harrison Spencer, President of the ASPH, commented that his organization is expanding its efforts of establishing competencies beyond the public health core. He stated that current efforts include identifying competencies for global health (and glo-

balizing the curriculum for the Doctor of Public Health degree) and cultural competencies. According to his comments other areas will be targeted in this ongoing process.

The author of the section of the report and the principal investigator (PI) for the project met with Dr. Spencer recently to discuss the lack of focus on the application of finance theory and concepts to public health in MPH courses and curriculums. At his invitation, the PI was requested to present concerns for discussion at the November 2009 meeting of the Health Policy and Management Council of ASPH. The observations were warmly received by the Council. Several members of the ASPH Health Policy and Management Council including the Chair voiced concurrence regarding the limited focus on public health finance and next steps were initiated to further explore corrective courses of action.

CURRICULUM DEVELOPMENT

Curriculum is a possession of the faculty of a school or university. Curriculum development is a faculty responsibility. Curriculum development should be faculty-driven because they have the educational and professional expertise in their respective academic or technical disciplines. In this sense faculty determine the content of courses in the curriculum. Included in this development is identification of student learning outcomes which must be measurable for assessment purposes. Colleges, schools and universities place the primary responsibility for the content, quality, and effectiveness of the curriculum with its faculty. In this way, faculty have a clear ownership of the

“Several members of the ASPH Health Policy and Management Council including the Chair voiced concurrence regarding the limited focus on public health finance and next steps were initiated to further explore corrective courses of action.”

disciplines: biostatistics, epidemiology, environmental health science, health policy and management, and social and behavioral sciences. Public health graduates typically concentrate in one of the core discipline areas; however, study can also be focused on particular population groups or subject areas, such as aging studies, global health, maternal and child health, mental health, or public health nutrition.¹² The ASPH project attempted to align programmatic competencies with those recommended by the IOM by identifying domains and competencies, within each domain, for MPH curriculum. These domains were classified as discipline-specific and interdisciplinary/cross-cutting competencies. The discipline-specific competen-

curriculum, beginning at the department level and advancing through the college and university. Curricular policies, and their implementation, principally involve the faculty in the process of creation and approval.

Given the above philosophical tenet, courses and curriculum changes are submitted by faculty through an appropriate committee structure. This structure varies across universities, but it has common components. Typically, the structure consists of departmental, college, and university-wide committees. Additionally, administrators must approve the curriculum development at each level of committee review. The general process is as follows: 1) a faculty member (or a group of faculty members) propose a new course/program, or a modification of an existing course/program; 2) the proposal is submitted to the department chair and departmental committee; 3) the proposal then is submitted to the school committee, which sends it to the dean; 4) after receiving decanal approval, the proposal is sent to a university committee, which sends it to the vice president for academic affairs; 5) final university approval is granted by the university president. After receiving presidential approval the proposal is approved by a governing board of the university. This is often an iterative process, characterized by responses to recommendations from each reviewing body. The process has several steps because of the need to ensure academic integrity and to avoid redundancies in the curriculum.

The structural/technical aspects of the process follow this general pattern. College (or School) curriculum committee are usually standing committees

which are responsible for a) developing curriculum policies and procedures, b) reviews proposed degrees, majors, tracks, courses, and course changes, c) handles other college-wide matters related to curriculum. A typical MPH curriculum committee will evaluate, review, approve, or deny all proposed changes to the MPH curriculum and degree requirements, including academic standards and policies, as well as course competencies emphasized to address workforce needs. Curriculum Committee memberships includes faculty, students, and academic administrators.

Departmental faculty members develop courses (or programs) that are appropriate to their degree programs. These courses (or programs) proposals are submitted for departmental level approval. Then the course (or program) proposals are submitted to the Curriculum Committee for final approval. The Committee also has responsibility for monitoring the academic rigor and quality of the curriculum, and ensuring that accreditation standards for the achievement of competencies are maintained. University curriculum committees are responsible for a) developing curriculum policies and procedures, b) reviews proposed degrees, majors, tracks, courses, and course changes, wc) handles other university-wide matters related to curriculum.

DISCUSSION AND CONCLUSIONS

This leads to discussing what really guides curriculum development in public health education. In general, faculty have a primary role in initiation of the establishment of specific curricular content. Faculty may feel that exist-

ing curriculum is no longer adequate or appropriate prepare students for careers in public health. The basis for the belief that curriculum changes are needed include: a) faculty expertise, b) student profiles, c) input from stakeholder groups, d) internal curriculum review, and d) external curriculum review. It has been said that a curriculum “not only reflects but is a product of its time.”¹³

Other considerations are discipline- and industry-specific. The public health field undergoes changes due to technology advances and emerging health and disease concerns. These changes result in students’ need for differ-

“Curriculum development is a faculty responsibility. Faculty determine the content of courses in the curriculum.”

ent skills over time. The skills needed are both academic (mastery of the principles and concepts) and workplace (successful application of the principles and concepts, or competencies). Public health workers need knowledge and technical skills that are requisite to the public health field.¹⁴ A second consideration is pedagogical; curricular content is developed because of the needed pedagogy of academic public health education.

In discussing how the ASPH identified competencies and targeted areas Dr. Spencer explained the process. Typically some agency outside of academics will propose areas of interest. Often this is done through federal legislation and the CDC. The ASPH will address these concerns and identify competencies by first selecting competency domains. Work groups are formed

“In general, faculty have a primary role in initiation of the establishment of specific curricular content.”

to address each domain. Through a modified Delphi approach the work groups identify the competencies for each domain, with a limit of ten (10) competencies per domain.

The ASPH member schools of public health can, voluntarily, use the competencies as a guide to drive curriculum development and modification. In essence, the competencies are developed in a top-down manner and while curriculum development is bottom-up. This method maintains the faculty “ownership” of the curriculum in public health education, while addressing the needs and demands of public health, as a whole.

This report has demonstrated the need for public health finance curricula content in academic public health education. The IOM has clearly articulated the requisite competencies for public health professionals. Public health practice has been shown to have expectations that do not

totally align with current ASPH competencies with respect to public health finance. Attention must be given to this disconnect and efforts must begin to initiate the process of public health curriculum development in academic public health education.

REFERENCES

1. U.S. Centers for Disease Control and Prevention. Public health's infrastructure: a status report. U.S. Centers for Disease Control and Prevention Web site. <http://www.uic.edu/sph/prepare/courses/ph410/resources/phinfrastructure.pdf>. March 2001. Accessed January 20, 2009.
2. Gapenski LC, Morris ME, Honoré PA. *Finance Content in Academic Public Health Programs*. University of Southern Mississippi; 2009.
3. Shortchanging America's health 2008: a state-by-state look at how federal public health dollars are spent. Trust for America's Health Web site. <http://healthyamericans.org/reports/shortchanging08/>. April 2008. Accessed August 26, 2009.
4. Honoré PA, Clarke RL, Mead DM, Menditto SM. Creating financial transparency in public health: examining best practices of system partners. *J Public Health Manag Pract*. 2007; 13(2):121-128.
5. Institute of Medicine. *The Future of Public Health in the 21st Century*. Washington, DC: National Academy Press; 2003: 424.
6. Council on Linkages: Core Competencies for Public Health Professionals 2009. Public Health Foundation Web site. June 2009. <http://www.phf.org/link/corecompetencies.htm>. Accessed January 20, 2010.
7. Lucia AD, Lepsinger R. *The Art and Science of Competency Models: Pinpointing Critical Success Factors in Organizations*. San Francisco, CA: Jossey-Bass/Pfeiffer; 1999.
8. Institute of Medicine Committee on the Health Professions Education Summit. *Health Professions Education: A Bridge to Quality*. Washington, DC: National Academy Press; 2005.
9. Harden RM. Developments in outcome-based education. *Med Teach*. 2002; 24:117-120.
10. Calhoun JG, Davidson PL, Sinioris ME, Vincent ET, Griffith JR. Toward an understanding of competency identification and assessment in health care. *Qual Manag Health Care*. 2002;11(1): 14-39.
11. Master's degree in public health core competency development project, Version 2.3. Association of Schools of Public Health Website. <http://www.asph.org/document.cfm?page=851>. Accessed January 20, 2010.
12. Calhoun JG, Ramiah K, Weist EM, Shortell SM. Development of a core competency model for the master of public health degree. *Am J Public Health*. 2008; 98(9): 1598-1607.
13. Oliva PF. *Developing the Curriculum*. 7th ed. New York, NY: Longman Publishing Group; 2005: 27.
14. Schmidt BJ, Finch, CR, Faulkner SL, Kandies J. *Preparing Teachers to Successfully Integrate Vocational and Academic Education: A Case Study Approach*. Berkeley, CA: National Center for Research in Vocational Education, University of California; 1995.

Building Methods and Capacity for Public Health Financial Management

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Financial management is defined as the “application of theory and concepts to help managers make better decisions,”^{11(p 5)} and involves: Safeguarding and making optimum use of resources to ensure sustainability and mitigate potential risk; Proactively conducting analysis to provide information on the financial health and trends of an organization; Identifying agency financial and operational warning signs and vulnerabilities that are exacerbated during an economic downturn; Building expertise on how to align resources with strategic and health planning.

INTRODUCTION

PUBLIC HEALTH FINANCE was defined in 2007 as a “*field of study that examines the acquisition, utilization, and management of resources for the delivery of public health functions and the impact of these resources on population health and the public health system.*”^{1(p 89)} The definition was included in a special public health finance issue of the Journal of Public Health Management and Practice developed through

support from the Robert Wood Johnson Foundation. The publication provided a platform to raise awareness for many of the financial related challenges and barriers in the public health system. The late Senator Edward M. Kennedy provided observations on the public health infrastructure as an essential component for “national security, economic stability, and general welfare.”² Other topics that addressed barriers to assessing the sustainability of the system included difficulties with estimating national investments in public health,³ lack of financial transparency,⁴ challenges with methodologies for comparing financial investment to performance,⁵ and observations on how to advance public health finance.⁶ Three years forward, these challenges remain prevalent.

The purpose of this section of the report is to provide recommendations on how to strengthen and mainstream valid methods for financial assessments and to

introduce models for appropriate levels of training. Observations are provided on:

- ♦ Methodologies for measuring financial sustainability and performance that add value to public health agencies and the system,
- ♦ Optimal structures and venues for training the public health workforce (leadership and staffs) on how to apply financial management concepts as a means for minimizing financial risk, and
- ♦ Formats to routinely and systematically disseminate information of financial management to ensure application of best practices.

These recommendations build on those provided in section I on the long term educational and knowledge requirements to build a solid public health financial management workforce. They also advance finance theory and concepts by introducing quantitative methods for agency and system assessments.

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BACKGROUND

The sustainability of the public health system depends largely on the financial health of state and local public health agencies. Public health is a network of organizations and, consistent with fundamental systems thinking theories, the overall stability of the system is a reflection of conditions within those individual organizations. When attempting to measure financial health of the system and the individual agencies, a logical starting point begins with a set of fundamental interrelated questions such as:

- ◆ What barometers are used as tools to measure the financial health of public health agencies?
- ◆ What are the warning signs of potential financial and operational risks?
- ◆ When fiscal risks are suspected, how are symptoms triaged?

Surprisingly, there are no standards to measure financial health of public health agencies or the larger system. We simply do not know the degree of fiscal sustainability in the system. Federal, state, and local reporting of public health financial data continues to lack transparency and sufficiency to assess risk or to make reliable estimates of investments in public health.⁷ Data sets are limited and quality deficiencies are common. To illustrate this point, an informal review (by the principal investigator on this project), of published results from a

national survey of state financial data raised questions of validity. It is suspected that in mixed function state health departments, revenues and expenditures other than those dedicated to public health are included in the data set. Just as frustrating, methods for collecting data across states in a uniform manner similar to other sectors of public service (e.g., higher education, school districts) have not been applied to public health. Across the system there is poor alignment of program performance to financial information. Financial performance systems have not been developed that allow for comparisons of outcomes to investments.

Historically in public health, the main focus of fiscal analysis has been on budgeting. Budgeting is essentially a mechanism for tracking revenues and expenditures. However, budgeting is not a method for building agency assets⁸ or for effectively measuring ROI, economic value added, or strategic accomplishment.”^{9(p 435)} Equally as important, the workforce is not sufficiently trained from a long-term (degree acquisition) or short-term (continuing professional development) perspective on how to conduct financial management in public health agencies. Competencies are available that explicitly document needed skills and to guide public health financial management and related organizational activities, but this can not be accomplished with an undereducated workforce.¹⁰ The application of financial management concepts, that is

a routine practice among system partners (hospitals, schools, community health centers) is not sufficiently taught to the public health workforce. As indicated earlier in chapter I, education and training in the necessary content areas is absent. Other research showed that 60% of finance courses in schools of public health Master of Public Health programs were developed to focus on the application of finance theory and concepts to hospitals and not public health.⁴ A reasonable explanation for this imbalance could be that many of the faculty teaching in MPH programs have expertise in hospital finance and little knowledge of public health practice. At a meeting in November 2009 with the principal investigator (PI) for this project, the Association of Schools of Public Health Policy and Management Council supported calls for strengthening MPH coursework in this area.

For the appropriate level of analysis to be mainstreamed in public health, the profession must embrace a culture for financial management and analysis. Financial management is defined as the “application of theory and concepts to help managers make better decisions,”^{11(p 5)} and involves:

- ◆ Safeguarding and making optimum use of resources to ensure sustainability and mitigate potential risk
- ◆ Proactively conducting analysis to provide information on the financial health and trends of an organization
- ◆ Identifying agency financial

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and operational warning signs and vulnerabilities that are exacerbated during an economic downturn

- ♦ Building expertise on how to align resources with strategic and health planning

A major barrier to mainstreaming contemporary financial management practices in public health is the absence of professional linkages to the field of public health finance. There is no national organization to serve as a professional home for this segment of the workplace. While public health has no national finance professional association, system partners organized as long as a century ago (Figure 1). In 1985 the Florida Association of County Health Department Business Administrators was established and remains the only state with an active structure for routine dialogue, analysis, and sharing of information on agency financial management and business related analysis. Given this void in the system, there is little opportunity to build a culture for this vital function.

What does it convey about the leadership of public health if financial practices lag behind others by over 100 years? Public health leadership must realize that there is an association between fiscal viability and the lack of attention to an organized financial management workforce. Is there any other discipline in public health or healthcare that is

100 years behind their peers in professional development of the workforce? The absence of professional associations or related structures such as training institutes makes it difficult to attract academics to the field of public health finance. Consequently, opportunities for them to learn about public health and explore avenues for applying finance theory and concepts to the field of public health are not available. The absence of reliable and valid data sets of federal, state, and local financial information also contributes to this problem. Researchers simply do not desire to use data lacking even the basic quality characteristics of reliability and validity. For a profession so dependent on public and external investments this is a dramatic breach of accountability.

These deficiencies also have an impact on the appropriate application of quality improvement (QI) concepts. The quality movement grew out of a desire to deliver better goods and services while reducing costs. A culture for quality improvement is advancing in public health, but a vital component of QI – cost – can't be adequately folded into these initiatives.

METHODOLOGIES FOR MEASURING FINANCIAL HEALTH

Financial management is not a new concept in search of an iden-

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tity or methodologies for use in analysis and research. In the practice of financial management, many disciplines (e.g., accounting, economics, finance, management) are blended in daily organizational practices as a means of minimizing the risk of financial loss. An effective system of financial management enhances the decision-making process by providing the appropriate tools.¹¹ A critically important tool is financial information. Another tool that provides information and is introduced below is *ratio and trend analysis*.

As noted in section I, a major deficiency in public health finance education and training is the gap between competencies for organizational financial assessments and metrics need for this to be accomplished. Providing information that can be used by decision makers to understand the relationships between elements in an organization is a fundamental function of financial management.¹² The quantitative evaluation methodology for as-

“While public health has no national finance professional association, system partners organized as long as a century ago (Figure 1).”

Figure 1 - Timeline of when system partners established finance professional associations

19th century	20th Century						21st Century
	1906	1910	1914	1926	1946	1948	1952
	Government Finance Officers Association	Association of School Business Officials International	International City/County Management Association	Medical Group Management Association	Healthcare Financial Management Association	Association of State Human Services Finance Officers	National Association of College & University Business Officers

sessing financial health and identifying risk is *ratio and trend analysis*. The history of financial data ratio analysis can actually be traced to the end of the 19th century. This metric is formulated by the comparison of ratios that are derived from information in an organization's financial records, program documents, and demographic data sets. Historical trends of these ratios can be used to make inferences, not solely about an organization's financial condition, but about program operations as well. Both are used to identify underlying causes of financial stress. This financial man-

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agement concept has been widely used in all sectors of health care and other industries as a strategic decision-making tool. All sectors of retail industries (i.e., fast food, clothing, electronics) use ratio and trend analysis religiously to measure system performance and to strategically adjust business models based on analysis results. The national system of Community Health Centers report financial and operational data ratios through a Uniform Data System¹³ making ratios readily available

for research and analysis.⁽¹⁴⁾ Hospitals also have a comprehensive set of ratios that have been used for decades (Table 1). A key feature used by hospitals is to provide data and set standards based on hospital size, a valuable tool when measuring individual agency performance. As shown with the hospital illustration in Table 1, the utility of ratio and trend analysis also increases exponentially when data are compared industry-wide through benchmarking of peer institutions. Schools systems,¹⁵ and higher education¹⁶ also have comparable systems for analysis of financial health in their institutions.

A preliminary set of variables for ratio and trend analysis have been developed and implemented by the PI and colleagues at the University of North Carolina-Chapel Hill in over 100 local health departments. However, refinements are needed. Using a system-thinking approach to ratio and trend analysis requires the identification of critical variables through a committee of users. The National Association of County and City Health Officials has agreed to participate in a process to gain consensus on a revised list of data variables for inclusion in ratio and trend analysis of public health agencies. Establishing a Professional Development Coordinating Committee (Coordinating Committee) would be an ideal structure to advancing a system-wide culture for financial management in public


health. Participants can be taken from the list below:

- ♦ Association of State and Territorial Health Officials (ASTHO)
- ♦ National Association of County and City Health Officials (NACCHO)
- ♦ Association of Schools of Public Health (ASPH)
- ♦ American Public Health Association (APHA)
- ♦ Council on Education for Public Health (CEPH)
- ♦ Society of Public Health Education (SOPHE)
- ♦ Association of Budgeting and Financial Management (ABFM)
- ♦ Governmental Accounting Standards Board (GASB)
- ♦ International City/County Management Association (ICMA)
- ♦ National Association of County Officials (NACO)
- ♦ National Governor's Association (NGA)
- ♦ University faculty

Using the ratio values to develop an index of agency financial risk is a logical progressive step to increasing knowledge to support evidence-based decision-making. An illustration of this concept as it could be applied to public health is provided in Table 2 and Table 3.

In Table 2, an illustration is provided on a set of ratios that can be calculated using readily available data in an agency's financial records. A team of finance and public health experts can use this information to establish values for public health standards (Column E) based on best practices observed through national benchmarking among peer institutions. Developing multiple sets of standards based on population size is a reasonable approach. The National Association

Table 1 - Sample from the Ingenix Almanac of Hospital Financial and Operating Indicators¹⁵

	Ratio	> 499 beds	300 - 399 beds	<100 beds
	Total Margin	4.3%	3.6%	3.1%
	Days in accounts receivable	32.6	39.0	42.7
	Revenue per FTE	\$128,000	\$116,000	\$105,000
	Administrative Expense Ratio	7.8%	8.5%	10.3%

of County and City Health Officials (NACCHO) offered to convene a committee to contribute to this activity and could be used as the catalyst to establish the Coordinating Committee.

Consideration must also be given to development of an agency *Financial Risk Index*. A Financial Risk Index should be used to examine the financial health of public health agencies and could be a key indicator to identify fiscal exigencies in the system. As a means of measuring an agency's ability to provide services without interruption and to quantify any financial dangers, a *Financial Risk Index* (Table 2) can be compiled using key ratios. The ratios selected should be those that are highly associated with influencing financial condition. Weights should be assigned to each of the selected ratios included in the index based on degree of influence. Using a scoring system, agencies can be rated for risk on a scale from low to high (Table 3). Given its applicability as a tool for strategic financial assessment of the system, an agency *Financial Risk Index* has great applicability for QI and as an accreditation standard for financial management capacity and financial stability. A similar concept for indexing risk was developed by HRSA for Community Health Centers almost a decade ago.¹⁸ School districts¹⁹ have also been aggressive with the application of this concept. The concept could also be expanded to develop a *Public Health Sustainability Index*, a tool to measure a jurisdiction's ability to sustain the public health function. This concept is similar to **Service-Level Solvency** that is defined as – “the ability to provide needed and desired services at the level and quality required for the

“quantitative evaluation methodology for assessing financial health and identifying risk is ratio and trend analysis.”

Table 2 – Sample of Variables in a Ratio and Trend Analysis Tool

Ratio (A)	Definition (B)	Formula (C)	Relevance (D)	Public Health Standard* (E)
Revenue per capita	Measures the amount of revenue received per individuals served in the jurisdiction	Total revenues divided by jurisdiction population	Provides an overall indication of how much financial support received by the agency	
Property Tax Revenue Ratio	Quantifies the amount of property taxes dedicated to public health	Total tax revenue divided by total revenue	Indicates the level of dedicated support from the local jurisdiction	
Total Margin	Comparison of excess revenues over expenditures	Total revenues minus total expenditures divided by total revenues	Measures earnings (profit/excess revenues) per dollar of revenue	
General Fund Balance Ratio	Measures the degree that the agency is building a pool of surplus funds	General fund balance divided total revenues	A solid indication of whether the agency is building a funding contingency	
Operating Surplus/Deficit Margin	Measures whether the agency has sufficient revenues to cover expenditures	Current year surplus/deficit divided by total revenues	Measures ability to cover expenses with revenues	
Program Financial Risk	Measures the degree that program are self-supporting	Total program expenditures divided by total revenues dedicated specifically for that program	Measurement of agency's ability to control program expenditures	
Program Sustainability Index	Quantifies the degree that unsustainable programs impact operating margin	Total number of financial risk programs divided total # of agency programs	A predictor of operating surplus or deficit	
Administrative Expense Ratio	Measures the impact of agency administrative structures	Total administrative expenses divided by total expenditures	Metric used to assess allocation of funding to mission related programming	

* Best practice standards that should be used as performance guides would be established through a consensus process with the Public Health Finance Coordinating Committee

Table 3 – Model for a public health agency Financial Risk Index

Ratio (A)	Weights (Relative influence on the Index calculation)	Standards (Established based on industry best practices observed through benchmarking)	Agency Ratio Value (Taken from agency ratio data)	Possible Scores ¹	Public Health Standard* (E)
Revenue per capita	5			13.5	
Property Tax Revenue Ratio	3			8.1	
Total Margin	10			27	
General Fund Balance Ratio	3			8.1	
Operating Surplus/Deficit Margin	10			27	
Program Sustainability Index	3			8.1	
Administrative Expense Ratio	3			8.1	
Financial Risk Index				100%	

1. Score Key: 100% to 80% =Low risk; 79% to 60% =Moderate Risk; 59% to 50% = Elevated Risk; <= 49% = High Risk

Given its applicability as a tool for strategic financial assessment of the system, an agency Financial Risk Index has great applicability for quality improvement and as an accreditation standard for financial management capacity and financial stability.”

basic health, safety, and welfare of the community.^{20(p 31)} Potential indicators include:

- ♦ Local funding per capita for public health services
- ♦ State funding per capita for local public health services
- ♦ County public health funding as a percentage of total county expenditures
- ♦ County funding for the delivery of healthcare
- ♦ **Dedicated** tax per capita (e.g., property, sales, gaming) for local public health services
- ♦ Ratio of **Dedicated** public health tax levy to tax limit
- ♦ Ratio of property tax to income
- ♦ County government fund balance trend over 5 years
- ♦ County tax base trends
- ♦ Poverty rate
- ♦ Unemployment rate
- ♦ Uninsured rate trends
- ♦ Population trends
- ♦ Overall county health status ranking

Building a network of users that apply these management concepts is highly recommended. This can be accomplished through features on the finance website such as web casts that will be introduced in section IV and by establishing a venue for users to meet during one of the national public health conferences (e.g., APHA, NACCHO). Folding finance experts into this structure will be essential to transferring knowledge, for the timely development of training materials (e.g., data dictionary, users manuals), and for routine

dissemination of best practices. The availability of dissertation and research funding for the use of ratio and trend analysis data sets are also feasible approaches to attracting scholars to this field.

Benchmarking is one of the greatest benefits from ratio and trend analysis. It represents the application of a systems thinking method for financial analysis. The transfer of knowledge, a characteristic of benchmarking, creates the structure for interaction between system stakeholders.²¹ Benchmarking of financial ratio and trend analysis provides a formal structure for interaction and building relationships between stakeholders in the public health system. This has never been created in the profession of public health even though it is commonly used in healthcare and by other system partners including community health centers. It would represent a milestone of significant value especially given the fact that the inadequate exchange of knowledge and information serves as a barrier to effective networks.²¹ Establishment of an annual Award of Excellence for use of ratio and trend analysis as a measure of quality improvement could be a method for building capacity for strategic decision-making and for mainstreaming the concept in public health.

Supporting this must be a web-based system for data collection and benchmarking. A feasible structure would be a very basic data entry and report generation system through the public health finance website. Users would have the ability to anonymously use the feature and store data as a means of gaining trust with this group. NACCHO should play a critical role with having access to the data. A detailed discussion on

this is provided in section IV. The PI for this planning project met with the National Association of County and City Health Officials and they eagerly endorse this concept.

STRUCTURES AND VENUES FOR TRAINING

Several areas of this report pointed out that the public health workforce is not appropriately educated and trained in how to apply finance concepts to the field of public health. Strengthening educational requirements and content in degree programs was covered in section I. This section of the report will offer strategies for more immediate short-term opportunities to fill voids in professional development. Framing all training requirements are the competencies for the financial management workforce.¹⁰

As noted earlier there is no national public health finance professional association. Consequently, the financial management workforce does not have a professional voice or opportunities to network on finance and related topics. Professional associations play a critical role in identifying training needs through surveying the industry for hot topics, emerging trends, and workforce deficiencies. In these associations, a portfolio of special topic training sessions are offered in diverse training formats such as seminars, webinars, podcasts, etc. Illustrations in the healthcare sector include the Healthcare Financial Management Association (HFMA)²² and Medical Group Management Association (MGMA).²³ Both organizations are dedicated to improving financial and management practices across *all* operating units (i.e., radiology, laboratory services) in

healthcare organizations. They both offer an extensive range of professional development training programs ranging from on-line sessions to certification. Certification by either organization is considered the gold standard in health care management.

Many of the successful professional associations also have finance and management institutes. These institutes serve as structures that offer multi-day intensive professional development sessions. Successful models are presented below.

- The Government Finance Officers Association was founded in 1906. Its purpose is to “enhance the professional management of governments for the public benefit by identifying financial policies and practices and promoting them through education, training, and leadership.”²⁴ The Advanced Government Finance Institute (AGFI)²⁵ was established by GFOA nearly 25 years ago in 1986. The Institute is housed at the University of Wisconsin-Madison School of Business and offers an annual 5-day program for American and Canadian government leaders and finance professionals as well as for private industry specialist. A sample of topics covered in a 5-day session include emerging topics relevant to these professionals such as global and national economic trends, issues in accounting and auditing, financial planning, budgeting, strategic planning, organizational change, and technology. Participants completing the week-

long session receive 30 CPE credits for attendance.

- Another model program is the College Business Management Institute (CBMI).²⁶ CBMI was established 57 years ago by a branch of the National Association of College and University Business Officers. The institute is designed to give professionals the opportunity to increase their knowledge on economic, finance, administration, and business topics specific to higher education. Certification is awarded after successful attendance for 3 years of study, each lasting 4-½ days in June at the University of Kentucky School of Business. Colleges and universities recognize the certificate as a significant mark of accomplishment. In addition to professionals working in finance, participants also represent college and university executives, administrators, academic department professionals, and others. Faculty for the institute includes college and university presidents, corporate executives, practicing administrators, and university faculty. The PI for this project received certification from CBMI when serving as a university Vice President for Finance.

Replication of these models for a public health finance institute, even without affiliation to a professional association, would serve to fill the void in public health finance professional development. While more limited in scope when compared to an association, an institutes would fulfill the need for a professional connec-

“The availability of dissertation and research funding for the use of ratio and trend analysis data sets are also feasible approaches to attracting scholars to this field. Benchmarking of financial ratio and trend analysis provides a formal structure for interaction and building relationships between stakeholders in the public health system.”

tion for the public health workforce. Structures for the institutes highlighted in this report have been in place for 57 years and have well respected records of success. A potential structure for public health would be to partner with a university that is part of a HRSA Public Health Training Center (PHTC).²⁷ George Washington University School of Public Health, a partner in the HRSA Mid-Atlantic PHTC,²⁸ is keenly interested in such a partnership for a public health finance institute. Including faculty from the University of Florida who would develop the educational materials for the MPH courses under section I and training materials in this section would ensure consistency between the educational and training components. A core faculty of experts representing appropriate disciplines and topic areas would be established for the institute.

There are 14 PHTCs and the program is designed to improve the nation’s public health system by strengthening the technical, scientific, managerial and leadership competence of current and future public health professionals.²⁷ However, the PHTC curricula do not focus on finance. The ideal structure would be a 4-day on-site session with a certificate awarded for successful completion. As a means of mainstreaming the concept of ratio and trend analysis, it would be



“The financial management workforce does not have a professional voice or opportunities to network on finance and related topics.”

included as a component of this training. Potential training topics to select from are listed below:

- ♦ Public finance theory & concepts 101 with application to public health
- ♦ Financial management concepts/techniques (ratio analysis, economic evaluation, benchmarking, budget techniques, etc)
- ♦ Economics 101
- ♦ Strategic Financial Planning and building synergy to Strategic and Health Plans
- ♦ Risk Mitigation/Management
- ♦ Federal, state, and local appropriations processes
- ♦ Overview of state and local fiscal authority and responsibility
- ♦ Decision science applications to finance
- ♦ Auditing
- ♦ Grants management (i.e., cost principles)
- ♦ Financial management booth camp for program (non-fiscal) managers
- ♦ Lecture on the key features of the Federal CFO ACT
- ♦ Seminar in current finance hot topics

Other venues for professional development include:

- ♦ Provide training sessions and learning institutes at NACCHO, APHA, or ASTHO annual meetings. NACCHO has endorsed this venue.
- ♦ Provide training on ratio and trend analysis through state Public Health Associations as a means to promote knowledge sharing and building relationships through processes such as benchmarking. Trainings, data collection, and analysis have already been conducted in four states - FL, WV, KS, OH.
- ♦ Create web casts, pod casts, on-line courses, etc to reach a wide audience

- ♦ Conduct an annual training for new public health board members. NALBOH requested that this venue be included in this report.
- ♦ Establish practicums and internships in public health settings for community college students majoring in accounting, finance, economics, business administration and other related disciplines.
- ♦ Provide dissertation grants to attract new scholars to the field of public health finance

STRUCTURES FOR INFORMATION DISSEMINATION

A system to transfer knowledge in a timely manner must be a critical feature of this plan. This is especially important for transforming to a culture for financial management in the public health system. In section IV that follows in this report, a plan is provided for developing a strong web presence for public health finance. This website is a key component to financial management training, information dissemination, and increasing knowledge capacity.

MEASURES OF SUCCESS

Given the lag with embracing finance concepts, gaining attention of the public health profession for financial management practices would be a major accomplishment. More traditional measures of success include:

- ♦ Benchmark analysis and report from institutions participating in the training
- ♦ Annual system-wide report on agencies providing data into the ratio analysis system
- ♦ Use of the benchmark data by practitioner, researchers, and policymakers

- ♦ Identification and system-wide dissemination of underlying causes of fiscal stress
- ♦ Incorporation of education and training materials into MPH programs
- ♦ Identification and dissemination of financial management best practices
- ♦ Documented improvements in agency financial condition
- ♦ Use of the Risk and Sustainability Index in national performance and quality assessments
- ♦ Research using ratio and trend analysis data
- ♦ Increased publications on public health finance topics
- ♦ Dissertations on public health finance topics

CONCLUSION

Public health leadership must realize that harboring anxieties about data transparency and resistance to the application of contemporary financial management practices is not a strategy that will serve the profession well in the 21st century. It needs only to look back in history at the chronic under-funding and lack of accountability as evidence of what this strategy has produced in the past. It is imperative that strategies be implemented to build structures and provide venues for this segment of the workforce to be appropriately trained on how to apply the needed concepts.

REFERENCES

1. Honoré PA, Amy BW. Public health finance: fundamental theories, concepts, and definition. *J Public Health Manag Pract.* 2007; 13(2):89-91.
2. Kennedy EM. Public health: an essential commitment to the nation. *J Public Health Manag Pract.* 2007; 13(2):93-94.
3. Sensenig AL. Refining estimates of public health spending as measured in national health expenditures ac-

- counts: the United States experience. *J Public Health Manag Pract.* 2007; 13(2), 103-114.
4. Honoré PA, Clarke RL, Mead DM, Menditto SM. Creating financial transparency in public health: examining best practices of system partners. *J Public Health Manag Pract.* 2007; 13(2):121-128.
5. Honoré PA, Schlechte T. State public health agency expenditures: categorizing and comparing to performance levels. *J Public Health Manag Pract.* 2007; 13(2): 156-162.
6. Getzen TE. Advancing public health finance. *J Public Health Manag Pract.* 2007; 13(2): 225-226.
7. Shortchanging America's health 2008: a state-by-state look at how federal public health dollars are spent. Trust for America's Health Web site. <http://healthyamericans.org/reports/shortchanging08/>. April 2008. Accessed January 29, 2010.
8. Honore PA, Fos PJ, Smith T, Riley M, Kramarz K. Decision science: a scientific approach to enhance public health budgeting. *J Public Health Manag Pract.* 2010; 16(2): 98-103.
9. Chambers DW, Bergstrom R. Financial management and dental school strength, Part I: Strategy. *J Dent Edu.* 2004; 68(4): 433-438.
10. Honore PA, Costich JF. Public health financial management competencies. *J Public Health Manag Pract.* 2009; 15(4): 311-318.
11. Gapenski LC. *Fundamentals of Healthcare Finance.* Chicago, IL: Health Administration Press; 2009.
12. Steiss AW, Nwagwu EC. *Financial Planning and Management in Public Organizations.* New York, NY: Marcel Dekker, Inc; 2001.
13. Uniform Data System. Health Resources and Services Administration Web site. <http://www.hrsa.gov/data-statistics/health-center-data/index.html>. Accessed January 29, 2010.
14. Shi L, Collins PB, Aaron KF, Watter V, Shah LG. Health center financial performance: national trends and state variation, 1998-2004. *J Public Health Manag Pract.* 2007; 13(2): 133-150.
15. Almanac of hospital financial and operating indicators. Ingenix Web site. <http://www.ingenix.com/Products/Hospitals/PerformanceImprovement-DataAnalysisSolutions/AlmanacHospitalFinancial/>. Accessed January 29, 2010.
16. Common core data tools. US Department of Education Institute of Education Sciences. <http://nces.ed.gov/datatools/index.asp?DataToolSectionID=2>. Accessed January 29, 2010.
17. IPEDS data center. US Department of Education Institute of Education Sciences Web site. <http://nces.ed.gov/ipeds/datacenter/>. Accessed January 29, 2010.
18. Clouse TL, Silva G, Gilliam R. Assessing safety net provider financial health: a simple measurement tool. Agency for Healthcare Research and Quality Web site. <http://www.ahrq.gov/data/safetynet/clouse.htm>. September 2003. Accessed January 29, 2010.
19. Duncombe W, Jump B, Ammar SW, Wright R. Developing a financial condition indicator system for New York school districts: condition report education finance consortium. Education Finance Research Consortium Web site. <http://www.albany.edu/edfin/events.html>. May 23, 2009. Accessed January 30, 2010.
20. Local government management guide: financial condition analysis. New York Division of Local Government and School Accountability Web site. <http://osc.state.ny.us/localgov/pubs/lmgmg/financialconditionanalysis.pdf>. Accessed January 31, 2010.
21. Leischow SJ, Best A, Trochim WM, et al. Systems thinking to improve the public's health. *Am J Prev Med.* 2008; 35(2 Suppl): S196-S203.
22. HFMA certification program (CHFP). Healthcare Financial Management Association Web site. <http://www.hfma.org/certification/>. Accessed January 30, 2010.
23. MGMA boot camp: essentials of group practice management. MGMA Web site. <http://www.mgma.com/solutions/landing.aspx?cid=22714&id1=23488&mid=23488>. Accessed January 30, 2010.
24. Mission Statement and Strategic plan. Government Finance Officers Association Web site. http://www.gfoa.org/index.php?option=com_content&task=view&id=76&Itemid=96. Accessed January 30, 2010.
25. Advanced government finance institute. Government Finance Officers Association Web site. http://www.gfoa.org/index.php?option=com_content&task=view&id=18&Itemid=139. Accessed January 30, 2010.
26. College business management institute. SACUBO Web site. <http://www.sacubo.org/cbmi>. Accessed January 30, 2010.
27. HRSA Public health training centers. Association of Schools of Public Health Web site. <http://www.asph.org/document.cfm?page=1101>. Accessed January 30, 2010.
28. MidAtlantic training center partners. The MidAtlantic Public Health Training Center Web site. http://www.jhsph.edu/maphtc/who_we_are/partners.html. Accessed January 30, 2010.

Introducing A New Public Health Finance Website

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Building a strong web presence is a continual process which requires communication, planning, and analysis. In the case of the Public Health Finance (PHF) website, findings from this report reveal that the site lacks the necessary content to effectively advance education and awareness in public health finance.

INTRODUCTION

THE WEB TODAY OFFERS organizations a continuum of opportunities to use technology to advance their goals and expand their outreach. The growing popularity of features and tools tied to the Web 2.0 and social networking movement present website owners and developers the opportunity to explore innovative approaches to exchanging information with users and building communities. “From YouTube to iTunes, audio and video have become intrinsic parts of the web.”¹ These technological advances give organizations the capacity to go to where their audiences are. As a result, now more than ever,

organizations are placing a greater importance on securing a web presence.

Building a strong web presence is a continual process which requires communication, planning, and analysis. Mistakenly, many organizations build their websites under the misconception that the process of developing a website is completed once the website is launched. In reality, the process of building and maintaining an effective website site begins before the launch point and requires constant research, strategic planning, oversight, and input from knowledgeable people within and outside the organization.^{1 (p22)} The success of a website is defined by its ability to consistently deliver content* that aligns with the organization and audience goals.^{1 (p136)}

Developing content for a website is by far the most challenging aspect of building and maintaining a website. Content development is time-consuming, costly, and requires planning. Website

strategist Paul Boag offers his take on the subject:

“A website owner needs to continually source new content, review existing copy, and update as necessary. You need new content, such as news stories, to keep users coming back for more.”²

Today website owners have a plethora of quick fix options for creating content at their fingertips (e.g. copy content, user-generated content, and aggregated content via RSS feeds³). However, unless a website’s content is either “supporting a key business objective” or assisting “a user in completing a task” it is of no value.^{1 (p6)} Often, website owners focus the majority of their time and resources on populating sites with the latest

* Content includes text, data, graphics, video, and audio.

³Really Simple Syndication (RSS) feeds are a way for websites and users to distribute and obtain content without visiting each site individually. Regular updates are automatically delivered via a web portal, news reader, or email.⁴

trends in web design, functionality, and web tools. They place a low priority on developing a content strategy that will produce long-term benefits and original content. The growing popularity of search engine optimization (SEO) strategies and web analytics add an additional level of complication for website owners to the already daunting task of securing a strong web presence. Couple this with added pressure to increase user traffic and score high Google “searchability” ratings, website owners are failing to realize that the key to a successful website is great content.

Although no perfect template exists for generating web content and building a successful website, website owners can begin to identify areas for improvement by reviewing their existing website’s content in support of their desired vision, goals, and objectives. In the case of the *Public Health Finance (PHF)* website, findings from this report reveal that the site lacks the necessary content to effectively advance education and awareness in public health finance. Research suggests that most people working in public health practice have little or no formal training in public health financial management.³ A PHF website with well defined strategies can address this need by delivering information about best practices in public health financial management via content formats that include webinars, trainings, and case studies. Moreover, this is an example of an approach the PHF website leadership can explore to leverage its web presence to reach its primary audience (public health practitioners).

In today’s web environment, a successful website is the storefront for organizations seeking to

reach out to target audiences around the globe. The ideal website for any organization is one that manages to align organizational goals, real world resources, user wants, user needs, competitor activities, and many other factors presented in this report.^{1 (p61)}

STUDY PURPOSE AND METHODS

The purpose of this report is to assess the need for a new web initiative for the PHF website and introduce a series of recommendations aimed at defining what content, features, and functionality should be included in the site. The investigator for this section of the report conducted the assessment by drawing data from multiple sources using a mixed methods approach. First, the investigator performed a *content audit* of all the information that the Center for Public Health Systems & Services Research (CPHSSR) currently has online as it relates to public health finance. A web content audit is a full accounting and review of all of the content in a website.^{1 (p49-56)} Upon gaining an understanding of what content exists on the PHF website, where it comes from, and its usefulness to visitors, the investigator then performed a web *content analysis*.

A web content analysis is a review of the “internal and external circumstances that have impact on the organization’s content”.^{1 (p36)} The result of which was to summarize and analyze the resources, research, and circumstances that inform recommendations about the web content for the PHF website.^{1 (p63)} As part of the web content analysis, the investigator collected qualitative data from interviews of website strategists, editors, and designers;

moreover, the investigator examined the websites of various professional healthcare associations, government finance organizations, and other professional membership organizations to obtain insight on website trends (Table 1).

Finally, the investigator solicited brief proposals, from two firms (Raven Creative Inc. and Home Front Communications LLC), outlining pricing and approaches to improving the PHF site. Information from the content audit, content analysis, and brief proposals was synthesized and used to guide recommendations for a new web initiative for the PHF website.

REVIEW OF THE PUBLIC HEALTH FINANCE WEBSITE

Background: The PHSSR Community Website

In April of 2008, the Center for PHSSR at the University of Kentucky, with funding from the Robert Wood Johnson Foundation, launched the PHSSR Community website. The site is a

Table 1: Participation in Interviews and/or Examination of Model Websites

Organization	Interview	Website
· American Public Health Association (APHA)		✓
· Association for Budgeting & Financial Management (ABFM)		✓
· Burness Communications, Inc.	✓	
· Center for Public Health Systems and Services Research (CPHSSR)	✓	
· Center for Public Health Systems and Services Research (CPHSSR)	✓	✓
· Government Finance Officers Association (GFOA)	✓	✓
· Healthcare Financial Management Association (HFMA)	✓	
· Home Front Communications, LLC	✓	
· International City/County Management Association (ICMA)	✓	✓
· Interuniversity Consortium for Political and Social Research (ICPSR)		✓
· National Association for Community Health Centers (NACHC)		✓
· National Association of County and City Health Officials (NACCHO)	✓	✓
· Raven Creative, Inc.	✓	

Table 2: Content Inventory— January 1, 2010

PAGE ID	PAGE NAME	LINK http://www.publichealthsystems.org	NOTES
0.0	Home Page – PHF	/phf	
0.1	Staff	/phf/1470/1471	Bio
0.2	Steering Committee	/phf/1470/PHFSteeringCommittee	Bio
0.3	FAQs	/phf/1469	Incomplete
1.0	Financial Ratio Analysis	/phf/1475/FinancialRatioAnalysis	5 Files in pdf and Excel format
1.1	Ohio Meeting	/phf/1473/PHFEvents/2008OhioHCFMMeeting	5 Files in pdf and Excel format
2.0	Discussion Board	/phssr/1391/list.php?4	Outdated / Inactive
2.1	Join PHF	/phssr/JoinPHSSR	Misleading / Actually joins to PHSSR community
2.2	Member Log-in	/phssr/CommunityLogin	
2.3	Learning Circle	/phssr/1392/19320/list.php?6	Outdated / 06/23/2008
3.0	Resources	/phf/1475	3 External Links
3.1	Financial Data	/phf/1475/FinancialData	Various incomplete links
3.2	Literature	/phf/1475/43454	Outdated / Redundant
3.3	Management Tools	/phf/1475/5043	Coming Soon
4.0	Search for Funding	/phf/FundingSearch	3 External Links
4.1	Federal Funding	/phf/FundingSearch/FederalFunding	1 External Link / Redundant
5.0	Newsroom	/phf/1473	2 External Links
5.1	Events	/phf/1473/PHFEvents	9 links from 2007 to 2009
6.0	Contact Us	/phf/1470/1471/PHFContacts	Email address
7.0	Site map	/phf/1489	Missing Information

Table 3: Content Audit — Qualitative Analysis

TOPIC	NOTES
Content	Lack of original copy and content development.
Main CPHSSR Home page	Lacks value of proposition (what the organization does) and a call to action (what task is the user being encouraged to perform).
Main CPHSSR Home page	It is unclear what the home page is about. Too much text. The imagery looks like advertisements.
Navigation	Navigation from the CPHSSR Home Page to the PHF webpage is confusing, lacks user friendly features and clear pathways for users.
Membership	Members of PHF site are grouped with the PHSSR community. Resulting in PHF members receiving undesired information. Lack of call to action for visitors to become members.
Pending deliverables	The ratio analysis database was not completed, although funding was originally allocated.
Site Map	Lack of consistency with hierarchical structure of PHF website.

group webpage comprised of three sub-websites – The Center for Public Health Systems & Services Research (CPHSSR), Practice Based Research Network (PBRN), and Public Health Finance (PHF) — that together form the PHSSR Community.

Since its inception the website has served mainly as channel to promote field-building events (e.g. Keeneland Conference), funding opportunities, and materials for download. The Center for PHSSR (referred to as “the Center”) hosts the group website and utilizes the Atlas Workcenter[®] content management system (CMS) to organize all web content. A Communications Coordinator at the Center is responsible for the publication of content to the website in concert with content experts affiliated with the three sub-websites.

The content workflow arrangement described above plays a vital role in populating PHSSR Community website with timely and relevant content. In the case of the PHF section, the review performed revealed that the arrangement is a major barrier to the success of the PHF web initiative. This issue is discussed in further detail in the following sections.

Content Audit

The first step in assessing the need for a new web initiative is performing a review or audit of the existing website. A web content audit is a full accounting and review of all of the content in a website; moreover, it serves as tool for assessing what you have, where it lives, its usefulness to your audience, and what needs improvement.¹ (p49-56) The content inventory of the PHF section illustrates the extent of content currently populated in PHF sec-

tion of the website (Table 2). The content inventory also reveals that the PHF section is fairly limited in content.

Despite the need for additional and updated content, a recent webmetrics system report issued by the Center revealed that PHF website’s content is a major contributor to website’s overall user traffic and downloads (Appendix 1). The report which covers calendar year 2009 offers the following encouraging results:

- ♦ The PHF website received approximately 13,473 visitors.
- ♦ Seventy-two percent (9,706) were new visitors.
- ♦ PHF accounted for 8 of the top 20 downloaded files from the PHSSR website.
- ♦ The “ratio analysis spreadsheet” and the JPHMP article “Creating Financial Transparency” ranked #1 and #2 respectively among the top 20 downloaded files.
- ♦ The “Financial Ratio Analysis” page ranked #1 in the single access page category.*

Overall, the content audit suggests that users found certain content to be of great value, particularly the ratio analysis spreadsheet and related literature. On the other hand, the pages featuring the discussion board, PHF resources, and news appear to have performed below expectations. User testing revealed that visitor’s experiences were hindered by poor home page content and navigation. Additional noteworthy content related problems encountered during the content audit are illustrated in the Table 3.

Content Analysis

To identify the variables that might have contributed to the

* Single Access Page is when a user comes to a site, visits a page, and then exits the site from that same page.

above mentioned problems and the overall mixed results of the PHF website, we must analyze several factors that impact web content effectiveness. The following content analysis captures the significant “internal and external circumstances” that impact the PHF website content.^{1 (p36)} In the end, this information will guide content recommendations for the new web initiative.*

- ♦ **Organizational Goal:** What is the organization trying to achieve? The advancement of education and awareness in public health finance. The PHF website states that the goal is to advance public health finance as a profession. A clear value proposition for the website is needed.
- ♦ **Website Objectives:** Why does the PHF website exist? The objectives for the website are not clearly stated or defined for users. The website objectives will inform content development and functionality. First, define the central web strategies for achieving the organizational goal and then determine the website objectives.
- ♦ **Project/Organizational Objectives:** Why is this assessment being undertaken? (1) To update and introduce a new web initiative that more effectively advances education and awareness in PHF, (2) Promote tools and resources on PHF, (3) Foster social networking among public health practitioners, researchers, and others, and (4) to improve internal processes for the website.
- ♦ **User Goals:** What tasks do users want to perform on the website? Results from the content audit suggest that users are

primarily interested in accessing literature and resources about PHF. Moreover, users desire access to educational opportunities and networks that will improve their job effectiveness, research, and policies.

- ♦ **Requirements:** What requirement or restrictions impact the parameters of the website? The budget, technology (CMS limitations), staffing.
- ♦ **Brand:** How do users think of PHF? The brand values for PHF are not clearly defined. How PHF desires users to think about the organization should guide how content is used to introduce branding. The PHSSR community website has a research tone and voice which may turnoff practitioners.
- ♦ **Source Content:** What PHF content already exists? What areas of the organization produce information as part of its regular business operations that could be used as content? What original content is there a need to create? The majority of the existing content is print documents (e.g. journal articles, PowerPoint presentations). The content creation plan should consider how to create original content to draw visitors.
- ♦ **Search Engine Optimization (SEO):** What is the SEO Strategy? The content review process revealed that there is not a defined SEO strategy.
- ♦ **Roles:** Who performs the responsibilities for web content and maintenance? As described in the content audit, there is minimal staffing for the PHF site. The existing roles include: content writer (the PI in this report) and communications coordinator (staff at the Center). Additional resources are needed to improve

“The Center for PHSSR hosts the group website and in the case of the PHF section, the review performed revealed that the arrangement is a major barrier to the success of the PHF web initiative.”

the editorial workflow and drive content creation.

- ♦ **Content Workflow:** How is content created? The PHF site lacks a standardized content workflow plan.
- ♦ **Maintenance and Oversight:** Once content is published online who owns, updates, and removes it? These responsibilities are performed in concert between the PI and the communications coordinator at the Center. A content calendar and other strategies are needed.
- ♦ **Users:** Who is the target audience? Public health practitioners and professionals, researchers, academics, policymakers, and analysts. Appendix 2 provides further detail about the informational goals established for the target audience.
- ♦ **Web Analytics:** Are useful analytics available? The Webmetrics system is used to gauge visitor behavior and traffic. The PHF content should integrate findings and trends to guide content for the site.
- ♦ **Social Media:** Is the site using social media? The Center for PHSSR currently has Facebook and Twitter accounts; however, their popularity and effectiveness are questionable.
- ♦ **Competitors:** What are your competitors up to? The examination of the websites of various professional healthcare associations, government finance organizations and other professional membership organizations listed in table 1 revealed the following trends:⁵⁻⁸

* Topics and question for this section are drawn from *Content Strategy for the Web* by Halvorson, K.

- **Topics Covered** – Current events, breaking news, professional development, events, legislation, career development, resource library, publications, and best practices.
- **Content Formats Available** – Text, pdf, email, audio/video podcasting, webinars, video demonstrations, RSS feeds, blogs, and social media software.
- **Content Initiatives** – Membership benefits and directory, trainings, workshops, learning institutes, credentialing, certificate programs, state and local chapter affiliations, job and career outreach, student orientation, center for performance measurement, and national meetings.
- ♦ **Current Events:** What's going on that might impact the PHF website? Consider current events related to the economy (e.g. budget reductions) and politics (e.g. healthcare reform).

In general, the content analysis of the PHF site demonstrates the importance of understanding and responding to the different factors in the environment. Refining the PHF website, will require an initiative that continually addresses these circumstances. This continual fine-tuning is accomplished through a combination of the following: (1) the addition,

deletion, and editing of content, (2) changes to the website design, and (3) the introduction of new functionality and tools.² (p14)

DISCUSSION AND RECOMMENDATIONS

The results from the selection of exercises performed for this report evidence the need to introduce a new web initiative for the PHF website. Many of the deficiencies noted point to the website's fundamental lack of content in support of the key organizational goal: to advance education and awareness in public health finance.

Despite the shortcomings highlighted in the report, the encouraging results from the web analytics report demonstrate the website's potential to drive user traffic and inform users. Still, without superior content and strategy this potential will not come to realization. The following series of recommendations provide a roadmap for refining the PHF website. Several of the recommendations were drawn from dialogue and a brief proposal prepared by Home Front Communications LLC.

Strategic Recommendations

— A strategy is defined as “a holistic, well-considered plan for obtaining a specific goal or result”.¹ (p32) The current PHF website lacks a well defined strategy or a series of strategies for achieving the goal of advancing education and awareness in public health finance. The following recommendations incorporate the strategies framed in the systems-thinking model

and leverage web technology to achieve the goals for this project:

1. *Education and Knowledge Capacity Strategy* – Provide educational resources and opportunities for users [build systems and knowledge capacity].
2. *Financial Management Thinking and Analysis Strategy* – Facilitate strategic thinking, analysis, and sharing of financial information for users. [Develop and apply systems methods and process for financial management].
3. *Network Relationship Building Strategy* – Build and maintain network relationships in the PHF and PHSSR community.

The proposed multifaceted strategic approach will narrow the focus of the PHF website as well as guide content creation, design, functionality, and tools for the site. Implementation of these strategies through a phased approach is a practical option to consider.

Tactical Recommendations

— A tactic is an action or a series of tasks aimed at achieving a specific goal or result. Tactics are carried out in different forms: features, functions, or activities.¹ (p65) For each of the three strategic areas mentioned above a series of tactics are proposed to achieve the desired results. Note that several of the tactics require the introduction of new functionality and tools. The robustness and specifications for each tactic will have an impact on the overall budget for this initiative. Each tactic is assigned a level of importance to help guide discussion that will determine funding priorities and functional requirements. Items labeled essential [E] are central to success of the strategy. Items marked innovative [I] are

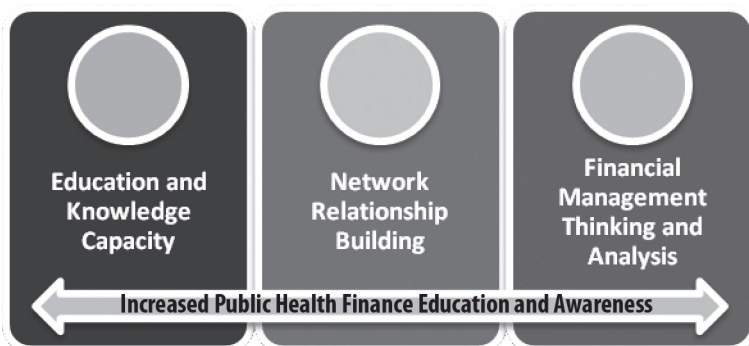


Figure 1 - Multifaceted Strategic Web Approach for Advancing Public Health Finance

also important to success of the strategy, but can be implemented to lesser degree or using a phased approach.

Education and Knowledge Capacity Strategy

- ♦ Create a classroom experience for users by offering trainings, webinars, on-line courses, educational links, e-newsletter and information about certificate and educational development programs (described in Section III). [E]
- ♦ Feature videos and presentation notes from educational events held throughout the year (e.g. Learning Institutes, Public Health Association trainings, etc.). [E]
- ♦ Create an e-library filled with literature, publications, and other resources (e.g. Public Health Finance academic course outlines). [I]
- ♦ Provide news feeds on the home page featuring stories and events aimed at building education on PHF (e.g. recent legislation). [E]

Financial Management Thinking and Analysis Strategy

- ♦ Consider converting the “Ratio Analysis” MS Excel spreadsheet into an interactive tool with a database that allows users to chart their results, create printable graphical reports and benchmark with similar sized agencies. [E]
- ♦ Incorporate interactive maps with links to federal, state and local budget information, millage data and funding formulas. [E]
- ♦ Provide links and information about data sets and surveys. [I]
- ♦ Provide news feeds and links related to funding alerts. [E]

Network Relationship

Building Strategy

- ♦ Create a PHF membership feature with benefits and discounts tied to membership. (e.g. webinars, trainings, resources, consulting). [E]
- ♦ Consider removing the “Discussion board” feature given its ineffectiveness. Discussion boards and forums typically work effectively for medium and large communities. Substitute this feature with an interactive “Ratings” tool that allows users to rate and comment on articles and documents. This is an excellent strategy to build the PHF community. [E][I]
- ♦ Create a career resource center for job seekers, recruiters and employers. [I]
- ♦ Post links to state associations and local affiliations to promote communication between colleagues and networking opportunities. [I]

Design Recommendations [E]

The primary role of design is to engage users and make it easy for them to reach your content.

^{2(p66)} The design recommendations presented below are essential to the success of the strategic recommendations. Consider the following recommendations aimed at improving the PHF website design:*

- ♦ Site Structure – Provide clear pathways to information for two broad categories of target users:
 - Practitioners and Policy Makers
 - Researchers and Academics
- ♦ Within these categories, provide “packages” of information in the following content areas:
 - Best practices
 - Teaching and training materials

- Compliance and regulation
- News and research
- Funding and budget data
- ♦ Create a modern “look and feel” with more graphics, images and icons. The website should look and feel like a hub for news and activity.
- ♦ Home Page Content – Regularly promote new content and events on the home page to make the website feel current and dynamic. Also, prominently feature the most compelling assets (e.g. ratio analysis tool) on the home page.

Governance

Recommendations [E]

The success of a website is dependent upon ownership’s under-

“Despite the need for additional and updated content, a recent webmetrics system report issued by the Center revealed that PHF website’s content is a major contributor to website’s overall user traffic and downloads (Appendix 1).”

standing and commitment to leadership, staffing, and stakeholder agreement throughout the entire life cycle of a website. The following recommendations address these governance challenges:

1. Staffing –User friendly content management systems are designed so that a staff assistant with basic training can perform the duties of updating and managing content. The role of writing and editing web content requires specialization and familiarity with the content subject or industry. Consider the following:
 - a. One part-time (FTE) “staff assistant” to perform updating and content management.

* Recommendations provided by Home Front Communications LLC.

PHF accounted for 8 of the top 20 downloaded files from the PHSSR website.”

- b. One full-time (FTE) “web manager and editor” to perform writing and editorial functions. This role is also responsible for management of website and publication of content, producing accurate and compelling content and coordinating strategies with subject matter experts (e.g. third-party vendors, consultants, the PI).
2. Consulting and Third-party vendors - Consider contracting services externally to account for lack of internal capacity to devise strategic plans, communications and branding strategies, search engine optimization strategies and complex services. (e.g. Home Front Communications, WebEx).
3. URL Address – Consider establishing a new domain address for the PHF website. Also, remove the PHF website from the CPHSSR group website to strengthen branding and facilitate potential partnerships. Provide users a link to the CPHSSR group website and vice versa.
4. Website Hosting – Consider hosting the website using a dedicated or shared service. This will allow the PHF content providers /experts to control content workflow and maintenance arrangements. This recommendation also requires the purchase and customization of a content management system (CMS).

Promotional Recommendations [I]

Promotional strategies are an essential part of building a strong

web presence. The following recommendations will assist in the effort to reach out to our target audiences and build user traffic:

1. Search-engine placement /Promotion – Implement search engine optimization techniques to make PHF content achieve high ranking in popular search engines. Also, consider email marketing and exchanging links with highly regarded organizations and partners.
2. Consider contracting these services with a consulting firm with experience in improving search-engine ranking, advertising and monitoring techniques.

MEASURES OF SUCCESS

A range of metrics are available to measure the progress of the PHF website in achieving organizational objectives and user goals. The following is a list of common metrics used to measure reach, conversion, acquisition and retention. Ultimately, these metrics will provide insight about user behavior that “can inform, support, and benchmark improvements” to the website:^{1 (p148-149)}

- ♦ The amount of time users spend on a page (measures content popularity)
- ♦ The number of “hits” certain pages received (secondary measure for content popularity)
- ♦ The number “hits” corresponding to journal articles, presentations, and other resources
- ♦ Search terms users enter into search engines to reach the site (measures desired content)
- ♦ The number of first-time and repeat users (measure for user traffic and satisfaction)
- ♦ The number of people who arrive at the site and register for

membership (conversion ratio)

- ♦ The number of people who arrive at the site and utilize the ratio tool (conversion ratio)
- ♦ The number of people who arrive at the site and sign up for a newsletter(conversion ratio)
- ♦ The number of people who arrive at the site and sign up for a training (conversion ratio)
- ♦ The number of unique users (measure for marketing success)
- ♦ The number of users obtained through specific marketing campaigns or advertisements
- ♦ Online visibility trackers such as Google Rankings (measures popularity and searchability)
- ♦ The number of organizations and affiliate partners (measures reach)

CONCLUSION

The review performed of the PHF website shed light on areas in need of improvement and opportunities to expand outreach. The findings and recommendations in this section serve as strategic roadmap for determining basic content, features, and functionality that can encompass the proposed web initiative. Interaction between the stakeholders invested in this project will ultimately determine the degree to which these strategies are implemented. A strong web presence for the PHF initiative is essential to advancing each of the systems-thinking strategies.

REFERENCES

1. Halvorson, K. *Content Strategy for the Web*. Berkley, CA: New Riders Press; 2010: 246.
2. Boag, P. *Website Owner's Manual: the Secret to a Successful Website*. Greenwich, CT: Manning Publications; 2010:11.

3. Leon, JD. Improving Performance in Local Health Departments through Financial Management. MPA Thesis, CUNY Baruch College; 2009.
4. Feed 101. Google FeedBurner Web site. <http://www.google.com/support/feedburner/bin/answer.py?hl=en&answer=79408>. Accessed January 12, 2010.
5. Healthcare Financial Management Association Web Site. <http://www.hfma.org/>. Accessed August 31, 2009.
6. Government Finance Officers Association Web site. <http://www.gfoa.org/>. Accessed August 31, 2009.
7. Association of School Business Officials International Web site. <http://asbointl.org/index.asp/>. Accessed August 31, 2009.
8. International City/County Management Association Web site. <http://icma.org/main/sc.asp> Accessed August 31, 2009.

Appendix 1 - REPORTS FROM WEBMETRICS SYSTEM

January 1, 2009 to December 31, 2009

CONTENT REPORT

Content/Page	Content/ Page Views	Content Daily Uniques	Exit Content	Entry Content	Single Access Content
/phf/1475	4,316	2,551	2,335	2,179	2,094
/phf/1473/PHFEvents	459	279	235	216	181
/phf	5,819	2,981	46	49	16
/phf/1470	395	239	94	74	57

TRAFFIC AUDIT & EXECUTIVE REPORT

Page Views	Visits	New Visitors	Entry Page #2 Ranked	Exit Page #1 Ranked	Entry Content #2 Ranked	Exit Content #2 Ranked
			/phf/1475/FinancialRatioAnalysis	/phf/1475/FinancialRatioAnalysis	/phf/1475	/phf/1475
52,448	13,473	9,706	2,083	2,178	2,179	2,335

The Single Access Pages: **/phf/1475/FinancialRatioAnalysis** was the highest at 2,015 page views, /phf coming in 10th at 223 and **/phf/1473/PHFEvents/MFJCallForPapers** ranked 14th with 113. Average time spent on these pages is approximately six (6) minutes. Close to thirty-seven percent (37%) of site visitors viewed 2 to 35 or more pages. Based upon the numbers shown above, close to seventy-two (72%) were new visitors in 2009. Close to forty-percent (40%) of the site visits (5,801) were from users who either typed in the website address, bookmarked it on their browsers, followed a link from an e-mail or did not have a referring domain. During the same time period, 6,907 or forty-six percent (46%) of the site visits came from those who used search engines to find the website.

TOP DOWNLOADS OF PHF MATERIAL

File Name	Ranking	# of Downloads
PHFRatios090708.xls	1	335
JPHMP_Transparency_Final	2	275
APHALesneski07.ppt	7	151
APHAHonore07.ppt	8	146
APHAZelman07.ppt	9	137
PHFinancialRatiosVersion2009A	10	129
Honore_Amy_PHSR_JPHMP	17	68
IntroducingPHFIndicatorsNALBOH	19	63

The PHF section had 8 of the top 20 downloaded files from the PHSSR website. The files were loaded in a timely manner when Dr. Honoré and her team were traveling and presenting the Financial Ratios Spreadsheet to various groups across the nation.

Source: The Center for Public Health Systems and Services Research

Appendix 2 - GOALS FOR TARGET AUDIENCES

The following table illustrates the target audiences and related goals we have identified as essential to advancing public health finance:

Public Health Practitioners & Professionals State Public Health Office – senior leadership, admin. leadership and managers Local Public Health Agency – directors, financial staff, program managers w/ fiscal duties State & National – Public Health Associations	[Primary Audience]
<ul style="list-style-type: none"> Increasing awareness and support from State Health Agency / Department senior leadership, Local Boards of Health, Board of County Commissioners, members of State and National Public Health Associations. To increase the skills needed to apply financial management tools routinely in the practice of public health for State Health Office Administrative leaders and managers responsible for assisting local public health organizations with the financing and accounting of public health resources. This same type of skill building would be essential for the local public health organization's (agency / dept.) financial staff. For public health systems that are ready to apply the financial management tools, advance courses on comprehensive financial performance assessment and strategic quality improvement methods would be taught and supported by faculty and contracted vendors with expertise in improving financial performance. 	
Researchers Individuals at institutions within colleges, universities, and others	[Secondary Audience]
<ul style="list-style-type: none"> Access to data and a place for timely sharing of research findings 	
Academics College and University leadership, professors, faculty and students	[Secondary Audience]
<ul style="list-style-type: none"> To embed public health finance and economic concepts into the educational experiences (curricula) of students majoring in public health disciplines. 	
Policymakers State Health Office senior leadership, Local Boards of Health, Board of County Commissioners, members of State and National Public Health Associations	[Secondary Audience]
<ul style="list-style-type: none"> Increasing awareness and support from State Health Agency / Department senior leadership, Local Boards of Health, Board of County Commissioners, members of State and National Public Health Associations. To equip policymakers with the financial and economic skills, competencies, and understandings essential for performing their duties. To provide policymakers with information about the performance and outcomes of public health agencies that can be use for adopting policies, developing budgets, and administering local and stated health agencies. 	
Analysts Consulting firms, Government Agencies, private companies, and non-profit organizations	[Secondary Audience]
<ul style="list-style-type: none"> Access to data and a place for timely sharing of research findings. 	

BIOS

PEGGY HONORÉ, D.H.A., is an Associate Professor in the College of Health at the University of Southern Mississippi. Dr. Honore has the unique experience of serving in the three distinct fields of private industry, academia, and government (federal and state). Positions held in these fields include Vice President for Finance at two universities, Chief Financial Officer and Chief Science (Research) Officer at two state health departments, Chief Operating Officer/Chief Financial Officer over a group of four medical clinics, and senior finance roles at McDonald's Corporation and Exxon Co USA. She is currently assigned under an Intergovernmental Personnel Agreement to the U. S. Department of Health and Human Services (HHS) as Director of the Public Health System, Finance, and Quality Program. Dr. Honoré also has extensive experience working with legislative bodies in three states and the U.S. Congress. In 2006, she worked with the U. S. Senate Subcommittee on Bioterrorism and Preparedness on the reauthorization of the Pandemic and All Hazards Preparedness Act and was successful in getting mandates for Public Health Systems Research into the law. Dr. Honoré holds adjunct academic appointments at the Medical University of South Carolina College of Health Professions, Tulane University School of Public Health and Tropical Medicine, George Washington University School of Public Health, and the Medical Knowledge Institute in the Netherlands. She earned her Doctorate in Health Administration (DHA) with honors from the Medical University of South Carolina and Master of Health Administration (MHA) from Tulane University School of Public Health and Tropical Medicine. Her undergraduate degree is in Accounting. Dr. Honoré is an honorary member of the Delta Omega Honor Society who recognized her for outstanding contributions to the field of public health.

LOUIS C. GAPENSKI, PH.D., is a professor in both health services administration and finance at the University of Florida. He is the author or coauthor of 27 textbooks on corporate and healthcare finance. He has published over 25 journal articles related to corporate and healthcare finance. Dr. Gapenski received a B.S. degree from the Virginia Military Institute, a M.S. degree from the U.S. Naval Postgraduate School, and M.B.A. and Ph.D. degrees from the University of Florida. Dr. Gapenski is an active member of the Association of University Programs in Health Administration, the American College of Healthcare Executives, and the Healthcare Financial Management Association. He has acted as academic advisor, chaired sessions, and presented papers at numerous national meetings, and has been a reviewer for eleven academic and professional journals. The University of Florida recognized Dr. Gapenski with the Teacher of the Year award ten times during his tenure.

MICHAEL E. MORRIS, M.P.H., M.P.A., C.P.H., is currently a pre-doctoral fellow at the University of Florida specializing in organizational finance for public health and healthcare entities. Mr. Morris received a MPH degree from Emory University in public health management and an MPA in analysis and evaluation from Georgia State University. His particular area of research interest is in the use of financial ratios as a diagnostic method for assessing the financial and operational performance of public health organizations. Mr. Morris has published on both the U.S. and Canadian Healthcare systems and serves as a reviewer for four leading healthcare management journals. He recently served on a policy drafting committee focused on public health system financing for the American Public Health Association. Prior to pursuing doctoral studies, he spent over 20 years in healthcare management and management consulting. He is a member of the American College of Medical Practice Executives, the Healthcare Financial Management Association, the American College of Healthcare Executives and AcademyHealth.

PETER J. FOS, PH.D., M.P.H., is an internationally recognized decision scientist and epidemiologist who currently holds the position of Provost and Vice President for Academic Affairs at The University of Texas at Tyler. As Provost, he has the responsibility for undergraduate and graduate programs, sponsored research, university-wide academic advising, and the University Registrar. Dr. Fos received a Doctor of Dental Surgery (D.D.S.) degree from Louisiana State University Health Sciences Center School of Dentistry, a Master of Public Health (M.P.H.) in Health Systems Management from Tulane University Health Sciences Center School of Public Health and Tropical Medicine, and a Ph.D. in Health Care Decision Analysis from Tulane University Graduate School. Dr Fos served as Senior Deputy to the State Health officer and Chief Science Officer at the Mississippi Department which gives him a unique perspective on public health education and the practice of public health. Prior to beginning his career in academics and public health practice, Dr. Fos practiced general dentistry. Dr. Fos spent 17 years at Tulane in the Department of Health Systems Management. His numerous recognitions include the Excellence in Teaching Award, the Executive Education Programs Outstanding Faculty Award, the Senior Vice-Presidents Teaching Scholar Award in the Tulane University Health Sciences Center. He was also recognized on two occasions with the Presidential Senior Faculty Teaching Award in a Graduate Program or Professional School and the Presidential Dissertation Director Award in a Graduate Program or Professional School. Dr. Fos has written two books in health care administration, several book chapters, and over 50 peer-reviewed articles and technical reports in state, regional, national, and international scholarly journals.

JASON D. LEON, M.P.A., is a Certified Public Accountant and management consultant for non-profit organizations. He is a National Urban Fellow alumni and a former research fellow at the Robert Wood Johnson Foundation. Recently, Mr. Len was awarded the Rutledge Capstone Thesis Award for his research on public health financial management in local public health departments. He received a Master of Public Administration (M.P.A.) from the City University of New York (CUNY) Baruch College School of Public Affairs and Bachelor of Business Administration degree in Accounting from the Inter American University of Puerto Rico. During his undergraduate studies, Mr. Len served as an intern at the U.S. Department of Veterans Affairs central office in Washington DC, provided through the Hispanic Association of Colleges and Universities. In his career in local government administration, Mr. Len was the Secretary of Administration for the City of Isabela, Puerto Rico. He was originally recruited to serve as the Finance and Budget Department Director, where he contributed to turning a multimillion budget deficit into annual surpluses.



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