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14. ABSTRACT Nurses constitute the largest sector of the healthcare workforce within the United States. It is critical that nurses receive appropriate training in disaster nursing. Efforts are needed to develop and deliver these competencies, and the education/training which supports their development. This study is based upon prior research, review of the literature, and feedback from key stakeholders at the local, state, and national level that indicates significant gaps in knowledge, skills, and attitudes among medical providers who respond to disasters. This study aims to identify and validate evidence-based nursing competencies for military/civilian disaster response and the educational curriculum to support these competencies; identify and validate continuing nursing education/training curriculum which supports evidence-based nursing competencies for military/civilian disaster response; and identify and test technology that can be used in the delivery of disaster preparedness education. Phase 1 explored how reliable alternative, technologically-enhanced mobile educational content delivery models are in delivering disaster education content. Changes in knowledge, skills and attitudes among nursing students resulting from disaster preparedness education/training received in core nursing curriculum were also evaluated. Phase II of the study sought to determine if baccalaureate-level nursing programs adequately prepare nurses to respond to disasters. A national survey of deans of baccalaureate-level nursing programs throughout the United States was conducted to identify the amount of disaster nursing being taught, the methods used to deliver content, and the outcomes achieved. In Phase III (current phase) lessons learned from Phase I regarding the use of technology to deliver disaster preparedness education, and the deficiencies in disaster-nursing competency-based education identified in Phase II were used to develop and deliver evidence-based disaster competency education applications related to disaster communications and disaster preparedness plans for healthcare providers who respond to disasters.					
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Saint Francis University
Nurse Education-CERMUSA
September 2012 to November 2013

Articles submitted for publication

Strengthening Nursing Curriculum To Support Humanitarian Assistance and Disaster Preparedness Competencies: A National Survey – submitted to the peer-reviewed journal *Nurse Education in Practice*

Strengthening Nursing Curriculum To Support Humanitarian Assistance and Disaster Preparedness Competencies: A Competencies Crosswalk - submitted to the peer-reviewed journal *Nurse Education in Practice*

Publications

SFU DiSepio Institute for Rural Health and Wellness & CERMUSA Newsletter. (September 2013). Loretto, PA

SFU DiSepio Institute for Rural Health and Wellness & CERMUSA Newsletter. (June 2013). Loretto, PA

SFU DiSepio Institute for Rural Health and Wellness & CERMUSA Newsletter. (March 2013). Loretto, PA

Presentations

Guzic, B.& Trofino, R. (November 2013) – Oral presentation: *Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness*

Competencies. 2013 AANC Baccalaureate Education Conference, New Orleans, LA

Guzic, B. (September 2013) – Poster presentation: *Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness Competencies*. Learning in Disaster Health: A Continuing Education Workshop, Georgetown University, Washington, DC

Guzic, B. & Trofino, R. (September 2013). Oral presentation: *Disaster Management & Humanitarian Assistance for Healthcare Providers*. Rural Telehealth and Advanced Technologies Conference: Fall 2013 Updates for Healthcare Providers, Loretto, PA

**Saint Francis University's
Center of Excellence for Remote and Medically
Under-Served Areas (CERMUSA)**

**Nurse Education – CERMUSA
FY10 Annual Report
(September 14, 2012 to November 30, 2013)**

Protocol Title: Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness Competencies

Protocol No.: 10-TATOP1103-10 (Award # W81XWH-11-2-0203)

Date: December 2013

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Introduction

The United States military has long been aware of the critical importance of training medical personnel for mass casualty events that occur on the battlefield; and awareness of the need for training in disaster response and preparedness in both the military and civilian venues is higher than ever. The media has allowed us to witness the grim realities of the devastation and loss of life that occur when disasters strike the United States and other nations. The casualties generated by such disasters can overwhelm healthcare facilities and first responder communities. They can also overwhelm our military forces that are placed in positions of response to major life threatening events and disasters involving significant human casualties.

Nurses constitute the largest sector of the healthcare workforce within the United States and will, with certainty, be on the front lines of any disaster response (Veenema, 2006). Since nurses make up the largest portion of the healthcare workforce in the country, it is critical that nurses in all specialty areas are trained in disaster nursing (American Public Health Association, 2008). Much of the literature concerning competencies for disaster response consists of generated lists of competencies that have not been validated (Daily, Padjen, Birnbaum, 2010). Further efforts are needed to develop and communicate the evidence-base surrounding these competencies, as well as the education and training which supports the development of these competencies.

Meeting the numerous and varied needs of populations affected by disasters requires a prepared healthcare system and personnel (Daily, Padjen, Birnbaum, 2010). Due to the diversity of medical personnel in terms of education, training, and licensure requirements, it is important to examine profession-specific competencies in order to understand the gaps which exist. Since nurses perform strategic research, administrative, and practice functions in emergency planning and mass casualty events (Stein, 2008), it makes sense to begin to develop a better understanding of specific competencies of this group in order to develop more effective and targeted education and training methods. According to Gebbie & Qureshi (2002), “Although nurses may agree that there’s a need for basic competencies in disaster preparedness and response in addition to the usual clinical skills, such training is not part of the required undergraduate curricula at most U.S. schools of nursing, and there is surprisingly little in the literature that addresses the role of nursing in this regard”. There is a lack of clear data supporting nursing practice in response to the actual or potential health problems associated with humanitarian assistance and disaster response. We must continue to address gaps in our knowledge with research that can then translate into practice.

This study evolved over a period of time and is based upon prior research, review of the literature, and feedback from the key stakeholders at the local, state, and national level that indicates significant gaps in knowledge, skills, and attitudes among medical providers who respond to disasters. The historical and experiential context further supports its exploration. The International Council of Nurses’ (2006) position statement on nurses and disaster preparedness states, “It is important for all nursing leaders to incorporate disaster preparedness awareness in educational programs at the pre-registration and post-basic levels and provide continuing

education to ensure a sound knowledge base, skill development, and ethical framework for practice”. It is anticipated that the knowledge generated by this study will inform nursing education and drive curriculum decisions relative to disaster response for this profession.

The goal of this research is to evaluate changes in knowledge, skills, and attitudes among nursing students as a result of education and training. It also will explore how reliable alternative, technologically-enhanced mobile educational content delivery models are in delivering educational content. Future phases of the study are expected to provide data supporting specific nursing competencies in disaster preparedness and response.

Body

Phase I:

Phase I of this research evaluated changes in knowledge, skills, and attitudes among nursing students as a result of disaster preparedness education and training received in their core nursing curriculum. This was done through a pre-test/post-test format. In addition, the effectiveness of utilizing a mobile learning platform in the delivery of disaster preparedness education and training was evaluated. Four mobile learning platforms (Apple iPhone, Apple iPad with cover, Apple iPad without cover, and Motorola Android) were evaluated utilizing an online Mobile Learning Platform Technology Evaluation tool. Through the use of the Mobile Learning Platform Technology Evaluation tool (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012):

- End-user requirements were identified
- Technical procedures for establishing and disseminating information were identified
- Technical barriers to offering the program in rural, remote, and underserved areas were identified
- The knowledge gains of the study subjects who utilize the content implemented in the research were identified

Phase II:

Phase II of the study sought to determine if baccalaureate-level nursing programs adequately prepare nurses to respond to disasters. A national survey of deans of baccalaureate-level nursing programs throughout the United States was conducted to identify the amount of disaster nursing being taught, the methods used to deliver content, and the outcomes achieved. Sampling included schools accredited by the Commission on Collegiate Nursing Education (CCNE) and the National League for Nursing Accrediting Commission (NLNAC). A total of 870 nursing programs were included in this national sample. A total of 269 individuals began the survey and 190 (71%) completed it (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012).

Phase III:

Nurses are considered trusted professionals and will be considered as leaders of efforts to promote effective care to victims of disasters. Hence, lessons learned from Phase I regarding the use of technology (handheld devices, web-based instructional design, and the Internet) to deliver disaster preparedness education, and the deficiencies in disaster-nursing competency-based education identified in Phase II were used to develop and deliver evidence-based disaster

competency education applications related to disaster communications and disaster preparedness plans for healthcare providers who respond to disasters.

Military Significance:

Although military nursing has improved dramatically over the years, the need for continued education and research is of vital importance. The traditional scope of war, as well as the role of a military nurse, has changed dramatically over the past century. Due to “high tech” conflicts and wars against terrorism being fought around the globe, nurses are required to expand their knowledge base to include the cultural awareness of host nations, health values and beliefs, and an understanding of the mission port health delivery systems. This is in addition to their role of caring for the sick and injured.

Military nurses are routinely deployed for humanitarian assistance and disaster response missions throughout the world. To prepare for future military humanitarian missions, nurses turn to resources and lessons learned from past humanitarian assistance and disaster response missions (Almonte, 2009). However, accounts by military nurses show that the content of such after-action reports rarely contain items related to nursing practice and that they specifically lack detailed information that would be helpful for nurses to improve future performances (Almonte).

Although past experiences are excellent resources, they very seldom are sufficient. This study hopes to address these deficiencies by identifying the minimum knowledge base required for such preparedness and establishing best practices necessary for such education. Since Department of Defense (DoD) personnel stand to benefit from this exercise, use of DoD funds is well justified. The need for research into the development and evaluation of a humanitarian assistance and disaster response plan for military and civilian nurses is important to help them gain a better understanding of their role, as well as to enhance the value of the mission.

This project, using health science students (nursing, physician assistant, occupational therapy, and physical therapy), provided an opportunity to study how emergency healthcare responders would react to patient care environments that are best described as austere and resource limited environments.

- How do healthcare providers (emergency responders) respond to disasters?
- How do they know what to do and how to best react?
- Are there differences in decision-making and outcomes that can be explained by level of preparation and educational curriculum?

These are phenomena of interest as we move forward to develop policy, educational curricula, and preparedness activities at the federal, state, and local level. In Phase III of this study, disaster response education modules that include real-world scenarios were designed to inform and create learning opportunities to enhance disaster preparedness and response.

According to the American Public Health Association (2008), “In a rapidly changing world facing natural and man-made disasters as well as threats of terrorism and pandemics, nurses will be needed to serve in the event of a disaster.” We owe it to those who we have failed, those who have died as result of our lack of preparedness, and those who serve our county and others in the

continued war on terror, to look critically at how we are preparing nurses for pandemic and all-hazards disaster response.

- Are nurses who arrive to participate in, or lead, response efforts, prepared to an acceptable level?
- Can JIT (just-in-time) education and training, via hand-held devices, sufficiently enhance the disaster preparedness and response competencies of nurses?
- Do they have the types of resources that they need to have?

In order to answer these questions, we looked specifically at the impact of identifying competencies and in implementing education and training using mobile applications.

Public Purpose:

This research is relevant to the field of nursing and nursing education. All response to disaster is ultimately a local responsibility. As a result, nurses will be called to serve if and when disaster strikes a community. The better we understand the phenomena in question, the better prepared we can be as a nation. According to Veenema, “In the aftermath of the World Trade Center disaster, nurses were eager to offer assistance, but many lacked proper training in communicating with disaster management teams and in specific skills that are helpful when dealing with victims and their families” (p. 94). Weiner, Irwin, Trangenstein & Gordon (2005) surveyed nursing schools throughout the county and found that these schools provided only about four hours of content in the area of disaster preparedness and that this had not significantly changed since the events of 9/11.

Nurses are considered trusted professionals and will be looked to in disasters as leaders of efforts to promote effective care to victims. Studying the impact of disaster preparedness education on nurses can provide insight into the skills and core competencies relative to disaster response. This can serve to inform us about changes that might be important in undergraduate and graduate nursing curriculum in order to better prepare the work force for all-hazards response.

According to James, Subbarao, & Lanier (2008), optimum sharing of ideas regarding disaster medicine and public health is contingent upon input from, and cooperation among, government agencies (all levels), physicians, basic scientists, epidemiologists, public health experts, engineers, logistics experts, economists, mass communication experts, meteorologists, and others (p. 560). The rationale for pursuing this research originates from the knowledge that nurses will be integral to the disaster response process. More often than not, they will be called upon to lead these efforts. The International Nursing Coalition for Mass Casualty Education (INCMCE) identified core competencies for entry level nurses, as well as professional role development for nurses, to include how to be a direct care provider and a member of the planning response team (2003).

Historically, multiple failures in preparedness and response have produced less than acceptable outcomes. Challenges include real-time situational awareness, integration within incident command, interoperable communications, rapid medical triage, field stabilization of victims, and rapid transport to definitive medical care (Marcozzi, Sanders & Vanderwagen, 2007, p. 6). Additionally, the literature suggests that disaster situations may require a set of specific competencies. According to MacFarlane, Joffe & Naidoo (2006), there is an increasing need for

specially trained professionals in disaster management, especially in developing countries where resource constraints may be significant.

Legislation such as the Pandemic All-Hazards Preparedness Act of 2006 (PAHPA), represents significant effort by the U.S. to address the shortcomings we have experienced in disaster preparedness and response. It specifically calls for core health and medical response curricula and training response by adapting applicable existing curricula and training programs to improve responses to public health emergencies (S.3678-29). Have we incorporated the intent of the PAHPA legislation as we prepare nurses for disaster response? Legislation has the effect of mobilizing large amounts of money to improve coordination and response to disasters. What is unclear is how to translate competencies and education to improved patient outcomes during an actual disaster. There is a lack of literature addressing these questions.

Success or failure of the policy will be measured by the ability of the nation first and foremost to respond locally to the next disaster that strikes. Recent literature reflects on the need to develop and validate mass casualty models so that disaster response remains coordinated and effective (Culley & Effken, 2010). In order to effectively do this, however, we need to better understand the workforce and the competencies required by this workforce. These efforts can then translate evidence-based solutions to ensure that these competencies are established and maintained.

Key Research Accomplishments

Phase I:

- The end-users' (nursing students) were recruited and consented (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- Four technologies (Motorola Android, Apple iPod, Apple iPad with cover, Apple iPad without cover) were selected and used in delivering the distance education module to the students (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- The four technologies were evaluated by the student participants via a technology evaluation survey and results were tabulated (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- An online course management system was used to administer the pre-test, didactic course content, post-test, and survey (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- The knowledge gains of the study subjects were measured via comparisons between the online pre-test and post-test results (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)

Phase II:

- Disaster Nursing Competencies Survey was developed (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- Nurse Disaster Preparedness Advisory Board, made up of disaster nursing subject matter experts from across the country, was convened to review the survey and make recommendations for revisions (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)

- Disaster Nursing Competencies Survey distributed online via Qualtrics Survey software (Qualtrics Survey Software, 2012). to Deans of Bachelor of Nursing programs using lists from the NLNAC and CCNE (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- Results from the Competencies Survey were tabulated. Findings revealed that progress has been made in some areas of disaster nursing education (incident management, risk communication, nursing and public health indicators, and ethics). However, significant gaps still remain in baccalaureate-level nursing programs regarding the prioritization of disaster nursing education and the adoption of disaster nursing evidence-based competencies into baccalaureate-level nursing curricula. The relevant gaps in basic disaster nursing concepts that were identified included personal preparedness, professional preparedness, surge capacity (inclusive of hospital evacuations), and legal preparedness on standards related to infection control and emergency response planning (Appendix A).
- Based on the findings from the national survey, four recommendations were identified to comprehensively address the gaps in disaster nursing and to drive increased integration of disaster nursing education into BSN curricula:
 - BSN programs should consider adding evidence-based personal preparedness, professional preparedness, surge capacity (inclusive of hospital evacuations), and legal preparedness on standards related to infection control and emergency response planning
 - BSN programs should consider adding an annual disaster drill or exercise as part of the emergency response curriculum
 - BSN programs should include a minimum of eight contact hours of evidence-based disaster nursing curriculum
 - BSN programs should continue to explore evidence-based competency outcomes for disaster nursing education

Phase III:

- Study participants were successfully recruited from the Saint Francis University School of Health Sciences
- Disaster communication protocols and personal and professional disaster preparedness plan training modules were developed, tested, and uploaded into an online course management software program for dissemination to the study participants (Appendices B & C)
- Pre-test/post-test were developed for each module and uploaded into an online course management software program for dissemination to the study participants (Appendices D & E)
- Study participant survey was developed and uploaded into the online Qualtrics Survey tool (Qualtrics Survey Software, 2012). (Appendix F)
- Study participants (nursing, physician assistant, occupational therapy, and physical therapy students) completed the:
 - Online survey (Appendix F)
 - Pre-tests and post-tests (Appendices D & E)
 - Didactic portion (Appendices B & C)
- Data is presently being tabulated and will be sent to the CERMUSA biostatistician, Dr. Liu, for analysis and reporting.

Reportable Outcomes

Phase I:

- Analysis of data as it relates to the knowledge gains of the study subjects and the results of the technology evaluations from Phase I was reported in the Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012

Phase II:

- Disaster Nursing Competencies Survey was developed and distributed via Qualtrics Survey software to Deans of Nursing (Bachelor of Nursing programs) across the United States (Nurse Education-CERMUSA FY10 Annual Report - September 12, 2011 to September 11, 2012)
- Results from the Competencies Survey were tabulated and findings indicated that while there were many topic areas that baccalaureate-level nursing programs included in their curricula, the following relevant gaps in basic disaster nursing concepts were identified:
 - Personal preparedness
 - Professional preparedness
 - Surge capacity (inclusive of hospital evacuations)
 - Legal preparedness on standards related to infection control and emergency response planning
- The survey did reveal that progress has been made in the following areas of disaster nursing education:
 - Incident management
 - Risk communication
 - Nursing and public health indicators
 - Ethics
- Based on the findings from the national survey, the following four recommendations were identified to comprehensively address the gaps in disaster nursing and to drive increased integration of disaster nursing education into BSN curricula:
 - BSN programs should consider adding evidence-based personal preparedness, professional preparedness, surge capacity (inclusive of hospital evacuations), and legal preparedness on standards related to infection control and emergency response planning
 - BSN programs should consider adding an annual disaster drill or exercise as part of the emergency response curriculum
 - BSN programs should include a minimum of eight contact hours of evidence-based disaster nursing curriculum
 - BSN programs should continue to explore evidence-based competency outcomes for disaster nursing education

Phase III:

- Year-to-date the following manuscripts, abstracts, or presentations have been generated:
 - American Association of Colleges of Nursing – Baccalaureate Nursing Conference – New Orleans, LA - November 2013 – PowerPoint Presentation – (Appendix G)

- Learning in Disaster Health: A Continuing Education Workshop – Washington, D.C. – September 2013 - Poster Presentation. *Recipient of Outstanding Poster* (Appendix H)
- Rural Telehealth Conference – September 2013 - PowerPoint Presentation – (Appendix I)
- Strengthening Nursing Curriculum To Support Humanitarian Assistance and Disaster Preparedness Competencies: A Competencies Crosswalk - submitted to the peer reviewed journal *Nurse Education in Practice* (Appendix J)
- Strengthening Nursing Curriculum To Support Humanitarian Assistance and Disaster Preparedness Competencies: A National Survey – submitted to the peer-reviewed journal *Nurse Education in Practice* (Appendix K)

Conclusion

This study is relevant to the field of nursing and nursing education as it relates to disaster preparedness competencies. As trusted professionals, nurses are considered leaders of efforts to promote effective care to victims of disasters. The need for research into the development and evaluation of a humanitarian assistance and disaster response plan for military and civilian nurses is important to help them gain a better understanding of their role, as well as to enhance the value of the mission. This study can serve to inform us about changes that might be important in undergraduate and graduate nursing curriculum in order to better prepare both the civilian and military workforce for all-hazards response.

Based on the data generated from this study, the Center of Excellence for Remote and Medically Under-Served Areas (CERMUSA) anticipates the dissemination of nursing competencies for military disaster response to the Tri-Services (Navy, Army, and Air Force). In addition, the results of this study may provide evidence for deploying other emerging learning technologies as tools for future phases of this effort. These tools may include the integration of medical simulation (on-site and at a distance) and interactive virtual worlds. With the growing robustness of cloud-based technologies and individual device processing power (i.e. tablet computers, smart phones) content could be transformed into increasingly realistic-yet-accessible distribution methodologies, including interactive games and online scenarios. These efforts will likely build upon CERMUSA's previous documented successes in these fields (Medical Simulation at a Distance) and the knowledge base of our Principal Investigators, Associate Investigators/Subject Matter Experts, and consultants. Based on the results of this study, mobile content distribution could be used en masse to prepare medical staffs for deployment. A sample model would involve distributing pre-loaded mobile devices to these individuals prior to deployment to enable them to complete preparatory materials as time allowed. For example, a civilian reservist could view training materials on a handheld device while waiting for immunizations at a doctor's office. Additionally, these devices could be carried along during deployment to serve as digital handbooks or continued preparation/adaptation while in-theater. In addition, results may provide key insights into competencies required of the broader medical department staff and provide the basis for enhancing inter-professional and team-based training.

“So What” Section:

It is essential to recognize that perspective may differ between educators and students, and that a difference may exist between what is being taught and what is being learned. Therefore, changes

may need to be made to curriculum to ensure that student nurses receive proper training in communicating with disaster management teams and in specific skills that are necessary when caring for and dealing with victims and their families.

Nurses are considered trusted professionals and encompass the largest proportion of the healthcare community. In times of disaster, nurses will be considered leaders of efforts to promote effective care to victims. Educated and prepared nurses will have the competencies to respond in a timely manner and provide appropriate care and interventions during a disaster.

Following the disasters of 9/11 and Katrina, issues of policy creation and subsequent implementation in life and death situations were confronted and the value of national competencies and curricula in disaster health was recognized. This is at the heart of Homeland Security Presidential Directive 21 (HSPD-21), "Public Health and Medical Preparedness" of 18 October 2007. This directive reinforces the need for coordinated disaster response and competent medical intervention in order to save lives. This study evolved over a period of time and is based upon a belief that there is sound rationale for exploring the changes in knowledge, skills, and attitudes of nurses who are provided education and training prior to humanitarian assistance and disaster response.

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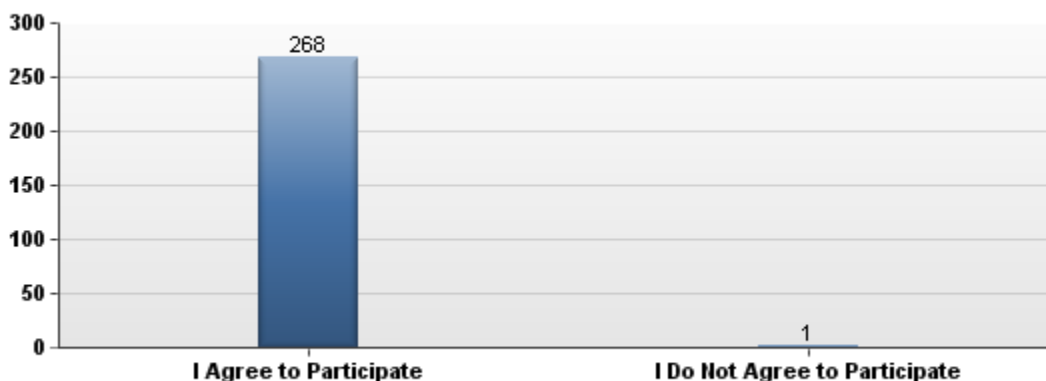
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Appendix A

My Report

Last Modified: 09/21/2012

1. Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness Competencies **Consent** The goal of this research is to conduct a national survey of Baccalaureate Nursing Schools to identify gaps in current education and training in disaster nursing. This survey will also evaluate changes in knowledge, skills, and attitudes among nursing students as a result of education and training. By completing this questionnaire: I indicate my consent to participate in the research. I understand confidentiality will be maintained. I agree to have my answers recorded for use in research. There are no foreseeable risks to you from participating in this research, the results of which are free. The benefits to you consist of feedback related to your knowledge, skills, and attitudes as a result of the education and training in place in your BSN program. Your participation in this research is completely voluntary, and all responses to this survey are anonymous and will be kept confidential. You may refuse to answer any of the questions, and you may withdraw your consent and discontinue participation in this study at any time.



#	Answer		Response	%
1	I Agree to Participate		268	100%
2	I Do Not Agree to Participate		1	0%
	Total		269	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.00
Variance	0.00
Standard Deviation	0.06
Total Responses	269

2. Deanship (Title)

Text Response
Dean of Nursing
Chair
Dean
Director
Dean School of Nursing
Director
Chair
Dean College of Nursing
Dr. Ruth Daumer
Chair, Department of Nursing
Nena F. Sanders, DSN, RN, Ralph W. Beeson Dean and Professor
Director of Nursing
BSN Director
Director
Assistant professor - not the dean - course instructor
Chair Department of Nursing
Dean of Nursing
Director
Nursing Program Director
Undergraduate Department Chair
Undergraduate Program Director
Chair Department of Nursing/Director Graduate Programs
Department Chair - Brenda Lenz
Interim Director of Nursing
Director, School of Nursing
Chair School of Nursing
BSN Program Director
Dr. Anita Hufft, Dean and Professor of Nursing
Dean
Chairperson, Department of Nursing
Chair Department of Nursing
Chair
Head Department of Nursing

Dean, School of Nursing and Allied Health Professions
Chair
Nursing Program Coordinator (per request of the Chair of Nursing and Health Studies)
Carol J. Sapp RN PhD CNE Associate Professor of Nursing
Assistant Dean and Undergraduate Director
Dr. Carole McKenzie
Chair
Mary P Tarbox
Professor in Nursing
Coordinator 2nd Degree BSN
Undergraduate Program Coordinator
Dean
Chair of Department of Nursing
Director
Chairperson
Shirley Ruder, Director BSN Program
Terri Pipe
Dean & Professor
Cesarina Thompson
Dean College of Health Sciences, Nursing Department Chair
Interim chair
Chairperson
Cathleen Shultz, Dean (by Karen Kelley, Assistant Professor)
Undergraduate Nursing Department Chair
Dean of Nursing and Allied Health
Chair
Chair, School of Nursing and Healthcare Leadership
Chair Department of Nursing
Ellen DeLuca- Program Director
R. Kidd-Marshall, EdD., CNE, RN-BC, Director of RN to BSc in Nursing
Director RN-BSN Program
Silvana Richardson, Dean, School of Nursing
chair
Assistant Professor of Nursing
Dean of the School of Nursing and Health Sciences
Dean

Associate Dean, Undergraduate Academic Affairs
Chair
Assistant Professor of Nursing, Faculty member teaching community health content (I am not the dean)
Associate Dean
Nancy Langston
Department Chair, Nursing
Department Chair
Mary Jean Padgett, Ph.D., RN
Chairperson
Mary Bennett Director, WKU School of Nursing
Instructor
Program Director
Director
Dean, School of Nursing
Chair and Professor
Dean
Professor and Head
Patricia C. McMullen, PhD, JD, CRNP, FAANP (Dean & Ordinary Professor)
Chair
Associate Dean, Division of Nursing
Assistant Dean in Charge of Nursing
Johanne A Quinn, Ph.D., RN Dean
Dean, school of Nursing
Dr. Julie Luetschwager
Associate in Nursing
Sharon George
Department Head, Health Sciences
Interim Dean
Chair, Department of Nursing
Director, School of Nursing
Chair, Undergraduate Studies Committee (completing on request of the Dean)
Associate Dean, College of Health and Human Sciences; Head, School of Nursing

Statistic	Value
Total Responses	211

3. Institution name

Text Response

Indiana University East

College of St. Benedict/St. John's University

Cumberland University, Jeanette C. Rudy School of Nursing

Kennesaw. State University

Stratford University

Rochester College

Towson

Appalachian State university

University of Mary Hardin Baylor

Northwestern College

Briar Cliff University

Ida V. Moffett School of Nursing, Samford University

Siena Heights University

ECPI University

The University of Tulsa

Bellarmino University

Southwestern Adventist University

Resurrection University

Touro University Nevada

Bloomfield College

Hiram College

University at Buffalo

University of North Carolina at Chapel Hill

Wesley College

St Cloud State University

Salish Kootenai College

Texas State University

Arkansas State University

Emory University Nell Hodgson Woodruff School of Nursing

Valdosta State University

University of Southern Indiana

University of Central Oklahoma

University of Arkansas at Pine Bluff

Delaware state university
Luther College
Holy Family University
Hope College
Northern Illinois University
Georgia College and State University
Univ of WI Oshkosh College of Nursing
Northwestern Oklahoma State University
Wisconsin Lutheran College
Mount Mercy University
Presentation College
University of Houston Victoria
Mennonite College of Nursing at Illinois State University
Northeastern University
Le Moyne College
Radford University
Farmingdale State College
Florida Gulf Coast University
Arizona State University
Roseman University of Health Sciences
American International College
Finlandia University
State University of New York Institute of Technology
William Paterson University of New Jersey
Harding University
University of North Dakota
Gonzaga University
Nicholls State University
Concordia College
MN State University Moorhead
Francis Marion University
Lynchburg College
East Texas Baptist University
Eastern Illinois University
Sacred Heart University
Viterbo University

Bloomsburg University
Concordia University
Mount Vernon Nazarene University
The University of Texas at Austin
West Virginia University
University of Central Missouri
Waynesburg University
Texas Christian University
Virginia Commonwealth University
Saint Francis University
Capital University
Mississippi College
Messiah College
Western Kentucky University
Murray State University
University of Delaware
University of Saint Francis
Chatham University
Platt College
Clarke University
Miami Dade College
Arkansas Tech University
The Catholic University of America
Mount Saint Mary College
Mercy College of Ohio - BSN program
Ramapo College of NJ
King College School of Nursing
Walla Walla University
Marian University
Florida State University
Saint Anselm College
Avila University

Statistic	Value
Total Responses	228

4. Location

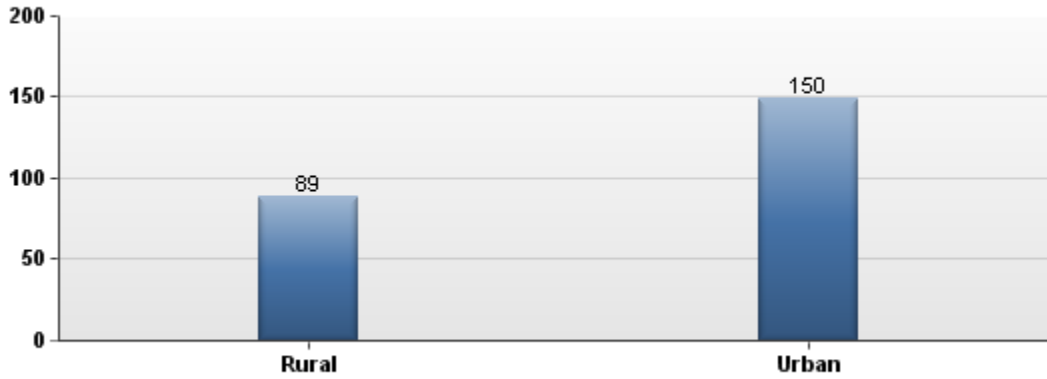
Town	State	Zip code
Richmond	Indiana	47374
St. Joseph	MN	56374
Lebanon	TN	37087
Kennesaw	Georgia	30144
falls Church	VA	22043
Rochester Hills	MI	48307
Towson	MD	
Boone	NC	28655
Belton	TX	76513
Orange City	IA	51041
Sioux City	IA	51104
Homewood	AL	35229
Adrian	MI	49221
Virginia Beach	VA	23462
Tulsa	Oklahoma	74104
Louisville	KY	40205
Keene	TX	76059
Oak Park	IL	60302
Henderson	NV	89014
Bloomfield	NJ	07003
Hiram	Ohio	44234
Buffalo	NY	14214
Chapel Hill	NC	27599-7460
Dover	DE	19901
St Cloud	Minnesota 56301	
Pablo	MT	59855
Round Rock	Texas	78665
State University	AR	72467
Atlanta	Georgia	30322
Valdosta	GA	31698
Evansville	IN	47712
Edmond	Oklahoma	73034
Pine Bluff	Arkansas	71601

dover	de	19901
Decorah	IA	52101
Phila	PA	19114
Holland	Michigan	49423
DeKalb	IL	60115
Milledgeville	Georgia	31061
Oshkosh	Wisconsin	54901-8660
Alva	OK	73717
Milwaukee	Wisconsin	53226
Cedar Rapids	Iowa	52402
Aberdeen	SD	57401
Sugar Land	TX	77479
Normal	Illinois	61761
Boston	MA	02115
Syracuse	NY	13214
Radford	VA	24142
Farmingdale	New York	11735
Fort Myers	Florida	33965
Phoenix	Arizona	85004
Henderson	Nevada	89014
Springfield	Massachusetts	01109
Hancock	Michigan	49930
Utica	New York	13502
Wayne	NJ	07470
Searcy	AR	72149
Grand Forks	ND	58201
Spokane	WA	99258
Thibodaux	Louisiana	70310
Moorhead	MN	56560
Moorhead	MN	56560
Florence	SC	29501
Lynchburg	VA	24503
Denver	CO	80221
Marshall	TX	75670
Charleston	IL	61920
Fairfield	CT	06825

LaCrosse	WI	54601
Bloomsburg	pa	17815
Irvine	CA	92612
Mount Vernon	OH	43050
Austin	Texas	78701
Morgantown	WV	26506
Warrensburg	MO	64093
Waynesburg	Pa	15370
Fort Worth	TX	76129
Richmond	VA 232119	
Loretto	PA	15940
Columbus	OH	43209
Clinton	Mississippi	39058
Mechanicsburg	Pennsylvania	17055
Bowling Green	KY	42101
Murray	KY	42071
Newark	DE	19716
Crown Point	Indiana	46307
Pittsburgh	PA	15232
Aurora	CO	80014
Dubuque	IA	52003
Miami	FL	33127
Russellville	AR	72801
Washington	DC	20064
Newburgh	NY	12550
Toledo	OH	43604
Mahwah	NJ	07430
Bristol	TN	37620
Portland	Oregon	97216
Fond Du Lac	Wisconsin	54937
Tallahassee	Florida	32306
	Indiana	

Statistic	Value
Total Responses	232

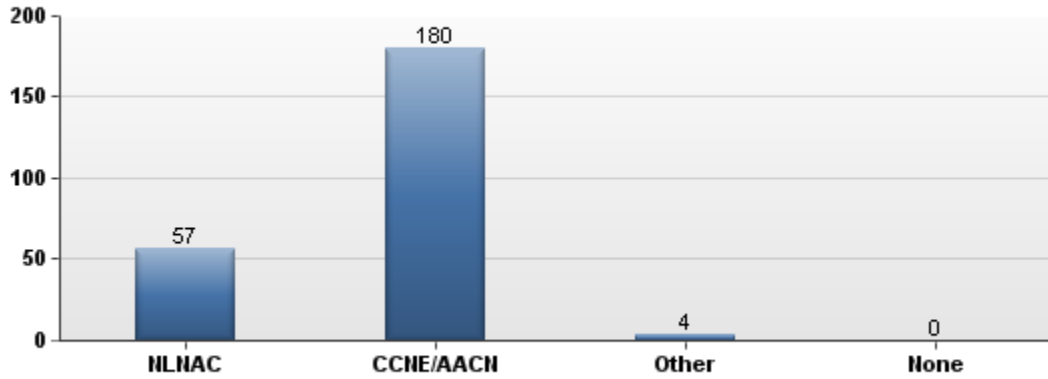
5. Do you consider your location to be?



#	Answer	Response	%
1	Rural	89	37%
2	Urban	150	63%
	Total	239	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.63
Variance	0.23
Standard Deviation	0.48
Total Responses	239

6. Accreditation body

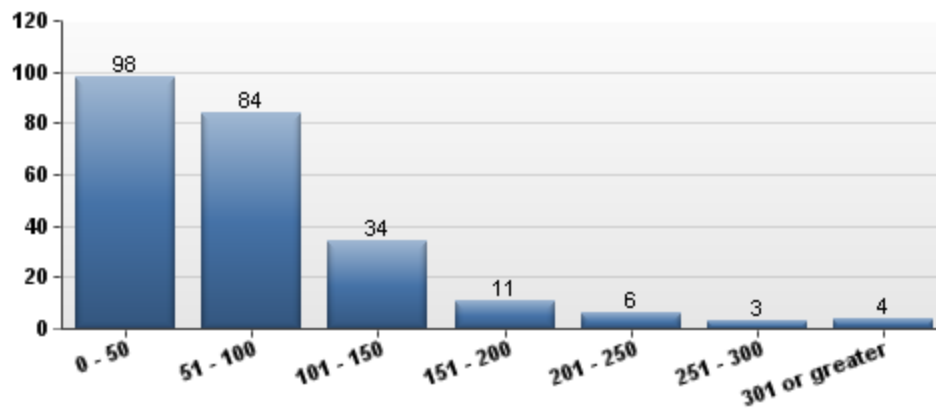


#	Answer	Response	%
1	NLNAC	57	24%
2	CCNE/AACN	180	75%
3	Other	4	2%
4	None	0	0%
	Total	241	100%

Other
Both NLNAC and CCNE
Both NLNAC and CCNE
HLC
North Central

Statistic	Value
Min Value	1
Max Value	3
Mean	1.78
Variance	0.21
Standard Deviation	0.45
Total Responses	241

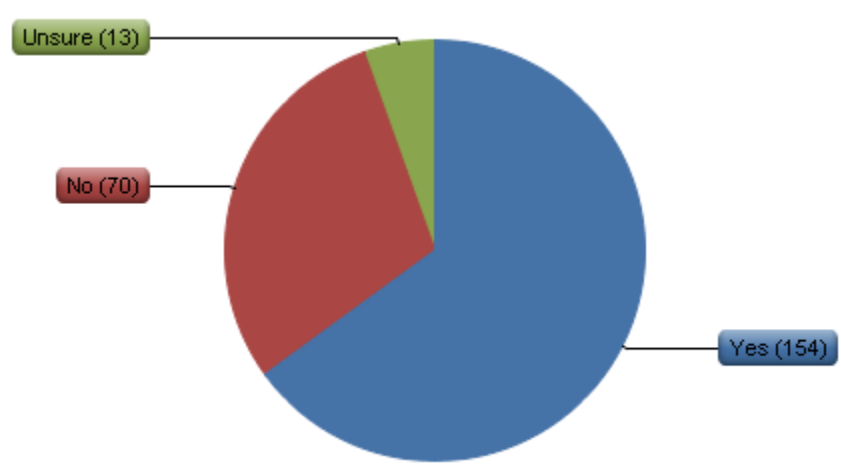
7. Average size of graduating baccalaureate class



#	Answer	Response	%
1	0 - 50	98	41%
2	51 - 100	84	35%
3	101 - 150	34	14%
4	151 - 200	11	5%
5	201 - 250	6	3%
6	251 - 300	3	1%
7	301 or greater	4	2%
	Total	240	100%

Statistic	Value
Min Value	1
Max Value	7
Mean	2.03
Variance	1.58
Standard Deviation	1.26
Total Responses	240

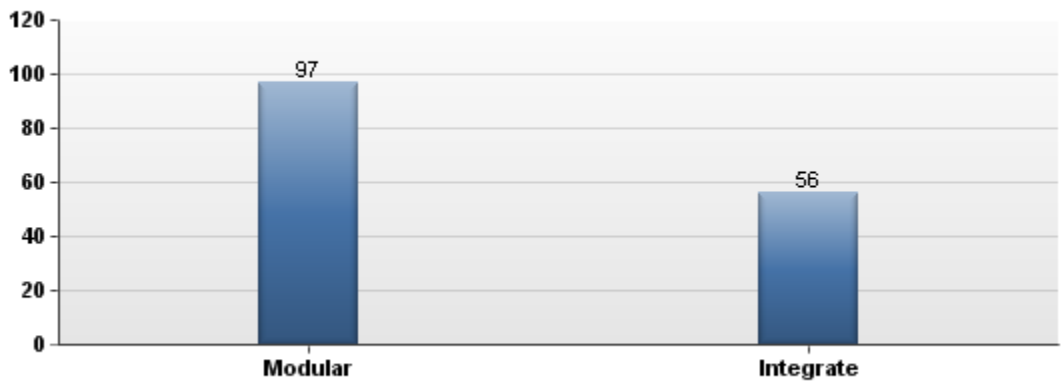
8. Do you offer specific disaster nursing training as part of the general BSN curriculum?



#	Answer	Response	%
1	Yes	154	65%
2	No	70	30%
3	Unsure	13	5%
	Total	237	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.41
Variance	0.35
Standard Deviation	0.59
Total Responses	237

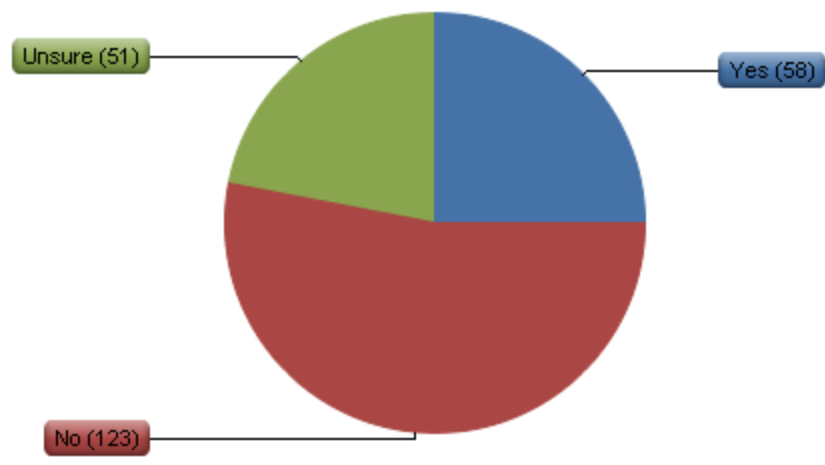
9. Do you offer it as a modular curriculum or integrated throughout the curriculum?



#	Answer	Response	%
1	Modular	97	63%
2	Integrate	56	37%
	Total	153	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.37
Variance	0.23
Standard Deviation	0.48
Total Responses	153

10. Is training of disaster nursing concepts competency-based?



#	Answer	Response	%
1	Yes	58	25%
2	No	123	53%
3	Unsure	51	22%
	Total	232	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.97
Variance	0.47
Standard Deviation	0.69
Total Responses	232

11. Is there a particular competency set you draw guidance from?

Text Response

AACN Baccalaureate Essentials; MCI Competencies

American Red Cross Registered Nurse led Module Spring 2012 for first time. Other times we have incorporated it as a unit taught in class. There is also a question related to disasters (Preventing, Planning, & Recovery) that students address with preceptors in the community settings such as health department, hospice, and home health.

American Medical Association Basic Disaster Life Support

American Nurses Association

American Red Cross--Health Care Response Course & then they did a mock disaster drill

CDC

City based

Core competencies for disaster preparedness

Disaster Preparedness White Paper (on vacation - can't remember the accrediting body)

Educational Competencies for Registered Nurses Responding to Mass Casualty Incidents

ENA

FEMA

FEMA, Red Cross

FERPA

Guidelines provided by the American Public Health Association & similar PHN organizations

International Nursing Coalition for Mass Casualty Education

no

No

No

NO

no

No

no

no

no one competency

Not sure

Nurse of the Future Competencies

online competency standards via modules

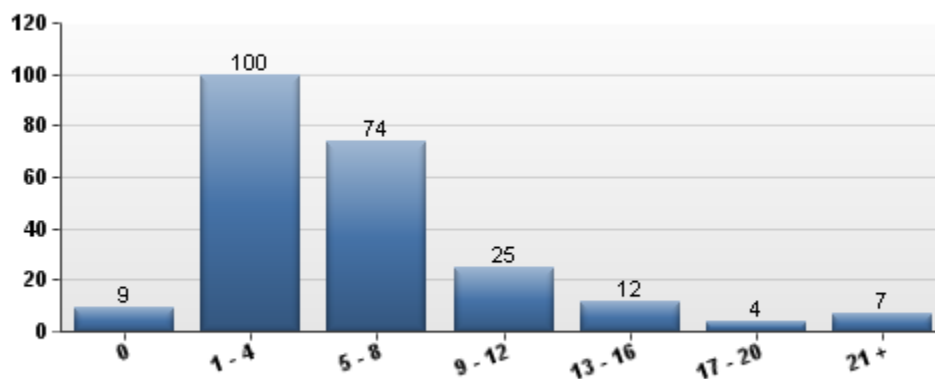
Participate in development of plans and policies to effectively prepare a community for disasters or to protect vulnerable populations during disasters from the toolkit

Pew (for nursing education), ARC, FEMA

Public Health
Public Health
Public Health Core Competencies related to Emergency Preparedness and Response.
Quad Council recommendations
Red Cross
Red Cross
red cross, QSEN
Red Cross, Triage concepts, County Disaster preparation
Red Cross Disaster Nursing certification (all students do this) also FEMA competencies
State Dept. of Health
Tested on standardized exams
The Essentials of Baccalaureate Education for Professional Nursing practice
unknown at present - ARC disaster guidelines is a part
Use guidelines from Public Health
WADEM nursing section

Statistic	Value
Total Responses	45

12. In your estimation, how many clock hours of curriculum are devoted to disaster nursing concepts?



#	Answer		Response	%
1	0		9	4%
2	1 - 4		100	43%
3	5 - 8		74	32%
4	9 - 12		25	11%
5	13 - 16		12	5%
6	17 - 20		4	2%
7	21 +		7	3%
	Total		231	100%

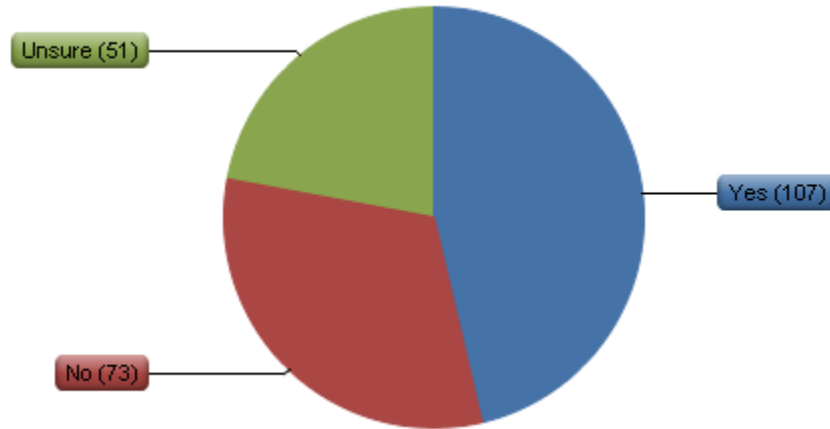
Statistic	Value
Min Value	1
Max Value	7
Mean	2.87
Variance	1.54
Standard Deviation	1.24
Total Responses	231

13. Please specify

Text Response
separate course
We have one course called "Managing Crisis in the Community" that incorporates all types of crisis from individual to national.
Two hours of instruction are mandatory for all Baccalaureate students; a 3-credit course is offered as Elective, but is generally full each semester it is offered
30
competency modules, course content community nursing and leadership course
45 hours

Statistic	Value
Total Responses	6

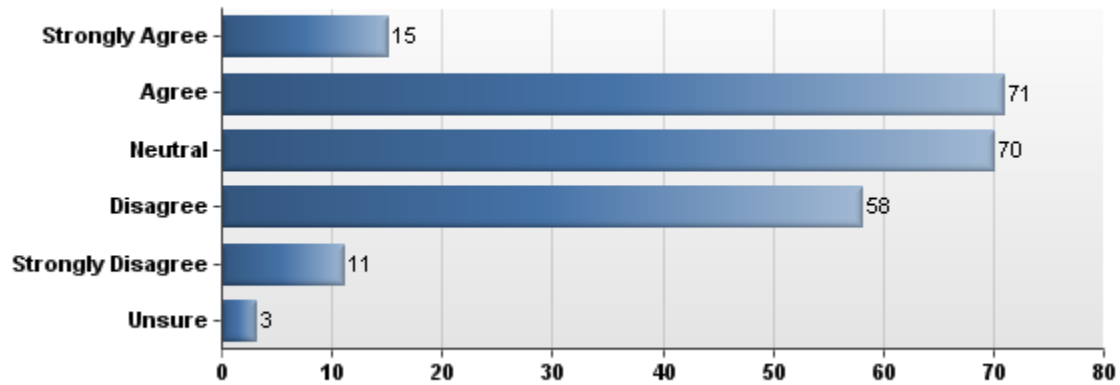
14. Does your curriculum prepare nursing students to develop a personal or family disaster plan?



#	Answer	Response	%
1	Yes	107	46%
2	No	73	32%
3	Unsure	51	22%
	Total	231	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.76
Variance	0.63
Standard Deviation	0.79
Total Responses	231

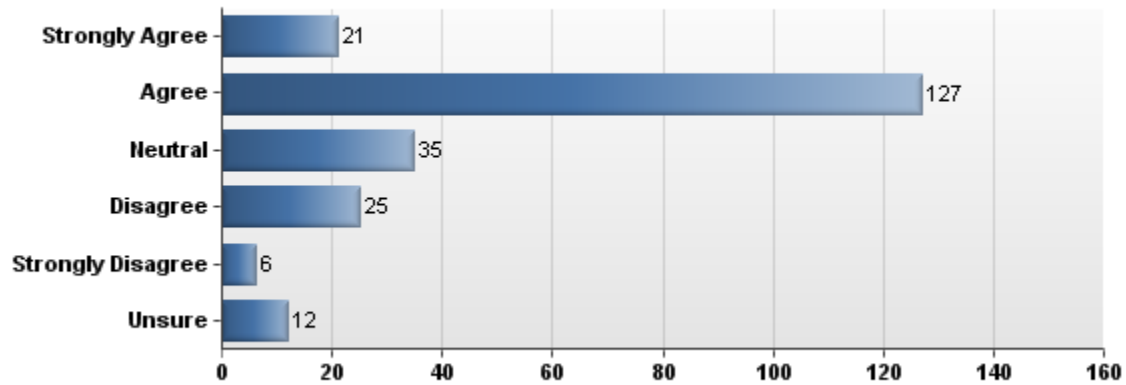
15. Disaster nursing is a priority in your BSN curriculum.



#	Answer	Response	%
1	Strongly Agree	15	7%
2	Agree	71	31%
3	Neutral	70	31%
4	Disagree	58	25%
5	Strongly Disagree	11	5%
6	Unsure	3	1%
	Total	228	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	2.95
Variance	1.14
Standard Deviation	1.07
Total Responses	228

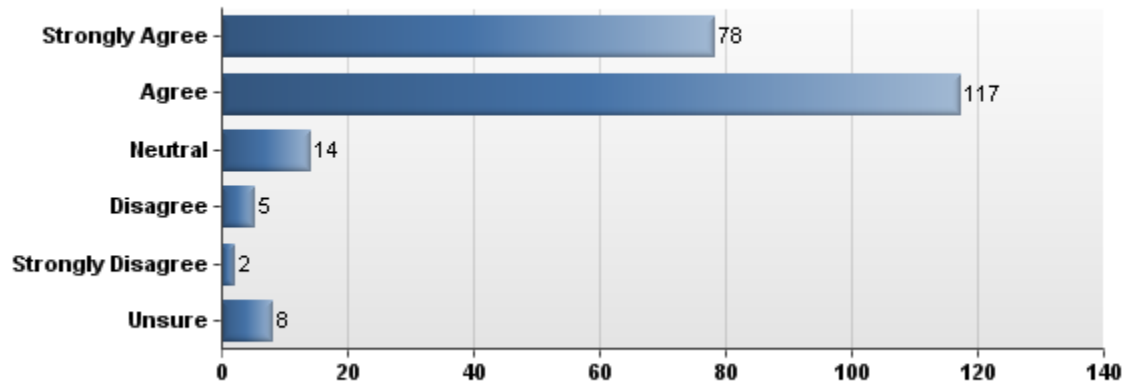
16. Current nursing students have a role in disaster response.



#	Answer	Response	%
1	Strongly Agree	21	9%
2	Agree	127	56%
3	Neutral	35	15%
4	Disagree	25	11%
5	Strongly Disagree	6	3%
6	Unsure	12	5%
	Total	226	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	2.58
Variance	1.45
Standard Deviation	1.21
Total Responses	226

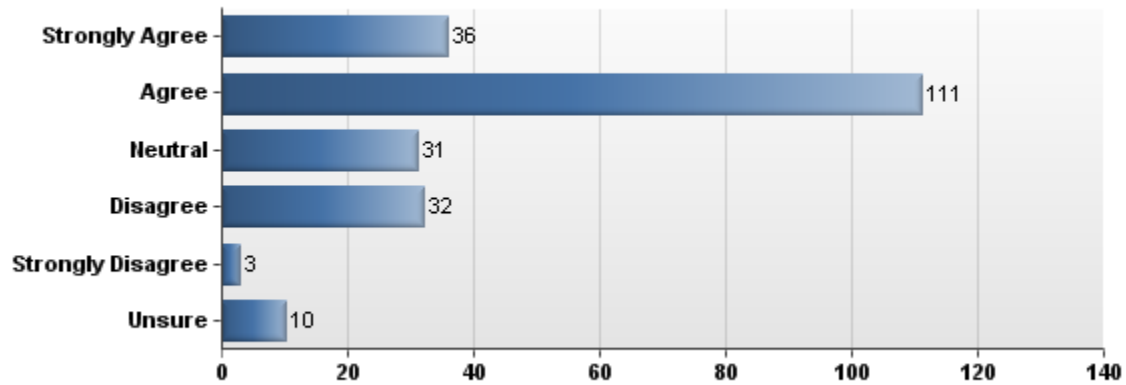
17. BSN-graduated nurses have a role in disaster response.



#	Answer	Response	%
1	Strongly Agree	78	35%
2	Agree	117	52%
3	Neutral	14	6%
4	Disagree	5	2%
5	Strongly Disagree	2	1%
6	Unsure	8	4%
	Total	224	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	1.93
Variance	1.15
Standard Deviation	1.07
Total Responses	224

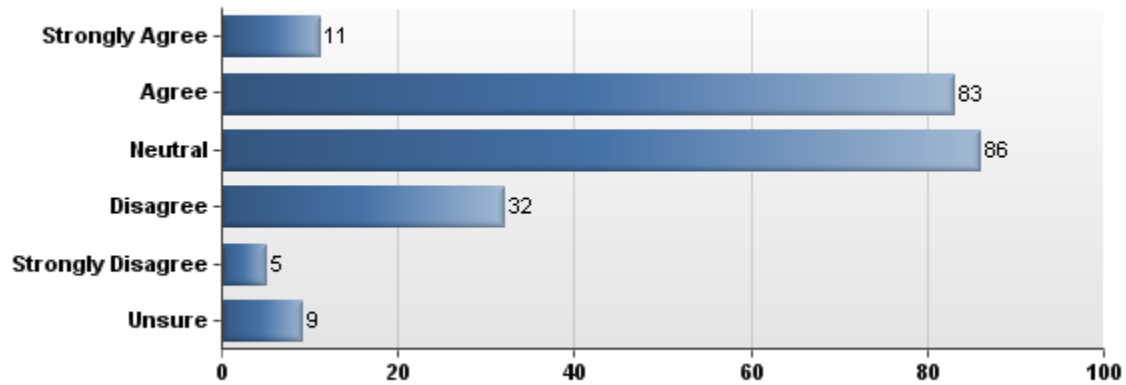
18. Your nursing school has a role to respond in a local disaster.



#	Answer	Response	%
1	Strongly Agree	36	16%
2	Agree	111	50%
3	Neutral	31	14%
4	Disagree	32	14%
5	Strongly Disagree	3	1%
6	Unsure	10	4%
	Total	223	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	2.48
Variance	1.49
Standard Deviation	1.22
Total Responses	223

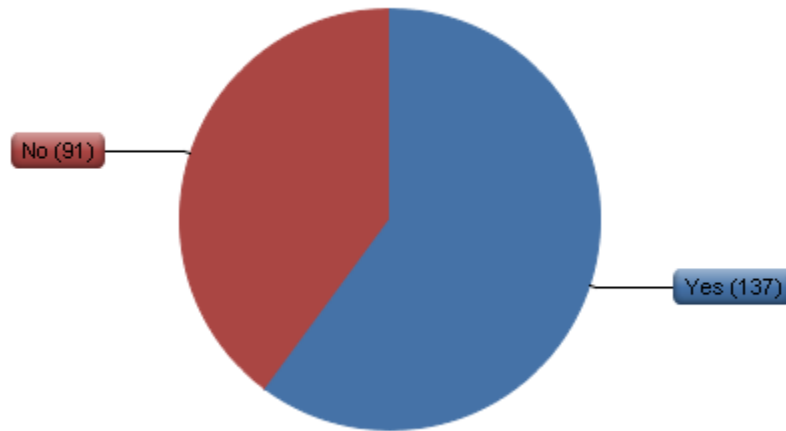
19. Your BSN graduates are well equipped to respond to a disaster.



#	Answer	Response	%
1	Strongly Agree	11	5%
2	Agree	83	37%
3	Neutral	86	38%
4	Disagree	32	14%
5	Strongly Disagree	5	2%
6	Unsure	9	4%
	Total	226	100%

Statistic	Value
Min Value	1
Max Value	6
Mean	2.84
Variance	1.13
Standard Deviation	1.06
Total Responses	226

20. Do you offer Graduate-level Nursing Degree Program(s)?



#	Answer	Response	%
1	Yes	137	60%
2	No	91	40%
	Total	228	100%

Statistic	Value
Min Value	1
Max Value	2
Mean	1.40
Variance	0.24
Standard Deviation	0.49
Total Responses	228

21. Please provide any additional comments here:

Text Response

2012 Plan is to increase BSN hours of student disaster training.

After the nursing students take the Red Cross Disaster Response Course, then they are encouraged to assist their local Red Cross Chapters to provide call & assist with disasters.

All students are credentialed as first responders with the red cross and go through the disaster response modules online

All students must complete the Basic Disaster Life Support certification prior to graduation. The certification course is listed on the transcript.

As a completion online program, students are from all regions in Illinois and come from a variety of work settings. Disaster preparedness is part of the curriculum but is approached by regional need and services provided in the region of residence. It allows students to contemplate specific needs in specific regions and what the impact of a disaster may alter.

Besides traditional Community Theory course with Disaster module, we offer international clinical for community and approx. 1/4 of all students go to either India or Peru into chronic disaster environs.

We also have an affiliation with the Department of health Medical Reserve Corps. Chair sits on their Command Staff and is co-chair of their training division.

FNP and Nurse Ed MSN tracks starting in Jan 2013

Graduate-Level Programs: Accelerated Generalist Master's Program (AGMSN); Master's in NP specialty areas; DNP, PhD

Graduate students and undergraduates have worked together on disaster preparedness.

I have problems concerning responsibility for nursing students responding as nursing students in a disaster. As individuals, I think they can play an important role, but not as students.

In addition to the integration of disaster preparedness content, we also offer an undergraduate and graduate elective in the area of Bioterrorism and the role of the nurse

I note that we also have campus-wide disaster preparedness workshops for students, staff, faculty and administrators. Our location in Washington, DC makes this particularly important.

Moorhead is part of the Fargo-Moorhead SMSA. Our program is an RN to BSN completion program, as well as an MS in nursing. All of our current students are in 'online' programs so students live in major metropolitan areas, suburban, rural and frontier areas. Since our students are 'online', they do not have a presence in disasters limited to the University area but rather in their home location.

MSN in Nursing Administration and Emergency Management

NOTE: the disaster nursing course at our university is offered as a nursing elective and my responses are based upon the students who take the course-not all students choose to take the course! It is not required.

Our BSN graduates have skills of prioritizing, assessing, leading, etc. that lend appropriate response to disasters.

Our curriculum focuses on disaster response nationally and locally and includes local experts involved on the community and state level.

Our school participates in the annual city/county disaster drill.

Our students participate in disaster drills as they come up for different clinical agencies.

Pre-licensure program: One 3 three hour session on disaster preparedness, 1 community student clinical group participates in the local drill each year, 4 faculty are on the local emergency response team.

Post-licensure BSN program: one 3 hour class session on disaster preparedness in two different courses; they build on each other. MSN program: three 3 hour sessions occur in the program.

Spring 2012 was the first time we have had a nurse from American Red Cross lead the study for disaster with the BSN students. Those students had more exposure to disaster preparedness than did previous cohorts/graduates. Emphasis has been placed with clinical experiences to have conversations with preceptors in home health, hospice, and health department settings about their roles in responding to disasters. Summer 2012 several RN to BSN students completed American Red Cross Modules online. Those RN to BSN had positive comments about what they learned. Individual students (usually those who had to complete a make-up clinical) have been assigned to interview the person on campus who communicates and responses to disaster; also have had them interview security chief; and others who are part of the disaster team. Reading their journals has made me consider how I might be able to enable all students to hear this information. A couple of students participated in a stock pile exercise but not whole class. Unfortunately the community class time is for 2 hours didactic and 4 clinical for a total of 60 hours in the community course. Desire to do more with this important topic.

Students get certified in disaster preparedness as part of our curriculum

Thanks for bringing up this topic. It was a discussion just a few weeks ago with some faculty.

The BSN students do the Franklin County online disaster simulation as part of their community health course.

The School of Nursing has begun the process to develop disaster preparedness and integrate disaster instruction within the curriculum.

The students are prepared in general nursing concepts, which can be adapted in a disaster. The students are given a half day simulation experience and separate classroom content in the community health course. In a true disaster I believe our BSN students would be useful to the community in a variety of areas, and our University's mission is very strong in the area of service, which would make our students more apt to volunteer. With the many priorities in a generalist nursing pre-license program, we don't feel it is warranted to do a full scale disaster preparedness training course, although some of the students pursue this type of educational offering on their own. For example some of the students participate in Red Cross training.

The survey is about entry level BSN programs and such a program is not available at this university.

We address disaster preparedness and the various teams that are available to volunteer for and belong to, but no competency based training for our students at this time other than the basic skills for emergencies.

We do not offer this content to any extent that would develop competencies. They learn emergency care but that is not the same as disaster preparedness.

We have a module on Disaster Training in our Community Nursing Course. In conjunction with this we require the Red Cross Volunteer RN Health Services Disaster Response Training during Skills lab time at school. We have participated in MIPS training with the area Health Departments when they are scheduled in the spring. We give the students information and encourage them to consider volunteering for the Oklahoma Medical Reserve Corps. Students have been able to participate in post tornado disaster immunization response. Two faculty members are on the State Health Department Disaster Calling tree and are prepared to activate students for service if required.

We have an RN to BSN degree program and most of the nurses have disaster training at their work environment

We have participated in mock disaster drills with local level III trauma centers. We have students complete continuing education at the John Hopkins Disaster Preparedness training site, as well as the Pennsylvania Ready.gov site and the CDC's training on bioterrorism as well as utilize the Vanderbilt University Disaster Preparedness training module.

We look for opportunities for students to participate in mock disasters but have not found any.

We offer MS tracks in nursing education, nursing administration, gerontology, palliative care, and informatics.

We offer Red Cross Disaster Nurse Manager classes - I am an instructor certified by the Red Cross

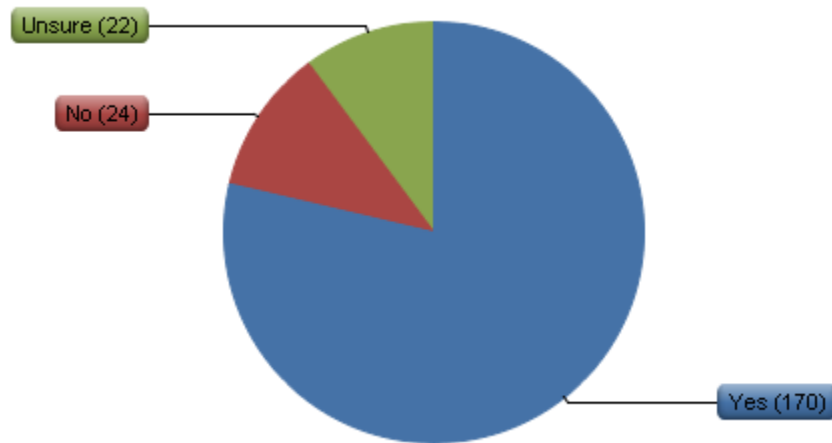
We staged our first on campus disaster drill during the Spring Semester 2012; it will be an annual event. We also participate in community drills when they are available.

We will start a Master's in Nursing in January 2013

When there was a flu epidemic the Massachusetts Department of Health had to develop a policy that defined the role of medical and nursing students regarding vaccination - you cannot do things outside of regulations.

Statistic	Value
Total Responses	39

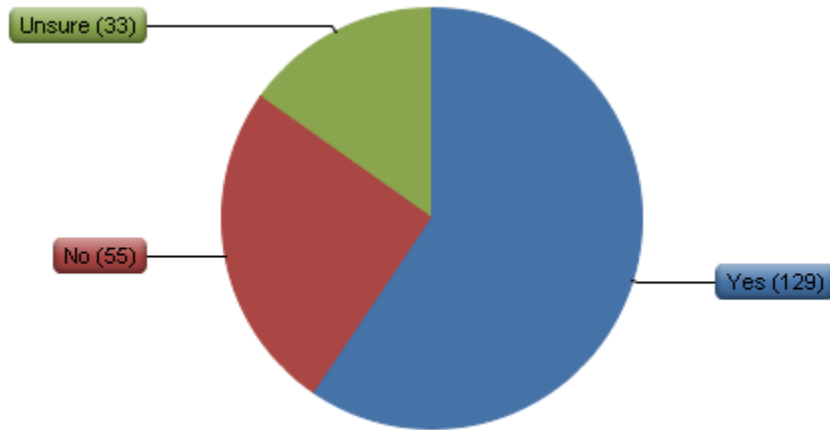
22. Does your curriculum educate your students on their expected role in clinical-based institutions (hospitals, clinics, nursing homes, etc.) and community response plans activated during a disaster or public health emergency?



#	Answer	Response	%
1	Yes	170	79%
2	No	24	11%
3	Unsure	22	10%
	Total	216	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.31
Variance	0.42
Standard Deviation	0.65
Total Responses	216

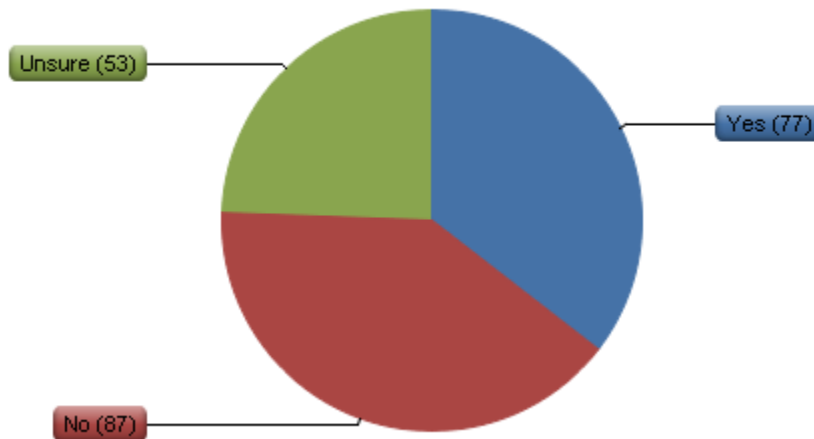
23. Does your curriculum describe your students' roles within the incident management hierarchy and chain of command established within your community during a disaster or public health emergency?



#	Answer	Response	%
1	Yes	129	59%
2	No	55	25%
3	Unsure	33	15%
	Total	217	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.56
Variance	0.55
Standard Deviation	0.74
Total Responses	217

24. Does your curriculum prepare your students to develop a professional disaster plan that is consistent with your local community disaster response system?

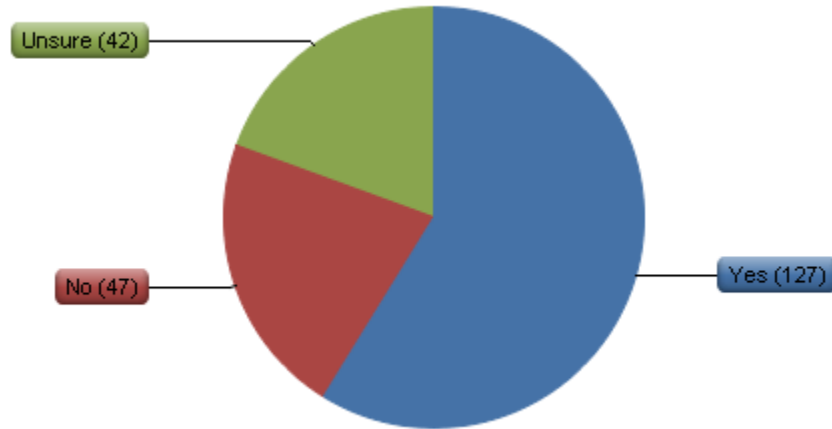


#	Answer	Response	%
1	Yes	77	35%
2	No	87	40%
3	Unsure	53	24%
	Total	217	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.89
Variance	0.59
Standard Deviation	0.77
Total Responses	217

25. Does your curriculum explain the mechanism for reporting actual and potential health threats through the chain of command authority

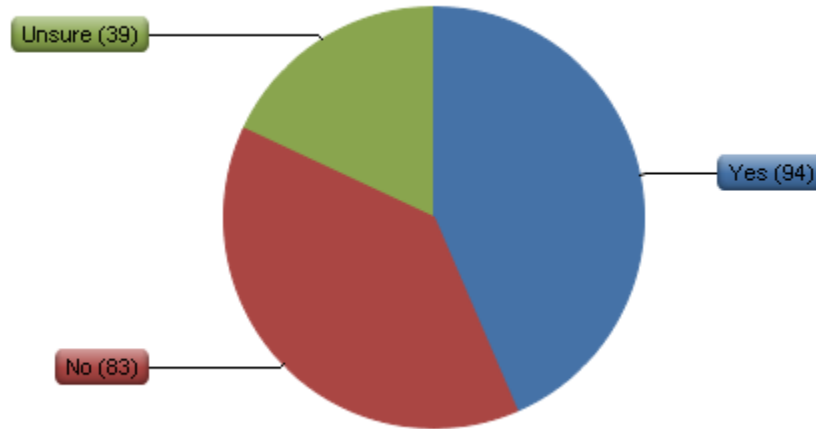
at your institution established during a disaster or public health emergency?



#	Answer	Response	%
1	Yes	127	59%
2	No	47	22%
3	Unsure	42	19%
	Total	216	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.61
Variance	0.63
Standard Deviation	0.79
Total Responses	216

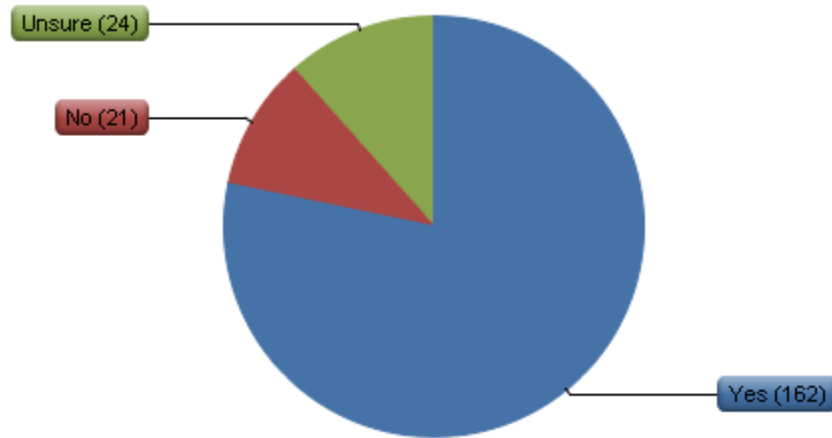
26. Does your curriculum teach your students to practice one's professional disaster plan in regular exercises and drills?



#	Answer	Response	%
1	Yes	94	44%
2	No	83	38%
3	Unsure	39	18%
	Total	216	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.75
Variance	0.55
Standard Deviation	0.74
Total Responses	216

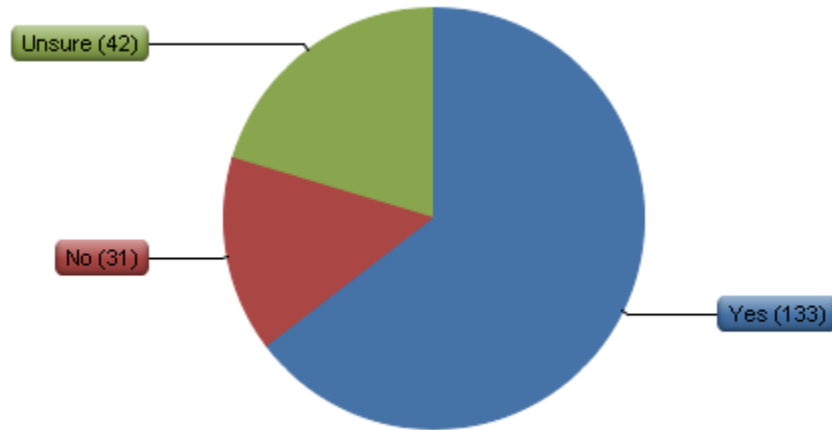
27. Does your curriculum educate your students on general indicators and epidemiological clues that may signal the onset or exacerbation of a disaster or public health emergency?



#	Answer	Response	%
1	Yes	162	78%
2	No	21	10%
3	Unsure	24	12%
	Total	207	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.33
Variance	0.46
Standard Deviation	0.68
Total Responses	207

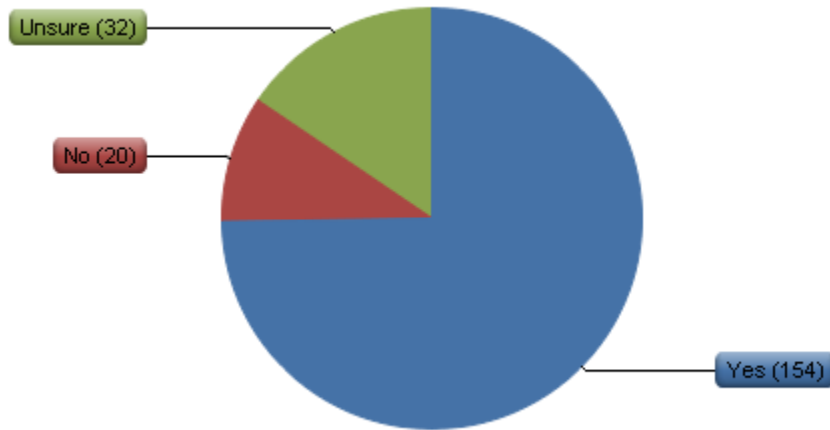
28. Does your curriculum describe measures to maintain situational awareness before, during, and after a disaster or public health emergency?



#	Answer	Response	%
1	Yes	133	65%
2	No	31	15%
3	Unsure	42	20%
	Total	206	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.56
Variance	0.66
Standard Deviation	0.81
Total Responses	206

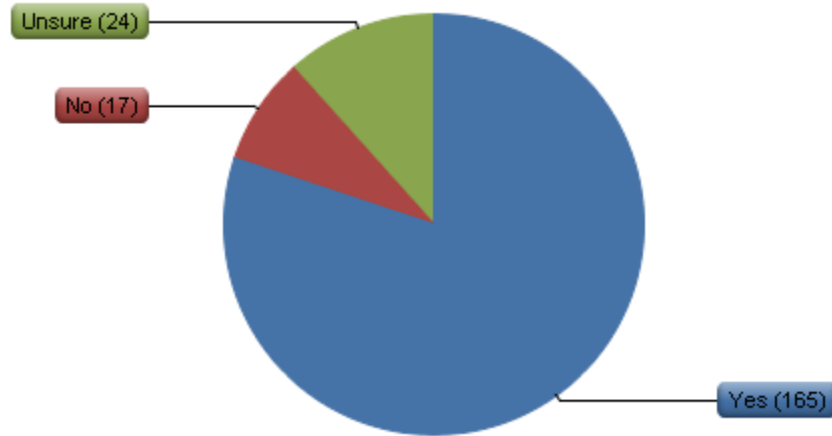
29. Does your curriculum educate your students on how to communicate effectively with other providers during a disaster or public health emergency?



#	Answer	Response	%
1	Yes	154	75%
2	No	20	10%
3	Unsure	32	16%
	Total	206	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.41
Variance	0.55
Standard Deviation	0.74
Total Responses	206

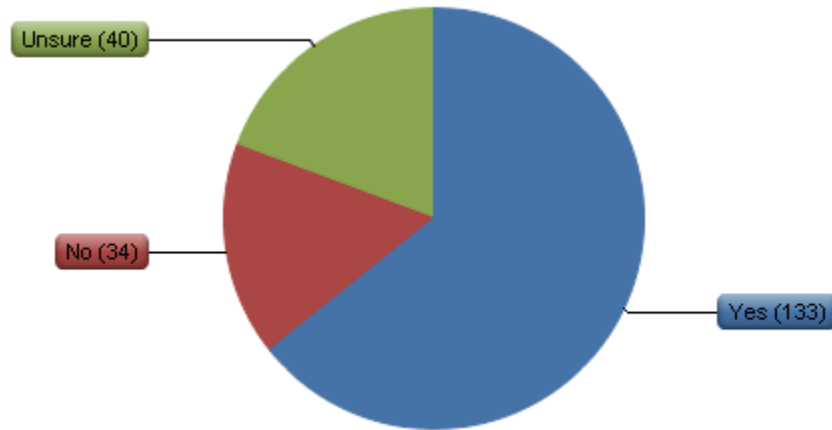
30. Does your curriculum educate your students on identifying authoritative sources and resources for information in a disaster and public health emergency?



#	Answer	Response	%
1	Yes	165	80%
2	No	17	8%
3	Unsure	24	12%
	Total	206	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.32
Variance	0.45
Standard Deviation	0.67
Total Responses	206

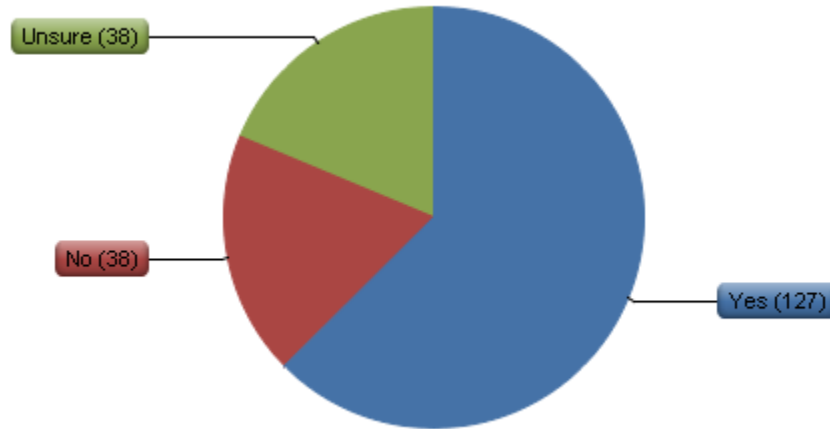
31. Does your curriculum educate your students on mechanisms of obtaining situational awareness of actual/potential health hazards before, during, and after a disaster or public health emergency?



#	Answer	Response	%
1	Yes	133	64%
2	No	34	16%
3	Unsure	40	19%
	Total	207	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.55
Variance	0.64
Standard Deviation	0.80
Total Responses	207

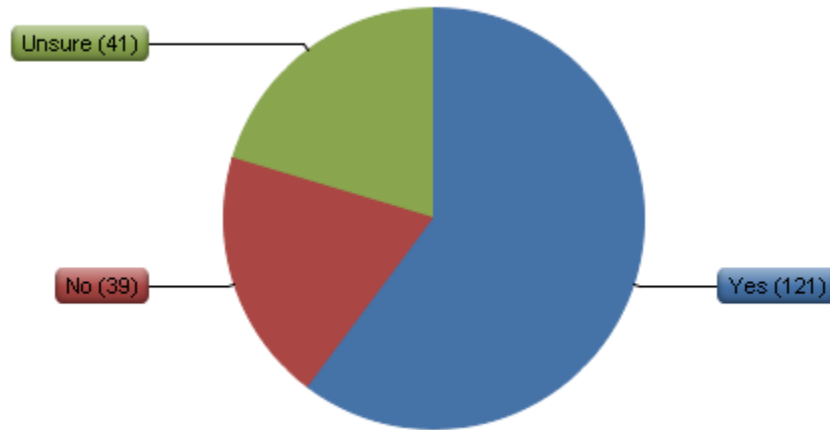
32. Does your curriculum identify strategies appropriate for sharing of information in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	127	63%
2	No	38	19%
3	Unsure	38	19%
	Total	203	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.56
Variance	0.62
Standard Deviation	0.79
Total Responses	203

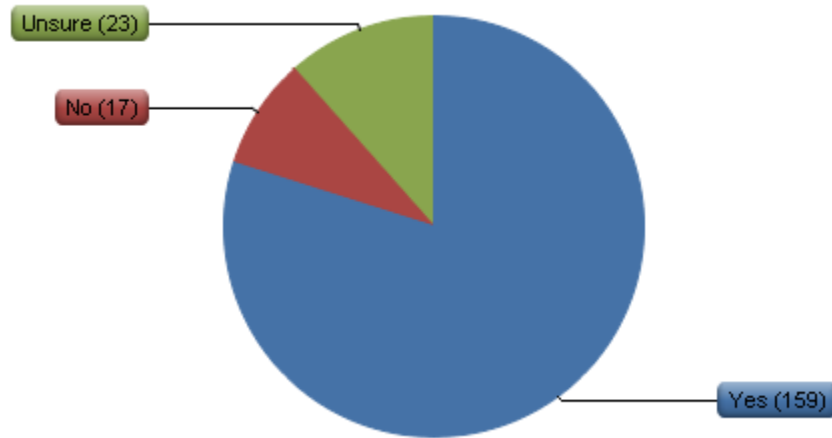
33. Does your curriculum describe cultural issues and challenges in the development and dissemination of risk communication in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	121	60%
2	No	39	19%
3	Unsure	41	20%
	Total	201	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.60
Variance	0.65
Standard Deviation	0.81
Total Responses	201

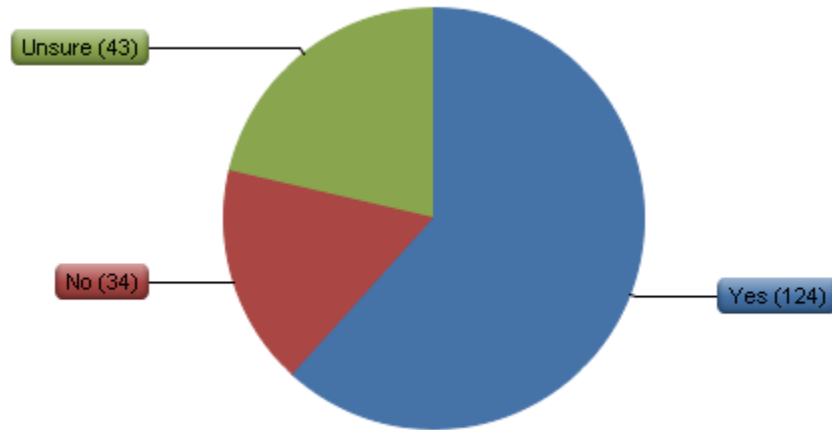
34. Does your curriculum educate your students on personal safety measures that can be implemented in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	159	80%
2	No	17	9%
3	Unsure	23	12%
	Total	199	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.32
Variance	0.45
Standard Deviation	0.67
Total Responses	199

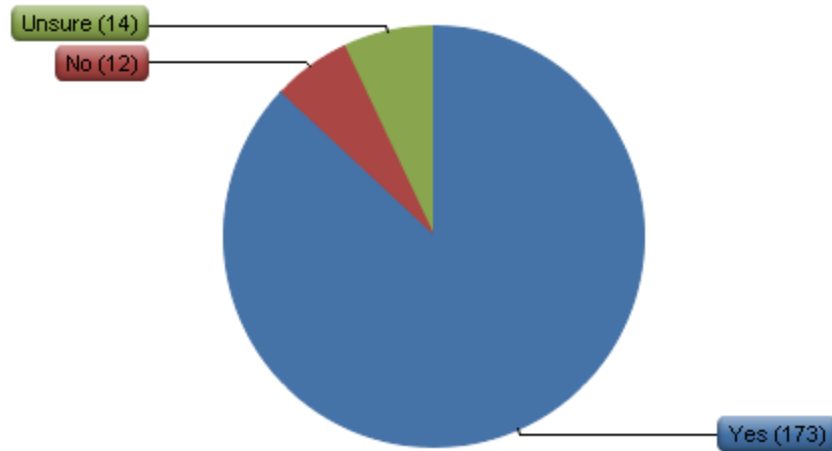
35. Does your curriculum explain principles of crisis and emergency risk communication to meet the needs of all ages and populations in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	124	62%
2	No	34	17%
3	Unsure	43	21%
	Total	201	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.60
Variance	0.67
Standard Deviation	0.82
Total Responses	201

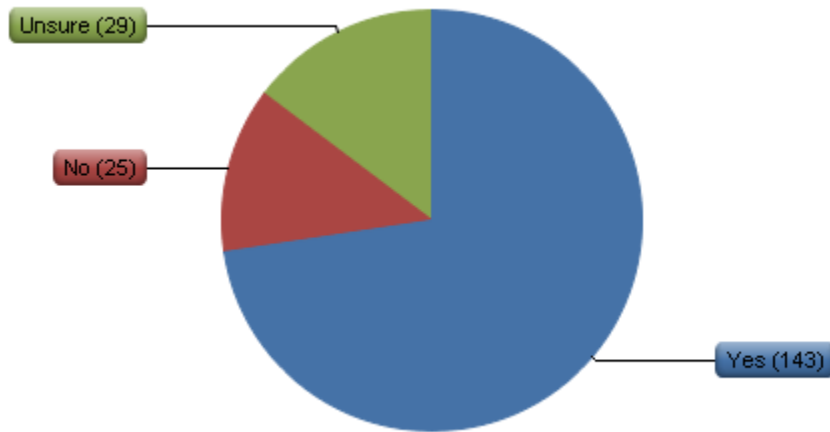
36. Does your curriculum explain general health, safety, and security risks associated with disasters and public health emergencies?



#	Answer	Response	%
1	Yes	173	87%
2	No	12	6%
3	Unsure	14	7%
	Total	199	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.20
Variance	0.30
Standard Deviation	0.55
Total Responses	199

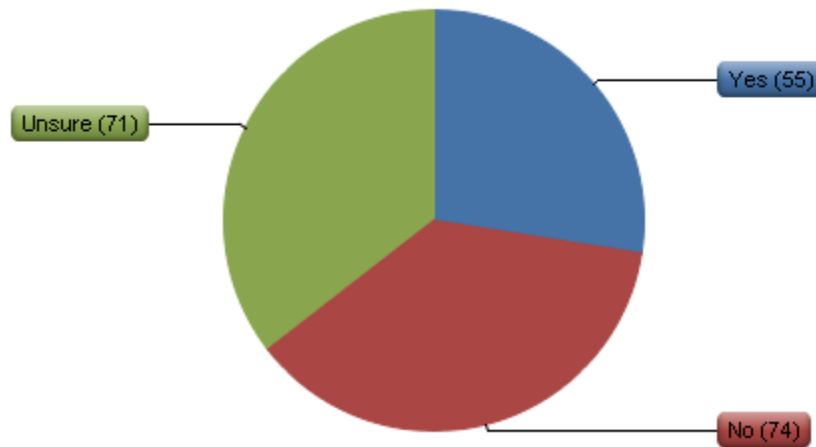
37. Does your curriculum describe risk reduction measures that can be implemented to mitigate or prevent hazardous exposures in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	143	73%
2	No	25	13%
3	Unsure	29	15%
	Total	197	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.42
Variance	0.54
Standard Deviation	0.74
Total Responses	197

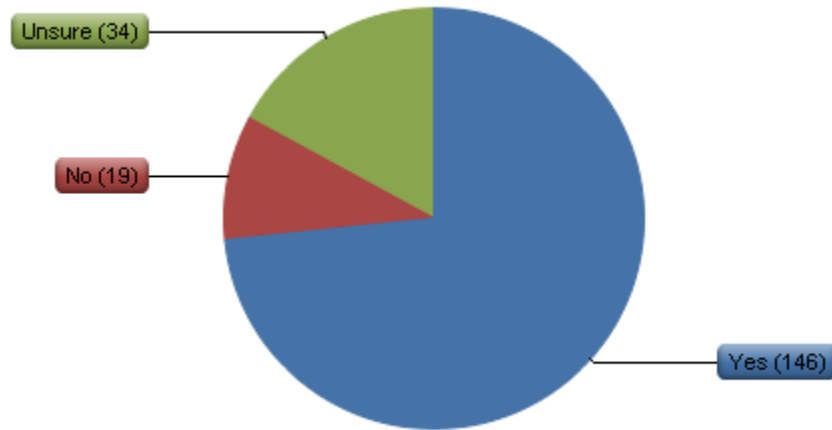
38. Does your curriculum educate your students about surge capacity assets, consistent with your local community response plans?



#	Answer	Response	%
1	Yes	55	28%
2	No	74	37%
3	Unsure	71	36%
	Total	200	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	2.08
Variance	0.63
Standard Deviation	0.79
Total Responses	200

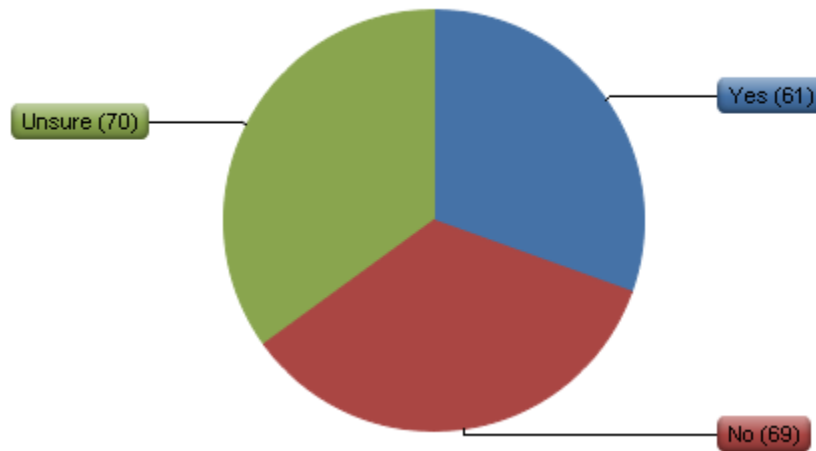
39. Does your curriculum describe the potential impact of a mass casualty incident on access to and availability of clinical and public health resources in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	146	73%
2	No	19	10%
3	Unsure	34	17%
	Total	199	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.44
Variance	0.59
Standard Deviation	0.77
Total Responses	199

40. Does your curriculum educate your students to identify existing surge capacity assets which could be deployed in a disaster or public health emergency?

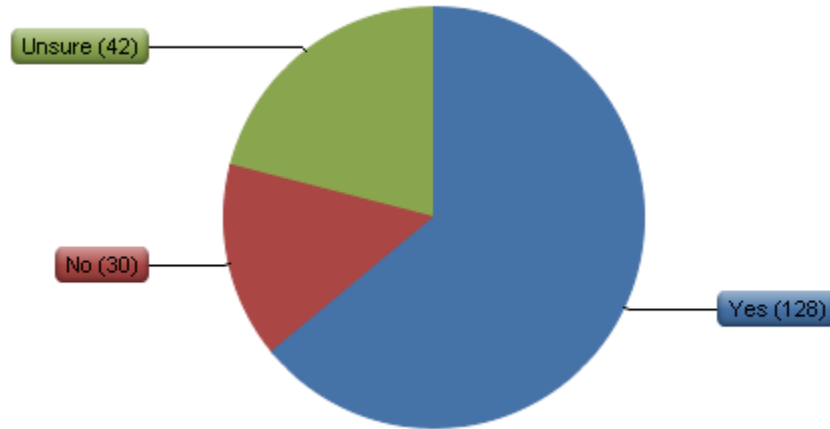


#	Answer	Response	%
1	Yes	61	31%
2	No	69	35%
3	Unsure	70	35%
	Total	200	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	2.05
Variance	0.66
Standard Deviation	0.81
Total Responses	200

41. Does your curriculum educate your students on the principles and practices of providing disaster nursing clinical management of all

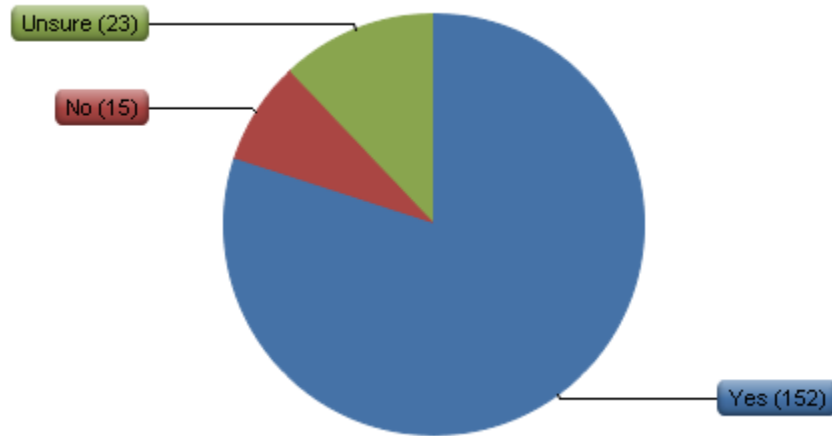
ages and populations affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	128	64%
2	No	30	15%
3	Unsure	42	21%
	Total	200	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.57
Variance	0.67
Standard Deviation	0.82
Total Responses	200

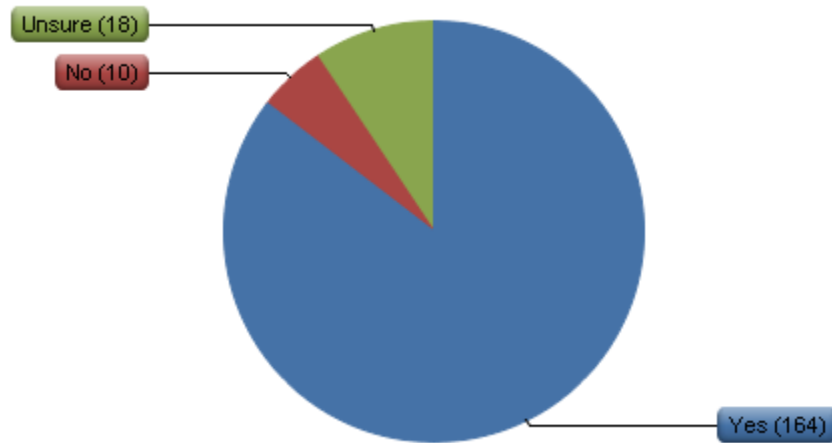
42. Does your curriculum educate your students on the common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	152	80%
2	No	15	8%
3	Unsure	23	12%
	Total	190	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.32
Variance	0.46
Standard Deviation	0.68
Total Responses	190

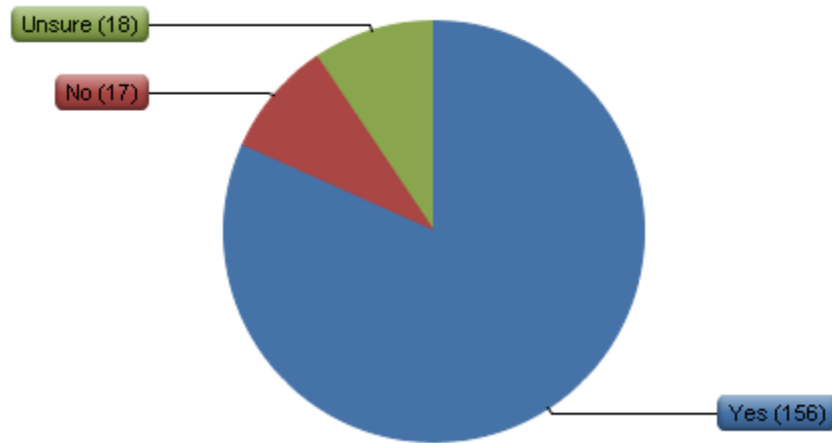
43. Does your curriculum explain the role of triage as a basis for prioritizing or rationing healthcare services for all ages and populations affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	164	85%
2	No	10	5%
3	Unsure	18	9%
	Total	192	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.24
Variance	0.37
Standard Deviation	0.61
Total Responses	192

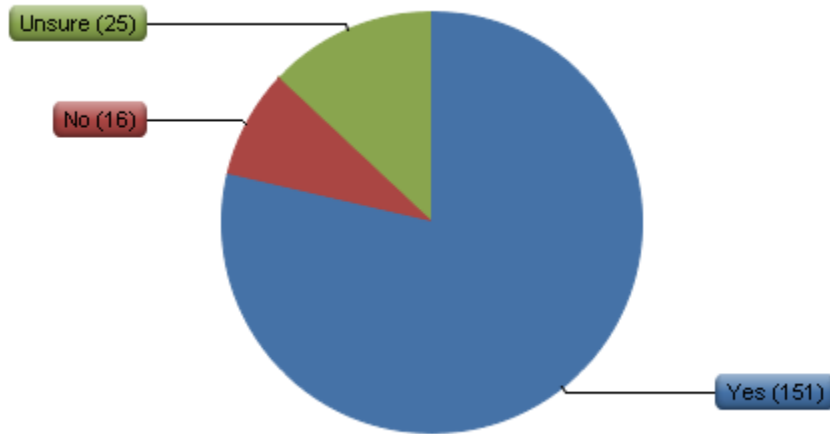
44. Does your curriculum educate your students on basic lifesaving and support principles and procedures that can be utilized at a disaster scene?



#	Answer	Response	%
1	Yes	156	82%
2	No	17	9%
3	Unsure	18	9%
	Total	191	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.28
Variance	0.39
Standard Deviation	0.63
Total Responses	191

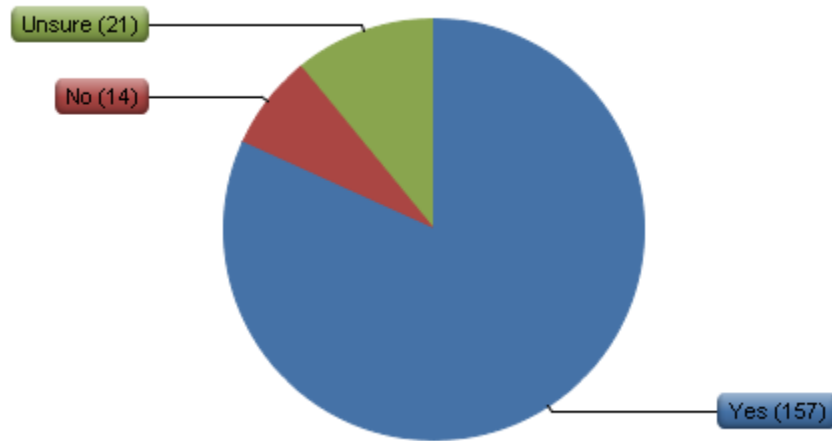
45. Does your curriculum educate your students on the public health principles and practices for the management of all ages and populations affected by disasters and public health emergencies?



#	Answer	Response	%
1	Yes	151	79%
2	No	16	8%
3	Unsure	25	13%
	Total	192	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.34
Variance	0.49
Standard Deviation	0.70
Total Responses	192

46. Does your curriculum educate your students on the public health consequences frequently seen in disasters and public health emergencies?

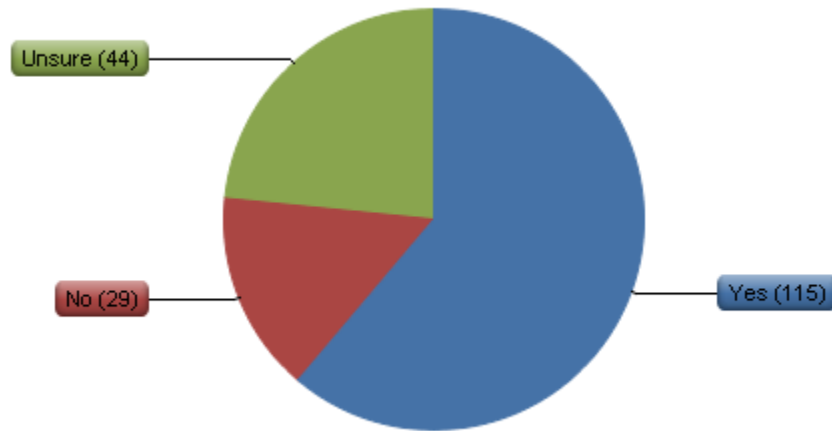


#	Answer	Response	%
1	Yes	157	82%
2	No	14	7%
3	Unsure	21	11%
	Total	192	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.29
Variance	0.43
Standard Deviation	0.65
Total Responses	192

47. Does your curriculum educate your students on identifying functional and access populations needs of all ages that may be more

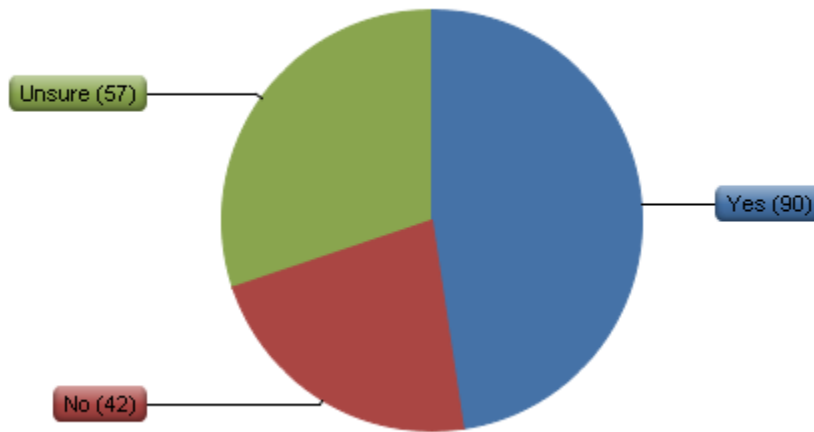
vulnerable to adverse health effects in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	115	61%
2	No	29	15%
3	Unsure	44	23%
	Total	188	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.62
Variance	0.71
Standard Deviation	0.84
Total Responses	188

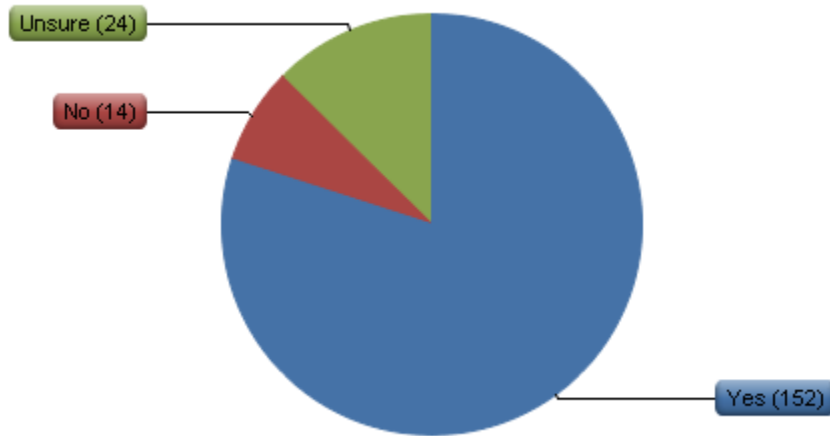
48. Does your curriculum discuss strategies to address and engage functional and access needs populations to mitigate adverse health effects during a disaster or public health emergency?



#	Answer	Response	%
1	Yes	90	48%
2	No	42	22%
3	Unsure	57	30%
	Total	189	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.83
Variance	0.75
Standard Deviation	0.87
Total Responses	189

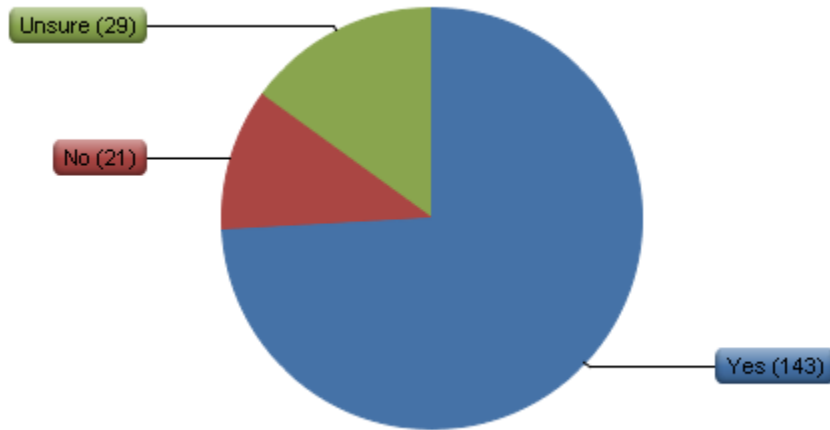
49. Does your curriculum educate your students on the common public health interventions to protect the health of all ages and populations affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	152	80%
2	No	14	7%
3	Unsure	24	13%
	Total	190	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.33
Variance	0.47
Standard Deviation	0.69
Total Responses	190

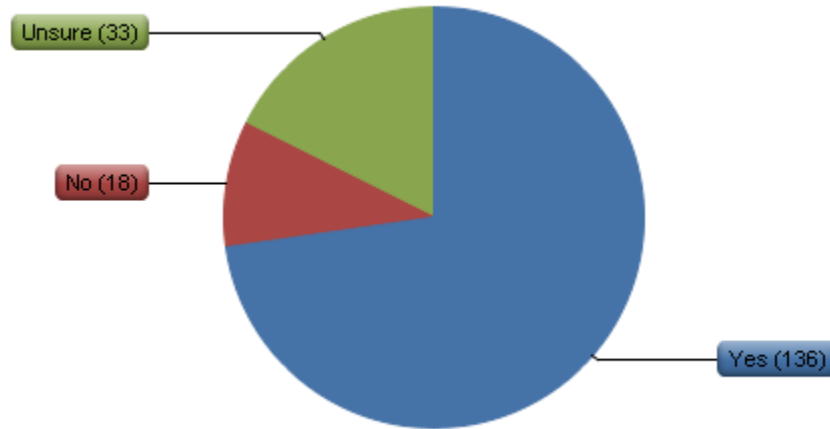
50. Does your curriculum educate your students on ethical principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	143	74%
2	No	21	11%
3	Unsure	29	15%
	Total	193	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.41
Variance	0.55
Standard Deviation	0.74
Total Responses	193

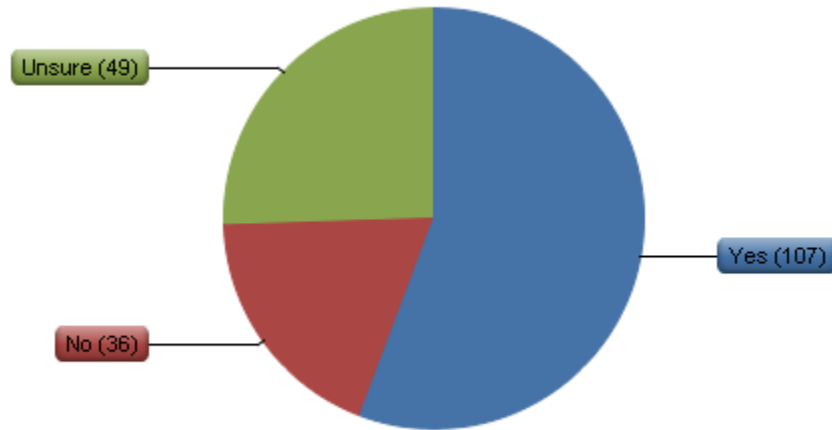
51. Does your curriculum educate your students on the ethical issues likely to be encountered in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	136	73%
2	No	18	10%
3	Unsure	33	18%
	Total	187	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.45
Variance	0.60
Standard Deviation	0.78
Total Responses	187

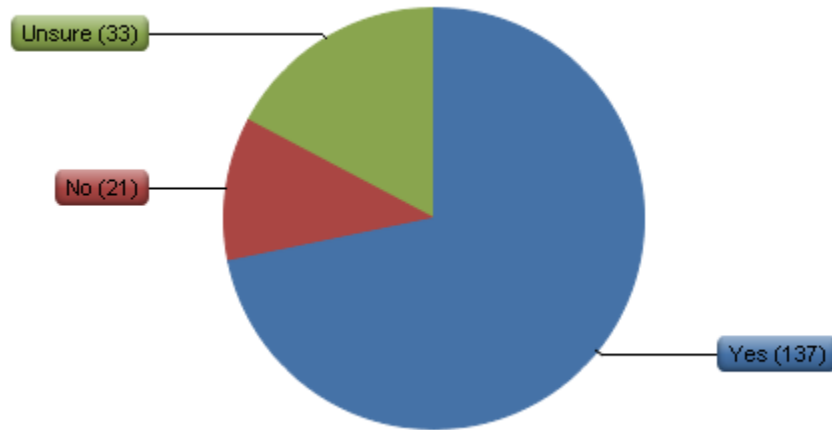
52. Does your curriculum educate your students on the ethical issues and challenges associated with crisis standards of care in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	107	56%
2	No	36	19%
3	Unsure	49	26%
	Total	192	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.70
Variance	0.73
Standard Deviation	0.85
Total Responses	192

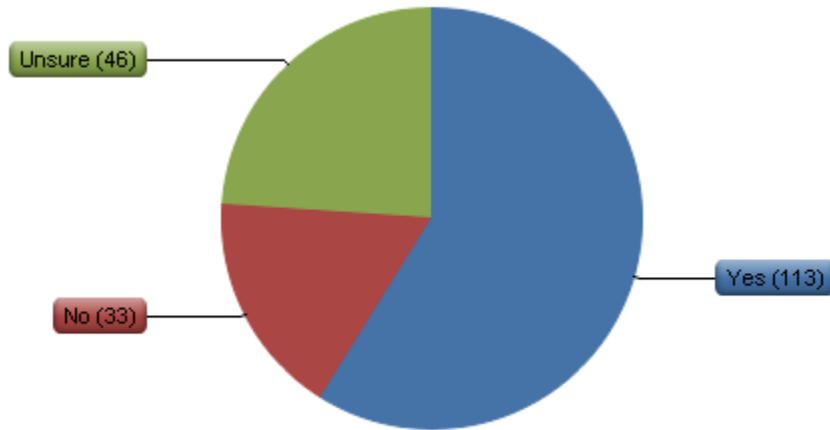
53. Does your curriculum describe the ethical issues and challenges associated with the allocation of scarce resources that may be implemented in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	137	72%
2	No	21	11%
3	Unsure	33	17%
	Total	191	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.46
Variance	0.60
Standard Deviation	0.77
Total Responses	191

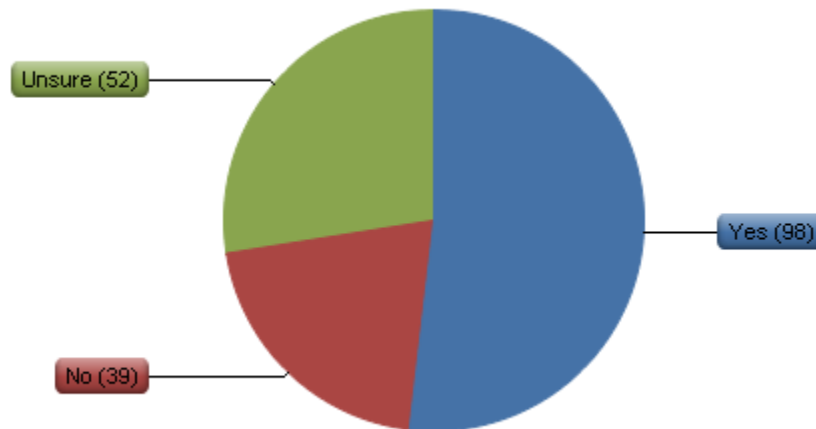
54. Does your curriculum educate your students on legal principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	113	59%
2	No	33	17%
3	Unsure	46	24%
	Total	192	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.65
Variance	0.71
Standard Deviation	0.84
Total Responses	192

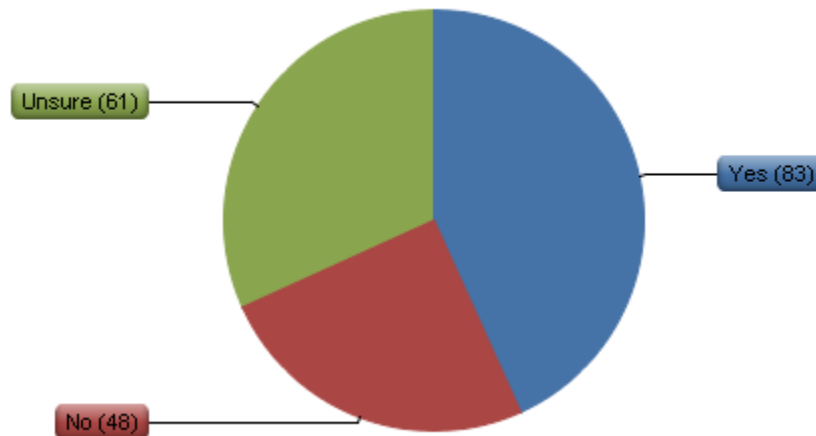
55. Does your curriculum educate your students on legal and regulatory issues likely to be encountered in disasters and public health emergencies?



#	Answer	Response	%
1	Yes	98	52%
2	No	39	21%
3	Unsure	52	28%
	Total	189	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.76
Variance	0.74
Standard Deviation	0.86
Total Responses	189

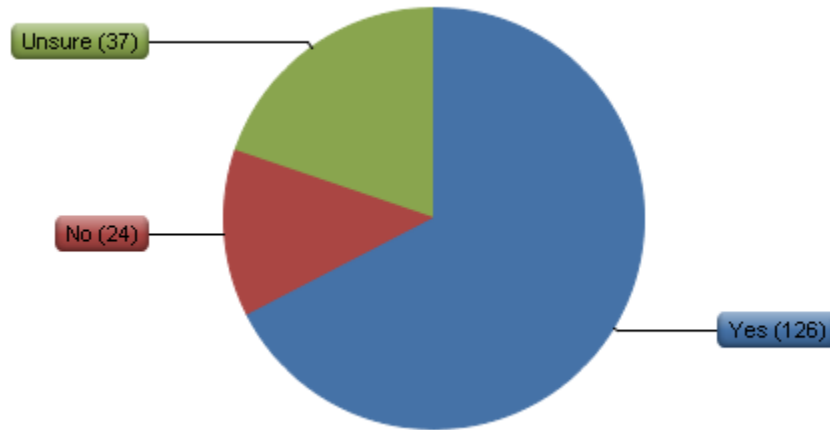
56. Does your curriculum describe the legal issues and challenges associated with crisis standards of care in a disaster or public health emergency?



#	Answer	Response	%
1	Yes	83	43%
2	No	48	25%
3	Unsure	61	32%
	Total	192	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.89
Variance	0.74
Standard Deviation	0.86
Total Responses	192

57. Does your curriculum educate your students on the allocation of scarce resources implemented in a disaster or public health emergency?

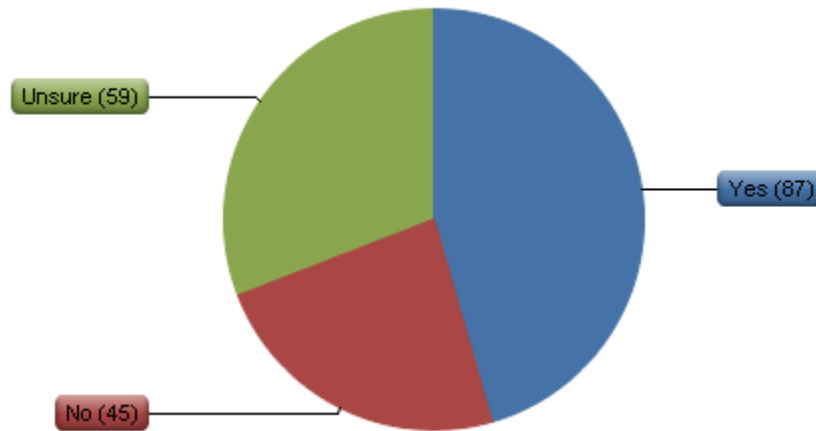


#	Answer	Response	%
1	Yes	126	67%
2	No	24	13%
3	Unsure	37	20%
	Total	187	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.52
Variance	0.65
Standard Deviation	0.81
Total Responses	187

58. Does your curriculum educate your students on legal statutes related to healthcare delivery that may be activated or modified

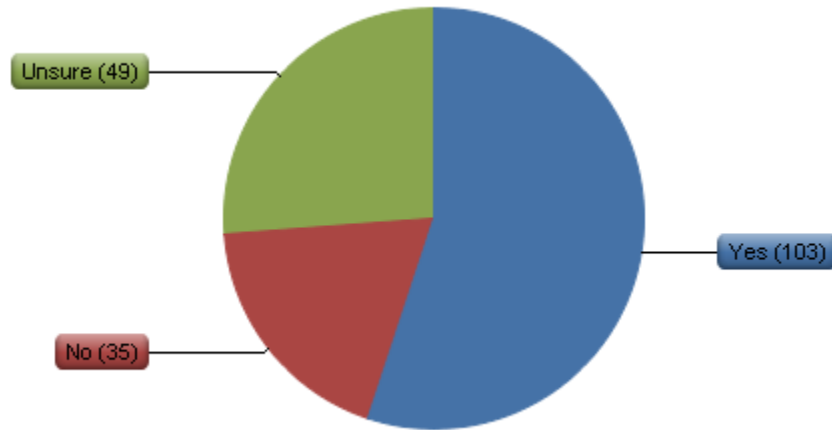
under a state or federal declaration of disaster or public health emergency?



#	Answer	Response	%
1	Yes	87	46%
2	No	45	24%
3	Unsure	59	31%
	Total	191	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.85
Variance	0.75
Standard Deviation	0.86
Total Responses	191

59. Does your curriculum educate your students on short and long-term considerations for disaster recovery for all ages, populations, and communities affected by a disaster or public health emergency?

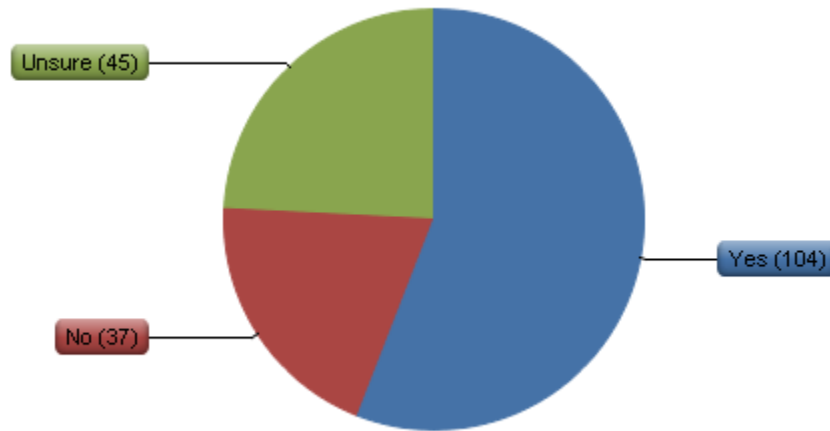


#	Answer	Response	%
1	Yes	103	55%
2	No	35	19%
3	Unsure	49	26%
	Total	187	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.71
Variance	0.73
Standard Deviation	0.86
Total Responses	187

60. Does your curriculum educate your students on clinical considerations and consequences during the disaster recovery phase

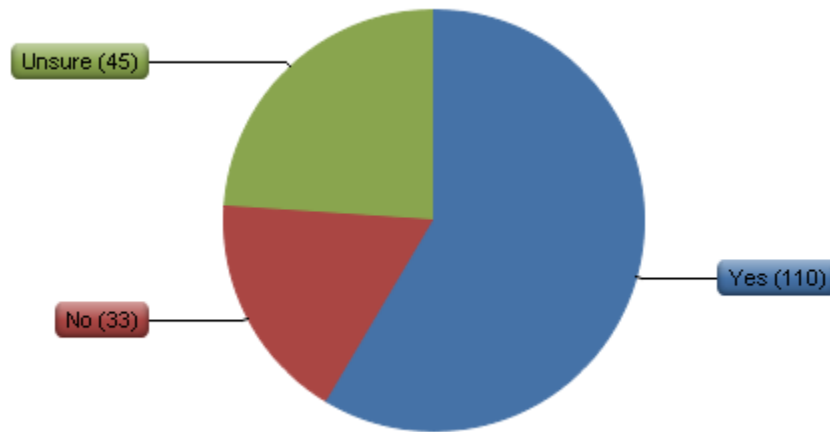
of all ages and populations affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	104	56%
2	No	37	20%
3	Unsure	45	24%
	Total	186	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.68
Variance	0.70
Standard Deviation	0.84
Total Responses	186

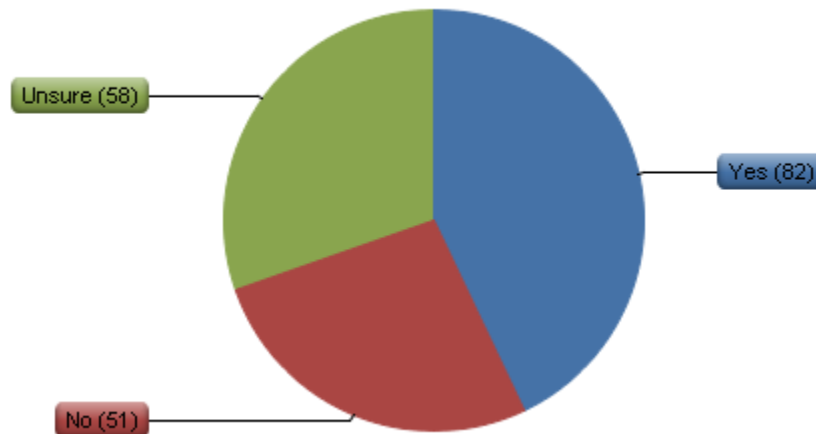
61. Does your curriculum educate your students on the public health considerations and consequences during the disaster recovery phase of all ages and populations affected by a disaster?



#	Answer	Response	%
1	Yes	110	59%
2	No	33	18%
3	Unsure	45	24%
	Total	188	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.65
Variance	0.71
Standard Deviation	0.84
Total Responses	188

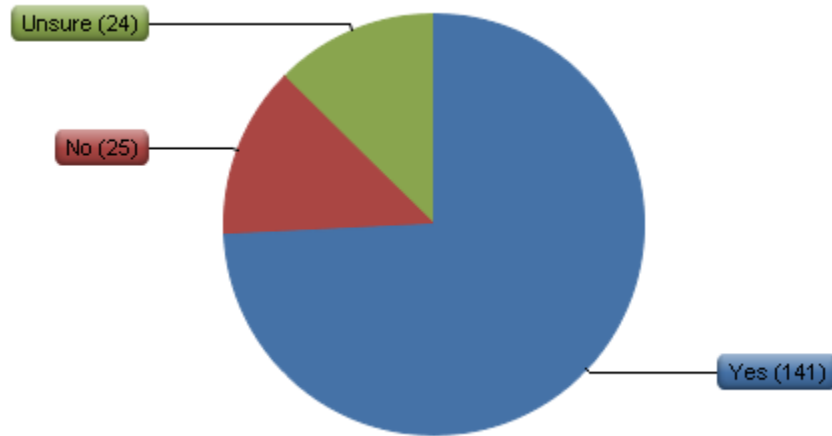
62. Does your curriculum educate your students on strategies for increasing resilience of individuals and communities affected by a disaster or public health emergency?



#	Answer	Response	%
1	Yes	82	43%
2	No	51	27%
3	Unsure	58	30%
	Total	191	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.87
Variance	0.72
Standard Deviation	0.85
Total Responses	191

63. Does your curriculum educate your students on the importance of monitoring the mental and physical health impacts of disasters and public health emergencies on first responders and their families?



#	Answer	Response	%
1	Yes	141	74%
2	No	25	13%
3	Unsure	24	13%
	Total	190	100%

Statistic	Value
Min Value	1
Max Value	3
Mean	1.38
Variance	0.49
Standard Deviation	0.70
Total Responses	190

64. Score

Statistic	Value
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Appendix B



Center of Excellence
For Remote and Medically Under-Served Areas

Communicating Effectively During a Disaster



Communication Objectives

- Participants will be able to:
 - Describe the basic communication process
 - Appreciate the value of empathetic listening and effective feedback
 - Understand how emergency communications differ from daily communications
 - Assess multicultural communication needs



Questions to Ask Yourself

- Do you know what it takes to be a good communicator during emergency/disaster?
- Do you know how to make communications a two way street?
- Do you understand the impact of nonverbal cues?
- How skilled and comfortable are you with public speaking?
- Do you know when to use written communication, when oral communication is more appropriate, and when technology can help?



Communicating Effectively During a Disaster

- Disaster survivors look for someone who can communicate valuable guidance, provide leadership, and lead them in problem solving.



Crisis Communication

- Occurs unexpectedly
- May not be in an organization's or person's control
- Should be practiced



Things to Think About

- What communication skills will be required for your job?
- What is your past experiences with communications?
- What miscommunications have you experienced?



Basic Communication Skills

- Communication is a two-way process
 - Sender sends a message
 - Receiver gets the message and personalizes it
 - Receiver sends feedback and becomes a sender
 - Original sender becomes a receiver and reacts to the feedback
 - A new communication sequence is initiated



Listening Behaviors

- Listening is the basis of effective communication and entails more than just hearing
- You can learn more about listening behavior by examining the type of listener you are



Hearing vs. Listening

- Hearing – special sense by which noises and tones are received as stimuli
 - We can hear something without choosing to listen
- Listening – voluntary activity that includes more than just sound being received by the ear and transmitting to the brain
 - Includes interpreting or processing that sound



Active Listening

- When you listen empathically you hear thoughts, beliefs, and feelings
- Steps to improve empathic listening include:
 - Decide to listen and concentrate on the listener
 - Enter the speaker's situation
 - Observe the speaker's vocal inflections, enthusiasm or lack of it, and style of delivery
 - Listen without interruption
 - Use paraphrasing or clarifying questions to confirm that you received the intended message.
 - Provide feedback to the speaker



External Roadblocks to Effective Listening

- Noise
- Uncomfortable temperature or seating
- Inappropriate location



Internal Roadblocks to Effective Listening

- Emotional interference
- Defensiveness
- Hearing only facts and not feelings
- Not seeking clarification
- Hearing what is expected and not what is said
- Stereotyping
- Halo effect – tendency for something to be influenced by loosely associated factors.
- Resistance to change



Tips for Active Listening

- Make eye contact – increases the chances of “getting” the message and demonstrates interest and attention
- Adjust body posture – face the speaker and slightly lean forward
- Give verbal or nonverbal acknowledgment
- Clear your mind
- Avoid distracting behaviors



Communication Variables

- Differences between the sender and receiver
 - Attitudes
 - Information levels
 - Communication skills
 - Social systems
 - Sensory channel



Communication Variables

- Differences in communication styles
- Differences in previous experiences
- Cultural differences



Communicating in an Emergency

- In an emergency the public depends on information for physical and emotional comfort
- To be effective, emergency communications must be timely, accurate, and clearly stated



What disaster responders need to know about communication?

- How day to day communications differs from emergency communication
- How to select the most appropriate form of communication
- How to identify appropriate and inappropriate uses of email, the Internet, and other technologies



Characteristics of Emergency Communications

- Emergency public information is important
 - Can mean the difference between life and death
 - Provides reassurance that response and recovery is underway
- Timeliness is essential –
 - to avoid rumor and speculation
- Media –
 - to use media effectively learn local media news cycles and deadlines



Characteristics of Emergency Communications

- Warnings require response
 - Emergency warnings differ from other kinds of messages
 - Purpose is to elicit a specific response from the public



Characteristics of Emergency Communications

- Barriers to communication
 - It is more difficult for people to hear messages during a disaster
 - Hurdles
 - Stress
 - Change of routine
 - Lack of sleep



Characteristics of Emergency Communications

- Establish partnerships to ensure that all messages are consistent
 - There may be many responders participating in the emergency
 - Information needs to be shared and made public in “one voice”



Characteristics of Emergency Communications

- Make sure the message is clear
 - Present the information in sequence
 - Present the reason for the message, the supporting information, and the conclusion
 - Word the message concisely; make every word count
 - Avoid jargon, codes, and acronyms
 - Use common terminology for personnel and facilities
 - Omit unnecessary details
 - Speak in sync with other related authorities
 - Keep messages consistent across various media



Types of Communication

- Communication media range from handwritten notices to international satellite broadcasts.
- Emergency Alert System (EAS) – warns a community quickly of impending dangers



Types of Communication

- All local partners should be well versed in:
 - Warning tones
 - Crawl messages (that move across the bottom of a TV screen)
 - Cable television override
 - National Oceanic and Atmospheric Administration (NOAA) weather radio
 - Other warning technologies like EAS



Types of Communication

- Oral Communication
 - Individual briefings
 - Phone conversations
 - Public speeches
 - On-air interviews
 - Public service announcements (TV and/or radio)



Types of Communication

- Oral Communication
 - Is fluid and dynamic
 - Shaped by the speaker and the audience
 - Enhanced by nonverbal communications
 - Body language
 - Tone of voice



Types of Communication

- Print Communication
 - In many emergencies it is best to use print communication.
- Types of Print Communication
 - Fax
 - E-mail
 - Public notice
 - Fact sheet or flier
 - Press release
 - Feature article



Most Effective Communication Tools

- Reaches the identified target audience
- Gets information to the audience when they need it
- Delivers the message reliably
- Enhances comprehension of the message
- Can be accessed within resource limitations



Population Warnings, Communication, and Emergency Public Information

- Population Warnings, Communication, and Emergency Public Information annexes to State and local emergency can provide the following information
 - How your community issues emergency communications
 - What areas of emergency communications can be improved
 - What steps you can take to improve communications
 - Whether you should partner with others in this effort



Identifying Community-Specific Communications Issues

- Objectives – be able to:
 - Identify potential verbal and nonverbal communication issues related to age, culture, language, or disability
 - Identify groups requiring special consideration when preparing and delivering emergency communication
 - Develop a strategy for refocusing emergency communication to meet the special needs of the community



Community-Specific Communications Needs

- Be aware of the ethnic communities/cultural groups in the community and where they are located
- Be aware of:
 - Non-English speaking residents
 - Elderly residents
 - Disabled residents (physical and intellectual)
 - Other special groups
- Be aware of the implications for these groups:
 - When providing public information
 - During emergency communications



Why Traditional Messages Don't Always Work

- Communication is affected by:
 - Cultural differences
 - Differences in age and sex
 - Presence of a disabling condition
 - Part of the country you live in



Why Traditional Messages Don't Always Work

- What can you do to determine whether your message is being communicated?
 - Be aware of “puzzled” looks
 - Be aware of changes in body language
- Don't assume sameness – everyone does not think and react as you do



Why Traditional Messages Don't Always Work

- Don't assume that you understand what the other person means – customs and communication methods may be different
- Don't inadvertently cause the behavior – some gestures may be interpreted differently by someone of another culture



Technology as a Communication Tool

- How and when can technology assist with communication?
- What are appropriate and inappropriate uses of e-mail, the Internet, and other technologies?
- What is the appropriate mix of high- and low-tech media?



Technology as a Communication Tool

- Telephone
 - Used to
 - Communicate immediately
 - Communicate to different locations
 - Convey private, urgent, sensitive information
- Telecommunications Devices for Deaf
- Radio
 - Communicate immediately
 - Relay information to, from, or among emergency responders



Technology as a Communication Tool

- Fax
 - Transmit emergency information
 - Transmit detailed or reference information
 - Transmit maps and other visuals
 - Provide a hard copy of information for documentation or future reference
- E-mail
 - Provide single messages



Technology as a Communication Tool

- Microphone and overhead projection
 - Communicate with a group
 - Reinforce verbal message with maps or other graphics
- Public address system
 - Communicate with the public when other forms of communication are not available
- Emergency Alert System (EAS)
 - Provides an emergency warning message when a larger-scale emergency is imminent



Combining High-Tech and Low-Tech Tools (How to choose?)

- Message (What?)
 - What do you want to convey?
 - What tone is appropriate for the information?
 - Is there more than one message?
- Purpose (Why?)
 - Why are you distributing the information?
 - How and when do you want people to respond?
 - How soon do people need the information?



Combining High-Tech and Low-Tech Tools (How to choose?)

- Recipient (Who?)
 - Who is the audience?
 - What are their primary languages?
 - What are the special communication needs?
 - Where do they typically learn new information?



Combining High-Tech and Low-Tech Tools (How to choose?)

- In most emergency situations you will use a mixture of low- and high-technology tools



Oral Communication

- In your role as an emergency manager, planner, or responder you may be asked to communicate critical information in:
 - One-on-one conversations
 - Small group discussions
 - Public presentations
 - Media interviews



Oral Communication

- Determine the appropriate type of oral communication for the message and audience (recipient)
- Analyze your nonverbal cues to determine if and how they may interfere with your message
- Use nonverbal cues displayed by the audience (recipient) to improve the effectiveness of your communication
- Recognize appropriate and inappropriate uses of humor in oral communication



Oral Communication with Mass Media

- Work to keep the media informed
- Keep up-to-date contact lists
- Be aware of media deadlines
- Respond to media inquiries promptly
- Be respectful and tactful
- Be honest about what you know
- Acknowledge what you do not know and offer to seek answers



Components of Successful Communication and Teamwork During a Disaster

- Open communication
- Non-punitive environment
- Clear direction
- Clear and known roles and tasks for team members
- Respectful atmosphere
- Shared responsibility



Components of Successful Communication and Teamwork During a Disaster

- Appropriate balance of member participation
- Clear specifics regarding authority and accountability
- Clear and known decision making procedures
- Regular and routine communication and information sharing
- Enabling environment including access to needed resources
- Mechanism to evaluate outcomes and adjust accordingly



Barriers to Effective Communication During a Disaster in the Healthcare Environment

- Health care professionals tend to work autonomously
- Priorities differ among disciplines
- Increased levels of emotional exhaustion
- Anxiety and depression
- Poor staffing levels
- Poor preparation and training



Solutions to Ineffective Communication During a Disaster

- Members of the group must learn about each other.
- Provide informal group interaction and educational services to teach about various professional roles and responsibilities.



Conclusion

- Remember the humanitarian imperative comes first.
- Respect culture and custom.
- Be aware of your organization and community disaster policies and procedures.
- When in doubt seek guidance.
- In information, publicity and advertising activities recognize disaster victims as dignified humans.
- Develop your own disaster response plan.
- Behave ethically.

Appendix C



Center of Excellence
For Remote and Medically Under-Served Areas

Developing a Personal Disaster Preparedness Plan



Objectives

- Get informed about hazards and emergencies that may affect you/your family.
- Learn how to develop an emergency plan.
- Learn how to assemble a disaster supplies kit.
- Learn where to seek shelter from all types of hazards.
- Be able to identify the community warning systems and evacuation routes.



Objectives

- Include in your plan required information from community and school plans.
- Learn what to do for specific hazards.
- Learn the importance of practicing and maintaining your plan.



Hazards

- Do you know about the hazards that may strike your community, the risks you face from these hazards, and your community's plans for warning and evacuation.
 - You can obtain this information from your local emergency management office or your local chapter of the American Red Cross.



Natural Disasters

- Floods, droughts, wind, extreme heat, winter storms, wildfires.
- Earthquakes.
- Cyclones, hurricanes, tornadoes, typhoons.
- Diseases (human, animal, agricultural).
- Etc.



Man-Made & Technical Disasters

- Chemical & biological
- Civil unrest
- Cyber attacks
- Explosions
- Hazardous materials
- Nuclear
- Population displacement or refugee emigration
- Power service disruption
- Radiological accidents



Types of Hazards/emergencies

- Drought
- Earthquake
- Fire
- Flood
- Flu
- Heat Wave
- Highway Safety
- Hurricane
- Landslide
- Pet Safety
- Poisoning
- Terrorism
- Thunderstorm
- Tornado
- Tsunami
- Volcano
- Wildfire
- Winter Storm



Why is it important to have a Disaster Preparedness Plan?

- Being prepared can reduce fear, anxiety, and losses that accompany disasters.
- Communities, families, and individuals should know what to do in the event of a fire and where to seek shelter during a tornado etc.



Why is it important to have a Disaster Preparedness Plan?

- You should be ready to evacuate your homes and take refuge in public shelters and know how to care for your basic medical needs.
- People can reduce the impact of disasters (flood proofing, elevating a home or moving a home out of harm's way, and securing items that could shake loose in an earthquake) and sometimes avoid the danger completely.



Warning Systems and Signals

- The Emergency Alert System (EAS) can address the entire nation on very short notice in case of a grave threat or national emergency.
 - Ask if your local radio and TV stations participate in the EAS



Warning Systems and Signals

- National Oceanic & Atmospheric Administration (NOAA) Weather Radio (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from a nearby National Weather Service office to specially configured NOAA weather radio receivers.
 - Determine if NOAA Weather Radio is available where you live. If so, consider purchasing a NOAA weather radio receiver.
 - Ask local authorities about methods used to warn your community.



Evacuating Yourself and Your Family

- When community evacuations become necessary local officials provide information to the public
 - through the media
 - warning methods, such as sirens or telephone calls
- Circumstances may occur when you and your family feel threatened or endangered and you need to leave your home, school, or workplace to avoid these situations.
 - The amount of time you have to leave will depend on the hazard.



Evacuating Yourself and Your Family

- Evacuations are more common than people realize.
 - transportation and industrial accidents release harmful substances forcing thousands of people to leave their homes.
 - Fires and floods cause evacuations
- Ask local authorities about emergency evacuation routes.



Evacuation Guidelines

- Always
 - Keep a full tank of gas in your car or make transportation arrangements.
 - Listen to battery powered radio and follow local evacuation instructions.
 - Gather your family and leave if you are instructed to evacuate immediately.



Evacuation Guidelines

- Always
 - Leave early enough to avoid being trapped.
 - Follow recommended evacuation routes.
 - Avoid shortcuts they may be blocked.
 - Be alert for washed-out roads and bridges.
 - Do not drive into flooded areas.
 - Stay away from downed power lines.



Community and Other Plans

- Ask local officials the following questions:
 - Does your community have a plan?
 - How can I obtain that plan?
 - What does the plan contain?
 - How often is it updated?
 - What should I know about the plan?
 - What hazards does it cover?



Community and Other Plans

- Know what plans are in place for your workplace and your children's school or day care center.
- Contact your children's school or day care center to discuss their disaster procedure.



School Emergency Plans

- Know your children's school emergency plan.
 - How will the school communicate with families during a crisis?
 - Does the school store adequate food, water, and other supplies?
 - Is the school prepared to shelter-in-place if need be, and where do they plan to go if they must get away?
- Monitor local media outlets for school closing and openings and follow directions of local emergency officials.
- Emergency preparedness plans for schools can be found at www.ed.gov/emergencyplan .



Workplace Plans

- Employers should:
 - Make sure that the workplace has a building evacuation plan that is regularly practiced.
 - Take a critical look at the heating, ventilation and air conditioning system to determine if it is secure or if it could feasibly be upgraded to better filter potential contaminants, and be sure you know how to turn it off if you need to.
 - Think about what to do if their employees can't go home.
 - Make sure there are appropriate supplies on hand.



Emergency Planning and Checklists

- Prepare your family by creating a family disaster plan.
 - Gathering family members and review the hazards, warning systems, evacuation routes and community and other plans
 - Discuss what to do if family members are not home when a warning is issued.



Emergency Planning and Checklists

- Your family plan should address:
 - Escape routes.
 - Family communications methods.
 - Utility shut-off and safety.
 - Insurance and and vital records.
 - Special needs.
 - Caring for animals.
 - Safety skills.



Escape Routes

- Draw a floor plan of your home:
 - Use a blank sheet for each floor.
 - Mark two escape routes for each room.
 - Make sure children understand the plan.
 - Post the plan at eye level in each room.



Escape Routes

- Where to meet:
 - Establish a place to meet.
 - Near the home.
 - Outside the immediate area.



Family Communications

- Plan how you will contact one another.
- Plan how will you communicate in different situations.
- Complete emergency contact cards to include:
 - Contact name and telephone #.
 - Out-of-state contact name and telephone #.
 - Neighborhood meeting place.
 - Meeting place telephone #.
- Carry the card with you.



Utility Shut-off and Safety

- If instructed to shut off your utilities:
 - Natural Gas - natural gas leaks and explosions are responsible for a significant number of fires following disasters.
 - Contact your local gas company for instructions.
 - Water - Water quickly becomes a precious resource following many disasters.
 - It is vital that all household members learn how to shut off the water at the main house valve
 - Electricity - teach all responsible household members where and how to shut off the electricity.



Insurance and Vital Records

- Obtain property, health, and life insurance if you do not have them (including flood insurance if relevant).
- Review existing policies for the amount and extent of coverage to ensure that what you have in place is what is required for you and your family for all possible hazards.



Insurance and Vital Records

- Home possessions:
 - Do an inventory of everything including personal possessions.
 - Keep a record.
 - Take photos/videos.
- Important documents:
 - Store in a safe place.
 - Make copies for your disaster kit.
- Money:
 - Have an emergency savings account.
 - Keep a small amount of money at home.



Special Needs

- If you or someone close to you has a disability or a special need, you may have to take additional steps to protect yourself and your family in an emergency:
 - Hearing impaired – special arrangements to receive warnings.
 - Mobility impaired – special assistance to get to a shelter.
 - Single working parent – help planning for emergencies and disasters.
 - Non-English speaking – help planning for and responding to emergencies.
 - No vehicle – need to make arrangements for transportation.
 - Special dietary needs – should have adequate emergency food supply.



Planning for Special Needs

- Find out what special assistance is available.
- Register with the office emergency services or local fire department.
- Create a network of friends, neighbors and relatives.
- Discuss your needs with your employer.
- If mobility impaired have an escape chair.
- Mark exit routes and make arrangements to leave early.
- Keep specialized items ready (wheelchair, batteries, oxygen, etc.).
- Make provisions for medications that need refrigerated.
- Keep a list of the type and model numbers of your medical devices.



Caring for Animals

- Plan for pet disaster needs by:
 - Identifying shelters.
 - Gathering pet supplies.
 - Ensuring your pet has proper ID and up-to-date veterinarian records.
 - Providing a pet carrier and leash.



Safety Skills

- It is important that family members know how to administer first aid and CPR and how to use a fire extinguisher:
 - CPR – take a class.
 - Check with your local Red Cross.
- Learn how to use a fire extinguisher:
 - everyone should know how to use **your** fire extinguisher(s) and where it is kept.
 - You should have, at a minimum, an ABC type.



Assemble a Disaster Supply Kit

- You may need to survive on your own after a disaster.
 - This means having sufficient quantities of food, water, and supplies for at least three days.
- Basic services (electricity, gas, water, sewage treatment, and telephones) may be cut off for days or longer.
- You may have to evacuate and take essentials with you.
 - You will not have the time to shop or search for supplies.



Basic Disaster Supplies

- 3-day supply of non-perishable food and water.
- Portable, battery-powered radio or television and extra batteries.
- Flashlight and extra batteries.
- First aid kit and manual.
- Sanitation and hygiene items
- Matches and waterproof container.
- Whistle.
- Extra clothing.



Basic Disaster Supplies

- Kitchen accessories and cooking utensils including manual can opener.
- Photocopies of credit and identification cards.
- Cash and coins.
- Special needs items (prescription medications, eye glasses, contact lens solutions, hearing aid batteries).
- Infants items.
- Extra set of keys.
- Other items to meet your unique family needs.



Additional Disaster Supplies

- Surgical masks
- Matches
- Rain gear, blankets, sleeping bags
- Towels
- Work gloves
- Tools for securing home
- Extra clothing, sturdy shoes, hats
- Duct tape, plastic sheeting, scissors
- Liquid bleach



Practicing Your Plan

- You need to practice and maintain your disaster preparedness plan
 - Ask questions to make sure your family remembers meeting places, phone numbers, and safety rules.
 - Conduct drills such as drop, cover, and hold on for earthquakes.
 - Test fire alarms.
 - Replace and update disaster supplies.

Appendix D

Appendix D

Questions for disaster response protocol - communications:

1. In most cases of unsuccessful communication:
 - a. The speaker is concerned with the listener's feelings
 - b. The speaker is focused only on his or her own message***
 - c. The speaker is a good listener
 - d. The listener is a good speaker
 - e. The listener is not a good speaker

2. Empathic listening is part of active listening
 - a. True***
 - b. False

3. Communications is likely to increase in difficulty when there are significant differences in the _____ of the speaker and audience.
 - a. Cultural background
 - b. Elevation
 - c. Previous experience
 - d. B and C
 - e. A and C***

4. Communications is a one-way process.
 - a. True
 - b. False***

5. During an emergency, which of the following is likely to be true?
 - a. People will listen more closely because they need the information badly
 - b. People are automatically able to filter out unnecessary information
 - c. People are busy with survival and do not need information
 - d. People have additional challenges that make it harder to comprehend information***

6. Which statement is true?
 - a. All people who live in the United States communicate in the same way.
 - b. Gestures that Americans take for granted can be offensive to others.***
 - c. Communication is not affected by geographic area of the country.

- d. Emergency responders only need to be concerned with cross-cultural communication.
- 7. A good indicator that an individual does not understand what you said is:**
- a. A smile.
 - b. The ability to paraphrase what was said.
 - c. Asking questions that require further detail.
 - d. A puzzled look.***
- 8. Which of the following technologies is the best to convey urgent and highly sensitive information?**
- a. Telephone***
 - b. Fax
 - c. Letter
 - d. E-mail
 - e. Dispatch Radio
- 9. Message, purpose, and _____ are the three primary factors that should guide your technology selection.**
- a. Location
 - b. Audience***
 - c. Time of day
 - d. Language
 - e. Type of emergency
- 10. In most situations you will use _____ to communicate.**
- a. A mixture of low- and high-technology tools.***
 - b. The most sophisticated technology tools because they will provide the best communication.
 - c. The most basic technology tools because they are easy to obtain and less expensive.
 - d. Only technology that does not depend on electricity.
 - e. Primarily television and radio broadcasts.

Appendix E

Appendix E

Questions for disaster preparedness protocol – personal disaster preparedness plan:

1. **Where can you obtain information regarding the hazards that may strike your community?**
 - a. Local emergency management office
 - b. American Red Cross
 - c. Your local newspaper
 - d. All of the above
 - e. a and b***

2. **Which of the following are examples of natural disasters?**
 - a. Floods, droughts, wind, extreme heat, winter storms, wildfires
 - b. Population displacement or refugee emigration
 - c. Diseases (human, animal, agricultural)
 - d. All of the above
 - e. a and c***

3. **True or False: it is important to have a disaster preparedness plan because it can reduce the impact of disasters and sometimes avoid the danger completely.**
 - a. True***
 - b. False

4. **True or False: The Emergency Alert System is used for addressing local emergencies only.**
 - a. True
 - b. False***

5. **Which of the following IS NOT recommended during an emergency/disaster evacuation?**
 - a. Leave early enough to avoid being trapped.
 - b. If you know a short cut it is ok to take it to get away from the disaster faster.***
 - c. Do not drive into flooded areas.
 - d. Stay away from downed power lines.

6. **A family disaster preparedness plan should include:**
 - a. Escape routes
 - b. Family communications information

- c. The name and phone number of the local bank
 - d. All of the above
 - e. a and b***
- 7. How full should your car's gas tank be (just in case there is an emergency and you have to evacuate)?**
- a. ½ tank
 - b. ¾ of a tank
 - c. Full tank***
 - d. Depends on what kind of gas mileage your car gets.
- 8. True or False: Family pets and other animals can usually take care of themselves during a disaster. Therefore you don't really need to worry about them.**
- a. True
 - b. False***
- 9. How many days' worth of non-perishable food and water should you have on hand in case of a disaster?**
- a. 3 days***
 - b. 5 days
 - c. 7 days
 - d. 14 days
- 10. Which of the following should be included in a disaster preparedness kit?**
- a. Electric can opener to open the cans of non-perishable foods
 - b. Flashlights and extra batteries
 - c. First aid kit and manual.
 - d. All of the above
 - e. a and b
 - f. b and c***

Appendix F

Appendix F
Disaster Competencies Project
Student Survey Instrument

“By completing this survey, I indicate my consent to participate in the research. I understand confidentiality will be maintained.”

Basic Demographic Information		
1	Nursing Student	
2	Physician Assistant/Occupational Therapy/Physical Therapy Student	
3	Year of study	Freshman Sophomore Junior Senior Other
4	Do you consider your home town location to be	Rural Urban
5	Have you ever been involved in a disaster?	Yes No
6	Are you a member of an emergency response team (Fire Fighter, EMT, Paramedic, etc.)?	Yes No
Disaster Competency Assessment		
1	Do you believe your curriculum educates you on your expected role in clinical based institutions (hospitals, clinics, nursing homes, etc.) and community response plans activated during a disaster or public health emergency?	Yes No Unsure
2	Do you believe your curriculum describes your role as a student within the incident management hierarchy and chain of command established within your community during a disaster or public health emergency?	Yes No Unsure
3	Do you believe your curriculum prepares students to develop a professional disaster plan that is consistent with your local community disaster response system?	Yes No Unsure
4	Do you believe your curriculum explains the mechanism for reporting actual and potential health threats through the chain of command authority at your institution established during a disaster or public health emergency?	Yes No Unsure
5	Does your curriculum teach students how to develop a personal or family disaster preparedness plan?	Yes No Unsure
6	Does your curriculum educate students on mechanisms of obtaining situational awareness of actual/ potential health hazards before, during, and after a disaster or public health emergency?	Yes No Unsure
7	Does your curriculum educate students on general indicators and epidemiological clues that may signal the onset or exacerbation of a disaster or public health emergency?	Yes No Unsure
8	Does your curriculum describe measures to maintain situational awareness before, during, and after a disaster or public health emergency?	Yes No Unsure

Appendix F
Disaster Competencies Project
Student Survey Instrument

9	Does your curriculum educate students on how to communicate effectively with other providers during a disaster or public health emergency?	Yes No Unsure
10	Does your curriculum educate students on identifying authoritative sources and resources for information in a disaster and public health emergency?	Yes No Unsure
11	Does your curriculum explain principles of crisis and emergency risk communication to meet the needs of all ages and populations in a disaster or public health emergency?	Yes No Unsure
12	Does your curriculum identify strategies appropriate for sharing of information in a disaster or public health emergency?	Yes No Unsure
13	Does your curriculum describe cultural issues and challenges in the development and dissemination of risk communication in a disaster or public health emergency?	Yes No Unsure
14	Does your curriculum educate students on personal safety measures that can be implemented in a disaster or public health emergency?	Yes No Unsure
15	Does your curriculum explain general health, safety, and security risks associated with disasters and public health emergencies?	Yes No Unsure
16	Does your curriculum describe risk reduction measures that can be implemented to mitigate or prevent hazardous exposures in a disaster or public health emergency?	Yes No Unsure
17	Does your curriculum educate students about surge capacity assets, consistent with the local community response plans?	Yes No Unsure
18	Does your curriculum describe the potential impact of a mass casualty incident on access to and availability of clinical and public health resources in a disaster or public health emergency?	Yes No Unsure
19	Does your curriculum educate students how to identify existing surge capacity assets which could be deployed in a disaster or public health emergency?	Yes No Unsure
20	Does your curriculum educate students on the principles and practices of providing disaster clinical management of all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
21	Does your curriculum educate students on the common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
22	Does your curriculum explain the role of triage as a basis for prioritizing or rationing healthcare services for all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
23	Does your curriculum educate students on basic lifesaving and support principles and procedures that can be utilized at a disaster scene?	Yes No Unsure
24	Does your curriculum educate students on the public health principles and	Yes

Appendix F
Disaster Competencies Project
Student Survey Instrument

	practices for the management of all ages and populations affected by disasters and public health emergencies?	No Unsure
25	Does your curriculum educate students on the public health consequences frequently seen in disasters and public health emergencies?	Yes No Unsure
26	Does your curriculum educate students on identifying functional and access populations needs of all ages that may be more vulnerable to adverse health effects in a disaster or public health emergency?	Yes No Unsure
27	Does your curriculum discuss strategies to address and engage functional and access needs populations to mitigate adverse health effects during a disaster or public health emergency?	Yes No Unsure
28	Does your curriculum educate students on the common public health interventions to protect the health of all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
29	Does your curriculum educate students on ethical principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency?	Yes No Unsure
30	Does your curriculum educate students on the ethical issues likely to be encountered in a disaster or public health emergency?	Yes No Unsure
31	Does your curriculum educate students on the ethical issues and challenges associated with crisis standards of care in a disaster or public health emergency?	Yes No Unsure
32	Does your curriculum educate students on the ethical issues and challenges associated with the allocation of scarce resources that may be implemented in a disaster or public health emergency?	Yes No Unsure
33	Does your curriculum educate students on legal principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency?	Yes No Unsure
34	Does your curriculum educate students on legal and regulatory issues likely to be encountered in disasters and public health emergencies?	Yes No Unsure
35	Does your curriculum educate students on the legal issues and challenges associated with crisis standards of care in a disaster or public health emergency?	Yes No Unsure
36	Does your curriculum educate students on the allocation of scarce resources implemented in a disaster or public health emergency?	Yes No Unsure
37	Does your curriculum educate students on legal statutes related to healthcare delivery that may be activated or modified under a state or federal declaration of disaster or public health emergency?	Yes No Unsure
38	Does your curriculum educate students on short and long-term considerations for disaster recovery for all ages, populations, and communities affected by a disaster or public health emergency?	Yes No Unsure
39	Does your curriculum educate students on clinical considerations and consequences during the disaster recovery phase of all ages and populations	Yes No

Appendix F
Disaster Competencies Project
Student Survey Instrument

	affected by a disaster or public health emergency?	Unsure
40	Does your curriculum educate students on the public health considerations and consequences during the disaster recovery phase of all ages and populations affected by a disaster?	Yes No Unsure
41	Does your curriculum educate students on strategies for increasing resilience of individuals and communities affected by a disaster or public health emergency?	Yes No Unsure
42	Does your curriculum educate students on the importance of monitoring the mental and physical health impacts of disasters and public health emergencies on first responders and their families?	Yes No Unsure
Attitudes on Disaster Education for Healthcare Students		
1	Disaster education is a priority in your curriculum.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
2	Current healthcare students have a role in disaster response.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
3	Practitioners who have graduated from an accredited program (Nurses or Physician Assistants) have a role in disaster response.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
4	Your school has a role to respond in a local disaster.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
5	When you graduate from your school you will be well equipped to respond to a disaster.	Strongly agree Agree

Appendix F
Disaster Competencies Project
Student Survey Instrument

		Neutral Disagree Strongly Disagree Unsure N/A
Please provide any additional comments here:		

Appendix G



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Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness Competencies

2013 Baccalaureate Education Conference

Rita Trofino, DNP, MNEd, RN
Brenda Guzic, BSW, MA, MHSc, RN



Hypotheses

- CCNE accredited BSN programs are more likely to include CDC-TIIDE-DMPH competencies than NLNAC programs
- There will be variation in levels of integration among programs
- Evidence based disaster preparedness education will improve training of the medical workforce
- Mobile learning platforms for just-in-time training will increase knowledge and improve preparation



Disasters and Public Health Emergencies

- Increase in the past 20 years
- Causes
 - Overpopulation and urbanization
 - Population migration to coastal regions
 - Climate change
 - Terrorism and pandemics
 - September 11, 2001
 - SARS and H1N1



Disaster Nursing Education

- National League for Nursing Commission Standards and Criteria – accreditation standards
- Commission on Collegiate Nursing Education – essentials of baccalaureate education



National Council Licensure Examination for Registered Nurses

- Clients to recommend for discharge
- Nursing roles in disaster planning
- Clinical decision and emergency response planning
- Implementation of emergency response plans
- Participation in disaster planning activities/drills



Methodology

- Two part analysis
 - Disaster competencies expected to be taught in BSN curriculum (CCNE; NLNAC; NCLEX-RN)
 - National survey – BSN programs



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CCNE Standards



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NCLEX-RN



Primary Research Questions

- Are BSN programs teaching a competency-based disaster curriculum
 - How is it being taught?
 - Stand alone modules
 - Integrated into standard curriculum
- How closely aligned is the curriculum with CDC-TIIDE DMPH competencies?



Secondary Research Questions

- Does faculty prioritize/value teaching disaster nursing concepts?
- Is faculty development needed?
- Does faculty believe students are equipped to respond to disasters?
- Is there a need to repackage curriculum?
- Do instructors expect disaster nursing to be included in on-the-job training?



Phase I - Crosswalk

- Matched DMPH competency to NLNAC, CCNE, and NCLEX-RN
- Elements likely to be included in BSN programs



Results – Phase I

- Personal/Family Preparedness
- Internal & External Risk and Crisis Communication Strategies
- Ethical Principles for Disasters and Public Health Emergencies
- Legal Principles for Disasters and Public Health Emergencies
- Individual and Community Recovery



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Institutional Characteristics



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Disaster Nursing Prioritization



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Disaster Nursing Curriculum Format



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Disaster Competencies Drawn Upon



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Disaster Nursing Concepts



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Disaster Nursing Concepts



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Disaster Nursing Concepts



Discussion and Conclusion

- Progress has been made
- Gaps:
 - Prioritization of disaster education
 - Adoption of disaster competencies into BSN curricula



Considerations & Recommendations

- Add evidence based personal/professional preparedness, surge capacity, and legal preparedness related to infection control and emergency response planning
- Add an annual disaster drill/exercise to emergency response curriculum
- Include a minimum of 8 hours of evidence based disaster nursing to the curriculum
- Explore evidence based competency outcomes for disaster nursing education



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**Questions
&
Thank you!**



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Appendix H

In a two-part analysis, the Disaster Nursing Project Team (1) investigate which disaster competencies are expected to be taught as part of the baseline BSN curriculum as suggested by CCNE and NLNAC standards and by the NCLEX-RN® test plan; and (2) conduct a national survey of baccalaureate-level nursing schools to identify prioritization of disaster nursing concepts, and attitudes regarding the importance of integrating disaster competencies, gaps in current education and training in disaster nursing, and commonly utilized methods of concept integration into BSN curricula.

Commission on Collegiate Nursing Education Accreditation Standards

Essential VII, Objective 5	Use evidence-based practices to guide health teaching, health counseling, screening, outreach, disease and outbreak investigation, referral, and follow-up throughout the lifespan.
Essential VII, Objective 8	Assess the health, healthcare, and emergency preparedness needs of a defined population.
Essential VII, Objective 9	Use clinical judgment and decision-making skills in appropriate, timely nursing care during disaster, mass casualty, and other emergency situations.
Essential IX, Objective 20	Understand one's role and participation in emergency preparedness and disaster response with an awareness of environmental factors and the risks the pose to self and patients.

National Council Licensure Examination for Registered Nurses®

Safety and Infection Control; Emergency Response Plan	<ul style="list-style-type: none"> Identify which client(s) to recommend for discharge in a disaster situation Identify nursing roles in disaster planning Use clinical decision-making/critical thinking for emergency response plan Implement emergency response plans (e.g., internal/external disaster) Participate in disaster planning activities/drills
Safety and Infection Control; Handling Hazardous and Infectious Materials	<ul style="list-style-type: none"> Identify biohazardous, flammable and infectious material Follow procedures for handling biohazardous materials Demonstrate safe handling techniques to staff and client Ensure safe implementation of internal radiation therapy
Safety and Infection Control; Standard Precautions/Transmission-Based Precautions/Surgical Asepsis	<ul style="list-style-type: none"> Understand communicable diseases and the modes of organism transmission (e.g., airborne, droplet, contact) Apply principles of infection control (e.g., hand hygiene, room assignment, isolation, aseptic/sterile technique, universal/standard precautions) Follow correct policy and procedures when reporting a client with a communicable disease Educate client and staff regarding infection control measures Utilize appropriate precautions for immunocompromised clients Use correct techniques to apply and remove mask, gloves, gown, protective eyewear Use appropriate technique to set up a sterile field/maintain asepsis (e.g., gloves, mask, sterile supplies) Evaluate infection control precautions implemented by staff members
Psychosocial Integrity; Crisis Intervention	<ul style="list-style-type: none"> Guide client to resources for recovery from crisis

Phase II

A descriptive study using survey methodology was conducted to identify the incorporation of disaster competencies into current curriculum. Data was collected to enhance evidence-based practice in the area of disaster nursing. The study population was BSN programs throughout the United States. Sampling included schools accredited by the Commission on Collegiate Nursing Education (CCNE) and the National League for Nursing Accrediting Commission (NLNAC). Eight hundred seventy schools were targeted for inclusion in the sample.

A mixed methods approach was used to conduct an analysis of the results. The questions used an open-ended multiple choice response scale. Where appropriate, some responses were calculated into number form. A quantitative analysis was performed with the responses. The appropriate data plan was conducted to determine statistically significant results. The responses of the open-ended questions were analyzed using qualitative methods of analysis. Content validity was established using a panel of subject matter experts with teaching experience in BSN programs and disaster nursing. The Expert Group vetted a survey for BSN Deans to identify priority levels, attitudes regarding the importance of integrating disaster competencies, gaps in education and training in disaster nursing, and methods of concept integration into BSN curricula. This tool focuses on collecting information related to program demographics related to disaster nursing preparedness.

Primary research questions

- Are BSN programs teaching a competency-based disaster curriculum as part of their general nursing program?
 - How are they teaching these concepts?
 - Is there a stand-alone module or are elements integrated into the standard curriculum?
- How closely aligned are the curricular elements with the CDC-TIIDE DMPH competencies for interprofessional disaster health workers?

- Ethical Principles for Disasters and Public Health Emergencies,
- Legal Principles for Disasters and Public Health Emergencies, and
- Individual and Community Recovery.

Results-Phase II

The purpose of this study was to determine the quantity of disaster competency being employed to teach the material, and the education gaps that exist.

Institution Characteristics

- One hundred ninety surveys were completed (71% completion)
- Representation came from 43 states and the District of Columbia
- Two-thirds of the institutions were in urban settings
- One-third of the institutions were in a rural setting
- 75% were accredited through the CCNE
- 24% were accredited by the NLNAC
- 2% were accredited by both or by another accreditation agency
- Average graduating class size < 100 students (76% of schools)
- 19% graduating between 100 & 200/year
- 7% graduating > 200/year

Disaster nursing prioritization

- 25% taught a competency-based disaster curriculum
- 38% integrate disaster competencies into the standard curriculum
- 63% use a modular component
- 38% strongly agreed or agreed that disaster nursing is a priority
- 30% disagreed or strongly disagreed that disaster nursing is a priority
- 66% of respondents indicated their school has a role in disaster nursing
- 65% believed that current nursing students have a role in disaster nursing
- 87% indicated that BSN graduates have a role in disaster nursing
- 43% indicated their graduates were well-equipped to respond to disaster

*One program identified the CDC-TIIDE competences as being taught

Disaster nursing curriculum format

- 65% offer disaster training as part of their general BSN curriculum
- 30% did not offer disaster training as part of their general BSN curriculum
- 5% were unsure
- 75% devoted fewer than 8 hours to disaster concepts
- 43% devoted 1-4 hours to disaster concepts
- 4% devoted no time at all
- 63% use a modular curriculum for disaster training
- 37% integrate the disaster concepts throughout the general curriculum
- 25% indicated the disaster concepts they taught were core concepts
- 22% were unsure if the disaster concepts they taught were core concepts
- 53% said the disaster concepts they taught were not core concepts

Disaster competency sets that were commonly drawn upon in the curriculum

- American Red Cross Registered Nurse/Disaster Nursing
- Public Health Core Competencies for Emergency Preparedness
- Federal Emergency Management Association trainings
- The International Nursing Coalition for Mass Casualty E

Appendix I



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Disaster Management & Humanitarian Assistance for Healthcare Providers

Rita Trofino DNP MNEd RN

Brenda Guzic MHSc MA BSW RN

Rural Telehealth and Advanced Technologies Conference

September 20, 2013



What is a Disaster?

- An unexpected accident resulting from natural or man-made factors (or a combination of both) that has a negative impact on the daily lives and living conditions of humans and flora/fauna



What is a Disaster?





What is a Disaster?

- An occurrence of a severity and magnitude that results in deaths, injuries, and property damage, of such magnitude that the event cannot be managed through the routine procedures and resources of government (FEMA)



What is a Disaster?

- Many people trying to do quickly what they do not normally do
- Working with people you do not normally work with
- Unfamiliar environments
- Completely unexpected time and place
- Unique problems and challenges



What is a Disaster?

- Dissimilar elements working together to:
 - Establish order out of chaos
 - Minimize mortality and morbidity
- Develops suddenly and unexpectedly
- Requires immediate, coordinated, effective response
- Cannot be managed without established plans in place



- **Disaster Levels**

- Level I: Local emergency response personnel and organizations are able to contain and manage
- Level II: Regional efforts and aid from surrounding communities are sufficient to manage
- Level III: Local and regional assets are overwhelmed; state or federal assistance is required



What Makes a Disaster Different?

- Demand for resources outstrips the supply
- Assets are overwhelmed
- Limited application of medical resources
- Mass casualty event - Large number of casualties all at once



Mass Casualty Event

- Healthcare providers unable to fully evaluate and treat each casualty
- Rationing of resources
- Evacuation or redistribution to other facilities
- Greatest good for the greatest number
- Minimal acceptable care



Mass Casualty Event

- Larger numbers of injured victims present to medical facility but are able to be handled with resources on hand
- Local community must be prepared to act in isolation and provide complete care for up to 5 days before federal or other state resources become available



Natural Disasters

- Floods, droughts, wind, extreme heat, winter storms, wildfires
- Earthquakes
- Cyclones, hurricanes, tornadoes, typhoons, tsunamis
- Diseases (human, animal, agricultural); infectious disease outbreak



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Natural Disasters





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Natural Disasters





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Natural Disasters





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Natural Disasters





Man-Made & Technical Disasters

- Chemical & biological
- Civil unrest
- Cyber attacks
- Explosions
- Hazardous materials;
toxic spills
- Nuclear
- Population displacement
or refugee emigration
- Power service disruption
- Radiological accidents
- Pollution
- Weapons of mass
destruction (WMD)



How Disasters Affect Communities

- Loss of communications
- Loss of transportation
- Damage to government organizations
- Damage to medical facilities
- Lack of transport capability



How Disasters Affect People

- Physical and emotional effects of disaster depend upon:
 - Type, cause and location of disaster
 - Extent of damage; impact
 - Duration; probability of recurrence?
 - Was a warning given? Amount of time?



How Disasters Affect People

- Reactions depend upon age, cultural background, health status, and general ability to adapt
 - Adults: panic, urgency, disbelief, disorientation, difficulty making decisions, anger, sense of powerlessness
 - Children: regressive behavior, nightmares, school-related issues (inability to concentrate)



How Disasters Affect Healthcare Providers

- Reactions:
 - PTSD
 - Panic
 - Powerlessness
 - Resistance to response to disaster
 - Fatigue
 - Impaired performance



How Disasters Affect Healthcare Providers

- Personal Plans-children
- Animals





How Disasters Affect Healthcare Providers

- Personal Disaster Plan
 - FEMA
 - Babysitting
 - Children-plans
- Communication



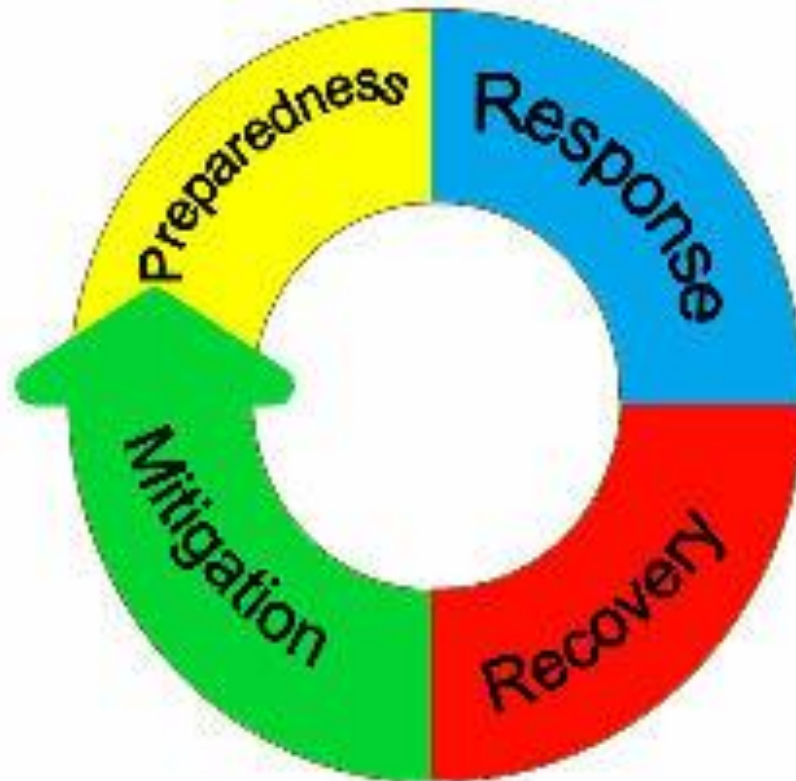


What is the Disaster Management Cycle?

- Ongoing process : plan, prepare, and mitigate
- Governments, businesses, and civil society
 - Plan for and reduce the impact of disasters
 - React during and immediately following a disaster
 - Take steps to recover after a disaster has occurred



What is the Disaster Management Cycle?





Goals of the Disaster Management Cycle

- Reduce or avoid losses from hazards
- Assure prompt assistance to victims
- Achieve rapid and effective recovery



Disaster Management Cycle

- The complete disaster management cycle includes the shaping of public policies and plans that either modify the causes of disasters or mitigate their effects on people, property, and infrastructure.



Disaster Management Cycle

- Prevention - Minimizing the effects
 - Examples: building codes and zoning; vulnerability analyses; public education.
- Preparedness - Planning how to respond
 - Examples: preparedness plans; emergency exercises/training; warning systems.



Disaster Management Cycle

- Response - Efforts to minimize the hazards created by a disaster
 - Examples: search and rescue; emergency relief
- Recovery - Returning the community to normal
 - Examples: temporary housing; grants; medical care
- Mitigation



What is Disaster Preparedness?

- Awareness of protection, early detection, containment, decontamination
- Interprofessional collaboration
 - Healthcare professionals, public health departments, mental health professionals, rescue personnel, pharmacies
 - Non-healthcare: clergy, funeral directors, firefighters, government officials, media, medical examiners, police, morticians, veterinarians



Key Components of Disaster Preparedness

- Response cannot succeed without appropriate physical assets and trained staff prepared to carry out the plan
- Assets
 - Increased security
 - Stockpiles of equipment, medications, food, water
 - Planning, drills, training



Key Components of Disaster Preparedness

- Collaborative training and planning
 - To promote public health
 - To improve public safety
 - To ensure wellbeing of all emergency responders



Communities and Partners Working Together

- Prevention
 - Hazard vulnerability assessments
- Preparation
- Response
 - Mutual aid agreements among various communities
- Recovery



Resources

- Government
 - Local
 - State
 - Must request federal assistance and resources through appropriate government channels
 - Federal (DHHS; Dept. of Justice; Dept. of Defense; Dept. of Homeland Security)
 - Requests for federal assistance should not be delayed



Resources

- Government
 - Local
 - Municipalities
 - State
 - Office of Emergency Management (OEM)
 - Coordinates disaster relief efforts at state and local levels
 - Responsible for providing interagency coordination during an emergency
 - Maintains a corps of emergency management personnel: leader, responders, planners, and administrative and support staff



Resources

- Federal (DHHS; Dept. of Justice; Dept. of Defense: Dept. of Homeland Security)
 - Requests for federal assistance should not be delayed
 - Must request federal assistance and resources through appropriate government channels
 - Each of federal departments oversees hundreds of agencies
 - FBI-under Dept. of Justice
 - FEMA-under Dept. of Homeland Security
 - CDC-under DHHS



Resources

- Others
 - American Red Cross
 - Salvation Army
 - Faith based organization
 - Businesses
 - YMCA/YWCA
 - Schools
 - Organization's Policies and Procedures
 - Etc.



Social Service

- Gaps in delivery of services
 - Vulnerable populations
 - Cultural competencies
 - Absence of interprofessional collaboration/understanding
 - Disruption to way of family life
 - Loss of housing, employment, healthcare



Crisis Communication Strategies

- Activation response of EOP (Emergency Operations Plan)
- Internal/external communication plan
- Plan for coordinated patient care: triage; transfer
- Security plan



Crisis Communication Strategies

- Identification of external resources
- Plans for people/family management and traffic flow
- Data management strategies
- Management of media



Who Should Receive Disaster Training?

- Healthcare Providers
- Public Health Departments
- Rescue Personnel
- Fire and Police Departments
- Utility Workers
- Clergy
- Funeral Directors
- Others as appropriate



Ethical and Legal Principles of Disaster Preparedness and Response

- Disaster can present disparities between resources and needs of victims
- Conflicts related to:
 - Rationing care
 - Futile therapy
 - Consent
 - Resuscitation
 - Confidentiality



Food for Thought -- What Would You Do?

- Assume your community will be hit by a tornado, flood, hurricane etc.
 - What groups would be the most vulnerable?
 - What steps could you take in advance to reduce their vulnerability?
 - What community resources are available?



Resources

- <http://www.fema.gov>
- <http://www/community.fema.gov>
- <http://www.ready.gov/business>
- #NATLPREP
- <http://www.redcross.org>
- <http://www.gdrc.org/uem/disasters/>
- <http://www.cdc.gov/>
- <http://www.who.int/en/>

Appendix J

Manuscript Number:

Title: STRENGTHENING NURSING CURRICULUM TO SUPPORT HUMANITARIAN ASSISTANCE AND DISASTER PREPAREDNESS COMPETENCIES: A NATIONAL SURVEY

Article Type: Special issue: Disaster Management

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Abstract: Key Words: Disaster preparedness, nursing curriculum, core competencies, humanitarian assistance

This study sought to determine if baccalaureate-level nursing programs adequately prepare nurses to respond to disasters. A national survey of deans of baccalaureate-level nursing programs throughout the United States was conducted to identify the amount of disaster nursing being taught, the methods used to deliver content, and the outcomes achieved. Sampling included schools accredited by the Commission on Collegiate Nursing Education and the National League for Nursing Accrediting Commission. A total of 870 nursing programs were included in this national sample. A total of 269 individuals began the survey and 190 (71%) completed it. While there were many topic areas that baccalaureate-level nursing programs included in their curricula, a number of relevant gaps in basic disaster nursing concepts were identified. Such as personal preparedness, professional preparedness, surge capacity (inclusive of hospital evacuations), and legal preparedness on standards related to infection control and emergency response planning. This survey revealed that progress has been made in some areas of disaster nursing education (incident management, risk communication, nursing and public health indicators, and ethics). However, significant gaps still remain in baccalaureate-level nursing programs regarding the prioritization of disaster nursing education and the adoption of disaster nursing evidence based competencies into baccalaureate-level nursing curricula.

**Center of Excellence for Remote and Medically Under-Served Areas (CERMUSA)
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Editor-in-Chief
Nurse Education in Practice

Dear Editor-in-Chief

Enclosed is the manuscript titled “Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness Competencies: A National Survey” to be considered for publication in *Nurse Education in Practice*. This descriptive study sought to conduct a national survey of Deans of Bachelor of Science in Nursing (BSN) schools to identify the amount of disaster nursing being taught in BSN programs, the methods used to deliver that content, and the outcomes achieved.

It was through a collaborative effort that this project was developed and this manuscript was produced. The authors worked together in developing and disseminating the survey, collecting and processing the data, and writing substantial sections of the manuscript. Everyone who is listed as an author has critically reviewed successive drafts of the paper and has given approval for the final version. Also, the authors have read, understand, and adhere to the contents of the journal submission guidelines. In addition, the authors declare no commercial association with or financial involvement that might pose a conflict of interest in connection with the submitted article. The work contained within this submission is original and has not previously been published elsewhere (either partly or totally), and is not in the process of being considered for publication in another journal.

This project was supported by Saint Francis University's Center of Excellence for Remote and Medically Under-Served Areas (CERMUSA) in Loretto, Pennsylvania, and administered via the U.S. Army Medical Research and Materiel Command (USAMRMC) Telemedicine and Advanced Technology Research Center (TATRC), Fort Detrick, Maryland - Contract Number W81XWH-11-2-0203.

We respectfully look forward to working with you during the review process and welcome your comments and recommendations.

Cordially,

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STRENGTHENING NURSING CURRICULUM TO SUPPORT HUMANITARIAN
ASSISTANCE AND DISASTER PREPAREDNESS COMPETENCIES:

A NATIONAL SURVEY

(Word count: 3,277)

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INTRODUCTION/BACKGROUND

The devastating consequences of super-storm Hurricane Sandy, and the continued trend of larger, more frequent storms due to climate change, are reminders of the continued need for sustained investment in disaster preparedness. Super-storm Sandy surpassed the financial cost for Hurricane Katrina and caused widespread disruption and displacement secondary to flooding, loss of power, and coastal wind damage throughout the mid-Atlantic and Northeast. Hospital evacuations and sheltering were also seen throughout the impacted area which revealed the ongoing need for disaster medical and nursing education.

Since September 11, 2001 and Hurricane Katrina, significant investment has been made in disaster nursing education, including development of national core competencies, courses, and modules. However, is the education appropriate for the needs in response? Saint Francis University's CERMUSA sought to address this question with a national survey of baccalaureate-level schools of nursing throughout the United States. The purposes of the survey were to identify the amount of disaster nursing being taught in baccalaureate-level nursing school (BSN) curricula, what methods are being employed to teach the material, and, perhaps most importantly, to identify gaps in disaster nursing education that still persist.

METHODS

A descriptive study using survey methodology of baccalaureate level nursing schools around the country was conducted to identify the incorporation of disaster response competencies into current curriculum. This study was conducted to collect appropriate data to enhance evidence based practice in the area of disaster nursing. The population for this study was baccalaureate level nursing programs throughout the United States. Sampling included schools accredited by both the Commission on Collegiate Nursing Education (CCNE) and the National

League for Nursing Accrediting Commission (NLNAC). A total of 870 schools were targeted for inclusion in the national sample.

The primary research question addressed whether the BSN program taught a competency-based disaster nursing curriculum as part of the general nursing program. The study applied a mixed methods approach of quantitative and qualitative data to conduct an analysis of the results. The questions used an open-ended and multiple choice response scale. Where appropriate, some responses were calculated into number form. A quantitative analysis was performed with the responses. The appropriate data plan was conducted to determine statistically significant results. The responses of the open-ended questions were compiled and analyzed using qualitative methods of analysis.

Survey development and national dissemination

Content validity was established using a panel of experts. Subject matter experts with significant teaching experience in baccalaureate-level schools of nursing and disaster nursing were invited to participate in an Expert Working Group to vet a draft survey for BSN deans to identify priority levels, attitudes regarding the importance of integrating disaster competencies, gaps in current education and training in disaster nursing, and methods of concept integration into BSN curricula. The participants represented academia, the private sector, and federal government. This tool focuses on collecting information related to program demographics related to disaster nursing preparedness.

Primary research question

Are baccalaureate-level schools of nursing teaching a competency-based disaster nursing curriculum as part of their general nursing program?

- If YES:

- How are they teaching these concepts?
- Is there a formal, stand-alone component or module or are elements integrated into the standard curriculum?
- How closely aligned are the curricular elements with the Centers for Disease Control and Prevention-Terrorism Injuries: Information, Dissemination and Exchange Disaster Medicine and Public Health (CDC-TIIDE DMPH) competencies (Appendices A & B) for interprofessional disaster health workers?

Secondary research questions

- Does faculty prioritize/value teaching disaster nursing concepts? Why or why not?
- Do we need faculty development in these areas? For example, are faculty familiar with the concepts and comfortable teaching them, whether it be a stand-alone curriculum or integrated into the standard curriculum?
- Does faculty believe their students graduate well-equipped to respond in a large-scale disaster or public health emergency? Does this depend on event type (outbreak, MCI/trauma, radiation, etc.)?
- Is there a need to “repackage” existing curricula in order to better align with disaster nursing competencies?
- Do BSN instructors expect some aspects of disaster nursing to be included in on-the-job training?

RESULTS

The purpose of this study was to determine the quantity of disaster competencies being taught in BSN curricula, what methods are being employed to teach the material, and identify gaps in disaster nursing education that still persist.

Institution characteristics

A total of 870 surveys (Appendix C) were disseminated via Qualtrics secure online survey software (Qualtrics Labs 2012). Two hundred sixty nine (269) individuals began the survey and 190 completed it for a 71% completion rate. Representation came from 43 states and the District of Columbia. Approximately two-thirds of respondents considered their institution to be in an urban setting and one-third considered their institutions to be in a rural setting (Table 1). Of the schools surveyed 75% were accredited through the Commission on Collegiate Nursing Education /American Association of Colleges of Nursing (CCNE/AACN), 24% were accredited by the National League for Nursing Accrediting Commission (NLNAC), and 2% were accredited by both or by another accreditation body (Table 2). The average graduating baccalaureate class size was typically under 100 students (76% of schools), with nearly 19% graduating between one and two hundred a year and just 7% graduating more than 200 annually (Table 3).

Disaster nursing prioritization

Data revealed that only 25% of the programs taught a competency based disaster nursing curriculum. Only 38% of the programs integrate disaster nursing curricula into the standard curriculum, with 63% using a modular component. Only one of the programs identified the CDC-TIIDE competences (Appendix A) as being closely aligned with the curricular elements. Only 38% of respondents (n = 236) strongly agreed or agreed that disaster nursing is a priority in their curriculum; an additional third were neutral, and 30% either disagreed or strongly disagreed (Table 4). However, 66% of respondents indicated their nursing school has a role to respond in local disaster. Furthermore, most respondents (65%) believed that current nursing students have a role in disaster response. An even greater proportion of respondents indicated that

baccalaureate nursing school graduates have a role in disaster response (87%), but only about 43% indicated their graduates were well-equipped to respond to a disaster.

Disaster nursing curriculum format

Of the 237 schools that responded, 65% (154) offer specific disaster nursing training as part of their general baccalaureate nursing curriculum, 30% (70) did not, and 5% (13) were unsure (Figure 1). The large majority of schools (75%) devoted fewer than 8 hours to disaster nursing concepts, with 43% devoting just 1-4 hours, and 4% not teaching it at all. Of those that offer disaster nursing concepts (n = 153), close to 63% use a modular curriculum; the remaining 37% integrate the concepts throughout the general curriculum.

Only 25% of respondents indicated the disaster nursing concepts they taught were competency-based, while an additional 22% were unsure and 53% said they were not (Figure 2). Disaster nursing competency sets that were commonly drawn upon included the American Red Cross Registered Nurse/Disaster Nursing certification, Public Health Core Competencies for Emergency Preparedness and Response, various Federal Emergency Management Association (FEMA) trainings, and the International Nursing Coalition for Mass Casualty Education.

Disaster nursing concepts

Less than half of the programs teach their students to prepare a personal or family disaster plan. Even fewer (35%) prepare students to develop a professional plan that is consistent with local community disaster response plans.

Most programs educate students on their expected role in clinical-based institutions and community response plans activated in disaster (79%). More than half (59%) describe in the curriculum the students' roles within the incident management hierarchy and chain of command

during a disaster. The same proportion explains the mechanism for reporting actual and potential health threats through that chain of command.

Nonetheless, a full 75% of respondents indicated that the curriculum educates students on how to communicate effectively with other providers during a disaster. Less than two-thirds (63%) identify strategies appropriate for sharing of information in a disaster. Approximately 60% of schools describe cultural issues and challenges in developing and disseminating risk communication.

A large subset of schools educate students on general indicators and epidemiological clues that may signal the onset or exacerbation of a disaster or public health emergency (78%), and on identifying authoritative sources and resources for information in a disaster (80%). About two-thirds describe measures to maintain situational awareness.

The vast majority of curricula (87%) included general health, safety, and security risks associated with disasters and public health emergencies. Personal safety measures during a disaster are covered in 80% of the surveyed schools and 73% discuss risk reduction measures that can be implemented to mitigate or prevent hazardous exposures.

Very few curricula (28%) educate students on surge capacity as consistent with local community response plans. However, 73% of schools do describe the potential impact of a mass casualty incident on access and availability of clinical and public health resources.

About two-thirds educate their students on disaster nursing clinical management of all ages and populations affected by disaster. However, 80% discuss common physical and mental health consequences and 85% explain the role of triage as a basis for prioritizing or rationing

healthcare services. Furthermore, 82% of respondents indicated they teach basic lifesaving support.

Public health principles and practices for the management of populations affected by disaster are taught in 79% of the schools responding; and 61% specifically discuss identifying functional and access needs of populations that may be more vulnerable to adverse health effects in a disaster.

Likewise, 73% are teaching ethical principles likely to be encountered in disasters, with 59% specifically covering crisis standards of care, and 72% teaching about allocation of scarce resources. Slightly more than half of the nursing schools that responded (59%) educate students on legal principles to protect health and safety of populations affected by disaster. Of the respondents 43% describe legal issues associated with crisis standards of care, and 46% describe legal statutes related to healthcare delivery that may be activated or modified under state or federal disaster or public health emergency declaration.

Slightly more than half (55%) include considerations for short- and long-term recovery in disaster-affected communities in their curricula. Only 43% discuss strategies for increasing resilience of individuals and communities affected by disaster. However, 74% educate students on the importance of monitoring the mental and physical health impacts of disasters on first responders and their families.

DISCUSSION

This timely national survey, coincidentally conducted during the response to Hurricane Sandy, revealed that while progress has been made in some areas of disaster nursing education (incident management, risk communication, nursing and public health indicators, and ethics)

significant gaps still remain at the baccalaureate-level institutions regarding the prioritization of disaster nursing education and the adoption of disaster nursing competency-based education into BSN curricula. These gaps will continue to undermine the ability of the nursing community to respond in the fullest sense, which is particularly troubling in that nurses encompass the largest proportion of the medical community (Meeting the Challenges Facing 2008).

At a BSN level, the survey revealed that less than 40% of schools indicated that disaster nursing was a priority in their curriculum. The survey also noted that less than 50% believed their graduates would be well-equipped to respond to a disaster. This response is higher than a 2009 survey of medical students which indicated greater than 80% willingness to respond with a corollary 20% ability to respond (Kaiser & Bennett, et al. 2009). In addition, a study conducted by the International Nursing Coalition for Mass Casualty Education, Vanderbilt University School of Nursing in 2005, “validated the general assumption that nursing programs provide limited emergency preparedness curricula. The Vanderbilt study also showed that the mean number of hours of disaster preparedness content provided, approximately four hours, did not change significantly over three academic years. Furthermore, 75 percent of respondents thought that nurse faculty was inadequately prepared in the area of disaster management. The study established a baseline for future curricular growth” (Weiner, Irwin, Trangenstein, & Gordon 2005).

While there were many topic areas that baccalaureate-level nursing programs did include in their curricula, a number of very relevant gaps in basic disaster nursing concepts were identified. One significant weakness noted in the survey was very few programs teach students how to prepare a personal/family disaster plan or a professional plan. While the National Council Licensure Examination for Registered Nurses (NCLEX-RN) and the CCNE accreditation

standards require information on safety/infection control and emergency response planning, it appears that schools do not commonly include personal and professional plans in this category. Studies have shown that lack of this type of planning may lead to reluctance by healthcare professional to work in a disaster, as the risk and benefits to the employee can become unclear during a major event (Landahl & Cox 2009). This was seen in multiple surveys during the H1N1 pandemic response (Rubinson et al. 2013; Scarfone et al. 2011).

Another topic area that was inadequately covered is surge capacity. Just 28% of participating schools indicated that they educate their students on surge capacity assets that would be used or needed in a disaster. As evidenced by super-storm Sandy and the complete evacuation of two major metropolitan hospitals to various other receiving facilities, it is essential to understand the concept of surge and how one's regular duties and ability to care for patients are likely to change in those conditions. When coupled with the knowledge that just 61% of schools are educating students about the identification of populations with functional or access needs, who may be more vulnerable in disaster, one can see a surge situation being quite overwhelming for recent graduates and novice nurses.

As demonstrated in the crosswalk (submitted for publication elsewhere), certain aspects of legal and ethical considerations are also lacking in BSN curricula. Legal implications of crisis standards of care were discussed in 43% of schools, whereas ethical considerations on this topic were discussed in 59%. Also, fewer than half of the surveyed schools indicated educating their students on altered or activated legal statues relevant to healthcare delivery in disasters. These topics have gained attention in recent years, and are essential to protecting the rights of the employee as well as in delivering effective and ethical healthcare in disaster conditions.

In addition to the issue of *what* is being taught attention was also paid to *how* it was being taught. The survey revealed that only 25% of BSN schools adopted a competency-based framework for curricular integration. Without consistent adoption of a competency-based curricular approach, significant variations are noted from one school to the next in:

- The information being taught
- The amount of material being introduced
- What topics should take priority and
- What should be the expected level of competency

Noticeably, major educational gaps were uncovered. These include developing professional plans, surge capacity, legal preparedness, and drills and exercises, which are essential underpinnings that enable the community to respond to any large scale disaster response.

A cultural change is likely imperative. The survey noted a quarter of the schools that embraced a competency-based approach, identified courses or curricula that can be easily integrated into their own BSN program. Examples include:

- The American Red Cross Disaster Response Course
- Basic Disaster Life Support
- CDC's Bioterrorism course
- Trainings at Ready.gov
- Participation in annual county disaster drills and
- Courses offered by their local public health department

These same programs tended to encourage students to get involved in Medical Reserve Corps or the American Red Cross outside of class.

A key question that remains is whether less than eight contact hours is enough to develop a baseline level of proficiency in the area of disaster preparedness, response, and recovery. A minimum of eight contact hours is encouraged, as it appears that more time may be a challenge. Classroom learning should be supplemented with modular trainings and exercises in areas needing more reinforcement (e.g. surge capacity, personal planning, and legal preparedness). Drills and exercises should be part of an applied assessment, and partnership with local public health departments could improve the opportunity to participate in a drill or exercise (Public Health Emergency 2006).

Another key question is what is the best methodology for integrating disaster nursing concepts into an already full baccalaureate curriculum? Our survey noted that greater than 60% of schools utilize a modular approach with only 37% utilizing an integrated approach throughout the curriculum. Will a modular approach work, particularly without being assessed in a drill or exercise format? As some important and vital concepts determined by disaster health professionals to be “core” requirements of learning have not been adequately covered in many BSN curricula, further research should be done to investigate teaching modalities of those schools that have been successful in this area.

RECOMMENDATIONS

Based on the findings from this national survey, four recommendations are identified to comprehensively address the gaps in disaster nursing and to drive increased integration of disaster nursing education into BSN curricula.

1. BSN programs should consider adding evidence based personal preparedness, professional preparedness, surge capacity (inclusive of hospital evacuations), and legal preparedness on standards related to infection control and emergency response planning.
2. BSN programs should consider adding an annual disaster drill or exercise as part of the emergency response curriculum.
3. BSN programs should include a minimum of eight contact hours of evidence based disaster nursing curriculum.
4. BSN programs should continue to explore evidence based competency outcomes for disaster nursing education.

CONCLUSIONS

It is essential to recognize that perspective may differ between educators and students, and that a difference may exist between what is being taught and what is being learned. Therefore, changes may need to be made to curriculum to ensure that student nurses receive proper training in communicating with disaster management teams and in specific skills that are necessary when caring for and dealing with victims and their families.

Nurses are considered trusted professionals and encompass the largest proportion of the healthcare community. In times of disaster nurses will be looked to as leaders of efforts to promote effective care to victims. This timely national survey revealed that progress has been made in some areas of disaster nursing education (incident management, risk communication, nursing and public health indicators, and ethics). However, significant gaps still remain at the baccalaureate-level regarding the prioritization of disaster nursing education and the adoption of disaster nursing competency-based education into BSN curricula. Recognizing these gaps will

provide opportunities for educators to assess curriculum content that supports effective response to disasters and public health emergencies. It is imperative that these gaps continue to be addressed with ongoing education and training post-graduation. Educated and prepared nurses will have the competencies to respond in a timely manner and provide appropriate care and interventions during a disaster.

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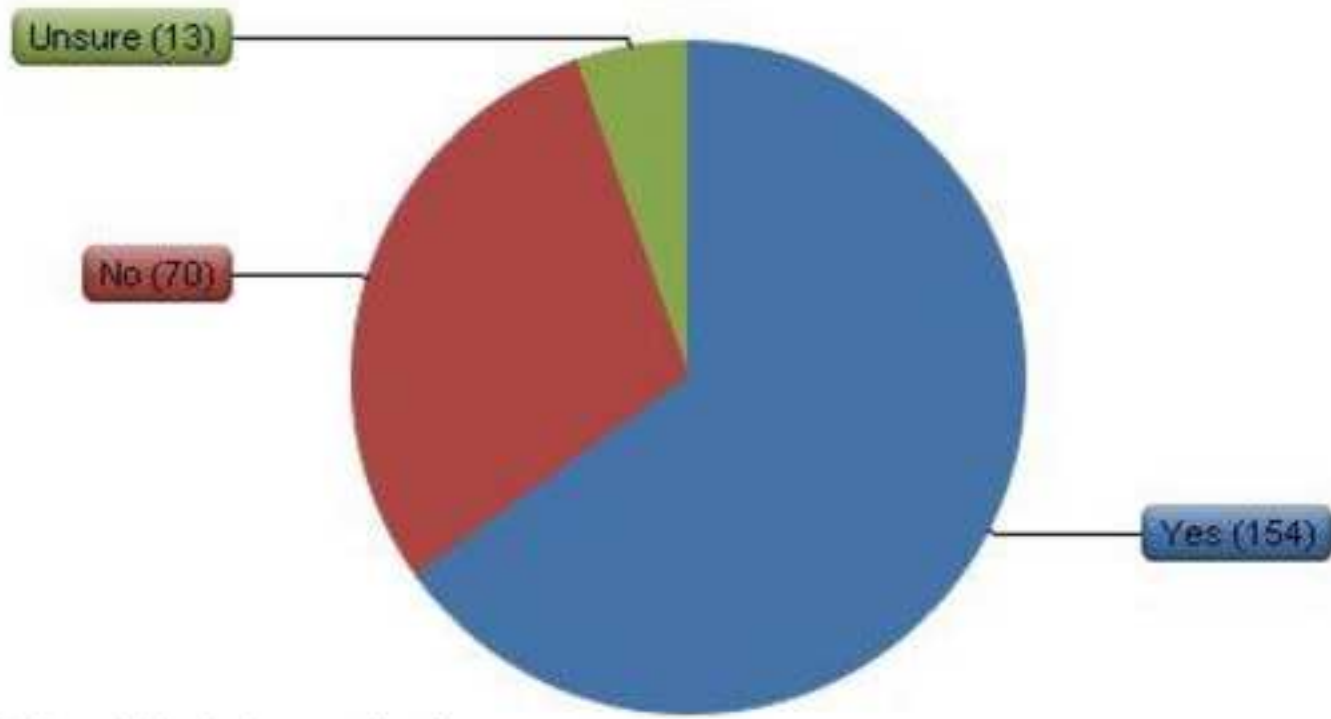


Figure 1 (publish in color)

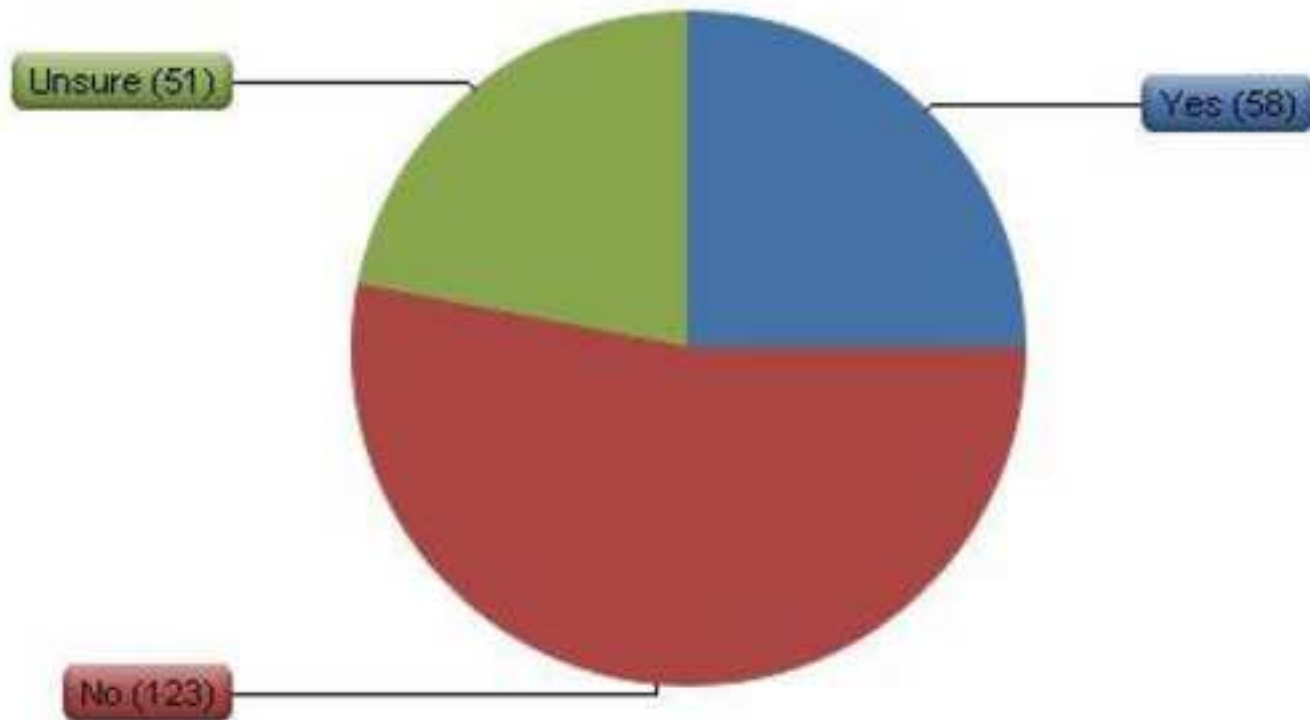


Figure 2 (Publish in color)

Table 1
CDC-TIIDE Competencies

Core Competency	Sub-competency
1.0 Demonstrate personal and family preparedness for disasters and public health emergencies.	<p>1.1 Prepare a personal/family disaster plan.</p> <p>1.2 Gather disaster supplies/equipment consistent with personal/family plan.</p> <p>1.3 Practice one’s personal/family disaster plan annually.</p> <p>1.4 Describe methods for enhancing personal resilience, including physical and mental health and well-being, as part of disaster preparation and planning.</p>
2.0 Demonstrate knowledge of one’s expected role(s) in organizational and community response plans activated during a disaster or public health emergency.	<p>2.1 Explain one’s role within the incident management hierarchy and chain of command established within one’s organization/agency in a disaster or public health emergency.</p> <p>2.2 Prepare a personal professional disaster plan consistent with one’s overall agency, organizational, and/or jurisdictional plan.</p> <p>2.3 Explain mechanism for reporting actual and potential health threats through the chain of command/authority established in a disaster or public health emergency.</p> <p>2.4 Practice one’s personal professional disaster plan in regular exercises and drills.</p>
3.0 Demonstrate situational awareness of actual/potential health hazards before, during, and after a disaster or public health emergency.	<p>3.1 Identify general indicators and epidemiological clues that may signal the onset or exacerbation of a disaster or public health emergency.</p> <p>3.2 Describe measures to maintain situational awareness before, during, and after a disaster or public health emergency.</p>
4.0 Communicate effectively with others in a disaster or public health emergency.	<p>4.1 Identify authoritative sources for information in a disaster or public health emergency.</p> <p>4.2 Explain principles of crisis and emergency risk communication to meet the needs of all ages and populations in a disaster or public health emergency.</p> <p>4.3 Identify strategies for appropriate sharing of information in a</p>

	<p>disaster or public health emergency.</p> <p>4.4 Identify cultural issues and challenges in the development and dissemination of risk communication in a disaster or public health emergency.</p>
<p>5.0 Demonstrate knowledge of personal safety measures that can be implemented in a disaster or public health emergency.</p>	<p>5.1 Explain general health, safety, and security risks associated with disasters and public health emergencies.</p> <p>5.2 Describe risk reduction measures that can be implemented to mitigate or prevent hazardous exposures in a disaster or public health emergency.</p>
<p>6.0 Demonstrate knowledge of surge capacity assets, consistent with one's role in organizational, agency, and/or community response plans.</p>	<p>6.1 Describe the potential impact of a mass casualty incident on access to and availability of clinical and public health resources in a disaster or public health emergency.</p> <p>6.2 Identify existing surge capacity assets which could be deployed in a disaster or public health emergency.</p>
<p>7.0 Demonstrate knowledge of principles and practices for the clinical management of all ages and populations affected by disasters and public health emergencies, in accordance with professional scope of practice.</p>	<p>7.1 Discuss common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency.</p> <p>7.2 Explain the role of triage as a basis for prioritizing or rationing healthcare services for all ages and populations affected by a disaster or public health emergency.</p> <p>7.3 Discuss basic lifesaving and support principles and procedures that can be utilized at a disaster scene.</p>

<p>8.0 Demonstrate knowledge of public health principles and practices for the management of all ages and populations affected by disasters and public health emergencies.</p>	<p>8.1 Discuss public health consequences frequently seen in disasters and public health emergencies.</p> <p>8.2 Identify all ages and populations with functional and access needs who may be more vulnerable to adverse health effects in a disaster or public health emergency.</p> <p>8.3 Identify strategies to address functional and access needs to mitigate adverse health effects of disasters and public health emergencies.</p> <p>8.4 Describe common public health interventions to protect the health of all ages and populations affected by a disaster or public health emergency.</p>
<p>9.0 Demonstrate knowledge of ethical principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency.</p>	<p>9.1 Discuss ethical issues likely to be encountered in disasters and public health emergencies.</p> <p>9.2 Describe ethical issues and challenges associated with crisis standards of care in a disaster or public health emergency.</p> <p>9.3 Describe ethical issues and challenges associated with allocation of scarce resources implemented in a disaster or public health emergency.</p>
<p>10.0 Demonstrate knowledge of legal principles to protect the health and safety of all ages, populations,</p>	<p>10.1 Describe legal and regulatory issues likely to be encountered in disasters and public health emergencies.</p> <p>10.2 Describe legal issues and challenges associated with crisis standards of care in a disaster or public health emergency.</p> <p>10.3 Describe legal issues and challenges associated with allocation of scarce resources implemented in a disaster or public health emergency.</p> <p>10.4 Describe legal statutes related to healthcare delivery that may be activated or modified under a state or federal declaration of disaster or public health emergency.</p>

<p>ons, and communities affected by a disaster or public health emergency.</p>	
<p>11.0 Demonstrate knowledge of short- and long-term considerations for recovery of all ages, populations, and communities affected by a disaster or public health emergency.</p>	<p>11.1 Describe clinical considerations for the recovery of all ages and populations affected by a disaster or public health emergency.</p> <p>11.2 Discuss public health considerations for the recovery of all ages and populations affected by a disaster or public health emergency.</p> <p>11.3 Identify strategies for increasing the resilience of individuals and communities affected by a disaster or public health emergency.</p> <p>11.4 Discuss the importance of monitoring the mental and physical health impacts of disasters and public health emergencies on responders and their families.</p>

Table 2

CDC-TIIDE Pyramid Illustration

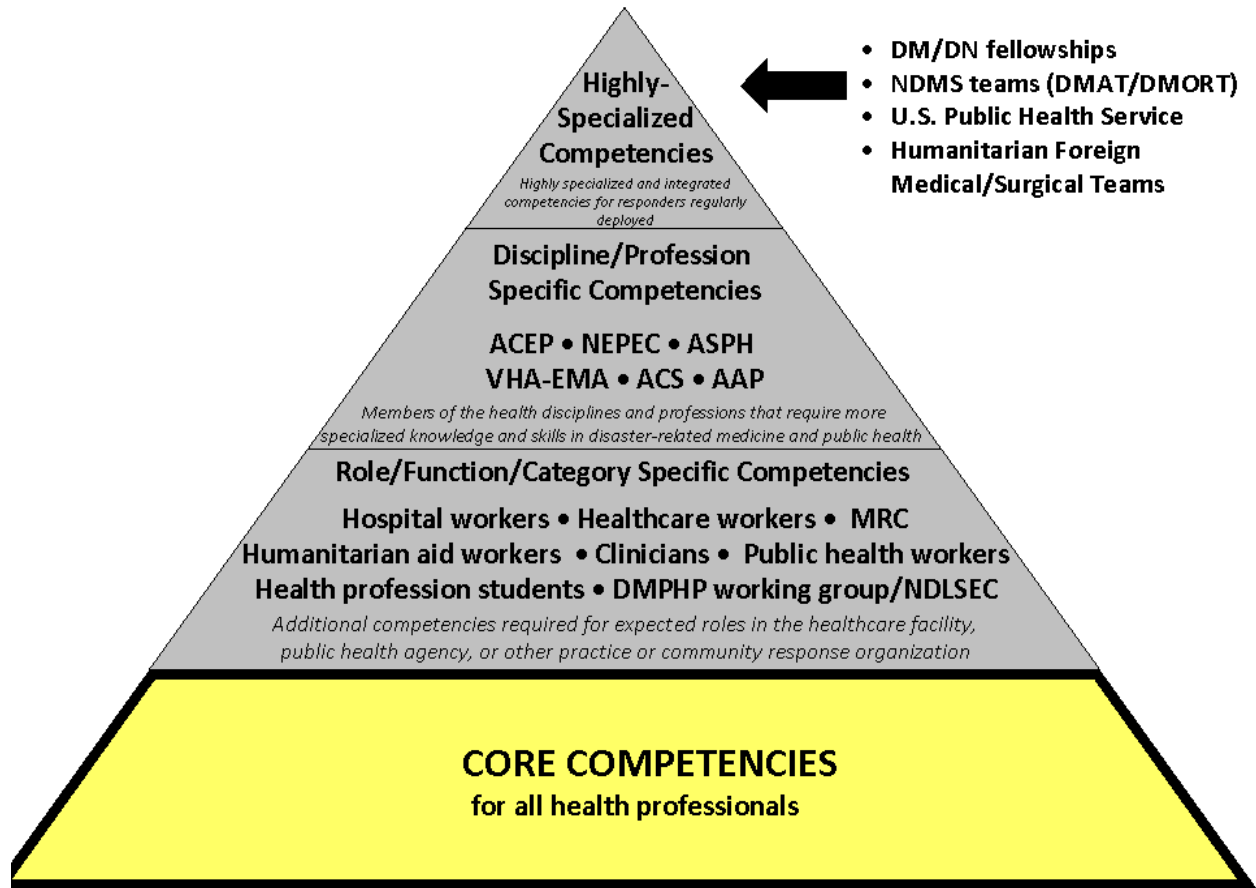


Table 3

Disaster Nursing Competencies Project Preliminary Survey Instrument
 “By completing this survey, I indicate my consent to participate in the research. I understand confidentiality will be maintained.”

Basic Nursing School Demographic Information				
1	Deanship (Title)	<i>(open-ended)</i>		
2	Institution name	<i>(open-ended)</i>		
3	Location	Town State Zip code		
4	Do you consider your location to be	Rural Urban		
5	Accreditation body	NLNAC CCNE/AACN Other <i>(blank)</i> None		
6	Average size of graduating baccalaureate class	0-50 51-100 101-150 151-200 201-250 251-300 301 or greater		
Disaster Nursing Curriculum Assessment				
1	Do you offer specific disaster nursing training as part of the general BSN curriculum?	Yes No Unsure	If Yes, do you offer it as a modular curriculum or integrated throughout the curriculum?	Modular Integrated
2	Is training of disaster nursing concepts competency-based?	Yes No Unsure	If Yes, is there a particular competency set you draw guidance from?	<i>(open-ended)</i>
3	In your estimation how many clock hours of curriculum are devoted to disaster nursing concepts?	0 1-4 5-8 9-12 13-16 16-20 20 +	If 20+, please specify	
4	Does your curriculum	Yes		

	prepare nursing students to develop a personal or family plan?	No Unsure		
Disaster Nursing Competency Assessment				
1	Does your curriculum educate your students on their expected role in clinical based institutions (hospitals, clinics, nursing homes, etc.) and community response plans activated during a disaster or public health emergency?	Yes No Unsure		
2	Does your curriculum describe your students' roles within the incident management hierarchy and chain of command established within your community during a disaster or public health emergency?	Yes No Unsure		
3	Does your curriculum prepare your students to develop a professional disaster plan that is consistent with your local community disaster response system?	Yes No Unsure		
4	Does your curriculum explain the mechanism for reporting actual and potential health threats through the chain of command authority at your institution established during a disaster or public health emergency?	Yes No Unsure		
5	Does your curriculum teach your students to practice one's professional disaster plan in regular exercises and drills?	Yes No Unsure		
6	Does your curriculum educate your students on mechanisms of obtaining situational awareness of actual/ potential health hazards before, during, and after a disaster or public health emergency?	Yes No Unsure		
7	Does your curriculum educate your students on general indicators and epidemiological clues that may signal the onset or exacerbation of a disaster or public health emergency?	Yes No Unsure		
8	Does your curriculum describe measures to maintain situational awareness before, during, and after a disaster or public health emergency?	Yes No Unsure		
9	Does your curriculum educate your students on how to communicate effectively with other providers during a disaster or public health emergency?	Yes No Unsure		
10	Does your curriculum educate your students on identifying authoritative sources and resources for information in a disaster and public health emergency?	Yes No Unsure		
11	Does your curriculum explain principles of crisis and emergency risk communication to meet the needs of all ages and populations in a disaster or public health emergency?	Yes No Unsure		
12	Does your curriculum identify strategies appropriate for sharing of information in a disaster or public health emergency?	Yes No Unsure		
13	Does your curriculum describe cultural issues and challenges in the	Yes		

	development and dissemination of risk communication in a disaster or public health emergency?	No Unsure
14	Does your curriculum educate your students on personal safety measures that can be implemented in a disaster or public health emergency?	Yes No Unsure
15	Does your curriculum explain general health, safety, and security risks associated with disasters and public health emergencies?	Yes No Unsure
16	Does your curriculum describe risk reduction measures that can be implemented to mitigate or prevent hazardous exposures in a disaster or public health emergency?	Yes No Unsure
17	Does your curriculum educate your students about surge capacity assets, consistent with your local community response plans?	Yes No Unsure
18	Does your curriculum describe the potential impact of a mass casualty incident on access to and availability of clinical and public health resources in a disaster or public health emergency?	Yes No Unsure
19	Does your curriculum educate your students to identify existing surge capacity assets which could be deployed in a disaster or public health emergency?	Yes No Unsure
20	Does your curriculum educate your students on the principles and practices of providing disaster nursing clinical management of all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
21	Does your curriculum educate your students on the common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
22	Does your curriculum explain the role of triage as a basis for prioritizing or rationing healthcare services for all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
23	Does your curriculum educate your students on basic lifesaving and support principles and procedures that can be utilized at a disaster scene?	Yes No Unsure
24	Does your curriculum educate your students on the public health principles and practices for the management of all ages and populations affected by disasters and public health emergencies?	Yes No Unsure
25	Does your curriculum educate your students on the public health consequences frequently seen in disasters and public health emergencies?	Yes No Unsure
26	Does your curriculum educate your students on identifying functional and access populations needs of all ages who may be more vulnerable to adverse health effects in a disaster or public health emergency?	Yes No Unsure
27	Does your curriculum discuss strategies to address and engage functional and access needs populations to mitigate adverse health effects during a disaster or public health emergency?	Yes No Unsure

28	Does your curriculum educate your students on the common public health interventions to protect the health of all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
29	Does your curriculum educate your students on ethical principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency?	Yes No Unsure
30	Does your curriculum educate your students on the ethical issues likely to be encountered in a disaster or public health emergency?	Yes No Unsure
31	Does your curriculum educate your students on the ethical issues and challenges associated with crisis standards of care in a disaster or public health emergency?	Yes No Unsure
32	Does your curriculum describe the ethical issues and challenges associated with the allocation of scarce resources that may be implemented in a disaster or public health emergency?	Yes No Unsure
33	Does your curriculum educate your students on legal principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency?	Yes No Unsure
34	Does your curriculum educate your students on legal and regulatory issues likely to be encountered in disasters and public health emergencies?	Yes No Unsure
35	Does your curriculum describe the legal issues and challenges associated with crisis standards of care in a disaster or public health emergency?	Yes No Unsure
36	Does your curriculum educate your students on the allocation of scarce resources implemented in a disaster or public health emergency?	Yes No Unsure
37	Does your curriculum educate your students on legal statutes related to healthcare delivery that may be activated or modified under a state or federal declaration of disaster or public health emergency?	Yes No Unsure
38	Does your curriculum educate your students on short and long-term considerations for disaster recovery for all ages, populations, and communities affected by a disaster or public health emergency?	Yes No Unsure
39	Does your curriculum educate your students on clinical considerations and consequences during the disaster recovery phase of all ages and populations affected by a disaster or public health emergency?	Yes No Unsure
40	Does your curriculum educate your students on the public health considerations and consequences during the disaster recovery phase of all ages and populations affected by a disaster?	Yes No Unsure
41	Does your curriculum educate your students on strategies for increasing resilience of individuals and communities affected by a disaster or public health emergency?	Yes No Unsure
42	Does your curriculum educate your students on the importance of monitoring the mental and physical health impacts of disasters and public health emergencies on first responders and their families?	Yes No Unsure

Attitudes on Disaster Nursing Education		
1	Disaster nursing is a priority in your BSN curriculum.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
2	Current nursing students have a role in disaster response.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
3	BSN-graduated nurses have a role in disaster response.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
4	Your nursing school has a role to respond in a local disaster.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure N/A
5	Your BSN graduates are well equipped to respond to a disaster.	Strongly agree Agree Neutral Disagree Strongly Disagree Unsure

		N/A
6	Do you offer Graduate-level Nursing Degree Program(s)?	Yes No
Please provide any additional comments here:		



#	Answer		Response	%
1	Rural		89	37%
2	Urban		150	63%
	Total		239	100%

Table 4





#	Answer		Response	%
1	NLNAC		57	24%
2	CCNE/AACN		180	75%
3	Other		4	2%
4	None		0	0%
	Total		241	100%

Table 5

#	Answer		Response	%
1	0 - 50		98	41%
2	51 - 100		84	35%
3	101 - 150		34	14%
4	151 - 200		11	5%
5	201 - 250		6	3%
6	251 - 300		3	1%
7	301 or greater		4	2%
	Total		240	100%

Table 6




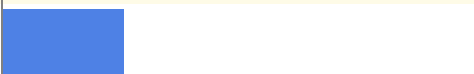
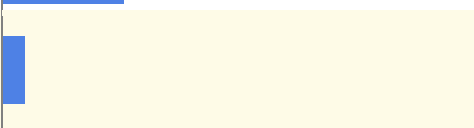
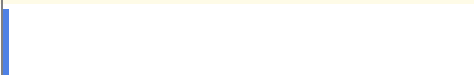
#	Answer		Response	%
1	Strongly Agree		15	7%
2	Agree		71	31%
3	Neutral		70	31%
4	Disagree		58	25%
5	Strongly Disagree		11	5%
6	Unsure		3	1%
	Total		228	100%

Table 7

Appendix K

Manuscript Number:

Title: STRENGTHENING NURSING CURRICULUM TO SUPPORT HUMANITARIAN ASSISTANCE AND
DISASTER PREPAREDNESS COMPETENCIES: A COMPETENCIES CROSSWALK

Article Type: Special issue: Disaster Management

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Manuscript Region of Origin: USA

Abstract: Keywords: disaster preparedness, core competencies, nursing curriculum, BSN programs

This descriptive study sought to identify how Bachelor of Science in Nursing programs integrate disaster education into nursing school curriculum while investigating which disaster competencies are expected to be taught as part of the general baseline Bachelor of Science in Nursing education. The Commission on Collegiate Nursing Education standards, the National League for Nursing Accrediting Commission standards, and the National Council Licensure Examination for Registered Nurses® test plan were cross walked against the Centers for Disease Control and Prevention-Terrorism Injuries: Information, Dissemination and Exchange competency framework. Competencies covered (at least partially) in the accreditation standards or the NCLEX-RN® test plan include: Professional and Organizational Preparedness, Situational Awareness, Personal Safety Measures, Impact of Mass Casualty Incidents, and Principles of Clinical Management. Those not covered include Personal/Family Preparedness; Internal/External Risk and Crisis Communication Strategies; Ethical Principles for Disasters and Public Health Emergencies; Legal Principles for Disasters and Public Health Emergencies; and Individual/Community Recovery. A few Disaster Medicine and Public Health core competencies are specifically mentioned, others appear in a different context or are open to interpretation, still others are not mentioned at all. Also, there appears to be inconsistencies in which disaster nursing competencies are covered across baccalaureate schools of nursing.

**Center of Excellence for Remote and Medically Under-Served Areas (CERMUSA)
Saint Francis University
P. O. Box 600, Loretto, PA 15940**

April 30, 2013

Editor-in-Chief
Nurse Education in Practice

Dear Editor-in-Chief

Enclosed is the manuscript titled “Strengthening Nursing Curriculum to Support Humanitarian Assistance and Disaster Preparedness Competencies: A Competencies Crosswalk” to be considered for publication in *Nurse Education in Practice*. This descriptive study sought to identify how Bachelor of Science in Nursing programs integrate disaster education into nursing school curriculum while investigating which disaster competencies are expected to be taught as part of the general baseline Bachelor of Science in Nursing curriculum.

It was through a collaborative effort that this project was developed and this manuscript was produced. The authors worked together in collecting and processing the data, as well as writing substantial sections of the manuscript. Everyone who is listed as an author has critically reviewed successive drafts of the paper and has given approval for the final version. Also, the authors have read, understand, and adhere to the contents of the journal submission guidelines. In addition, the authors declare no commercial association with or financial involvement that might pose a conflict of interest in connection with the submitted article. The work contained within this submission is original and has not previously been published elsewhere (either partly or totally), and is not in the process of being considered for publication in another journal.

This project was supported by Saint Francis University's Center of Excellence for Remote and Medically Under-Served Areas (CERMUSA) in Loretto, Pennsylvania, and administered via the U.S. Army Medical Research and Materiel Command (USAMRMC) Telemedicine and Advanced Technology Research Center (TATRC), Fort Detrick, Maryland - Contract Number W81XWH-11-2-0203.

We respectfully look forward to working with you during the review process and welcome your comments and recommendations.

Cordially,

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STRENGTHENING NURSING CURRICULUM TO SUPPORT HUMANITARIAN
ASSISTANCE AND DISASTER PREPAREDNESS COMPETENCIES:
A COMPETENCIES CROSSWALK

(Word count: 4,084)

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crosswalk analysis and for their overall contribution to the project.

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INTRODUCTION/BACKGROUND

The magnitude and frequency of disaster and public health emergencies have been increasing over the past 20 years due to a multitude of factors, overpopulation and urbanization, population migration to coastal areas, and climate change to name a few (Scott 2011; Study shows dramatic rise 2010). Growing threats, such as terrorism and documented pandemics (Severe Acute Respiratory Syndrome [SARS] and Hemagglutinin Type 1 and Neuraminidase Type 1 [H1N1]) have increasingly put the nursing profession and the greater healthcare workforce on the front-lines of disaster response.

Since September 11, 2001 a significant investment has been made to develop and integrate disaster nursing competencies into existing baccalaureate-level nursing curricula (Littleton-Kearney, Slepiski 2008). In fact, baccalaureate-level nursing accreditation standards such as those outlined in the National League for Nursing Accrediting Commission Standards and Criteria (2008) and the essentials of baccalaureate education from professional nursing practice (2012) of the Commission on Collegiate Nursing Education (CCNE) have included recommendations and suggestions regarding disaster nursing education. Additionally, the National Council Licensure Examination for Registered Nurses[®] (NCLEX-RN[®]) includes, as a component of the detailed test plan, safety and infection control content that includes the following:

- clients to recommend for discharge in a disaster situation
- nursing roles in disaster planning
- use of clinical decision making for emergency response planning
- implementation of emergency response plans

- participation in disaster planning activities/drills (National Council of State Boards of Nursing 2010)

While significant progress on developing and integrating disaster competencies has been made by baccalaureate programs to incorporate curriculum to address these areas, there has not been national agreement on baseline disaster competency standards for the registered nurse.

Recently, the Centers for Disease Control and Prevention (CDC) sponsored Terrorism Injuries Information Dissemination and Exchange (TIIDE) project utilized a national consensus-based approach to define the most basic level of competencies for the disaster health workforce, to include nursing. An expert working group designed an illustrative pyramid model that allowed for further specialization of role-dependent competency skills. As one would move up the pyramid they would gain a more defined role in disaster response. The design of the CDC-TIIDE pyramid demonstrates that BSN schools fit into the base of the pyramid where this fundamental knowledge/competency set would be incorporated. (Appendix A).

METHODOLOGY

While it is generally accepted that baccalaureate-level nurses receive the requisite disaster nursing education and training, there remains a paucity of evidence to support this notion (Schmidt, Davis, Sanders, Chapman, Cisco, & Hady 2011). Furthermore, few details are known regarding *how* Bachelor of Science in Nursing (BSN) schools integrate and incorporate the information into nursing school curriculum. In a two-part analysis, the University's Disaster Nursing Project sought to (1) investigate which disaster competencies are expected to be taught as part of the general, baseline BSN curriculum as suggested by CCNE and NLNAC standards and by the NCLEX-RN[®] test plan; and (2) conduct a national survey of baccalaureate-level nursing schools to identify prioritization of disaster nursing concepts, attitudes regarding the

importance of integrating disaster competencies, gaps in current education and training in disaster nursing, and commonly utilized methods of concept integration into BSN curricula. This paper focuses on part one the NLNAC and CCNE standards and NCLEX-RN[®] test plan crosswalk against the CDC-TIIDE competency framework. Results of the national survey will be published in another article.

Determine baseline disaster nursing education in baccalaureate-level nursing school curricula

In an effort to determine which disaster nursing competencies can be reasonably expected to be taught in BSN curricula, we turned to three different sources: the accreditation standards outlined by each of two nursing school accreditation bodies the NLNAC (2010), with 180 accredited schools, and the CCNE (2012), with 690 accredited schools, and the detailed NCLEX-RN[®] (2010) test plan. Two different accreditation bodies govern baccalaureate-level nursing school programs, therefore it was hypothesized that standardization of specific elements within the broad baccalaureate-level nursing school curricula was unlikely. As all baccalaureate-level nurses must take and pass the NCLEX-RN[®] test plan for licensure to practice, it was further hypothesized that content covered in the NCLEX-RN test plan would likely be held in common across all baccalaureate-level nursing programs. Should this hold true, we may assume that concepts of disaster nursing which are explicitly covered in the NCLEX-RN[®] test plan would likely be incorporated into BSN schools curricula, regardless of whether or not they were required by the accreditation bodies.

National league for nursing accrediting commission standards

The document is written as a series of six standards, each with corresponding sub-elements. Both the standards and sub-elements are very broad in scope and do not provide

explicit curricular requirements, but are rather written as general guidelines. Standard 4 of the NLNAC Standards and Criteria document is the only applicable standard of the six. However, it does not explicitly mention, promote, or standardize concepts of disaster nursing. While the inclusive approach of Standard 4 allows for the incorporation of disaster nursing concepts into baccalaureate-level curricula, it does not specifically offer discrete disaster nursing competencies. Ultimate authority over it and how to teach disaster nursing concepts thus presumably lies with each individual institution. This may lead to variations in the integration of disaster nursing competencies into the curricula of NLNAC-accredited schools.

American association of colleges of nursing: commission on collegiate nursing education standards

CCNE accreditation standards, as outlined in *The Essentials of Baccalaureate Education for Professional Nursing Practice* (2012), offer guidance on which disaster nursing competencies should be included in general baccalaureate-level nursing curricula. Under the CCNE standards, there are nine essentials (standards) that schools must adhere to in order to be accredited. Each of these essentials is associated with a series of objectives, which further define accreditation criteria.

Of the nine essentials and their associated objectives, two outlined required concepts of disaster nursing: Essential VII and Essential IX. Essential VII is titled “Clinical Prevention and Population Health.” The rationale statement states “health promotion along with disease and injury prevention are important throughout the lifespan and include assisting individuals, families, groups, communities, and populations to prepare for and minimize health consequences of emergencies, including mass casualty disasters.” Objectives 5, 8, and 9 elaborate further upon this rationale (Table 1). Essential IX is titled “Baccalaureate Generalist Nursing Practice.”

While the rationale statement does not explicitly mention emergency or disaster nursing, Objective 20 does (Table 1).

While a handful of the remaining Essentials encompass principles directly relevant to disaster and emergency nursing, they are not explicitly written in the context of emergency preparedness and response. For example, effective communication is mentioned in a number of places (Essential I, Objective 4; Essential II, Objective 2; Essential VI, Objectives 2 and 3; and Essential IX, Objective 4), but nowhere are communication strategies in the disaster environment explicitly mentioned. The accreditation standards repeatedly emphasize the importance of the capability of the generalist nurse to provide care across all environments; however, it is unclear whether or not these principles are taught with the atypical health environments that are created by disaster and emergency situations in mind.

National council licensure examination for registered nursing (NCLEX-RN) test plan

The *NCLEX-RN Detailed Test Plan, Nurse Educator Version* (2010) was developed by the National Council of State Boards of Nursing (NCSBN) as a detailed listing of the content areas tested in the NCLEX-RN examination. The *Nurse Educator* version was utilized rather than the *Candidate* version as it “offers a more thorough and comprehensive listing of content for each client needs category and subcategory (National Council of State Boards of Nursing 2010). The document is comprised of four unique categories (Safe and Effective Care Environment; Health Promotion and Maintenance; Psychosocial Integrity; and Physiological Integrity), and associated sub-categories which further define potential testing material.

Of the four categories, the language most clearly relevant to concepts of disaster nursing is found under the category of Safety and Infection Control. Within this category are subcategories called Emergency Response Plan, Handling Hazardous and Infectious Materials,

and Standard Precautions/Transmission-Based Precautions/Surgical Asepsis; each of these subcategories include wording related to disaster planning or specific disaster/emergency events (Table 2). The category of Psychosocial Integrity also contains language that is relevant and transferrable to disaster nursing, although it is presented in a context other than that of an emergency or disaster situation (Table 2).

Phase I: crosswalk of CDC-TIIDE disaster medicine and public health (DMPH) competencies to accreditation and licensure standards

As a next step, NLNAC standards, CCNE essentials, and the NCLEX-RN[®] test plan objectives that were initially identified as falling within the scope of disaster nursing were cross-walked against the CDC-TIIDE DMPH competency framework. The crosswalk was performed to (1) establish a baseline for curricular comparison among nursing schools, and (2) identify areas in which foundational emergency and disaster nursing preparation can be improved by modifying current accreditation and licensure standards.

RESULTS

This analysis matches the concept or intent of each DMPH competency and sub-competency to the standards outlined in the NLNAC and CCNE accreditation documents and the NCLEX-RN exam in order to determine which elements of the competency set are likely to be included in baccalaureate nursing program curricula (Table 3).

Final baseline assessment based on crosswalk

As the crosswalk illustrates, according to the baccalaureate-level nursing school accreditation standards and associated NCLEX-RN[®] test plan, certain concepts of disaster nursing may not be commonly included in BSN nursing school curricula. Areas which are not explicitly mentioned in the context of disasters and/or public health emergencies in any of the

three guidance documents include Competencies 1, 4, 9, 10, and 11; these competencies cover the topical areas of:

- Personal/Family Preparedness,
- Internal & External Risk and Crisis Communication Strategies,
- Ethical Principles for Disasters and Public Health Emergencies,
- Legal Principles for Disasters and Public Health Emergencies, and
- Individual and Community Recovery.

DISCUSSION

This analysis does not to imply that all sub-competencies of the remaining competencies are fully covered by these three documents. On the contrary, the accreditation and licensing test plan are often written broadly enough to encompass some of the precise principles outlined in the sub-competencies without actually explicitly stating key terminology or concepts within the principle (denoted in italics). For example, sub-competency 6.2 reads “Identify existing surge capacity assets which could be deployed in a disaster or public health emergency.” While the *CCNE Essentials of Baccalaureate Education for Professional Nursing Practice* does not mention „surge capacity assets“ in particular, Essential VII/Objective 9 states, “Use clinical judgment and decision-making skills in appropriate, timely nursing care during disaster, mass casualty, and other emergency situations”. While it is certain not to be uniformly taught across all nursing schools, it is presumable that to meet objectives of these testing criteria, some programs will include the concept of surge capacity in their curricula.

This same line of thinking holds true for sub-competencies 7.2 and 8.1-8.4. While concepts of triage/prioritization of care (7.2), public health consequences of disaster (8.1) and appropriate public health interventions (8.4), and identification (8.2) and assistance (8.3) for

those with functional and access needs are not explicitly mentioned in the context of disasters and emergency situations, they are potentially enveloped in the general and encompassing language identified in the documents and denoted in Table 1.

Competencies which *are* explicitly covered (at least partially) in either the accreditation standards or the NCLEX-RN test plan include 2, 3, 5, 6 (6.1), and most of 7 (7.1 & 7.3). These competencies cover the following topical areas:

- Professional & Organizational Preparedness
- Situational Awareness,
- Personal Safety Measures,
- Impact of Mass Casualty Incidents, and
- Principles of Clinical Management.

It is important to note, however, that there are differences between the accreditation standards as outlined in the CCNE and the NLNAC documents. Due to the broad language of the NLNAC accreditation standards, it was difficult to crosswalk any concepts directly to the CDC-TIIDE DMPH Competency set. As such, the work here provides a baseline which is much more useful to the 690 CCNE-accredited schools. We would hypothesize that there will be significant differences in which of the 11 competencies and associated sub-competencies are covered in each of these groups. We would further hypothesize that the material most likely to be included across all baccalaureate-level nursing school programs would be related to the NCLEX-RN[®] test plan, or CDC-TIIDE DMPH competencies 2 and 5. It appeared that the disaster nursing material mentioned in the NCLEX-RN test plan was also covered in the CCNE accreditation standards.

CONCLUSIONS

The results of this crosswalk bring to light some important issues in preparing our nursing workforce for disasters and public health emergencies. First, it may be taken for granted that BSN curricula adequately prepare baccalaureate-level nurses for mass casualty incidents and catastrophic disasters and public health events. However, there were apparent discrepancies between the CDC-TIIDE essential minimum competencies needed for professional healthcare workers to best perform their professional role in an emergency or disaster compared to the nursing licensing test plan and the standards of the credentialing bodies. While a few of the DMPH core competencies are specifically mentioned, others appear in a slightly different context or in a way that is open to interpretation, and still others are not mentioned at all. Second, there appears to be inconsistencies in which disaster nursing competencies are covered across baccalaureate schools of nursing. Of the 11 identified core competencies, just two were mentioned in the NCLEX-RN[®] test plan. While these were also covered in the CCNE-accredited schools, the broad terminology used in the NLNAC standards made it difficult to identify whether or not these 180 institutions also incorporated this material. Furthermore, a total of four competencies were not mentioned at all in any of the three reference documents; it is therefore difficult to assess whether or not the material is covered in either CCNE or NLNAC--accredited schools.

The authors acknowledge that the CDC-TIIDE competences may be included in both accreditation standards. However, these standards are broad to cover many areas and these competencies may be part of the outcomes based on course objectives and syllabi. This assessment is a broad-brush stroke across all BSN curricula, and is certainly not meant to assume that BSN schools teach only to the accreditation standards and licensing test plan. However, it

may not be unreasonable to use such measures as a first look at which disaster nursing competencies we would expect our BSN schools to include in their curricula. As the CDC-TIIDE consensus set of competencies is a very recent publication, it is quite plausible that BSN programs have integrated current disaster nursing material into their curricula and have moved quite far beyond the accreditation and licensing standards. Without a defined set of common standards, however, it is likely that there is a degree of inconsistency from one school to the next in regards to the integration of disaster nursing competencies. Phase two of this study intends to investigate this further by surveying deans of baccalaureate-level nursing programs to discern exactly what is being integrated into the curriculum, and whether or not it is congruent with the expectations set forth by the accreditation standards and licensing test plan.

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Table 1: Disaster nursing concepts required in baccalaureate-level nursing curricula by CCNE accreditation standards

Essential VII, Objective 5	<i>Use evidence-based practices to guide health teaching, health counseling, screening, outreach, disease and outbreak investigation, referral, and follow-up throughout the lifespan.</i>
Essential VII, Objective 8	<i>Assess the health, healthcare, and emergency preparedness needs of a defined population.</i>
Essential VII, Objective 9	<i>Use clinical judgment and decision-making skills in appropriate, timely nursing care during disaster, mass casualty, and other emergency situations.</i>
Essential IX, Objective 20	<i>Understand one's role and participation in emergency preparedness and disaster response with an awareness of environmental factors and the risks they pose to self and patients.</i>

Table 2: Disaster nursing concepts as defined by the NCLEX-RN detailed test plan

Safety and Infection Control; Emergency Response Plan	<ul style="list-style-type: none"> • Identify which client(s) to recommend for discharge in a disaster situation • Identify nursing roles in disaster planning • Use clinical decision-making/critical thinking for emergency response plan • Implement emergency response plans (e.g., internal/external disaster) • Participate in disaster planning activities/drills
Safety and Infection Control; Handling Hazardous and Infectious Materials	<ul style="list-style-type: none"> • Identify biohazardous, flammable and infectious materials • Follow procedures for handling biohazardous materials • Demonstrate safe handling techniques to staff and client • Ensure safe implementation of internal radiation therapy
Safety and Infection Control; Standard Precautions/Transmission-Based Precautions/Surgical Asepsis	<ul style="list-style-type: none"> • Understand communicable diseases and the modes of organism transmission (e.g., airborne, droplet, contact) • Apply principles of infection control (e.g., hand hygiene, room assignment, isolation, aseptic/sterile technique, universal/standard precautions) • Follow correct policy and procedures when reporting a client with a communicable disease • Educate client and staff regarding infection control measures • Utilize appropriate precautions for immunocompromised clients • Use correct techniques to apply and remove mask, gloves, gown, protective eyewear • Use appropriate technique to set up a sterile field/maintain asepsis (e.g., gloves, mask, sterile supplies) • Evaluate infection control precautions implemented by staff members
Psychosocial Integrity; Crisis Intervention	<ul style="list-style-type: none"> • Guide client to resources for recovery from crisis

Table 3: Crosswalk of CDC-TIIDE DMPH competencies to CCNE essentials and NCLEX**RN[®] test plan**

Core Competency	Sub-competency	Source	Location
1.0 Demonstrate personal and family preparedness for disasters and public health emergencies.	1.1 Prepare a personal/family disaster plan.	CCNE	Essential IX, Objective 20
	1.2 Gather disaster supplies/equipment consistent with personal/family plan.	CCNE	Essential IX, Objective 20
	1.3 Practice one's personal/family disaster plan annually and change as needed.	CCNE	Essential IX, Objective 20
	1.4 Describe methods for enhancing personal resilience, including physical and mental health and well-being, as part of disaster preparation and planning.	CCNE	Essential IX, Objective 20
2.0 Demonstrate knowledge of one's expected role(s) in organizational and community response plans activated during a disaster or public	2.1 Explain one's role within the incident management hierarchy and chain of command established within one's organization/agency in a disaster or public health emergency.	CCNE NCLEX	Essential IX, Objective 20 Safety and Infection Control/Emergency Response Plan
	2.2 Prepare a personal professional disaster plan consistent with one's overall agency, organizational, and/or	CCNE NCLEX	Essential IX, Objective 20 Safety and Infection Control/Emergency Response Plan

health emergency.	jurisdictional plan.		
	2.3 Explain mechanism for reporting actual and potential health threats through the chain of command/authority established in a disaster or public health emergency.	CCNE NCLEX	Essential IX, Objective 20 Safety and Infection Control/Emergency Response Plan
	2.4 Practice one's personal professional disaster plan in regular exercises and drills and change as needed.	CCNE NCLEX	Essential IX, Objective 20 Safety and Infection Control/Emergency Response Plan
3.0 Demonstrate situational awareness of actual/potential health hazards before, during, and after a disaster or public health emergency.	3.1 Identify general indicators and epidemiological clues that may signal the onset or exacerbation of a disaster or public health emergency.	CCNE	Essential VII, Objective 5 Essential IX, Objective 20
	3.2 Describe measures to maintain situational awareness before, during, and after a disaster or public health emergency.	CCNE	Essential IX, Objective 20
4.0 Communicate effectively with others in a disaster or public health emergency.	4.1 Identify authoritative sources for information in a disaster or public health emergency.		
	4.2 Explain principles of crisis and emergency risk communication to meet the needs of all ages and populations in a disaster or public health emergency.		
	4.3 Identify strategies for appropriate sharing of		

	<p>information in a disaster or public health emergency.</p> <p>4.4 Identify cultural issues and challenges in the development and dissemination of risk communication in a disaster or public health emergency.</p>		
<p>5.0 Use personal safety measures in a disaster or public health emergency.</p>	<p>5.1 Explain general health, safety, and security risks associated with disasters and public health emergencies.</p> <p>5.2 Describe risk reduction measures that can be implemented to mitigate or prevent hazardous exposures in a disaster or public health emergency.</p>	<p>CCNE</p> <p>NCLEX</p> <p>CCNE</p> <p>NCLEX</p>	<p>Essential VII, Objective 5 Essential IX, Objective 20</p> <p>Safety and Infection Control/Handling Hazardous and Infectious Materials</p> <p>Essential VII, Objectives 5 & 8 Essential IX, Objective 20</p> <p>Safety and Infection Control/Handling Hazardous and Infectious Materials</p>
<p>6.0 Demonstrate knowledge of surge capacity assets, consistent with one's role in organizational, agency, and/or community response</p>	<p>6.1 Describe the potential impact of a mass casualty incident on access to and availability of clinical and public health resources in a disaster or public health emergency.</p> <p>6.2 Identify existing surge capacity assets which could be deployed in a</p>	<p>CCNE</p> <p>CCNE</p>	<p>Essential VII, Objective 9</p> <p><i>Essential VII, Objective 9</i></p>

plans.	disaster or public health emergency.		
7.0 Demonstrate knowledge of principles and practices for the clinical management of all ages and populations affected by disasters and public health emergencies, in accordance with professional scope of practice.	<p>7.1 Discuss common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency.</p> <p>7.2 Explain the role of triage as a basis for prioritizing or rationing healthcare services for all ages and populations affected by a disaster or public health emergency.</p> <p>7.3 Discuss basic lifesaving and support principles and procedures that can be utilized at a disaster scene.</p>	<p>CCNE</p> <p><i>CCNE</i></p> <p>CCNE</p>	<p>Essential VII, Objective 9</p> <p><i>Essential VII, Objective 9</i></p> <p>Essential VII, Objective 9</p>
8.0 Demonstrate knowledge of public health principles and practices for the management of all ages and populations affected by disasters and public health emergencies .	<p>8.1 Discuss public health consequences frequently seen in disasters and public health emergencies.</p> <p>8.2 Identify all ages and populations with functional and access needs who may be more vulnerable to adverse health effects in a disaster or public health emergency.</p> <p>8.3 Identify strategies to address functional and access needs to mitigate adverse health effects of</p>	<p><i>CCNE</i></p> <p><i>CCNE</i></p> <p><i>CCNE</i></p> <p><i>CCNE</i></p>	<p><i>Essential VII, Objectives 5 & 8</i></p> <p><i>Essential VII, Objective 8</i></p> <p><i>Essential VII, Objective 8</i></p> <p><i>Essential VII, Objectives 5 & 8</i></p>

	<p>disasters and public health emergencies.</p> <p>8.4 Describe common public health interventions to protect the health of all ages and populations affected by a disaster or public health emergency.</p>		
<p>9.0 Demonstrate knowledge of ethical principles to protect the health and safety of all ages, populations, and communities affected by a disaster or public health emergency.</p>	<p>9.1 Discuss ethical issues likely to be encountered in disasters and public health emergencies.</p> <p>9.2 Describe ethical issues and challenges associated with crisis standards of care in a disaster or public health emergency.</p> <p>9.3 Describe ethical issues and challenges associated with allocation of scarce resources implemented in a disaster or public health emergency.</p>		
<p>10.0 Demonstrate knowledge of legal principles to protect the health and safety of all ages, populations, and communities affected by a</p>	<p>10.1 Describe legal and regulatory issues likely to be encountered in disasters and public health emergencies.</p> <p>10.2 Describe legal issues and challenges associated with crisis standards of care in a disaster or public health emergency.</p> <p>10.3 Describe legal issues and challenges associated</p>		

<p>disaster or public health emergency.</p>	<p>with allocation of scarce resources implemented in a disaster or public health emergency.</p> <p>10.4 Describe legal statutes related to healthcare delivery that may be activated or modified under a state or federal declaration of disaster or public health emergency.</p>		
<p>11.0 Demonstrate knowledge of short- and long-term considerations for recovery of all ages, populations, and communities affected by a disaster or public health emergency.</p>	<p>11.1 Describe clinical considerations for the recovery of all ages and populations affected by a disaster or public health emergency.</p> <p>11.2 Discuss public health considerations for the recovery of all ages and populations affected by a disaster or public health emergency.</p> <p>11.3 Identify strategies for increasing the resilience of individuals and communities affected by a disaster or public health emergency.</p> <p>11.4 Discuss the importance of monitoring the mental and physical health impacts of disasters and public health emergencies on responders and their families.</p>		