A Review of Competencies Developed for Disaster Healthcare Providers: Limitations of Current Processes and Applicability

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Abbreviations:
EMT = emergency medical technician
HRSA = Health Resources and Service Administration
MCI = mass-casualty incident
WADEM = World Association for Disaster and Emergency Medicine

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Abstract

Introduction: In order to prepare the healthcare system and healthcare personnel to meet the health needs of populations affected by disasters, educational programs have been developed by numerous academic institutions, hospitals, professional organizations, governments, and non-government organizations. Lacking standards for best practices as a foundation, many organizations and institutions have developed "core competencies" that they consider essential knowledge and skills for disaster healthcare personnel.

Problem: The Nursing Section of the World Association for Disaster and Emergency Medicine (WADEM) considered the possibility of endorsing an existing set of competencies that could be used to prepare nurses universally to participate in disaster health activities. This study was undertaken for the purpose of reviewing published disaster health competencies to determine commonalities and universal applicability for disaster preparedness.

Methods: In 2007, a review of the electronic literature databases was conducted using the major keywords: disaster response competencies; disaster preparedness competencies; emergency response competencies; disaster planning competencies; emergency planning competencies; public health emergency preparedness competencies; disaster nursing competencies; and disaster nursing education competencies. A manual search of references and selected literature from public and private sources also was conducted. Inclusion criteria included: English language; competencies listed or specifically referred to; competencies relevant to disaster, mass-casualty incident (MCI), or public health emergency; and competencies relevant to healthcare.

Results: Eighty-six articles were identified; 20 articles failed to meet the initial inclusion criteria; 27 articles did not meet the additional criteria, leaving 39 articles for analysis. Twenty-eight articles described competencies targeted to a specific profession/discipline, while 10 articles described competencies targeted to a defined role or function during a disaster. Four of the articles described specific competencies according to skill level, rather than to a specific role or function. One article defined competencies according to specific roles as well as proficiency levels. Two articles categorized disaster nursing competencies according to the phases of the disaster management continuum. Fourteen articles described specified competencies as "core" competencies for various target groups, while one article described "cross-cutting" competencies applicable to all healthcare workers.

Conclusions: Hundreds of competencies for disaster healthcare personnel have been developed and endorsed by governmental and professional organizations and societies. Imprecise and inconsistent terminology and structure are evident throughout the reviewed competency sets. Universal acceptance and application of these competencies are lacking and none have been validated. Further efforts must be directed to developing a framework and standardized terminology for the articulation of competency sets for disaster health professionals that can by accepted and adapted universally.

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Characteristic	Yes (n)	No (n)
Healthcare-specific?	38	1
Target groups defined by profession?	28	11
Target groups defined by role or function?	15	23
Solely nursing-centric?	11	28
If not nursing centric, are competencies specific to nursing included?	5	23
If not nursing centric, are competencies relevant to nursing included?	28	0
Disaster specific?	37	2
Research based?	12	27
Provided by professional organization or governmental agency?	16	23

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Table 1—Characteristics of competency articles reviewed

Introduction

Meeting the numerous and varied health needs of populations affected by disasters requires a prepared healthcare system and personnel. Education and training are the cornerstones of disaster preparedness. Thus, local, regional, national, and international educational programs have been developed with the goal of providing healthcare providers with the knowledge and skills required to care for the victims of a disaster. Such programs may be offered by academic institutions, hospitals, professional organizations, governments, non-governmental organizations, as well as by individuals with expertise in at least some area of disaster health care. However, while the number of disaster educational programs continues to grow, there are no common standards upon which these programs are based. Lacking standards for best practices, many organizations and institutions have developed "core competencies" that they consider to be essential knowledge and skills for disaster healthcare personnel.

In the 2004 *National Strategy for Terrorism Preparedness and Response: 2003–2008 Strategic Plan*, the Centers for Disease Control and Prevention specifically identified critical objectives to ensure a competent and sustainable workforce. These objectives included: (1) increase the number and type of professionals that comprise a preparedness and response workforce; (2) deliver certification and competency-based training and education; (3) recruit and retain the highest quality workforce; and (4) evaluate the impact of training to assure that learning has occurred.[1] Since 2005, the Health Resources and Service Administration (HRSA) of the US Department of Health and Human Services has required that funded Bioterrorism and Curriculum Training Programs be competency-based.[2]

Throughout the literature, the uses and definition of the term "competency" are numerous, varied, and inconsistent. While competence refers to the capability to function in a given setting, *competency* refers to one's actual performance in a specific role in a given situation.[3] According to Eraut,[4] "Competence.... is given a generic or holistic meaning and refers to a person's overall capacity. Competency.... refers to specific capabilities". As defined by the US Department of Education, competency is "a combination of skills, abilities, and knowledge needed to perform a specific task".[5] Although not universally accepted, competency generally is used as a synonym for some operational skill.

In 2007, members of the Nursing Section of the World Association for Disaster and Emergency Medicine (WADEM) proposed that the Section consider the endorsement of a set of competencies that could be used to prepare nurses universally to participate in disaster health activities. This study was undertaken for the purpose of reviewing existing published disaster health competencies to determine commonalities and universal applicability for disaster preparedness.

Although the original intent of this study was to determine commonalities that could be adapted universally by nurses in disaster health, the review was not limited to the discipline of nursing but, rather, included all published competencies relative to disaster health care, regardless of discipline.

Methods

A review of the electronic literature databases (Medline, PubMed, and Cochrane Library) was conducted in 2007 using the major keywords: disaster response competencies; disaster preparedness competencies; emergency response competencies; disaster planning competencies; emergency planning competencies; public health emergency preparedness competencies; disaster nursing competencies; and disaster nursing education competencies. In addition, a manual search of references and selected peer-reviewed and non-peer reviewed literature from public and private sources was conducted.

Inclusion criteria included: English language; competencies listed or specifically referred to; competencies relevant to a disaster, mass-casualty incident (MCI), or public health emergency; and competencies relevant to health care. Articles that included an incomplete list of competencies were excluded.

Two investigators (ED and PP) independently reviewed the articles to determine whether they met the initial inclusion criteria, and if so, to determine further: (1) if the article was healthcare specific; (2) if target groups were defined by profession; (3) if target groups were defined by role or level of function; (4) if the article was nursing centric (i.e., competencies specific to nursing); (5) if competences were relevant to nursing; (6) if the article was disaster specific; (7) if the article was research-based; and (8) if the article was published by a professional organization or governmental agency.

Results

A total of 86 articles were identified, of which, 20 articles failed to meet the initial inclusion criteria and were excluded from further review. Of the remaining 66 articles reviewed, 27 did not meet the additional criteria, leaving 39 articles for analysis.[6–44] One article[18] was not healthcare-specific but was included because it used published competencies for public health workers[14] to identify generic competencies

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Domain	Reference #
Assessment Analytical assessment Needs assessment and planning	25,26,33,38 7,41 31
Policy development/program planning	7,41
Communication(s) Communication and notification Communication and connectivity Communication and interpersonal relationships Communication and information sharing	34,26,27,33,37,41 12 23 31 32
Cultural competency	7,41
Community dimensions of practice	7,41
Basic health sciences	7,41
Financial planning and management	7,41
Leadership and systems thinking	7,41
Disease surveillance, disease reporting, and laboratory identification	12
Personal protective equipment Personal protection and safety	12 28
Facility	12
Dedicated decontamination facilities	12
Medical/surgical and pharmaceutical supplies	12
Training and drills	12
Mental health Mental health resources	25 12
Psychological issues/care	23,32
Triage and basic first aid	23
Detection Index of suspicion and event recognition Incident recognition	23,27 28 34
Accessing critical resources and reporting	23
Incident command system	23
Isolation, quarantine, and decontamination	23
Epidemiology and clinical decision-making	23
Basic clinical care	25
Administration	25
Triage	25
Wound care	25
Resuscitation	25
Immunizations	25
Liaison	25
Epidemiology	25
Critical thinking	26,33,38
Technical skills	26,33,38
Health promotion, risk reduction, and disease prevention	26
Healthcare systems and policy	26
Illness and disease management	26
Information and healthcare technologies	26
Ethics Ethical and legal issues and decision-making Public health law and ethics Ethical and legal practice and accountability	26 31 27 32
Human diversity	26
Preparation and planning Preparedness and planning	27 40,44
Incident management support system	27
Safety and security	27,31
Clinical/Public health assessment and intervention	27

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Table 2—Competency domains listed in 17 articles *(continued on page 390)*

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Domain	Reference #
Contingency, continuity, and recovery	27
Public health Public health surveillance and response	31 37
Terrorism	28
Event types	28
Response systems and communications	28
WMD response	28
Care principles	31
Nursing care	31
Healthcare systems and policies in emergency situations	31
Risk reduction, disease prevention, and health promotion	32
Policy development and planning	32
Professional development	32
Care of communities	32
Care of individuals and family Patient care for disasters, terrorism, and public health emergencies	32 37
Psychological care	32
Vulnerable populations	32
Long-term care needs	32
Effective decision-making	34
Integration and management of resources	34
Response/recovery roles	34
Prevention	35
Response Response and mitigation	35 40,44
Emergency management and preparedness	37
Terrorism and public health emergency preparedness	37

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Table 2—*(continued from page 389)* Domains listed in 17 articles (WMD = weapons of mass destruction)

Profession	Reference #
Public Health Workforce	6,10,13,14,15,17,19,22,24,40,41,44
Healthcare Worker	16,25,27,30,34,42,43
Nurses Nurses/Nurse Practitioners Public Health Nurses Nurse Executives School Nurses Nursing Students	 9,23,26,29,31,32,33,36 7,35 12 21 38
Emergency Physicians, Emergency Nurses, Emergency Technicians	28
Dentists/Dental Students	8,20
Mental Health Professionals	11
Medical Reserves Corps Volunteers	39
Health Profession Students	37
All workers with potential exposure to CBRNE terrorist threats	18

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Table 3—Professions targeted in the articles reviewed (CBRNE = chemical, biological, radiological, nuclear, or explosive)

for all workers potentially exposed to chemical, biological, radiological, and nuclear weapons. The characteristics of these 39 articles are listed in Table 1.

Less than half (17 of 39 [43.6%]) of the articles identified "domains" under which individual competencies were organized. These domains are listed in Table 2. Fifteen of the articles (38%) included competencies that were the same as, or modified slightly from, those described in Gebbie and Merrill's initial work on competencies for all public health workers.[14]

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Role/Function/Proficiency Level	Reference #
Public Health Administrators/Leaders; Public Health Professionals; Public Health Technicians; Public Health Clerical/Support Staff	13,14
Nurse Executive	12
First Responders; Skilled Support Personnel; Other Emergency Response Personnel	18
Relief Responders	25
Informed Worker/Student; Practitioner; Leader	27
Healthcare Leaders and Administrative Decision-Makers	34
Leaders/Administrators; Public Health Professionals; Technical Staff; Support Staff	40
Frontline Staff; Senior Staff; Supervisory and Management Staff	41
Hospital Workers	42

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Table 4—Targeted roles/functions

Twenty-eight of the 39 articles described competencies targeted to a specific profession/discipline (Table 3). Specific professions or disciplines targeted included: (1) public health workers (public health nurses, physicians, leaders, administrators, and technicians); (2) nurses/nurse practitioners; (3) nurse executives in disaster planning; (4) school nurses; (5) healthcare leadership and administration; (6) mental health professionals; (7) emergency physicians, nurses, and medical technicians; (8) healthcare professional students; (9) nursing students; and (10) dental students. Broader target groups addressed in some articles included: (1) hospital healthcare workers; (2) hospital personnel; (3) healthcare relief responders; and (4) Medical Reserve Corps volunteers.

Eleven of the reviewed articles described competencies solely for the nursing profession. Of the remaining 28 articles that were not nursing centric, five included competencies specific to nursing, and in all 28, the competencies listed were at least relevant to nursing. For example, the competency to "recognize a potential critical event and implement initial actions"[16] is not specific to the nursing profession, but, rather, is applicable to various healthcare workers, including nursing.

Ten of the reviewed articles described competencies targeted to a defined role or function during a disaster, rather than to a specific professional discipline. The roles/functions described in these articles are listed in Table 4.

Four of the 39 articles described specific competencies according to skill level or proficiency, rather than to a specific role or function. These levels consisted of: (1) "awareness", "performance", and "planning";[28] (2) "basic level", "mid-level", "advanced level";[30] (3) "knowledge", "comprehension", application", "investigation", "synthesis", and "assessment";[37] and (4) "awareness", "proficiency", and "expert".[44] One article defined competencies according to specific roles (frontline staff, senior staff, supervisory and management staff) as well as proficiency levels ("aware", "knowledgeable", and "advanced").[41] Two articles[32,35] categorized disaster nursing competencies in accordance to the phases of the disaster management continuum.

Fourteen of the reviewed articles described specified competencies as "core" competencies for various target groups,[7,9,11,13,14,26,27,29,30,33,37,39–41] while one article described "cross-cutting" competencies applicable to all healthcare workers.[16]

Sixteen of the 29 articles were publications produced by a professional organization or governmental or non-governmental agency. These groups are identified in Table 5.

Research methodologies were described in 76% of the articles reviewed. Consensus building among selected experts and stakeholders were identified methods used to develop competencies in 13 of the reviewed articles.[13,14,16,23,26,27,28,31,33,34,35,37,41] Only one article described the results of a survey to determine the skills actually used by healthcare providers who responded to Hurricanes Katrina and/or Rita.[25] Results of self-assessment surveys to evaluate learning from educational programs using described competencies were reported in five articles.[15,17,19,21,43]

Discussion

Events within the last 10 years have prompted countries the world over to attempt to strengthen their level of preparedness to prevent and respond to terrorist attacks and disasters from all hazards. Key to this effort is the development of a healthcare workforce capable of meeting the challenges inherent in these threats. This has resulted in the development of numerous, disaster-focused, competency-based educational programs for healthcare professionals and students. Correspondingly, hundreds upon hundreds of disaster-focused competencies have been articulated and utilized as the foundations of these programs.

Competency-based education, initiated in the 1980s, focuses on what the learner must know and be able to do in

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Agency for Healthcare Research and Quality
American Association of Colleges of Nursing
American College of Emergency Physicians
American Dental Association
American Medical Association
American Red Cross
Centers for Disease Control and Prevention
Council on Linkages Between Academia and Public Health Practice
International Council of Nurses
Medical Reserve Corps
National Association of City and County Health Officials
North Carolina Center for Public Health Preparedness and the Institute for Public Health at the University of North Carolina
Nursing Emergency Preparedness Education Coalition (formerly the International Nursing Coalition for Mass Casualty Education)
State of Florida
US Navy and Inova Health System
World Health Organization

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Table 5—Agencies/organizations/governments/institutions responsible for 16 of the competency articles

various, complex, working situations, and is an approach that has been embraced by many professions, agencies, and institutions to improve workforce preparation.[45] In 2005, the Council on Education for Public Health amended its accreditation criteria to define educational quality in terms of the competence of the graduates of public health schools and programs reviewed.[46]

Challenges to the development of competencies for disaster healthcare personnel include the facts that: (1) disasters occur infrequently and can result from numerous and varied events in disparate settings and conditions; (2) multiple professions and disciplines are involved in healthcare management during a disaster; (3) many unique roles and tasks are required during a disaster; and (4) different levels of performance of some competencies may be acceptable and/or necessary. Getting one's arms around all of these issues in the creation of a list of competencies for disaster healthcare workers clearly is a challenge and is reflected in the wide array of competencies found in this review. And, while many articles did not identify the domains (taxonomy of competency clusters)[47] for each of the competencies listed, the sheer number of domains, as listed in Table 1, reveals an essential problem in the identification of the areas of practice relevant to disaster health. With the exception of the Assessment, Communication(s), and Detection domains, there was little agreement among the articles reviewed. Much of this disagreement may be related to the lack of standard terminology and definitions, a recurring problem in the field of disaster health.[48,49] However, it also may be related to a lack of understanding of competency-based education that involves a hierarchical structure (from broad to specific) with the articulation of a systematically grouped competency domain or cluster that is broken down into competencies, and further decomposed into subcompetencies or skills along with specification of required behavioral indicators and levels of performance.[50]

Typically, competency lists are developed using a consensus-building process involving a review of the literature, input from select experts, use of the Delphi process, and input from stakeholders or practitioners.[45,51] However, according to Shewchuk *et al*, most processes rely predominantly on the opinions of nominal experts and existing literature.[52] Variations of the consensus-building process were described as the methods used to determine the competencies in several of the reviewed articles.[13,14,16,23,26–28,31,33–35,37,41] Certainly, buy-in from relevant professional organizations and societies is important in establishing credibility and acceptance of purported competency requirements. And, ideally, a required competency should have some demonstrated link with outcomes.[51] However, the nascence and nature of the discipline of disaster health have resulted in a dearth of evidence relating practices to outcomes, and few disaster health standards.[53] Although one article describes an "evidence-based consensus building" process in the development of cross-cutting competencies, documentation of the evidence used is lacking.[16]

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The numerous approaches to competency development, the abundance of identified disaster health competencies, and the lack of consensus and clarity among the competency sets may have both positive and negative consequences. From a negative standpoint, the plethora of promulgated disaster health competencies may contribute to the ongoing lack of standards and impede the development of standardized education and practices. On the positive side, however, the existence and availability of these articulated competencies can provide valuable groundwork for the development of a common framework for competencies based on the critical issues in disaster health. Fundamental to this process is the identification of those critical issues. Certainly, some input regarding these issues can be obtained from healthcare professionals previously or currently involved in some aspect of disaster health. Such empirical data are lacking in the field of disaster health. One exception is the pilot study conducted by Slepski, which sought input from healthcare responders (physicians, nurses, paramedics/emergency medical technician (EMTs)) to Hurricanes Katrina and/or Rita regarding the specific professional competencies they needed and performed during their responses.[25] The responders identified basic clinical care and triage as the most frequently used skills in this setting, but also identified those areas in which they felt least prepared. While the majority of responders felt sufficiently skilled for their professional function and role, personal and team member attributes and attitudes were identified as areas in which they felt least prepared. Notably, although 60% of the respondents in this study had prior disaster response experience, they indicated that environmental, organizational, and personal issues created feelings of inadequacies in the disaster setting. These findings are consistent with the view that greater emphasis often is put on job and role competencies than on personal competencies.[54] This likely relates to the difficulties in teaching and objectively assessing the attainment of personal competencies. Slepski's study represents an initial approach to obtaining data on professional competency needs from field experiences and the information that is required to establish the framework for competency modeling. Ideally, such information would be collected from all responders to disasters from various events, thereby identifying competencies necessary to perform various job roles.

Clearly, some competencies are more important or essential than others for a particular role or position during a disaster. "Core" competencies, i.e., competencies applicable to all levels/jobs and functions[54] among various target groups of workers were identified in many of the articles,[7,9,11,13,14,26,27,29,30,33,37,39–41] while Hsu *et al* described these as "cross-cutting" competencies required of all healthcare workers.[16] Nonetheless, the degree or level to which a particular competency needs to be performed or demonstrated may vary depending on the job or task required of the position. Thus, different levels of proficiency for the various behavioral descriptors need to be included in a competency model and a competency must be described in terms of skills and abilities taking into account the situation and the level of performance required.[47] The latter factor has been addressed in several, although certainly not all, of the competencies reviewed. When specified, performance levels were differentiated using broad terms such as basic, middle, and advanced levels,[30] awareness, performance, and planning levels,[28] and awareness, proficiency, and mastery levels.[44] Others specified levels of performance according to roles such as administrators, professional, technicians, and clerical/support staff,[13,14,40] and informed worker/student, practitioner, and leader.[27] The competency set developed by the Council on Linkages between Academia and Public Health Practice differentiates performance both by role (frontline staff, senior level staff, and supervisory/management staff) and proficiency (awareness, knowledgeable, and advanced) levels.[41] In a set of public health competencies for health profession students, Markenson *et al* utilize different behavioral descriptors to differentiate the proficiency of each competency according to the students' health profession (public health, nursing, physicians and surgeons, and dental and oral surgery).[37]

If core competencies are stated sufficiently broadly, the associated knowledge, skills, and abilities can be broken down into sub-competencies, which are small, focused components of the knowledge and skills that comprise the stated overall competency.[55] This allows the instruction of these sub-competencies to follow Bloom's taxonomy, building upon each other, and sequentially leading to higher levels of knowledge and performance as required by the worker's role or anticipated role.

One major challenge to gaining consensus on currently published competencies is the varied and inconsistent terminology used in describing them. Numerous articles used the word "domain" to describe the general area or focus of the competency being addressed (e.g., assessment, critical thinking), with specific competencies listed under each domain. Others used the word "competency" for this purpose and categorized "sub-competencies" as elements of the primary competency. Although both methods are correct, depending on the point of competency development, these distinctions led to barriers in the comparison of "domains" and competencies among the articles reviewed. Agreement on the terminology would greatly facilitate comparison as well as communication among those involved.

An additional confusing element concerns the articulation of an individual competency. A competency should describe a measurable skill used to achieve a particular work objective.[56] As such, competency statements should include an action verb describing some behavior expressed in terms that can be readily assessed. In this review, many of the competencies did not include a specific action, and many were written without consideration of the context and/or the ability to examine or assess the skill addressed. For example, the stated competency, "Develop a lifelong commitment to rigorous critical thinking",[41] is impossible to target in terms of instruction, and is impossible to assess regarding its attainment. Examples such as this were rife throughout the articles reviewed and highlight the need for thoughtfully constructed competency statements that: (1) articulate the knowledge and skill in a manner that can be assessed; (2) include the context for performance; and (3) describe the learner in terms of level of function or responsibility.[55] As stated by Punnitamai, "Clarity in an operational definition of competency is a *sine qua non* to methodologies used in achieving valid and useful competency models."[54]

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In terms of the disaster healthcare workforce, the scope of practice is wide and involves multiple professional disciplines with a wide range of experiences, abilities, and responsibilities. Indeed, the nature of disaster health requires crossovers in roles, functions, and responsibilities of providers that mandate a harmonization of competencies and standards applicable to all disciplines involved. For these reasons, this review focused not on disaster nursing-specific competencies, but, rather, on competencies for disaster healthcare providers in various disciplines and professions. Reaching consensus on the core competencies for all disaster healthcare workers will be challenging, but is essential to developing a unified public health workforce. Well-articulated competencies not only define what is required of whom to fulfill essential or core functions related to disaster health, but also provide educational guidelines, potentially improve consistency in response performances, and create reasonable expectations on the part of the public, stakeholders, other disciplines, and fellow workers.[55] Additionally, endorsed competencies can provide a framework for regulatory bodies by setting standards for practice certification and the accreditation of educational programs.

One limitation of this study is its restriction to the field of disaster health. Although many of the competencies required of healthcare professionals during a disaster are applicable to other professions, this was beyond the purview of this study. Likewise, many competencies required of other professions would be applicable to healthcare professionals; these too, were not included in the review.

Another major limitation of this study is its prominent US-based focus. At the time of this review (2007), the competencies published by US organizations or groups predominated the literature. Notable exceptions were the World Health Organization and the International Council of Nurses, a federation of more than 130 national nurses associations throughout the world, that have compiled a comprehensive list of competencies for nurses in disaster health.[31,32] As the majority of disasters occur outside of the US, input from the international community is essential to the creation of truly universally applicable competencies.

Limiting this review to articles or documents in the English language also placed inherent restrictions on the fullness of the review.

Conclusions

To date, hundreds of competencies have been developed in attempts to create a healthcare workforce prepared to respond appropriately and effectively to a disaster. Imprecise and inconsistent terminology and structure evident throughout the reviewed competency sets impede analysis and comparisons of the sets, and may inadvertently sabotage standardized educational endeavors. Despite the fact that many of the competency sets have been endorsed by various governmental and professional organizations and societies, universal acceptance and application of these competencies are lacking. Thus far, none of the reviewed competencies have been validated, nor is there any evidence to indicate that any one of the published sets of competencies is better or more useful than another. Further efforts must be directed to developing a framework for the articulation of competency sets for disaster health professionals that can by accepted and adapted universally.

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EDITORIAL COMMENTS

The Competency of Competencies

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Humanitarian assistance, a very visible part of our investment in improving health and well-being of people is increasingly under scrutiny. Questions remain about the variability in the quality of response, preparation, coordination, timeliness of services, accountability, and impact of assistance provided before, during, and after emergencies, including the most recent floods in Pakistan and Jammu-Kashmir, the earthquake in Haiti, as well as domestic emergencies including Hurricane Katrina and the health effects of the Gulf Oil spill. Dr. Burkle, humanitarian assistance expert and world leader, summed up the situation stating, "Those who define themselves as humanitarian professionals have doubled from a decade ago to almost 200,000 today. They are eager and well traveled. But like us all, they do not know what they don't know. Much of the education and training remains outdated. The humanitarian community, policy wonks, and the military have entered the 21st century unprepared to protect the urban public health or handle emergencies of scarcity."[1]

Many aspects of emergency work are unique in humanitarian settings and require specific core competencies. To date, there is no agreement about what constitutes the domains or specific core competencies for response and preparedness or when assisting refugees and displaced people. A recent "Competency Summit" in Washington, DC, brought together more than 50 experts from a variety of US-based agencies and organizations as well as several people representing global core competency initiatives to try to harmonize the approaches being simultaneously pursued.[2]

By adopting a competency yardstick or articulating core competencies, we would pick up the pace of progress along the road of evidenced-based approaches to humanitarian assistance. Daily, Padjen, and Birnbaum[3] have aptly described the current state of confusion when trying to review and evaluate the proposed domains and professional sectoral references to competencies of the healthcare workforce, with a particular emphasis on nursing, but encompassing other health professionals, first responders, relief responders, leaders as well as frontline and entry-level personnel. The analysis was conducted by members of the Nursing Section of the World Association for Disaster and Emergency Medicine (WADEM) to determine commonalities and universal applicability for disaster preparedness. The authors put forth definitions of competence (referring to a person's overall capacity) and competencies (defined by the US Department of Education as, "a combination of skills, abilities, and knowledge needed to perform a specific task. Usually, the term implies some operational, measurable skill"). The lack of agreement on terminology makes comparisons of core competency sets impossible. This study provides a lens into the complexity of the topic, as well as suggestions for a way forward.

Efforts to improve the quality and accountability of humanitarian response have resulted in the development of standards and guidelines for organizations and professional groups. Examples of global initiatives include the development and adoption of Sphere/Médecins Sans Frontières standards,[4] as well as the People in Aid,[5] Active Learning Network for Accountability

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and Performance in Humanitarian Action,[6] and Humanitarian Accountability Program[7] initiatives. There are a plethora of core competency articulation efforts in the USA, particularly since the 11 September 2001 World Trade Center disaster and the subsequent legislation calling for the development of curricula and training centers to improve disaster preparedness and management. There has been a call for a new interdisciplinary field of "Disaster Medicine and Public Health Preparedness."[8] The Association of Schools of Public Health (ASPH) has led a project entitled, "Public Health Preparedness & Response Core Competency Development" which is in final stages of development while another effort to identify a similar set of core competencies for Global Health is being undertaken.[9] Other efforts parallel those within the US, but involving the South (Latin America, Asia, Africa) and the North (Europe, Canada, etc.) are bringing together players from around the world, while emphasizing the desire to articulate the knowledge, behaviors, skills, and experiences that should be common to all individuals participating in humanitarian efforts. Generally, training programs, developed by specific organizations or professional licensure or degrees, are used as surrogates for assessing the adequacy of preparation for various settings, including emergencies. The recently released report on "Professionalising Humanitarian Assistance: A Scoping Study"[10] emphasized the need to focus on the individual worker, rather than the organizations employing these responders. Next steps include the formation of a new association of these individuals with a certification process established with training institutions and organizations that use a set of core competencies as the basis for the accreditation process.[11]

The new Global Health Initiative (GHI) announced by the Obama administration places the US on a path paved by stones crafted from evidence of effectiveness that leads the way to policy decisions to improve health of the world's most needy citizens.[12] In a review of the new GHI, Bendavid states,[13] "Numerous studies have failed to link foreign assistance with comprehensive economic development: in fact, in some accounts, countries that received the most aid have seen the least growth. This history highlights the need to evaluate aid programs more rigorously, especially in a political climate that stresses accountability for an effect with taxpayers' dollars....The opportunity to inform future policy with experimental evidence can make the GHI a pillar of action as well as learning."

The authors of the "Review of Competencies" article contained in this volume (*ibid*) conclude that, "Despite the fact that many of the competency sets have been endorsed by various governmental and professional organizations and societies, universal acceptance and application of these competencies are lacking. Thus far, none of the reviewed competencies have been validated, nor is there any evidence to indicate that any one of the published sets of competencies is better or more useful than another." Clearly the competency of competencies must be examined and the efforts harmonized if we are to turn the current cacophony into a well-orchestrated chorus.

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WADEM Regional Chapters

The WADEM Board of Directors, pursuant to its decision at the World Congress on Disaster and Emergency Medicine in Edinburgh, Scotland in May 2005, offers the designation of WADEM Chapters to regional organizations of WADEM members who share the mission and dedication of the WADEM.

Eligibility

A regional WADEM Chapter consists of a group of WADEM members in a particular region who, as a matter of geographic convenience, organize to promote the goals of the WADEM cooperatively. Chapters have an academic, research, and/or operational focus, and work to further develop the goals of WADEM and of the individual Chapter membership. Chapters provide an organized way for its members to share their professional experiences and provide educational, training, and research opportunities for the advancement of disaster health and management.

A Platform for Networking

A great resource for professional and personal development is meeting with colleagues within the same field of interest and practice. Members can gain new information on state-of-the-art technology, access to others' experiences and knowledge, and the opportunity to broaden professional insights.

Professional Development

Chapter meetings and activities provide opportunities to expand members' knowledge, bring continuing education and training opportunities closer to home, and provide a bridge between local and global issues. The creation of a Mentor Program within the Chapter also provides opportunities for the members to grow.

Exchange of Experiences and Contributing to WADEM

Chapters offer the ability to exchange both professional experiences and provide helpful services, such as reviewing members' manuscripts and conference presentations. Chapters can provide access to other professionals willing to mentor members in publishing research projects and operational experiences. Chapters also may act as a clearing house for new ideas that can be directed to the WADEM and, if appropriate, implemented globally. Chapters also may identify potential WADEM leaders and nominate members to serve on the WADEM Board of Directors.

More information is available on the WADEM Website:
http://www.wadem.org/chapters.html

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