DEMONSTRATING EXCELLENCE IN ACADEMIC PUBLIC HEALTH PRACTICE

JUNE 1999

Prepared by:
The Association of Schools of
Public Health Council of Public
Health Practice Coordinators
Contract # 240-95-0023

Government Project Officers:
Ronald Merrill, MHA and
Barry Stern, MPH

For additional copies of this report, contact:
Association of Schools of Public Health
1660 L Street, N.W., Suite 204
Washington, DC 20036
(202) 296-1099

FOREWORD

THE CHANGING FACE OF SCHOLARSHIP

The authors of *Demonstrating Excellence in Academic Public Health Practice* characterize their document as "a conceptual framework for furthering the dialogue." This dialogue concerns issues surrounding the definition of scholarship, and the only technique which has proven effective to address this complex and important matter has been dialogue… dialogue based on a well-thought-out, clearly presented conceptual framework.

For nearly a decade, *Scholarship Reconsidered: Priorities of the Professoriate*, a project of the Carnegie Foundation for the Advancement of Teaching, has led to a reexamination of the definition of scholarship in colleges and universities. In many institutions, disciplines and professions, this reexamination has prospered. A broadened definition of scholarship has been adopted and, as a consequence, has unleashed a great mosaic of intellectual talent. Many universities have given their own particular shape to the definition and to the vocabulary used in their documents. In the process of this change, however, there has been one constant. The dialogue must be maintained, and everything hinges on the quality and the thoroughness of that dialogue.

Change is difficult in our institutions. It is hard to create a new order when we are in the midst of an existing one. Policies and reward systems favor the traditional mode of operation, committees and administrators know and support the status quo, climate favors the known, and in many instances we are not masters of our own fate—professional associations, accrediting agencies and credentialing agencies control many of our policies and practices. Thus, the transitions proposed by Boyer have been slow. *Scholarship Reconsidered* was published in 1990.

The American Association of Higher Education in early 2000 will title its faculty roles and rewards seminar "Scholarship Reconsidered Reconsidered" (ten years after publication). *Scholarship Reconsidered* continues to be a topic of important dialogue. The academy recognizes that it must find ways to respond, not only to the quality of the research that is done in our institutions but now also to scholarly applied teaching, research and service. *Demonstrating Excellence in Academic Public Health Practice* is another step toward recognizing and enfranchising those who serve the public through their scholarship.

As Boyer knew, and the authors state so clearly in this paper, even as scholarship is expanded in its definition, there cannot be any diminution in the quality of scholarly work. Conrad Weiser, et al. at Oregon State University, observed "a university's values are most clearly described by its promotion and tenure policy and by the criteria used to evaluate faculty members." He continues, "excellence, not adequacy, is the performance goal for all faculties." This then is the hard part: how shall we maintain excellence? And the response: excellence is the only yardstick. *Scholarship Assessed: Evaluation of the Professoriate*, a follow-up to *Scholarship Reconsidered*, assists with this, but there is still much thought and dialogue needed to assure that excellence is maintained. Peer review is always useful and is a valuable standby, but what shall peer reviewers to look for? Again, *Scholarship Assessed* provides the answer.

The policy changes proposed in this document should foster a broad ranging discussion and dialogue if these changes are to prosper in the long run. Again and again across higher education, institutions and professions are showing that the result is worth the effort involved. Enfranchising colleagues who formerly have not been central in the reward system is in itself a worthy goal. But perhaps the greatest asset will be the intellectual mosaic which will be unleashed when our public health professionals are applauded and rewarded for their thoughtful and careful intellectual approach to scholarly service.

Charles E. Glassick
Senior Associate of The Carnegie Foundation
for the Advancement of Teaching, and co-author of
Scholarship Assessed: Evaluation of the Professoriate

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Academic public health practice is a new, and often misunderstood, field of scholarship that seeks to bring together two worlds: the pragmatic needs of the practitioner, and the academic quest to advance understanding. This document was written to further understanding of this new scholarship, and to promote dialogue about the roles, relationships and requirements necessary to advance scholarship in the field of academic *public health practice*. As used in this paper, public health practice is the strategic, organized and interdisciplinary application of knowledge, skills and competencies necessary to perform essential public health services and other activities to improve the population's health. *Academic public health practice* is the applied, interdisciplinary pursuit of scholarship in the field of public health. Through research, teaching and service, schools of public health and others in the public health academy carry out the mission of developing, integrating and applying new knowledge to improve public health in the population, and practice in public health agencies and in community, medical and other public health organizations.

The foundation of academic public health practice in schools of public health is the traditional academic paradigm of research, teaching and service—infused and motivated by scholarship that includes discovery, synthesis, integration and application*. Academic excellence in public health practice, furthermore, requires the same rigorously applied criteria for evaluation and peer review as does scholarship in any other field. These criteria include: clear goals, adequate preparation, appropriate methods, significant results, effective presentation and reflective critique. However, the defining characteristics of academic public health practice—its primary relevance as applied understanding and its inherent reliance upon interdisciplinary problem-solving—present unique challenges. Applied scholarly research, teaching and service need clearly-articulated scholarship criteria. More appropriate and inclusive forms of documentation and peer review standards should be established. Sustained recognition and support for the applied interdisciplinary scholarship of academic public health practice should be institutionalized *both* within each school and in the university.

The Council of Public Health Practice Coordinators (Practice Council) of the Association of Schools of Public Health (ASPH)** therefore recommends the following specific action to deans, faculty and university administrators:

- Formally review and establish a definition of academic public health practice as it applies to research, teaching and service in schools of public health. This includes the review and, if necessary, redefinition of university policies, including changing standards that govern promotion and tenure of public health faculty to include the definition of uniform criteria for traditional and practice-based scholarship and appropriate forms of evidence from the practice community.

---

* This paper was prepared to address the field of academic public health practice as it applies to the nation's schools of public health. The authors hope, however, that the concepts discussed in this paper are understood to be more broadly applicable to other institutions, and that the discussion generated by this paper will be inclusive of all public health teaching institutions.

** The Association of Schools of Public Health (ASPH) is the only national organization representing the deans, faculty, and students of the nation's 28 accredited schools of public health in the United States and Puerto Rico. These schools have a combined faculty of over 3,000 and educate 15,000 students annually from every state in the U.S. and most countries throughout the world. The schools graduate approximately 5,000 professionals each year. The 28 schools of public health constitute a primary source of comprehensively trained public health professionals and specialists to serve the federal government, the 50 states, and private sector. The need for such training is especially important in regards to the short supply of these professionals, and, according to the Pew Health Professions Commission, by the fact that managed care will increase the need for public health professionals.

- Establish and enhance linkages with practice-based and community sector partners which will cement channels for interaction and increase the capacity of each to accomplish their mission.
- Assess and, if necessary, develop appropriate organizational, administrative and structural support to encourage applied, interdisciplinary scholarship in public health, with attention to practitioner appointments, faculty incentives, and practice placements. Student access to faculty and program information and appropriate admission and practica criteria also require discussion.
- Support further development and recognition of interdisciplinary forums for evidence and dissemination of scholarship within public health, including practice-based peer-reviewed journals, conferences, monographs and proceedings.
- Advocate for increased intramural and extramural support of practice-based scholarship to include research, teaching and service.

As applied to academic institutions, there are two dimensions to nurturing excellence in public health practice: the role of schools of public health in educating the nation's public health workforce, and the role of schools in encouraging practice-based scholarship among university faculty. This document addresses these dual roles, presents a conceptual basis for formalizing practice-based criteria, and suggests standards for evaluating and rewarding scholars whose inquiry seeks to advance both the science and "art" of public health practice. Through such an understanding, schools of public health will serve as partners with the practice sector and the community to accomplish a larger goal—working to improve the public's health through assuring the public health infrastructure necessary to achieve the health objectives of the nation[1].

PREFACE: ORIGINS OF THIS DOCUMENT

For over a decade, the federal government and the schools of public health have been encouraging improved linkages among academic institutions and public health organizations and agencies. A major impetus for increased collaboration among these organizations was the concern stated in several documents, including the 1988 Institute of Medicine (IOM) report, that a serious disconnect existed between academic and practicing public health institutions[2,3,4,5]. In response, federal agencies—in particular the Health Resources and Services Administration (HRSA), and the Centers for Disease Control and Prevention (CDC)—provided support in the form of cooperative agreements and technical assistance to expand linkages between schools of public health and various public health practice agencies to enhance the performance of public health services.

To further develop academic-practice linkages, the Association of Schools of Public Health (ASPH) established the Council of Public Health Practice Coordinators (the Practice Council), whose members are the designated Public Health Practice Coordinators from each of the 28 accredited graduate schools of public health. The Practice Council's priority is to promote greater commitment to scholarship in public health practice-based research, teaching and service within schools of public health. Extensive integration of efforts by the Practice Council, schools of public health, federal agencies, private institutions and the practice sector have invigorated scholarship in academic public health practice.

This document was prepared to inform and further the dialogue on the definition of academic public health practice, and on the nature of practice-based scholarship in research, teaching and service. The Practice Council's objective is to facilitate the institutionalization of practice-oriented scholarship in academic institutions. Additional documents are planned to further explore the roles played by the academy, the practice sector and the community in developing and supporting practice-based research, teaching and service.

INTRODUCTION

The field of public health, both in practice and in academia, is experiencing enormous challenges—from new epidemics to the evolving needs of infrastructure development. Response to these challenges has occurred in every facet of public health, and has led to questions regarding the definition of public health practice, the roles of public health agencies, and the academic sector's role in public health practice. The new environment for public health requires that scholarship be redefined to include the role of practice-based research, teaching and service, and its relevance to public health practice.

This document provides a conceptual framework for furthering the dialogue concerning two vital issues confronting academic public health: its relationship to the public health workforce engaging in the practice of public health, and its scholarly mission in research, teaching and service as it relates to collaboration with the practice sector. Linkages between academia and practice have advanced the field of practice-based scholarship, applied research, teaching and service, but what are the formal criteria for evaluating this scholarship? What, in fact, *is* academic public health practice, how is it operationalized in schools of public health, and how will it inform the definition and evaluation of scholarship as a traditional function of academic institutions?

These questions formed the basis for deliberation by the Practice Council as they worked to complete this document. It was acknowledged that schools of public health have made substantial efforts in forming critical links with practice and community sectors, and have historically served as the professional "training ground" for public health practitioners. Institutions included here under the term "practice" organizations—federal, state and local public health agencies, academic public health institutions, health service organizations, community organizations, community and religious health coalitions, philanthropies and others—share a mission to serve the health needs of the nation.

Multi-sector linkages are crucial to assuring that communities can effectively deliver services essential to the public's health. Without academic-practice partnerships, and without standards of excellence in both the science ("discovery") and the art ("application") of public health practice, public health problems cannot effectively be solved. The discovery of new knowledge—traditionally the primary academic mission—is insufficient without its attendant application to enhance understanding and to improve quality of life. In fact, such application itself strengthens research and provides new models for application.

By reevaluating its role in preparing scholars to work on the future problems of public health, academic institutions will assure their relevance in the public health arena into the next century. This should include encouraging practice-based scholarship among university faculty, and revising school mission statements to reflect the imperative that leadership in academic public health practice, whether through research, teaching or service, is intrinsic to the goals of the institution. Such leadership should be firmly integrated into the organizational structure of the school.

It is the purpose of this paper to encourage public health academic institutions *to reconsider the definition and scope of what constitutes scholarship, and how this relates to their mission, as reflected in their strategic objectives and reward structures*. Through this process the nation's schools of public health will continue to play a significant role in discovering new knowledge, as well as in interpreting and applying it to enhance the practice of public health[1].

PUBLIC HEALTH PRACTICE AND HIGHER EDUCATION: A HISTORICAL PERSPECTIVE

In 1988, the Institute of Medicine (IOM) report, *The Future of Public Health*, stated a now familiar criticism when it wrote[2 p 15-16]:

> Many observers feel that some schools have become somewhat isolated from public health practice and therefore no longer place a sufficiently high value on the training of professionals to work in health agencies.

This statement suggests that the separation of academic and practice arenas of public health is a problem of recent origin. Closer examination, however, would trace this problem farther back in the history of public health education in the United States, specifically to the early decades of the twentieth century.

In a history of public health schools, Elizabeth Fee described how and why their isolation from the emerging public health profession occurred[6 p 162]. From their origin in the early part of this century, schools of public health in the United States began to address the lack of formal training, low salaries and career insecurity that characterized the personnel who led public health programs. When the first (and, in many ways, the prototypical) school of public health was formally opened, it emphasized both research and professional training. But, as Fee explains it, a sound scientific base for the new profession was deemed crucial, and quickly assumed the forefront. The needs of the public health practice workforce and the breadth of interdisciplinary training of professionals were recognized, but secondarily. According to the predominant view, scholarly status within the university required that early public health education should emphasize the primacy of research and the intensively discipline-based education of doctoral-level researchers.

The emphasis of research over application in public health meant that the needs of the public health workforce were not effectively met. By the 1930's, the number of university-based schools offering degrees or certificates in public health had doubled, but the number of graduates remained insufficient to meet projected needs, and officers employed in health departments were judged as lacking sufficient training[6 p 76]. Fifty years later, in 1988, the IOM reported that despite the accomplishments of schools of public health, the dearth of professional training and leadership in public health agencies remained[2 p 15-16], and development of necessary knowledge across the full spectrum of public health practice was still inadequate[6]. The IOM recommended specific actions for schools of public health: establish firm practice linkages with agencies; devote significant resources to government policy development; provide students with the opportunity to learn the entire scope of public health practice; engage in applied research, program evaluation and implementation research; and develop programs of short courses to enhance public health workforce competence[2 p 31-32].

Schools of public health and other public health academic institutions responded to IOM recommendations by:

- creating practice-based academic units, faculty practice placements and positions for practitioner appointments;
- expanding partnerships and developing cooperative agreements with practice agencies;
- adapting and changing curricula to accommodate practice-based needs for preparation and continuous development of practitioners, including the use of technology-mediated instruction;
- developing a wider scope of field placement and practicum opportunities for students;

- expanding practice-based research and technical assistance efforts to accommodate the needs of the practice sector; and,
- developing alternative promotion and tenure policies that begin to recognize practice-based scholarship.

The Association of Schools of Public Health took the initiative by assisting schools in responding to the recommendations in the IOM report. With federal support from CDC and HRSA, ASPH helped launch the Public Health Faculty/Agency Forum (Forum), which developed recommendations to improve the relevance of public health education to practice. The Forum identified a set of universal competencies for public health practitioners with masters-level training. Subsequently, HRSA funded the ASPH-initiated Council on Linkages Between Academia and Public Health Practice through ASPH to facilitate implementation of the Forum's recommendations. ASPH also established the Practice Council with support from CDC and HRSA. Members of the Practice Council became "Practice Coordinators" from each school of public health.

Building upon the work of the Forum, Council on Linkages, the Practice Council and others, a report of the Public Health Functions Steering Committee, titled "The Public Health Workforce: An Agenda for the 21st Century" further articulated recommendations and competencies for public health workforce development. It is also important to note that there have been initiatives by the private sector to promote public health practice/academic and community partnerships, such as the W. K. Kellogg Foundation's Community-Based Public Health Initiative and the W. K. Kellogg/Robert Wood Johnson Foundations' "Turning Point" program.

Today, progress toward improving practice linkages among schools, public health agencies, health service institutions and other community-based organizations is clearly evident, although there is a need for schools to fully articulate a rationale for practice-based scholarship and to embrace the changes and criteria that would support it. Rice and Richlin wrote: there is a "disturbing gap between what is valued as scholarship and the pragmatic needs of the larger world." Public health academic institutions may gain inspiration from their recommendations[7 p 76-77]:

> "First inform scholarship with the wisdom of practice. Knowledge is generated from the complexity and demands of practice applications. Experience is the source of learning and understanding. The wisdom of practice needs to inform and enrich theory. Theory and practice need to be mutually interactive, each building on the other."

DEFINING ACADEMIC PUBLIC HEALTH PRACTICE

Defining *academic public health practice* requires placing it in the contexts of both *public health* and *public health practice* as distinct concepts. It is understood that public health means much more than just the absence of disease. As recently defined by organizations such as the World Health Organization, the Institute of Medicine and others, public health encompasses a population-focused, organized effort to assist individuals, groups and communities in the reduction of health risks, and the maintenance or improvement of health status. The concerns of public health encompass opportunities for individuals to live in a healthy environment, to obtain needed health care services and to access health promotion and disease prevention services. In its broadest sense, public health is an ecological concept—assuring conditions in communities that are conducive to health and quality of life.

The practice of public health encompasses the actions, or functions, necessary to carry out this broadly defined mission, which according to the Institute of Medicine (IOM) constitute the three core functions of public health practice[2]:

- *ASSESSMENT*—the ability to appropriately use data to direct actions *(the science of public health)*;
- *POLICY DEVELOPMENT*—the appropriate use of scientific knowledge in developing public health policies and programs *(the art of public health)*; and,
- *ASSURANCE*—the development of policies that are "backed up" by services necessary to assure their success *(the synthesis of art and science)*.

PUBLIC HEALTH PRACTICE,

DEFINED BY PRACTICE COUNCIL, 1998:

Public health practice is the strategic, organized, interdisciplinary application of knowledge, skills, and competencies necessary to perform public health core functions.

The IOM applied scientific, conceptual rigor to develop a procedural understanding of public health practice. Subsequently, the Public Health Functions Steering Committee of the U.S. Public Health Service defined ten key services that public health practitioners perform in carrying out these core functions of assessment, policy development and assurance. Known as the Essential Public Health Services, they provide a definition of the broad perspective of public health services performed by local and state public health departments and other community public health and health service organizations[8] (See Appendix A for a review of essential public health services.)

Halverson et al., helped to clarify the contributions of public health and other community agencies in performing public health services[9 p289]. The authors suggested public health departments and other health care and community agencies and organizations should expand their working relationships and develop multi-institutional arrangements to provide essential public health services. A better understanding of the nature of these relationships can encourage greater levels of collaboration and integration. The authors further recommended that, "it is necessary to develop [a consensus on] a common set of definitions for the core functions and practices which are appropriate within the contexts of other organizations" that are involved in providing local public health services. A collective understanding of the definition of public health practice is fundamental to implementing and measuring performance standards[9 p301].

Defining academic public health practice requires an understanding of the nature of applied scholarship and its relation to public health practice. *Academic public health and public health practice intersect at the point of applied, interdisciplinary pursuit of scholarship, in the form of research, teaching and service*. Practice-based activities are complementary to traditional forms of research and teaching. *Schools of public health are both scholarly research institutions and teaching institutions with a mission to integrate and apply knowledge to improve public health and public health practice*. The key concepts in understanding academic public health practice are captured by the terms "applied" and "interdisciplinary."

Interaction among traditional research and practice-based faculty is critical in applying scientific findings to practical settings. *Academic public health organizations should be at the forefront in creating and fielding research that can be used to measure and improve public health practice*. The field should reflect the information, tools and guidelines to support evidence-based practice in public health across an array of government and private settings.

The *application of knowledge* is consistent with the pursuit of scholarship. Academic public health practice involves the multiple capacities of practice-based research, teaching and service. The application of academic public health is accomplished through:

- *Practice-based research*—The scholarship of discovery is concerned with development of the new knowledge that solves the challenging problems of public health and health care. Through interdisciplinary, applied research academicians, in collaboration with practitioners, discover additional knowledge and generate new science in the practice of public health at the boundaries where fields converge.
- *Practice-based teaching*—Teaching is a critical component of scholarship. The research function of scholarship is diminished if quality teaching, including the preparation of practitioners and research specialists, is absent. The art of teaching, especially interdisciplinary collaboration in education and training, is particularly relevant to practice-based scholarship that enhances practitioner competence and capacity. Applied teaching informs both the academician and practitioner as co-learners, and enhances student competence through field placements, internships and practice-based curricula.
- *Practice-based service*—Service is relevant as scholarship if it requires the use of professional knowledge, or general knowledge that results from one's role as a faculty member. This knowledge is applied as consultant, professional expert or technical advisor to the university community, the public health practice community or professional practice organizations. This dimension of scholarship distinguishes practice-based service from a form of service known traditionally as the general responsibilities of citizenship.

ACADEMIC PUBLIC HEALTH PRACTICE,

DEFINED BY PRACTICE COUNCIL, 1998:

Academic public health practice is the applied, interdisciplinary pursuit of scholarship in the field of public health.

Examples of scholarly academic public health practice expertise and scholarly achievement in schools of public health are available in the ASPH document *Examples of Scholarly Practice-based Activities in Schools of Public Health: Abstracts from ASPH/HRSA Workshop, July 13-15, 1998*, and in the document *Strong Schools, Strong Partners: A Report on Practice Activities of Schools of Public Health* (1998) by the Association of Schools of Public Health and the U.S. Department of Health and Human Services, HRSA[10,11].

The traditional academic model of increasingly specialized knowledge will not be adequate to address complex public health problems without also recognizing the need for interdisciplinary expertise. Support for incentives to promote disciplinary research, and consistent recognition of interdisciplinary expertise required to solve problems which extend beyond disciplinary boundaries, is essential to the academic mission. If the importance of cross-disciplinary understanding is not recognized by the school and the university, the charge that academic public health is isolated from practice will prevail. Integrated, multi-disciplinary teaming requires greater "stamina" for interaction than the current model of experts working simultaneously but separately. It requires substantially more commitment by both the scholar and the school to move beyond the pursuit of concurrent and "cooperative" problem solving by individual disciplines and toward an integrated, sustained commitment to resolve complex public health dilemmas and advance the health of all people[12 p159].

Defining academic public health practice is one step toward furthering the dialogue on two vital issues confronting academic public health: its relationship to the public health workforce engaging in the practice of public health and its mission to deliver scholarly research, teaching and service in collaboration with the practice sector. It is imperative that this dialogue cross disciplines, involve school and university representation, and include multiple partners from practice sectors and the community. The challenge to schools of public health is to create a learning and teaching environment, supported by an incentives system, that advances scholarship, addresses the needs of public health practice, and maintains rigorous standards of scholarship that are both applicable and discerning across traditional disciplinary boundaries.

THE NEW SCHOLARSHIP: SYNTHESIZING KNOWLEDGE AND APPLICATION TO ADVANCE PUBLIC HEALTH

Presenting a conceptual framework for the scholarship of academic public health practice requires placing it in the context of both public health and of scholarship. In this context it is important to note that the definition of academic public health practice understands both public health and public health practice as distinct concepts.

In 1920 C.E.A.Winslow defined public health as both the "science and art of preventing disease, prolonging life and promoting health and efficiency through organized *community* effort…."[13 p183-91]. For most of this century academic public health has stressed science—the medical model of diagnosis and treatment informed by epidemiology—over "art," or application. Increasingly we find science alone is limited and that "art" also has a place in scholarship, or in assuring the conditions that promote health. It is not only the science implicit in academic public health practice, but its application through research, teaching and service (the art of practice), that builds skill in adapting things in the natural world to improve human life[14].

THE FOUR DIMENSIONS OF SCHOLARSHIP *(adapted from Boyer)*

THE SCHOLARSHIP OF DISCOVERY

This most closely corresponds to the current definition of research, that is the generation of new knowledge. Implicit in this is the concept of knowledge for it's own sake, to the freedom of inquiry within the disciplined exploration of new ideas.

THE SCHOLARSHIP OF TEACHING

Teaching includes the transmission of knowledge, but extends further into scholarship by creating an environment for learning by all participants in the process. Although grounded in a knowledge base, teaching utilizes both art and science to promote true intellectual understanding.

THE SCHOLARSHIP OF INTEGRATION

Closely related to discovery, the scholarship of integration seeks to explore the meaning of what has been discovered by making connections across disciplines, providing context for the interpretation and synthesis of facts, and fitting research findings into larger intellectual patterns.

THE SCHOLARSHIP OF APPLICATION

Extending beyond what is simply the transmission, consultation, or technical transfer of knowledge, the scholarship of application implies the dynamic, sequential interaction of methods and expertise to facilitate practice, professional, and community sectors in enhancing the development of their capacity for performing essential public health functions. In the scholarly application of theory to practice, one informs and renews the other.

This broader understanding of public health scholarship requires new ways to think about what is known, to integrate and synthesize this knowledge, to apply it in innovative ways to build solutions, and to communicate this knowledge to other academicians, professionals in training, the practice community and the lay public. Reexamining the varied dimensions of scholarship is crucial to ensuring the relevance and effectiveness of efforts to improve the art of practice.

In its broadest definition, scholarship includes the possession of a very high level of knowledge in a given field. Scholarship is implicit and intrinsic to the definition of academic public health practice, as defined in a model by Ernest Boyer in the Carnegie Foundation report, *Scholarship Reconsidered: Priorities of the Professoriate*[15]. Boyer's model identified four dimensions of scholarship: the scholarship of discovery, of integration, of application, and of teaching (see sidebar for definitions of these dimensions). These concepts not only encompass the traditional view of the three-part academic paradigm (research, teaching and service), but also introduce a new emphasis on integration and application of knowledge that is particularly relevant to understanding scholarship in public health practice.

The scholarship of integration/synthesis is a unique dimension of academic public health practice, one particularly suited to the challenges of creating systems that promote and sustain public health. Disease transmission, for example, extends beyond the understanding of epidemiology and into the realm of complex interrelationships among sciences—genetics, culture, politics, environment, medicine, etc. As with other public health concepts, the comprehension of disease transmission is limited if studied as a linear cause-and-effect relationship. A reflection of this synthesis has resulted in an increasing understanding of population health risks in terms of open systems dynamics—as described by Evans and Stoddard in their health field model of the determinants of health[16]. Systems theory provides an approach for a more global concept of public health, by considering the fragile balance and dynamics among system elements that sustain health and prevent disease.

The academic challenge of the 21st century may be the synthesis and integration of knowledge in ways that generate new insights and understanding for improvement of the human condition. The new scholars will synthesize knowledge from multiple disciplines and create dynamic systems that promote and sustain community health and quality of life. They in turn will be uniquely positioned to spawn new areas of future inquiry[17].

In its scholarly applications to public health practice, the scholarship of integration includes synthesis of:

- traditional and non-traditional public health disciplines
- the art and science of prevention
- individual responsibility and population-based strategies
- academic interests merged with societal concerns
- multi-sector perspectives and collaboration
- building community capacity and partnerships
- problem solving and solution building
- theory and its practice application.

The scholarship of integration/synthesis is a unique strength and contribution of academic public health practice demonstrated through application of research, teaching and service to public health practice.

Acknowledging that scholarship is not static, but rather that it assumes multiple dimensions, does not mean that it should be without rigorous evaluation criteria. Furthermore, the criteria should be appropriate to practice-based research, teaching and service. In *Scholarship Assessed*, a sequel to Boyer's work, Glassick, Huber and Maeroff present criteria that can be used to appraise accomplishments in academic public health practice. The six criteria, described in Table 1, are presented as a set of standards or questions, and include: clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and demonstration of a reflective critique[18 p39].

Evidence-based scholarship in academic public health practice meets these standards and provides criteria for faculty evaluation. Such evidence would, according to Glassick, et al., "enable the scholar and his or her colleagues, even those who are not specialists in the field, to apply a set of agreed-upon standards to a body of scholarly work… a reflective essay, for example, can introduce examples of best work, and the scholar can document the projects with appropriate materials, addressing the same standards in regard to goals, preparation, methods, results, presentation and critique"[18 p38,48].

A critical element in documenting the results of scholarly practice activities in research, teaching and service is evidence of their impact on public health practice. Examples of activities and evidence of these criteria within research, teaching and service are provided in Table 2.

Traditionally, peer-reviewed publication of scholarly achievement is required as a demonstration of acceptable performance. This presents unique challenges in the field of public health practice, however, since opinions differ over the definition, extent and criteria for publication, and over what is defined as qualified peer-review of practice-relevant articles and documents. Publication in practice-relevant journals or monographs, as well as

Table 1. Criteria Common to All Forms of Public Health Practice Scholarship

Standard or Criteria	*Applicable evidence of scholarship—research, teaching and service criteria*
Are goals and objectives clear?	Does the scholar state the basic purpose of the work clearly? Does the scholar define objectives that are realistic and achievable? Does the scholar identify important questions in the field?
Is there evidence of adequate preparation?	Does the scholar show an understanding of existing scholarship in the field? Does the scholar bring the necessary skills to the work? Does the scholar bring together the resources necessary to move the project forward?
Are methods appropriate?	Does the scholar use methods appropriate to the goals? Does the scholar apply effectively the methods selected? Does the scholar modify procedures in response to changing circumstances?
Are results significant?	Does the scholar achieve the goals? Does the scholar's work add consequentially to the field? Does the scholar's work open additional areas for further exploration?
Is scholarship effectively presented?	Does the scholar use a suitable style and effective organization to present the work? Does the scholar use the appropriate forums for communicating work to its intended audiences? Does the scholar present his or her message with clarity and integrity?
Is there evidence of reflective critique?	Does the scholar critically evaluate the work? Does the scholar bring an appropriate breadth of evidence to the critique? Does the scholar use evaluation to improve the quality of future work?

Table 2. Documenting and Evaluating Scholarship in Academic Public Health Practice

	Scholarship of research	*Scholarship of teaching*	*Scholarship of service*
Example of activity:	Needs assessment or program evaluation sponsored by a public health organization	In-service learning or practice-based courses for degree students and/or practitioners	Long-term partnership (joint venture) of school faculty with public health or community organization
Academician's role and responsibilities:	Design methodology and instruments; train personnel and supervise data collection; oversee analysis; develop study reports; recommend program changes; provide technical assistance	Define course objectives; identify and assemble texts, materials and technology/software; identify service settings; consult with mentors/trainers; assist in defining performance tasks; establish performance criteria; evaluate learning	Collaborate in defining objectives/ strategic plan; contribute knowledge/skills/expertise; identify and assist in procuring needed resources; provide ongoing technical/consulting assistance; evaluate outcomes
Indicators of practice impact:	Improved assessment/evaluation methods/design; better linkages among academia and sponsoring organizations; improved program design; improved performance of core functions and essential services	Improved teaching effectiveness; improved curriculum design; improved applications of technology/software development; enhanced performance/ competency of graduates and practitioners	Improved strategic/integrated plans/ interventions; increased resources; better linkages with sponsor/organization/community partners; improved performance of core functions and essential services; improved health outcomes
Documentation of scholarship:	Publication in research and practice-relevant journals; practice documents; evaluation summary documents; legislative reports; technical reports/presentations; subsequent requests for technical assistance; official/practice appointments; extramural funding; honors,awards and other documented practice recognition	Course syllabi; field placement/ practica records; technology/ software design/demonstrations; program/curricula design documents; students'/mentors' evaluations; subsequent requests for technical assistance; extramural funding; honors, awards, and other documented practice recognition	Technical reports/presentations; formal agreements, and memoranda; policy recommendations; practice-related journal publications; practice models/guidelines; official appointments/requests; documented resource/funding acquisitions; honors, awards, and other documented practice recognition
Evaluation processes and participants:	Peer/practice/community reviewers; publications; technical reports; sponsor support/reports; legislative/regulatory action; portfolio documents	Students/peer/practitioner/ community reviewers; mentor's reports; teaching documents/ publications/reports; portfolio documents; evaluation of teaching on job performance	Partners' written reports and recommendations; legislative/ regulatory action; publications/ reports; portfolio documents

scholarly documents and technical reports prepared for use by academic practice specialists and the practice community should be recognized. Practice documents often require immediate use and application, and alternative measures of evidence and impact must take this reality into consideration. Delays common to traditional journal publications may be necessary, but they are not conducive to the timely transfer of knowledge required in the field of practice. Reputable, practitioner-oriented publications that provide effective field dissemination should be considered appropriate as scholarly publications. In general, standards for more practice-appropriate and inclusive forms of publication, documentation and peer review—including practice expertise and testimony—should be established. The need for unique scholarship, valuable to the "art" of practice, and peer-review that is comprehensive and qualified in this area, is of foremost concern.

All levels of university administration require a better understanding of the broader definition of scholarship, how it corresponds to the reward criteria in their schools, and how the application of knowledge can be recognized as scholarly. Schools of public health should be recognized as both scholarly research institutions and academic institutions with a mission to integrate and apply knowledge. It is through this distinctive application of research, teaching and service—the broader interpretation of scholarship, in which knowledge is transferred to improve the human condition and, in turn, new knowledge gained through practice expertise—that the academy is distinguished.

INCREASING THE CAPACITY FOR PRACTICE-BASED SCHOLARSHIP IN ACADEMIC INSTITUTIONS

Academic institutions are fluid organizations, responding to the imperatives presented by changes in academic fields of inquiry. As Boyer suggests, "… the work of the academy has changed throughout the years…moving from teaching, to service, and then research, reflecting shifting priorities both within the academy and beyond"[15 pxi-xii].

Historically, conceptual and organizational barriers have provided minimal support and recognition for practice-based activities among research-focused academic institutions. Academic standards—how scholarship is defined and performance criteria are recognized—and their attendant incentive and reward policies, have resulted in varying capacities for encouraging both the science and art of public health practice. There is also a need for formalized structures that foster greater understanding among practice and research faculties. Diminished segregation provides opportunities for creative integration and collaboration.

Several schools of public health have created unique organizational and policy models to integrate academic public health practice into their academic culture. These models are illustrative, not inclusive, and exist in varying degrees and combinations in different schools. In general, these models support the philosophy that public health is an applied field, and that there are important practice applications in all faculty disciplines. Examples of these models are provided in Table 3. Underpinning these organizational structures and policies are mission statements and strategic plans that reflect the values and importance of applied scholarship. Critical components of all of these models include appointment of a school practice liaison or coordinator, administrative and faculty appointments that support academic-practice linkages and scholarship, the review and revision of promotion and tenure policies and structures, the formalization of practice-based criteria and reward policies, and consistent administrative encouragement of faculty to perform interdisciplinary practice scholarship. Integrated, sustained incentive systems to support and enhance practice scholarship should include annual contracts, performance plans, workload assignments and evaluation procedures.

Table 3. Academic Models for Public Health Practice

Practice Department model
A separate center or department is created for professional education and practice activities. Practice activities and curricula are unified in one department. This model increases the visibility of practice faculty, activities and curriculum for greater student access, increases the likelihood of recruiting faculty with practice expertise, and gives a structure for collaboration among faculty and the development of criteria for evaluation of faculty specializing in practice-based research, teaching and service.

School-wide Center/Program Model
This model is a school-wide, interdisciplinary and administrative unit with director and support staff, but without faculty. General practice activities are unified in one center, although separate but linked divisions or departments may exist. Interdepartmental or professional curricula, interdisciplinary research and school-wide projects can be initiated by faculty/staff. Individual departments retain faculty appointments, although secondary appointments may be linked to the Center or program. Activities can be focused on an individual niche or area of specialization.

Administration Office or Unit model
An administrative unit or office is created and administered in one of the offices of the Dean, who also serves as Practice Coordinator. Other faculty with interests in public health practice collaborate or assist in the work of the unit. Involved faculty have primary department/module/division and discipline affiliations, and retain the flexibility of working on projects of personal or joint interests. Within the school, this office advocates for, promotes and facilitates practice activities involving faculty and students, although each department also develops practice activities independently. This model promotes the importance of external national, regional and local practice-based linkages and applications in all faculty disciplines.

Multiple Department Model
Professional education and practice activities are integrated within each department throughout the school. This model provides the opportunity for practice applications in all disciplines, without a school-wide administrative office to advocate for practice activities and linkages. Each department determines independently the extent of their practice commitment. Promotion and tenure of, and incentives for faculty interested in practice are at the discretion of each department, unless school-wide promotion and tenure policy recognizes practice-based scholarship.

Commitment to academic public health practice requires both internal and extramural sustained support. Organizational department structures, budget and space allocations greatly influence the visibility and sustainability of practice activities. Historically, the general lack of sources for, and fluctuations in, funding streams from both federal and private sources has chronically inhibited even the most progressive approaches to sustain academic practice scholarship. In addition, bureaucratic structures within academic institutions that encourage research underwritten by federal indirect cost mechanisms offer little incentive to pursue less lucrative, but no less important, applied research from other channels.

In recent years, external funding of practice-based initiatives among schools and community-based health agencies has increased. This includes increased federal appropriations for applied research; CDC and HRSA funding allocations for practice activities through Cooperative Agreements and grants for special projects to the Association of Schools of Public Health; and private funder support for public health and community capacity development projects. Practice activities have been supported at the state level through block grants and contracts from local public health agencies, not-for-profit organizations and other private sector sources.

Although these actions indicate that funding sources may be expanding, federal and private funders still need to demonstrate an integrated and sustained long-term commitment to support practice-based scholarship. As Rice and Richlin wrote, the "disturbing gap between what is valued as scholarship and the pragmatic needs of the larger world"[7p3] will require commitment by all sectors to successfully improve the science and art of public health practice, and accomplish the Year 2010 Health Objectives of the nation.

CHALLENGES AND RECOMMENDATIONS

Synthesizing and integrating knowledge in ways that generate new insights into the improvement of health and quality of life is a tremendous academic challenge. This document has explored the conceptual basis for formalizing practice-based criteria and standards for evaluating and rewarding scholars whose inquiry improves the "art" of public health—that is, the application of science to enhance the human condition.

Applying the tenets of academic public health practice, however, is not easy. Table 4 summarizes several of the challenges, facilitating factors and restraints that greatly influence the potential to successfully address the barriers to academic public health practice. It is important to note that facilitating factors often arise from social demands and public priorities imposed on the academy, as well as from intrinsic methodological advances in the public health sciences (such as evaluation research). Restraints also have both internal and external causes—barriers such as lack of scholarly criteria and channels for effective communication within and outside the academic environment pose significant problems which stand in the way of effective public health practice scholarship.

Reconsidering the conceptual basis for, and dimensions of, scholarship and practice-based research, teaching and service provides academic public health institutions with the opportunity for lively and constructive dialogue. Refining the standards of academic public health practice provides an academic policy that supports a dynamic learning culture and benefits all partners involved. Academic-community partnerships that solve population-based problems will enhance the capacity of both academic and practice sectors to synthesize and apply knowledge to improve community health and quality of life. This will also result in the best preparation and continued development of a qualified, competent workforce. Sustained, sequential, integrated and accessible education strategies should be developed, involving public health employers, community sector representatives, and academic public health training institutions.

Sustained recognition and support for applied interdisciplinary scholarship should be made more clearly evident for the field of academic public health practice as a whole and should be institutionalized *both* within each school of public health and university. In summary, the Council of Practice Coordinators of the Association of Schools of Public Health recommends the following specific action to deans, faculty and university administrators:

- Formally review and establish a definition of academic public health practice as it applies to research, teaching and service in schools of public health. This includes the review and, if necessary, redefinition of university policies, including changing standards that govern promotion and tenure of public health faculty to include the definition of uniform criteria for traditional and practice-based scholarship and appropriate forms of evidence from the practice community.
- Establish and enhance linkages with practice-based and community sector partners which will cement channels for interaction and increase the capacity of each to accomplish their mission.
- Assess and, if necessary, develop appropriate organizational, administrative and structural support that encourages applied, interdisciplinary scholarship in public health with attention to practitioner appointments, faculty incentives, student access and practice placements.
- Support further development and recognition of interdisciplinary forums for evidence and dissemination of scholarship within public health, including practice-based peer-reviewed journals, conferences and monographs or proceedings.
- Advocate for increased extramural support of practice-based scholarship to include research, teaching and technical assistance.

continued on page 18

Table 4. Challenges to Enabling Scholarly Practice in Schools of Public Health

Challenges	*Facilitating factors*	*Restraining factors*
Review and establish a definition of academic public health practice	• renewed attention to the importance of practice in academia and the need to create operational definitions • development of definitions by practice researchers/educators • increasing involvement in community-based projects to model practice • achievement of sound research in practice as a contribution to the academy	• difficulty in formulating consensus • definitions not widely understood or disseminated • communities often not included as partners or in development of definitions of academic public health practice • public has a poor understanding of public health
Establish linkages with the community	• increased faculty/practitioner/ community-based projects • increased dissemination of academic/ community opportunities • increased number of students graduating with "practice experience"	• limited faculty/ practitioner/community interaction and exchange opportunities • limited adequacy of supported practice experience • opportunities often outstrip academic capacity to meet community demand
Expand community partners	• changing community demography and health status tests scientific methods • organizational change creates new partnership opportunities (e.g., managed care) • health care delivery models are evolving and therefore demand new methods	• disciplinary training may be inadequate to respond to community needs • partnerships may be unfamiliar or unknown to academicians • resources, skills, and knowledge may be insufficient to engage partnership
Incorporate academic public health practice in the academic infrastructure	• expanded use of technologies that enhance teaching/research/service (e.g., information technology, distance education) • increased recruitment and joint appointment of faculty and practitioners • increased development of tenure and promotion systems and organizational structures that recognize the scholarship of practice • increased funding sources to support practice activities	• new technologies may not be widely accessible or utilized • lack of recruitment of faculty with practice experience • lack of reward and incentive for career development of practice faculty • limited resources to support practice activities • incomplete implementation of promotion and tenure policies that recognize the scholarship of practice
Measure achievement in academic public health practice	• expanded methodologies to conduct practice research • emphasis on population health and new approaches to measurement • development of processes to measure scholarship in practice by faculty members (teaching, research, service) • development of new interdisciplinary forums for evidence and dissemination of scholarship • recognition of practice-based, peer-reviewed, journals, conferences and monographs	• traditional tools may favor a limited use of approaches • use of narrow definitions of public health populations • evaluation of scholarship that does not recognize the contribution of practice (teaching, research, service) • lack of interdisciplinary forums for evidence and dissemination of scholarship • lack of recognition for practice-based, peer-reviewed journals, conferences and monographs
Provide continuing professional development opportunities	• increased demand for trained public health professionals • increased leadership development of existing workforce experience • increased diversity of workforce	• limited workforce preparation • limited resources for adequate workforce education and training • leadership development not perceived as a primary role of schools • limited tools to develop professional diversity • limited curriculum for workforce development needs

Finally, all of these activities require a common mission among schools of public health to support and encourage sustained commitment of faculty and students to the needs of the practice sector and the community, and the inclusion of practitioners and community representatives into its programs. Through serious debate and consideration of these problems, the academy will not only strengthen itself institutionally, it will assist the nation in solving the increasingly complex problems of public health.

The ultimate academic challenge for the 21st century may well be the synthesis and integration of knowledge in ways that generate new insights and understanding for the improvement of health and the quality of life. As Proust suggested, the voyage of discovery for the future is not to seek and discover new lands, but to see and discover the world with new eyes. The new explorers include those academic and practice scholars who will synthesize, integrate and apply knowledge to enhance the human condition.

APPENDIX A

BACKGROUND MATERIALS CONCERNING PUBLIC HEALTH PRACTICE

The Core Functions of Public Health

In 1988 the Committee for the Study of the Future of Public Health of the Institute of Medicine recommended the following core functions of public health at all levels of government:

- *Assessment*—every public health agency [should] regularly and systematically collect, assemble, analyze and make available information on the community, including statistics on health status, community health needs, and epidemiologic and other studies of health problems.
- *Policy Development*—every public health agency [should] exercise its responsibility to serve the public interest in the development of comprehensive public health policies by promoting the use of the scientific knowledge base in decision-making about public health and by leading in developing public health policy. Agencies must take a strategic approach, developed on the basis of a positive appreciation for the democratic political process.
- *Assurance*—public health agencies [should] assure their constituents that services necessary to achieve agreed upon goals are provided, either by encouraging actions by other entities (public or private sector), by requiring such action through regulation, or by providing services directly.

Source: IOM, *The Future of Public Health*, 1988, pp. 7–8.

Essential Public Health Services

During health care reform discussions in the 1990s, it became clear that the capacity of public health agencies to effectively perform the core functions of public health needed to be seriously reviewed. The Public Health Functions Steering Committee, comprised of representatives from government, public health agencies and non-profit public health groups, developed the essential public health services to operationalize the core functions of public health in clear and simple language.

For a clear and thoughtful discussion of the essential public health services, please refer to the website maintained by J.A. Baker and E.L. Harrell at CDC. This can be accessed at: http://www.apha.org/science/innovations/10ES.html#research.

The ten essential public health services, as defined by the Public Health Functions Steering Committee, are:

- Monitor health status to identify community health problems;
- Diagnose and investigate health problems and health hazards in the community;
- Inform, educate, and empower people about health issues;
- Mobilize community partnerships to identify and solve health problems;
- Develop policies and plans that support individual and community health efforts;
- Enforce laws and regulations that protect health and ensure safety;
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable;
- Assure a competent public health and personal health care workforce;
- Evaluate effectiveness, accessibility, and quality of personal and population-based public health services; and
- Research for new insights and innovative solutions to health problems.

Source: Public Health Functions Steering Committee, Fall 1994

ASPH COUNCIL OF PUBLIC HEALTH PRACTICE COORDINATORS

Boston University
Daniel Merrigan, EdD, MPH
School of Public Health
715 Albany Street - Room W-253
Boston, MA 02118
Tel. (617) 638-5159
Fax (617) 638-4483
E-mail: merrigan@bu.edu

Columbia University
Cheryl G. Healton, DrPH
Joseph L. Mailman School of Public Health
600 W. 168th Street, 7th floor
New York, NY 10032
Tel. (212) 305-3616
Fax (212) 305-6832
E-mail: cgh1@columbia.edu

Emory University
Jane Nelson, PhD, MPH
Center for Public Health Practice
Rollins School of Public Health
1518 Clifton road, NE - Room 668
Atlanta, GA 30322
Tel. (404) 727-7890
Fax (404) 727-9198
E-mail: jnels01@sph.emory.edu

Emory University
Joyce Essien, MD, MBA
Rollins School of Public Health
1518 Clifton Road, NE
Room 644
Atlanta, GA 30322
Tel. (404) 727-7835
Fax (404) 727-9198
E-mail: jessien@sph.emory.edu

Harvard University
Bruce Kennedy, Ed.D.
School of Public Health
718 Huntington Avenue
1st floor
Boston, MA 02115
Tel. (617) 432-0081
Fax (617) 432-0068
E-mail: kennedy@hsph.harvard.edu

Harvard University
Deborah Prothrow-Stith, MD
School of Public Health
718 Huntington Avenue - 1st Floor
Boston, MA 02115
Tel. (617) 432-0814
Fax (617) 432-0068
E-mail: dp-s@hsph.harvard.edu

Johns Hopkins University
Robert Lawrence, MD
School of Public Health
615 N. Wolfe Street
Room 1033
Baltimore, MD 21205
Tel. (410) 614-4590
Fax (410) 614-8126
E-mail: rlawrenc@jhsph.edu

Loma Linda University
Richard Hart, MD, DrPH
School of Public Health
1708 Nichol Hall - Hill Street
Loma Linda, CA 92350
Tel. (909) 824-4578
Fax (909) 824-4087
E-mail: rhart@sph.llu.edu

Ohio State University
Franklin Banks, PhD
School of Public Health
320 West 10th Avenue
Columbus, OH 43210-1240
Tel. (614) 293-3908
Fax (614) 293-3937
E-mail: banks.1@osu.edu

Saint Louis University
Kathleen Wright, EdD, MPH
School of Public Health
3663 Lindell Blvd.
O'Donnell Hall
St. Louis, MO 63108
Tel. (314) 977-8120
Fax (314) 977-3234
E-mail: Wrightks@slu.edu

San Diego State University
Winnie Willis, RN, ScD
Director, Institute for Public Health
6505 Alvarado Road, Suite 115
San Diego, CA 92120
Tel. (619) 594-7891
Fax (619) 594-6963
E-mail: wwillis@mail.sdsu.edu

Tulane University
Ann Anderson, PhD
School of Public Health and Tropical Medicine
1501 Canal Street
New Orleans, LA 70112
Tel. (504) 588-5397
Fax (504) 588-5718
E-mail: acanders@mailhost.tcs.tulane.edu

University at Albany SUNY
John Conway, PhD, MS, MPH
School of Public Health
One University Place, Room 129
Rensselaer, NY 12144-3456
Tel. (518) 402-0283
Fax (518) 402-0329
E-mail: jconway@cnsvax.albany.edu

University of Alabama-Birmingham
Michael Maetz, VMD, MPH
School of Public Health
Ryals Building, Suite 220
1665 University Blvd.
Birmingham, AL 35294-0022
Tel. (205) 934-7074
Fax (205) 934-8665
E-mail: michael.maetz@uab.edu

University of California at Berkeley
William Satariano, DrPH
School of Public Health
102 Haviland Hall
Berkeley, CA 94720-7360
Tel. (510) 642-3997
Fax (510) 643-5163
E-mail: bills@uclink4.berkeley.edu

University of California at Los Angeles
Emil Berkanovic, PhD
School of Public Health
Rm. 71279 CHS (Box 951772)
10833 Le Conte Ave.
Los Angeles, CA 90024-1772
Tel. (310) 825-6063
Fax (310) 825-8440
E-mail: eberkanovic@mednet.ucla.edu

University of California at Los Angeles
Snehendu Kar, DrPH
School of Public Health
26-071 CHS, PO Box 951772
Los Angeles, CA 90024-1772
Tel. (310) 825-5156
Fax (310) 825-7748
E-mail: kar@ucla.edu

University of Hawaii
John Casken, PhD
School of Public Health
1960 East-West Road
T102B
Honolulu, HI 96822
Tel. (808) 956-6234
Fax (808) 956-9266
E-mail: casken@hawaii.edu

University of Illinois at Chicago
Louis Rowitz, PhD
School of Public Health
850 W. Jackson Boulevard (M/C 275)
Suite 400
Chicago, IL 60617
Tel. (312) 996-9659
Fax (312) 996-5952
E-mail: lrowitz@uic.edu

University of Massachusetts
David Buchanan, DrPH, MPH
School of Public Health
306 Arnold House
North Pleasant Street
Amherst, MA 01003-0037
Tel. (413) 545-1005
Fax (413) 545-6536
E-mail: buchanan@schoolph.umass.edu

University of Michigan
Toby Citrin, JD
School of Public Health
SPH II, HMP, M3073
109 Observatory
Ann Arbor, MI 48109-2029
Tel. (734) 936-0935
Fax (734) 936-0927
E-mail: tcitrin@umich.edu

University of Minnesota
Jeanne Freiburg, PhD
School of Public Health
420 Delaware Street, SE
Box 197 Mayo Memorial Building
Minneapolis, MN 55455-0381
Tel. (612) 625-7625
Fax (612) 626-6931
E-mail: freib001@tc.umn.edu

University of North Carolina at Chapel Hill
Rachel Stevens, EdD, RN
School of Public Health
CB 8165, 435 Tate-Turner-Kuralt
Chapel Hill, NC 27599-8165
Tel. (919) 966-1069
Fax (919) 966-0478
E-mail: rachel_stevens@unc.edu

University of Oklahoma
Robert Lynch, PhD
Dept. of Occpational & Environmental Health
College of Public Health
801 N.E. 13th Street
Oklahoma City, OK 73104
Tel. (405) 271-2070
Fax (405) 271-1971
E-mail: robert-lynch@uokhsc.edu

University of Pittsburgh
Margaret Potter, JD
Graduate School of Public Health
130 DeSoto Street
Center for Public Health Practice
Pittsburgh, PA 15261
Tel. (412) 624-8700
Fax (412) 624-8679
E-mail: mapotter@vms.cis.pitt.edu

University of Puerto Rico
Zoraida Morales, PhD
School of Public Health
Main Building - Medical Center G.
P.O. Box 5067
San Juan, PR 00936
Tel. (809) 764-5975
Fax (809) 759-6719
E-mail: z_morales@rcmcaupr.clu.edu

University of South Carolina
Fran Wheeler, PhD
School of Public Health
102 Health Sciences Center
Columbia, SC 29208
Tel. (803) 777-5054
Fax (803) 777-9007
E-mail: fcwheele@sph.sc.edu

University of South Florida
W. Michael Reid, PhD, MA, MBA
College of Public Health
MDC 056
13201 Bruce B. Downs Blvd.
Tampa, FL 336123805
Tel. (813) 974-6646
Fax (813) 974-6741
E-mail: mreid@hsc.usf.edu

University of Texas-Houston
Hardy Loe, Jr., MD
School of Public Health
Health Science Center at Houston
P.O. Box 20186
Houston, TX 77225
Tel. (713) 500-9156
Fax (713) 500-9149
E-mail: sph0279@utsph.sph.uth.tmc.edu

University of Texas-Houston
Beth Quill, MPH
School of Public Health
1200 Herman Pressler STE W236
Houston, TX 77030
Tel. (713) 500-9159
Fax (713) 500-9149
E-mail: bquill@utsph.sph.uth.tmc.edu

University of Washington
James Gale, MD
Dept. of Epidemiology SC-36
School of Public Health
Box 357236
Seattle, WA 98195
Tel. 2065438873
Fax 2066859651
E-mail: jlg@u.washington.edu

Yale University
Elaine Anderson, MPH
Dept. of Epidemiology and Public Health
Yale School of Medicine
60 College Street, P.O Box 208034
New Haven, CT 06520-8034
Tel. (203) 785-6245
Fax (203) 785-6103
E-mail: elaine.anderson@yale.edu

Federal Public Health Practice Liaisons:

Centers for Disease Control and Prevention
Tony Moulton, PhD
Public Health Practice Programs Office
4770 Buford Hwy. (K36)
Atlanta, GA 30341-3724
Tel. (770) 488-2404
Fax (770) 488-2420
E-mail: amd6@cdc.gov

Health Resources and Services Administration
Ronald Merrill, MHA
Chief, Public Health Division
Bureau of Health Professions
Parklawn Building, Room 8C-09
5600 Fishers Lane
Rockville, MD 20857
Tel. (301) 443-6896
Fax (301) 443-1164
E-mail: rmerrill@hrsa.gov

ASPH Staff Liaisons:

Elizabeth Weist, MA, MPH
Director, Education and Practice Programs
1660 L Street, NW, Suite #204
Washington, DC 20036
Tel. (202) 296-1099
Fax (202) 296-1252
E-mail: emw@asph.org

Geraldine Sanchez Aglipay
Program Coordinator, Education and Practice Programs
1660 L Street, NW, Suite #204
Washington, DC 20036
Tel. (202) 296-1099
Fax (202) 296-1252
E-mail: gsa@asph.org

Council Chair & Co-chairs

Council Chair
Kathleen Wright, EdD, MPH
Saint Louis University

Eastern Region Co-chair
TBD

Midwestern Region Co-chair
Jane C. Nelson, PhD, MPH
Emory University

Western Region Co-Chair
Snehendu Kar, PhD
University of California at Los Angeles

Schools by Region

Eastern Region:
Boston University
Columbia University
Harvard University
Johns Hopkins University
University at Albany
University of Massachusetts
University of North Carolina
University of Pittsburgh
University of Puerto Rico
University South Carolina
Yale University

Midwestern Region:
Emory University
Ohio State University
Saint Louis University
Tulane University
University of Alabama at Birmingham
University of Illinois at Chicago
University of Michigan
University of Minnesota
University of South Florida

Western Region:
Loma Linda University
San Diego State University
University of California at Berkeley
University of Hawaii
University of California at Los Angeles
University of Oklahoma
University of Texas at Houston
University of Washington

REFERENCES

For additional information on materials related to academic public health practice, readers are encouraged to contact Geri Aglipay at the Association of Schools of Public Health, 202-296-1099, or e-mail: gsa@asph.org. Supplementary appendices of abstracts, promotion and tenure guidelines, mission statements and other documents giving background on efforts of the Practice Council and various schools of public health are available.

1 O'Neil, E.H. *Health Profession's Education for the Future: Schools in Service to the Nation*. San Francisco: PEW Health Professions Commission, 1993.

2 Institute of Medicine, National Academy of Sciences. *The Future of Public Health*. Washington, D.C.: National Academy Press, 1994.

3 Sorensen, A.A., and Bialek, R.G., eds. *The Public Health Faculty/Agency Forum: Linking Graduate Education and Practice—Final Report*. Gainesville, Fla: University Press of Florida, 1991.

4 Institute of Medicine, National Academy of Sciences. *Education for the Health Professions*. Washington, D.C.: National Academy Press, 1991.

5 PEW Health Professions Commission. *Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century*. San Francisco, Calif: University of California, San Francisco, Center for the Health Professions, 1995.

6 Fee, E. "Designing Schools of Public Health for the United States." in Fee, E. and Acheson, R.M. *History of Education in Public Health*. New York, N.Y.: Oxford University Press, 1991.

7 Rice, E.R. and Richlin, L. "Scholarly Work and Professional Practice." in: Richlin, L. ed. *New Directions for Teaching and Learning, Preparing Faculty for the New Conceptions of Scholarship*. San Francisco, Calif: Jossey-Bass Publishers, No.54, Summer 1993.

8 Public Health Functions Steering Committee. *"Public Health in America"* Position paper listing the Essential Services of Public Health Practice. Washington D.C.: adopted Fall, 1994.

9 Halverson. P.K., Miller, C.A., Kaluzny, A.D., et al. "Performance of Public Health Functions: The Perceived Contributions of Public Health and other Community Agencies." *Journal of Health and Human Services Administration* 18 (3): 288-303, 1996.

10 Council of Practice Coordinators, Association of Schools of Public Health. *Examples of Scholarly Practice-Based Activities in Schools of Public Health: Abstracts from ASPH/HRSA Workshop*. Washington, D.C.: Association of Schools of Public Health, 1998.

11 Association of Schools of Public Health. *Strong Schools, Strong Partners, A Report on Practice Activities of Schools of Public Health*. Washington, D.C.: Association of Schools of Public Health, 1998.

12 Blaisdell, M.L. "Academic Integration: Going Beyond Disciplinary Boundaries" *New Directions for Teaching and Learning, Preparing Faculty for the New Conceptions of Scholarship*. San Francisco, Calif: Jossey-Bass Publishers, No. 54, Summer 1993.

13 Winslow CEA. "The Untilled Field of Public Health." Modern Medicine,1920; 2183-191, in Turnock BJ. *Public Health, What It Is and How It Works*. Gaithersburg, Maryland: Aspen Publishers, 1997.

14 Webster, M. *Webster's 3rd Unabridged Dictionary*. Springfield, Mass: Merriam Webster Publisher, 1995.

15 Boyer, E.L. *Scholarship Reconsidered: Priorities of the Professoriate*. Princeton, N.J.: Princeton University Press, 1990.

16 Institute of Medicine. *Improving Health in the Community: A Role for Performance Monitoring*. Washington, D.C.:National Academy Press, 1997

17 Senge, P.M. "The Leaders New Work: Building Learning Organizations" in *Sloan Management Review* (1990): 7-23.

18 Glassick, C.E., Huber, M.T., and Maeroff, G.I. *Scholarship Assessed: Evaluation of the Professoriate*. San Francisco, Calif: Jossey-Bass Publishers, 1997.

ASPH
ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH

For additional copies of this report, contact:

Association of Schools of Public Health
1660 L Street, N.W., Suite 204
Washington, DC 20036
(202) 296-1099

DEMONSTRATING EXCELLENCE IN ACADEMIC PUBLIC HEALTH PRACTICE

Prepared by:

The Association of Schools of Public Health Council of Public Health Practice Coordinators

JUNE 1999

Core Editing Team and Contributing Authors:	Kate Wright, EdD, MPH (Editor)	Saint Louis University
	Jane Nelson, PhD, MPH	Emory University
	Margaret Potter, JD	University of Pittsburgh
	Beth Quill, MPH	University of Texas, Houston
Additional Contributing Authors:	Ann Anderson, PhD	Tulane University
	John Conway, PhD, MS, MPH	University at Albany, SUNY
	Joyce Essien, MD, MBA	Emory University
	Marie Flake, RN, MPH	Johns Hopkins University *(formerly)*
	Patricia Johnston, DrPH, MS, RD	Loma Linda University
	Michael Maetz, VMD, MPH	University of Alabama, Birmingham
	Michael Peddecord, DrPH	San Diego State University
	Michael Reid, PhD, MA, MBA	University of South Florida
	Louis Rowitz, PhD	University of Illinois at Chicago
	Rachel Stevens, EdD, RN	University of North Carolina at Chapel Hill
	Jim Studnicki, ScD, MBA, MPH	University of South Florida
	Dianne Ward, EdD	University of South Carolina
	Winnie Willis, ScD, RN	San Diego State University
ASPH Staff:	Elizabeth Weist, MA, MPH, Director, Education and Practice Programs	
	Geraldine Sanchez Aglipay, Program Coordinator, Education and Practice Programs	
	Alison Wojciak, MPH, Former Director, Public Health Practice	
Consulting Editor:	Janna Bialek	
Government Project Officers:	Ronald Merrill, MHA and Barry Stern, MPH, Bureau of Health Professions, Health Resources and Services Administration, U. S. Department of Health and Human Services	

The authors would like to thank the following individuals for their important contribution in reviewing this document in draft: Ron Bialek, MPP; Noreen Clark, PhD, MPH; Susan Hassmiller, PhD, RN; Aaron Katz, CPH; C. William Keck, MD, MPH; Lloyd Novick, MD, MPH; Cristina Puentes-Markides, MPH; Mary Richardson, MHA, PhD; William L. Roper, MD, MPH; Sarena Siefer, MD; Michael A. Stoto, PhD; Charles Treser, MPH; Fernando Trevino, PhD, MPH; Bernard Turnock, MD, MPH; John Ureda, MPH, DrPH