VANDERBILT UNIVERSITY
MEDICAL CENTER

RFA # 34305-22119

February 4, 2019

Mr. Vincent L. Davis, MPH
Director, Office of Healthcare Facilities
Tennessee Department of Health
665 Mainstream Drive
Nashville, TN 37243

Dear Mr. Davis:

Please accept the enclosed document as our proposal application for RFA # 34305-22119 titled *Strategic Emergency Preparedness Training, Analysis and Resources for Tennessee Long-Term Care and Skilled Nursing Facilities*. This project is a comprehensive emergency preparedness training program specifically designed to assist Tennessee long-term care (TLC) and skilled nursing (SN) facilities to meet and exceed CMS emergency preparedness requirements and further enhance the preparedness level of all facilities. Training and technical assistance (TA) will be offered to the staff and residents of all 300 plus Tennessee long-term care and nursing home facilities.

The Medicare and Medicaid Programs, Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers Final Rule (81 FR 63860) established in 2016, requires all LTC and SN facilities develop emergency preparedness programs in order to maintain services during emergencies or disasters. For nearly two decades, hospitals and other ancillary healthcare entities have received federal assistance for developing comprehensive training and acquiring resources and assets associated with increasing their emergency preparedness and response capabilities and capacities. Tennessee long-term care and skilled nursing facilities are new to this process. As such, their knowledge and skills for establishing effective and compliant emergency preparedness programs for use in their facilities require directed attention and support. Our proposal specifically addresses those needs and provides leaning curricula and a technical assistance platform tailored to nursing home emergency operations. Our goal is to assist facilities in enhancing proficiencies to better prepare and respond to a variety of potential hazards and to provide an increased level of safety for their residents.

The proposed three-year project will provide an opportunity for long-term care and skilled nursing facilities to learn critical concepts of emergency preparedness and attain proficiency levels allowing them to more easily integrate as productive components of Tennessee's comprehensive emergency response network. Thank you for consideration of our submitted three-year proposal with a proposed budget of $957,959.20. If you have questions regarding this project please contact us at michael.freeman@vanderbilt.org or john.walsh@vanderbilt.edu.

Respectfully submitted,

Michael L. Freeman, PhD

John J. Walsh, PhD

Co-Directors, Program in Disaster Research and Training
Vanderbilt University Medical Center
Nashville, TN 37232

REQUEST

Date of Application: 2 / 04 / 2019
MM / DD / YYYY

PART I: Background Information

Name of the Organization: Vanderbilt University Medical Center

Address Line 1: _____

Address Line 2: 1211 Medical Center Dr

City, County, State, Zip Code: Nashville, TN 37232

Tax Identification Number: 35-2528741

CMS Certification Number, if applicable: ☐☐ – ☐☐☐☐

Medicaid Provider Number, if applicable: ☐☐ – ☐☐☐☐

Name of the Project Leader: Michael L. Freeman, PhD

Address: B902 TVC Radiation Oncology, Preston Research Building, 2220 Pierce Ave

City, County, State, Zip Code: Nashville, TN 37232

Internet E-mail Address: michael.freeman@vumc.org

Telephone Number: 6 1 5 – 3 2 2 – 3 6 0 6

Mobile Number: 6 1 5 – 4 9 8 – 9 7 6 2

Have other funding sources been applied for and/or granted for this proposal? ☐ Yes ☑ No

If yes, please explain/identify sources and amount.

_____

_____

PART II: Applicable to Certified Nursing Home Applicants

Name of the Facility: NA _____

Address Line 1: _____

Address Line 2: _____

City, County, State, Zip Code: _____

Telephone Number: ☐☐☐ – ☐☐☐ – ☐☐☐☐

CMS Certification Number: ☐☐ – ☐☐☐☐

Medicaid Provider Number: ☐☐ – ☐☐☐☐

Date of Last Recertification Survey: ____ /____ /_____
MM DD YYYY

Highest Scope and Severity Determination: (A – L) _____

Date of Last Complaint Survey: ____ /____ /_____
MM DD YYYY

Highest Scope and Severity Determination: (A – L) _____

Currently Enrolled in the Special Focus Facility (SFF) Initiative? ☐ Yes ☐ No

Previously Designated as a Special Focus Facility? ☐ Yes ☐ No

Participating in a Systems Improvement Agreement? ☐ Yes ☐ No

Administrator's Name: _____

Owner of the Nursing Home: _____

CEO Telephone Number: ☐☐☐ – ☐☐☐ – ☐☐☐☐

CEO Email Address: _____

Name of the Management Company: NA

Chain Affiliation (please specify) Name and Address of Parent Organization: _____

_____

Outstanding Civil Money Penalty? ☐ Yes ☐ No

Nursing Home Compare Star Rating: _____ (can be 1, 2, 3, 4 or 5 stars)

Date of Nursing Home Compare Rating: ____ /____ /_____
MM DD YYYY

Is the Nursing Home in Bankruptcy or Receivership? ☐ Yes ☐ No

If an organization is represented by various partners and stakeholders, please attach a list of the stakeholders in the appendix.

NOTE: The entity or nursing home which requests CMP funding is accountable and responsible for all CMP funds entrusted to it. If a change in ownership occurs after CMP funds are granted or during the course of the project completion, the project leader shall notify CMS and the State Agency within five calendar days. The new ownership shall be disclosed as well as information regarding how the project shall be completed. A written letter regarding the change in ownership and its impact on the CMP Grant application award shall be sent to CMS and the State Agency.

Part III: Project Category

Please place an "X" by the project category for which you are seeking CMP funding.

☐ Direct Improvement to Quality of Care

☐ Resident or Family Councils

☐ Culture Change/Quality of Life

☐ Consumer Information

☐ Transition Preparation

[x] Training

[ ] Resident Transition due to Facility Closure or Downsizing

[ ] Other: Please specify _____

_____

Part IV: Funding Category

Please specify the amount and place an "X" by the funding category.

Amount Requested: $_957,959.20

[ ] $2,500 or less	[ ] $10,001 – $25,000
[ ] $2,501 – $5,000	[ ] $25,001 – $50,000
[ ] $5,001 – $10,000	[x] Over $50,000

Part V: Proposed Period of Support

From: 07 (MM) / 01 (DD) / 2019 (YYYY) (e.g. 06/01/2010) **To:** 06 (MM) / 30 (DD) / 2022 (YYYY) (e.g. 12/01/2010)

Part VI: Purpose and Summary

Michael L Freeman Digitally signed by Michael L Freeman
DN: cn=Michael L Freeman, o=VUMC, ou=Radiation Oncology, email=michael.freeman@vumc.org, c=US
Date: 2019.01.24 15:46:39 -06'00'

PROJECT TITLE

Include a cover letter to the State Agency Director with the application. The cover letter should introduce your organization, explain the purpose of the project and contain a summary of your proposal. The letter should include the amount of funding that you are requesting, the population it will serve, and the need it will help solve. Make a concerted effort to bring your project to life in the cover letter and actively engage the reader.

Part VII: Expected Outcomes

a. Project Abstract

1. Co-Principal Investigators John J. Walsh, PhD, and Michael L. Freeman, PhD are Co-Directors of the Program in Disaster Research and Training at Vanderbilt University Medical Center. Dr. Walsh has been involved in emergency response education, program management and curriculum development at the local, state, federal, and international levels. He has developed or co-developed over 50 courses that address a broad spectrum of emergency preparedness topics. Dr. Freeman also has extensive experience in course development and instruction in all phases of emergency response at the local, state and federal levels. Both investigators are intimately familiar with the emergency response system in TN and have successfully collaborated on many projects with a vast network of emergency management partners over the last 16 years. In addition, both investigators have developed and taught curricula for the State of Tennessee associated with the U.S. Department of Health and Human Services' (HHS) Bioterrorism, Hospital Preparedness and Healthcare Coalition Building programs. Drs. Walsh and Freeman will be accountable for all project evaluations.

2. Need: *In the State of Tennessee there is very limited Emergency Preparedness training for nursing/long term care facilities. Our discussions with TN State EP staff & Healthcare Coalitions revealed that their training is limited and sporadic.* Addressing the complex chronic conditions of vulnerable residents will become even more challenging due to compounding effects from climate change and rapid population aging. Educated and empowered staff members are needed to ensure the wellbeing of the most at-risk residents.[1] In the State of Tennessee, the State Survey Agency has cited 382 emergency preparedness deficiencies since the implementation of the CMS Emergency Preparedness (EP) Requirements for Medicare and Medicaid Participating Providers on November 15, 2017. Time, resources and available educational opportunities are all potential limitations to any particular facility's overall emergency preparedness knowledge, capacity and capabilities. Thus, there is a significant need to overcome these limitations and this requires emergency preparedness training based on assessment of needs, accurate gap analysis, focused guidance, and learning directed at increased awareness to potential threats with implementation of actionable responsive and preventive measures.

3. Project Description: In brief, the project consists of a three-phase development and delivery-training program offered statewide to all Tennessee long-term care and skill nursing facilities. Phase I focuses on a) learning the components, operation and protocols associated with the Tennessee Healthcare Resource Tracking System (HRTS), and b) developing basic emergency preparedness knowledge related to CMS compliance, hazard vulnerability, assessments/analyses, emergency plans, fundamentals of emergency management theory and concepts, and the exercise and testing of a facility's emergency plan. Phase I will include work analyzing existing plans for gaps, further development of individual facility plans, completion of a survey for identifying additional training needs and gaps, and creation of a resource website. A technical assistance (TA) program for assisting facilities with their emergency preparedness needs is included. Phases II and III provide advanced trainings associated with enhanced development of emergency preparedness knowledge, skills and capacities.

The project goals are to: a) fully integrate all Tennessee nursing home facilities into Tennessee's Healthcare Resource Tracking System (HRTS), which is the state's mature and highly successful web-based response system that promotes cross-sector communication in the times of emergency, and b) provide facilities and staff with comprehensive training, knowledge and skills to meet or exceed compliance with (CMS) Guidelines.

Implementation of the program encompass the following five objectives: a) Meet critical outcomes for the establishment of a long-term care (LTC) and skilled (SN) nursing facility emergency preparedness program, b) Development of a statewide training curriculum to improve emergency preparedness proficiency in emergency preparedness planning, operations, and practices, within an all-hazards environment, c) Develop a web-interface to house multi-media educational materials, d) Assist in development and implementation of facility-specific emergency plans for all Tennessee nursing home facilities to include, addressing the four core elements of the final CMS Emergency Preparedness Rule, and e) Establish a technical assistance (TA) program designed for addressing nursing home specific inquiries regarding their Emergency Preparedness Program and Plans.

b. Statement of Need

1. Description of Problem: For the better part of two decades, homeland preparedness has been a focal point of U.S. national strategy and policy. Hospitals have committed and received significant funding resources for the development of emergency plans, establishing operational protocols, meeting training needs and designing exercises in an effort to bring their facilities and their staff to a competent level of preparedness and skills, enabling them to plan, prepare, and execute an effective response for meeting emergency and disaster events. This targeted commitment is largely responsible for the vastly improved efficiencies of hospital preparedness programs found in U.S. hospitals today. Medical and healthcare response is now a permanent and critical element of the U.S. response framework, providing a fundamental component firmly embedded in preparedness and response concept, theory and practice. Hospitals have benefited greatly from the emphasis and prioritization of resources directed toward establishing better-prepared emergency and disaster operations now implemented through an integrated community-wide approach.

This more recently broadening and greater integration of emergency response and resource sharing required to respond to complex events and larger-scale emergencies, has led to an expansion of partners and organizations beyond hospital-based preparedness and response operations in Tennessee. With the establishment of eight (8) solid healthcare coalitions here in Tennessee, many healthcare levels and facilities are now part of the greater preparedness and response paradigm. This inclusiveness culture is positive, greatly needed and long overdue.

Long-term care and skilled nursing facilities are now part of the first-line healthcare preparedness and response framework and this has created a significant problem for these facilities. *Is there a question of whether there is a specific need for emergency preparedness training in TN for the 318 nursing home/long term care facilities? Data indicates that there is an urgent need. In the State of Tennessee, the State Survey Agency has cited 382 emergency preparedness deficiencies since the implementation of the CMS Emergency Preparedness (EP) Requirements for Medicare and Medicaid Participating Providers on November 15, 2017. Unfortunately, the majority of facilities are not prepared for disasters. Since 2009, there have been 21 FEMA Declared Major Disaster/Emergency Declarations in the State of Tennessee that impacted multiple counties (please see https://www.fema.gov/disasters/state-tribal-government/0/TN). As a specific example, the 2010 flooding disaster that occurred in Nashville, TN in May resulted in the evacuation of 3 nursing homes that housed more than 250 patients. These facilities were not prepared for this flooding. In 2016 a nursing home facility in Nashville, TN experienced a fire. The facility did not have adequate fire protection or evacuation plans. This fire killed 16 residents. These are but 2 of many instances that document that certified nursing home/long term care facilities do not have adequate emergency preparedness programs. In the State of Tennessee there is very limited Emergency Preparedness training for nursing/long term care facilities. Our discussions with TN State EP staff & Healthcare Coalitions revealed that their training is limited and sporadic. Thus, there is a need to provide CMS compliant training.*

The challenges facing nursing facilities created by an increasing population present a challenge to meeting the highest level of requirements and responsibilities of LTC healthcare preparedness. This encompasses personnel education, training and administrative operations which are difficult to implement in the LTC industry. Currently nursing facility personnel are asked to participate in an unfamiliar culture of operational processes, using terminology foreign to their profession, in an environment requiring planning and decision-making skills using organizational concepts they most likely have never experienced. Unlike hospitals, long-term care and skilled nursing facility staff have not had long-term access to standardized training and have not had the time benefits needed to meet the requirements for establishing the knowledge base, experience and properly prepared staffing skilled in emergency preparedness and response operations. **This disadvantage is significant and challenging and is the problem that our program proposes to address.**

2. Potential Problems and Contingency Plan: Our faculty has over 30 years of experience in emergency preparedness and response course development and instructional delivery. We have developed and taught over 50 courses to several thousand participates, including traditional first responders and healthcare professionals. Therefore, we do not anticipate any significant problems with course development or implementation. However, if unforeseen problems do occur, we will work closely with the TN Department of Health's Healthcare

Preparedness Program (HPP), Healthcare Coalitions, the Tennessee Health Care Association, and others to overcome problems and implement best practices that have shown preparedness success in Tennessee. The eight (8) established Health Preparedness Program (HPP) Healthcare Coalitions are aligned with the eight (8) Emergency Medical Services (EMS) Regions in Tennessee. These regional HPP Healthcare Coalitions are tasked with fostering communication between local, regional, state and federal entities on community wide emergency planning improving healthcare response capabilities. These entities are a rich resource network to which we can turn to overcome unanticipated problems. *To-date, there has been little interaction between the Healthcare Coalitions and LTC and SN facilities and it has focused on outreach activities and an initial introduction to the healthcare coalition concept. The current environment faced by nursing homes is basically, "learn as you go."*

c. Program Description

1. Describe Program

Introduction. In 2007, the Tennessee Department of Health designed, constructed, and implemented the Healthcare Resource Tracking System (HRTS) to bring together and assist hospitals and regional and state emergency managers to more efficiently respond to emergencies and disasters. In recent years, the utilization of HRTS has matured and expanded to include State Regional EMS Consultants, Regional Medical Communications Centers, State Regional Healthcare Coordinators, Regional Healthcare Coalitions, Mental Health institutions, and other healthcare professionals. Hospitals and other healthcare providers are required to update their bed and specialty service availability counts so that healthcare resources can be dispersed appropriately, and patients can be routed to appropriate locations as needed. The daily bed updating rate across the 128 hospitals in the system was in excess of 90% during 2018. Long-term care and skilled nursing facilities are now allowed access to HRTS. However, to maximize utilization and leverage the capability of the system during emergencies these facilities will require training in the operation of the HRTS system.

After Action Reports following the Hurricane Harvey (2017) disaster determined that several response obstacles caused by the lack of a predetermined format for facilities to report status, could be alleviated through the implementation of better communication, management, and the establishment of coordination protocols prior to disaster events.[2] A Phase I component of our proposal includes specific familiarization, operation and protocol instruction of the Tennessee Healthcare Resource Tracking System (HRTS) for long-term care and skilled nursing facilities. This will provide them with the technical ability to utilize the HRTS user community and response network during emergencies and disaster events.

The nursing home population in Tennessee consists of a high proportion of residents with limited mobility. In cases that require a decision to evacuate, staff must be trained to respond proficiently and effectively, often under extreme environments. During Hurricane Harvey (2017) effective high-level situational awareness, establishment of pre-disaster communication protocols, partnership coordination, and executive leadership support, contributed to minimizing needless deaths and injuries saving countless lives.[3]

Identified high impact threats from tornadoes, earthquake, potential radiation releases, and other natural hazards present Tennessee nursing home operations with numerous emergency preparedness challenges. The inability to protect residents as the result of ineffective emergency and evacuation plans, inadequate resource support, and poorly formulated response actions, highlight the potential threats faced by current nursing home facilities throughout Tennessee.[4] The proposed comprehensive training and technical assistance program will help provide Tennessee facilities with the capabilities and capacities for achieving and exceeding CMS compliance. In addition, improved preparedness will reduce surveyor-acknowledged deficiencies; minimize the potential for resident deaths and injuries, while providing residents and their families' assurances that Tennessee nursing home facilities are prepared to respond competently and safely to potential emergencies.

1A Implementation. This program and delivered training curricula will encompass an all-hazards approach for designing facility specific emergency plans based on local hazard risk and gap analyses, coordination of community and regional resources and engagement of community partnerships addressing potential internal and external emergencies. Program curricula will be developed at Vanderbilt University Medical Center. Training will occur throughout the State. The State's eight (8) Healthcare Coalitions all update their regional hazard

vulnerability assessments annually. The assistance provided to develop facility-specific plans will incorporate the known hazards and gap analysis for responses in the region. In addition, development of response actions will be consistent with facility specific patient populations, facility type, and the immediate availability of local resources and assets. Implementation will lead to conducting exercises and drills to the test plans and to ascertain and maintain proficiency of staff response levels. In addition, the training paradigm will incorporate knowledge-enhanced processes for assisting development of facility emergency communications, as well as developing policies and procedures directed toward implementation of response protocols for addressing a number of potential facility emergencies to include emerging infectious diseases and alternative source power.

Phase I will provide a gap analysis survey to LTC/SN facilities within Tennessee; coordinate with the 8 Tennessee regions' Healthcare Coalitions (HCC) and conduct outreach to pertinent advocacy, industry professionals and agencies to include Tennessee Healthcare Association, Signature HealthCARE, National Healthcare Corporation (NHC), Tennessee Commission on Aging and Disability and others. In addition, during the first year (Phase I) of the project, an analysis of current emergency plans will be offered to LTC and SN facilities. The analyses will utilize the State of TN healthcare licensing surveyor deficiency reports for identifying gaps, training needs, and anticipated technical assistance topic areas. *From our experience, we are fully aware that non-compulsory participation of staff/residents in most training programs requires the use of a focused strategy designed to maximize outreach. Our three-year goal is to have a minimum of 80% of all facilities statewide participate in one or more components of our training/technical assistance program. In the first year of the program we will reach out to all Tennessee (100%) long-term care and skilled nursing facilities. Based on interactions with several of the State of Tennessee's Health Care Coalitions and other stakeholders we estimate that in the first year 50% (~ 150 facilities) of the state's LTC and nursing home facilities will participate in our training and/or technical assistance program. In Year 2 we anticipate that we will engage 50% of the ~ 150 facilities that did not participate in our training program in Year 1. In Year 3 we anticipate that we will engage 50% of the facilities that did not participate in training in Years 1 & 2. Thus, by the end of Year 3 we expect that we will have provided training and/or technical assistance to 80+% of all TN LTC and nursing facilities.*

The participation rate is based on a strategy entailing a four (4) step process to communicate with the head administrator of each LTC and nursing home (NH) facility, along with the designated individual responsible for the facility's emergency preparedness (EP) program. Our outreach plan consists of the following steps: 1) Communicate via e-mail with each administrator and EP coordinator from all 300 plus facilities, explaining the details of the proposed training program. This will include addressing the data to be captured from the initial survey, and description of components of the technical assistance feature that will be made available to each facility, to include: (plan development assistance specific to their facility, emergency plan analysis, and assistance with developing and implementing facility exercises); 2) A follow up e-mail/phone call to all facilities to answer questions about the comprehensive training program being offered; 3) A third follow up e-mail/phone call prioritized to all facilities who have not responded to the initial communications outreach; and 4) Periodic broadcast communications to all facilities notifying them of available training (webinars, face-to-face instruction, and training materials and resources available via our website).

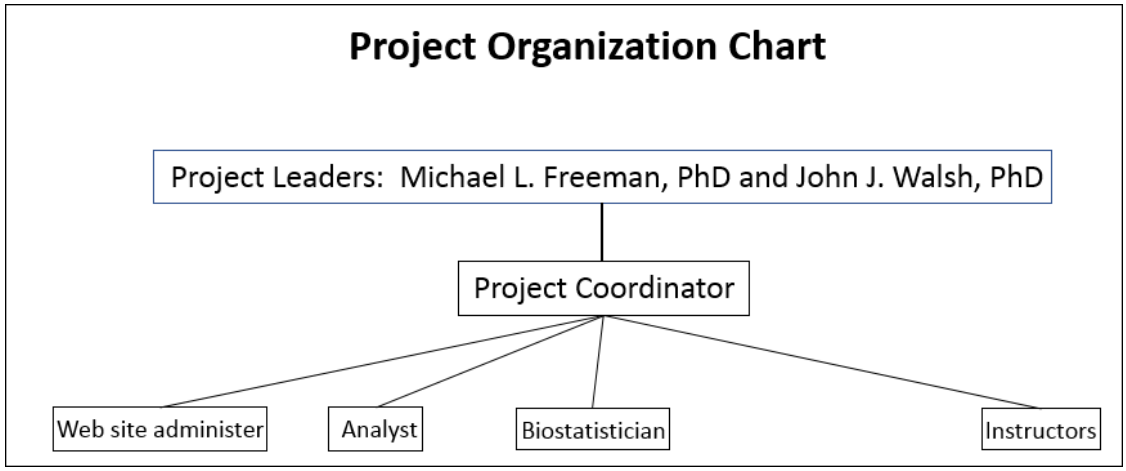
In addition, we will reach out to all eight of the state's Healthcare Coalitions, the Tennessee Health Care Association, the TN State Long-Term Care Ombudsman, the Emergency Management Association of Tennessee, and other stakeholders involved in the emergency preparedness and response network throughout Tennessee. This outreach will emphasize partnership and collaboration between LTC and NH facilities with the established response network within their local and regional areas.

1B. Accomplishments and Outcomes. The proposal is designed as a phased approach in assisting long-term care and skilled nursing facilities for successfully meeting and exceeding the CMP compliance requirements within the shortest timeframe. Also included in this Phase I training are curricula related to understanding and utilizing the Tennessee HRTS (Healthcare Resource Tracking System), which is the state's program used to record real-time availability of beds and services. Proficient use of this system is particularly beneficial during emergencies as part of the statewide public health and healthcare response. Initial Phase I training curriculum will focus on the

development and delivery of 16 one-day trainings (two training days in each of the eight HCC regions). Continuous monitoring and analysis of program components will occur in all phases. Of particular note, eLearning content will be developed in Adobe Captivate so that trainings can be reviewed or taken online as needed. Deliverables consisting of trainings, course materials, webinars and resources will be available and integrated with the Tennessee Department of Health's (TDH) eLearning environment.

As all long-term care and skilled nursing facilities are now fully included as part of Tennessee's emergency response, Phases II and III of the project will incorporate expansion of continuous emergency preparedness knowledge of processes that focus on facilities and staff proficiencies, advanced emergency response development, operational disaster management skills and continued technical assistance support. Phases II and III advanced training curricula will be developed using a 360 degree evaluation to yield data and statistics collected from previous years, consisting of pre- and post- instructional tests, target population surveys, focus groups, and HCC and webinar feedback. The advanced courses will focus on emergency preparedness knowledge building, community and regional emergency coordination, and development of proficiency skills critical to LTC and SN emergency operations. This includes internal and external communications, evacuations, records management, and emergency management of potential internal and external threats and hazards. All training courses and curricula will be offered in varied instructional strategies and delivery modes with adult learning principles to accommodate the broadest learning continuum. Interaction and coordination with regional HCC exercises and response activities will be encouraged in all training designs.

The proposal is designed to meet the challenges likely to occur in establishing a fully comprehensive emergency planning, training and exercise program specifically tailored to Tennessee facilities' preparedness needs under the CMP requirements. This proposal in not designed as a boilerplate training program but will incorporate comprehensive concepts and tools designed to be utilized for developing "facility specific" emergency preparedness plans and response programs. The proposal components use an all-hazards approach, that include risk assessments utilizing local and regional Healthcare Coalition hazard vulnerability assessments (HVA), an analysis of existing emergency plans for CMP compliance, preparation for emerging infectious diseases, and an exercise program designed for increasing preparedness proficiencies based on gap analyses, defined outcomes, and program objectives. Additionally, in order to aid in decreasing the timeline for CMP compliance of facilities and staff, a technical assistance component will be incorporated to assist in the understanding of the emergency preparedness process and provide a support mechanism for giving substantive guidance in developing LTC/SN emergency preparedness.



1C. Time Line/Deliverables Gantt Chart

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Phase 1, Year 1**	3rd Q 19	4th Q 19	1st Q 20	2nd Q 20	3rd Q 20	4th Q 20	1st Q 21	2nd Q 21	3rd Q 21	4th Q21	1st Q 22	2nd Q 22
2	Design Emergency Plan (EP) review matrix												
3	Design EP review schedule												
4	Develop initial gap analysis survey												
5	Refine survey												
6	Begin EP review process												
7	Design Year 1 Training course												
8	Design and develop Web platform for instructional learning												
9	Develop Year 1 training course and materials												
10	Distribute gap survey												
11	Develop Year 1 training schedule												
12	Finalize Year 1 training course and materials												
13	Finalize initial development of Resource Tool Box for Website application												
14	Begin initial Technical Assistance (TA) development plan												
15	Complete Website platform												
16	Conduct Year 1 training												
17	Close survey and initiate analysis												
18	Phase I initial EP review process update and analysis												
19	Begin designing Phase II, Year 2 training course and materials												
20	Continued work on Technical Assistance (TA) development plan												
21	Technical Assistance (TA) development plan completed												
22	EP review process												
23	Develop Year 2 training schedule												
24	Complete gap survey analysis												
25	Update (continuous) Resource Tool Box for Website												
26	Phase I, year-end EP review process update and analysis												
27	Initiate TA program												
28													
29	**Phase 2, Year 2**												
30	TA program operational												
31	Design and develop Year 2 advanced training course and materials												
32	Finalize Year 2 advanced training course												
33	Conduct Year 2 advanced training												
34	Phase II, mid-year EP review process update and analysis												
35	Technical Assistance (TA)												
36	Technical Assistance (TA) operation review and update												
37	Develop Year 3 training schedule												
38	Begin designing Phase III, Year 3 advanced training course and materials												
39	Update (continuous) Resource Tool Box for Website												
40	Phase II, year-end EP review process update and analysis												
41													
42	**Phase 3, Year 3**												
43	Complete development of Phase III, Year 3 advanced training course and materials												
44	Conduct Year 3 advanced training												
45	Phase III, mid-year EP review process update and analysis												
46	Technical Assistance (TA)												
47	Technical Assistance (TA) operation review and update												
48	Update (continuous) Resource Tool Box for Website												
49	Phase III, year-end EP review process update and analysis												

Part VIII. Results Measurement

a. **Description of the methods by which the results of the project will be assessed (including specific measures)**

The project will utilize a number of measures based on matrices derived from statistical data, project objectives, outcomes, benchmarks and projected targets. Both quantitative and qualitative indicators will be used as appropriate. Measurements are specific to emergency plans, trainings and participation:

Emergency Plans:

- Number of plans submitted for analysis; plan improvement scores based on matrix; percentage of reduction/increase in surveyor tag deficiencies (Target: reduce the number of emergency preparedness deficiency tags by 10% each year); number of facilities requesting technical assistance, including types of assistance requests.

Trainings:

- Number of facilities/personnel attending trainings (includes web-based instruction); percentage of increase/decrease between pre- and post-test scores; training evaluation/survey scores; number of LTC and SN residents receiving face-to-face and web-based instruction.

Participation:

- Increase in Healthcare Coalition and Qsource participation; percent of licensed facilities registered in HRTS; percent of facilities updating bed counts in HRTS at least weekly; participation in community-wide exercises, tabletop and full-scale; number of facilities qualifying as members in Healthcare Coalitions.

Benchmarks: Benchmarks will be developed using the latest version of the CMS Appendix Z- Emergency Preparedness for all Provider and Certified Supplier Types, four core elements: an Emergency Plan that is based on a Risk Assessment and incorporates an all hazards approach; Policies and Procedures; Communication Plan; and the Training and Testing Program (https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertEmergPrep/Downloads/Advanced-Copy-SOM-Appendix-Z-EP-IGs.pdf)

Data generated from this project will be synthesized into a yearly report (without identifiers) and shared on the website with interested LTC and SN facilities and their personnel. The information derived from the data will be utilized to identify continued gaps, training needs, recognized improvements, and identified best practices. As a component of all trainings, compiled data and collected information will be incorporated as an interactive approach for information sharing, to include open-ended and differentiated instruction, as well as integrated inquiry, experiential, and case studies learning.

b. Provision for submission of interim progress reports and updates from the project leader to CMS

Monitoring and auditing of the program will be conducted on a 6-month basis throughout the duration of the project. Data collected using a REDCap database will be synthesized into a progress report (Quarterly) for submission to CMS as required. Interim progress reports will consist of information derived from units of observation and data sets pre-determined through identified outcomes and measurements.

c. Articulate how knowledge learned will be shared among other long-term care employees

All developed courses, training materials and resources will be accessible and available to LTC and SN staff throughout Tennessee via Internet connectivity. Staff and facility leadership will be encouraged at all trainings to attend local and regional preparedness meetings of stakeholders, and to participate in regional Healthcare Coalition activities and local exercises. Training delivery formats are based on use of knowledge learning pedagogy designed for greater instructor-student and student-to-student interaction. Increased familiarity of emergency preparedness concepts, terminology and protocols, as a result of the three-year training curricula will enhance better development of facility-specific emergency plans and programs. This will allow individual facilities to share information and provide safer services and more prepared environments to their residents.

Part IX. Benefits to Nursing Home Residents

Skilled nursing home patients are some of the most at-risk and susceptible populations in today's healthcare industry, this is especially true during disasters or emergency events. Dosa et al (2010) showed that nursing home residents experienced a significant increase in mortality, hospitalization, and functional decline during Hurricane Katrina.[5] The issues affecting nursing homes and their residents have considerable history demonstrating that disasters are especially dangerous for this population and offer considerable challenges.[6],[7] The training curriculum and technical assistance noted in this proposal will offer substantive information for increasing preparedness capabilities and capacities for those facilities that participate in the training program. Residents also will have the opportunity to learn and participate in emergency preparedness activities designed to quickly help identify what action is needed during an emergency, how they can assist their fellow residents and how they can be directly involved in the facility's emergency planning, preparedness and response operations. Learning the knowledge and skills needed to function in a positive and proactive manner will significantly increase their personal survival abilities and behaviors and will lead to a safer and more secure residential environment.

Training will assist facilities in coordinating their response activities with other local community and regional partners. The shared knowledge will promote collaboration between LTC and SN facilities, Healthcare Coalition members, local emergency responder groups, and non-governmental support organizations fundamental to building an effective preparedness and response network. The capability for establishing a sound community support infrastructure will provide each facility with an opportunity to meet its response needs to instill an environment of safety and security for their residents.

Participation of residents and family members in the trainings and access to online portals will be part of our outreach strategy. We intend to offer assistance to LTC and SN facilities in developing training and informational materials specifically tailored to residents and their families. Portal access of all training and informational materials to residents/family members will be available on a 24/7 basis. Vanderbilt staff will be available to residents/family members through our technical assistance program to address inquiries pertaining to emergency preparedness and response.

Part X. Consumer/Stakeholder Involvement

The involvement, buy-in, input, and participation of Tennessee LTC and SN facilities' staff and residents in all components and phases of this overall preparedness program are essential. The development of curricula, planning focus, response protocols and identification of key needs and gaps contribute to better serving the residents and their families, facilities' staff, and their communities at-large. Active involvement of pertinent agencies and advocacy organizations in this program will provide a foundation for developing targeted training and technical assistance responsive to issues relevant to reducing emergency preparedness deficiencies in Tennessee nursing homes.

Our plan is to engage facility administrators and EP coordinators from the start of the program. Our communication outreach plan will be focused on providing them pertinent information and tools related to building emergency preparedness understanding as well as building EP capabilities and capacities within their facilities. We are fully aware that building a compliant comprehensive emergency preparedness capability requires time. Part of our unstated objective is to assist the facility EP coordinators to better explain the importance of the EP program in terms administrators understand and appreciate. Loss of revenue from non-compliant fines can be one incentive administrators understand.

Building a compliant EP program is a main goal of this proposed program that requires facility commitment from both personnel and resources. This also includes residents' participation in all aspects of developing and implementing the EP plan and program. Continuous inclusion and directed communications to facility administrators is a major component of this proposal. Attrition, unfortunately, can be a major challenge to LTC and SN facilities and their operations. In order to address this issue, all training materials and resources will be available on a 24/7 basis on our training website, which will be compatible with the Tennessee Department of

Health's eLearning platform. Any registered employee can gain access and review training materials and courses at their own pace. Technical assistance will also be available to answer training questions if the need occurs. Periodically, we will conduct webinars directed toward reviewing past training topics and materials.

This program will also teach and test staff proficiency skills for meeting the challenges of potential and anticipated emergencies and disasters required for establishing a facility environment that is conducive to improving resident healthcare, safety and security. Active consumer and stakeholder involvement in facility emergency preparedness through participation in planning, exercises and instructional activities enhances better community coordination and response to emergency events when the need arises. Direct involvement by facility administration and leadership in the project will enhance promotional buy-in at all staff levels, help incorporate a culture of preparedness throughout the facility, and assist in attaining a higher level of preparedness beyond basic compliance standards. Involving residents in these activities provides them with direct access to knowledge and processes that will be undertaken during a real emergency. Residents' involvement in safe exercises and drills provides practice and experience related to potential emergencies and disaster events. Safety always serves as the top priority in conducting exercises.

References

1. *Gaps continue to exist in nursing home emergency preparedness and response during disasters : 2007-2010.* (2012). Washington, D.C: Department of Health and Human Services, Office of Inspector General.
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4. Texas Department of State Health Services, *Hurricane Harvey After Action Report (AAR)*, Analysis of Core Capabilities, Austin, TX, May 30, 2018.
5. Ibid.
6. Florida Hospital Association, *Hurricane Irma After Action Report / Improvement Plan*, Orlando, FL, November 30, 2017.
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9. Tumosa, N. (n.d.). Disaster: nursing homes need to be prepared. *Journal of the American Medical Directors Association.*, *8*(3), 135–137. https://doi.org/10.1016/j.jamda.2007.01.002.

ATTACHMENT 2

GRANT BUDGET

(BUDGET PAGE 1)

ADDITIONAL IDENTIFICATION INFORMATION AS NECESSARY

APPLICABLE PERIOD: The grant budget line-item amounts below shall be applicable only to expense incurred during the period beginning 7/1/2019, and ending 6/30/2022.

POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY [1] (detail schedule(s) attached as applicable)	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1	Salaries[2]	*$504,786*	$0.00	$504,786
2	Benefits	*$116,151*	$0.00	$116,151
4, 15	Non-Vanderbilt 1099 Contractors	$132,752.00	$0.00	$132,752.00
5	Supplies	$0.00	$0.00	$0.00
6	Telephone	$6,000.00	$0.00	$6,000.00
7	Postage & Shipping	$0.00	$0.00	$0.00
8	Occupancy	$0.00	$0.00	$0.00
9	Equipment Rental & Maintenance	$0.00	$0.00	$0.00
10	Printing & Publications	$0.00	$0.00	$0.00
11, 12	Travel/ Conferences & Meetings[2]	*$99,780*	$0.00	*$99,780*
13	Interest	$0.00	$0.00	$0.00
14	Insurance	$0.00	$0.00	$0.00
16	Specific Assistance To Individuals[2]	$0.00	$0.00	$0.00
17	Depreciation [2]	$0.00	$0.00	$0.00
18	Equipment for Instructional Delivery	$11,400.00	$0.00	$11,400.00
20	Capital Purchase [2]	$0.00	$0.00	$0.00
22	Indirect Cost (% and method)	*$87,087.2*	*$0.00*	*$87,087.20*
24	In-Kind Expense	$0.00	$0.00	$0.00
25	**GRAND TOTAL**	*$957,959.20*	*$0.00*	*$957,959.20*

[1] Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A. (posted on the Internet at: https://www.tn.gov/assets/entities/finance/attachments/policy3.pdf).

[2] Applicable detail follows this page if line-item is funded.

Budget Detail

	A	B	C	D	E	F	G	H	I	J	K	L	M
4										Yr 1	Yr 2	Yr 3	
5	Personnel	Effort		Salary		Fringe		Total		AMOUNT Yr1	AMOUNT Yr 2	AMOUNT Yr 3	
6	John J Walsh, PhD, Co-PI	100		78537		17042		95579		*$95,579.00*	*$95,579.00*	*$95,579.00*	
7	Michael L Freeman, PhD Co-PI	25		44725		9705		54431		*$54,431.00*	*$54,431.00*	*$54,431.00*	
8	Program Coordinator TBN	100		45000		11970		56970		$56,970.00	*$56,970.00*	*$56,970.00*	
9	ROUNDED TOTAL									$206,980.00	*$206,980.00*	*$206,980.00*	$620,940.00
10													
11	Non-Vanderbilt 1099 Contractors									AMOUNT Yr 1	AMOUNT Yr 2	AMOUNT Yr 3	
12	1 Analyst TBN	NA		20,251				20,251		$20,251.00	$20,251.00	$0	
13	1 Web Manager TBN	NA		20,000				20,000		$20,000.00	$20,000.00	$20,000	
14	2 Training Instructors TBN $150 per course. 16 trainings in Yrs 1 and 2. Only 8 trainings in Yr 3									$4,800.00	$4,800.00	$2,400	
15	1 Biostatistician TBN			20250						$0.00	$0.00	$20,250	
16	ROUNDED TOTAL									$45,051.00	$45,051.00	$42,650	$132,752.00
17													
18	TRAVEL/ CONFERENCES & MEETINGS									AMOUNT Yr 1	AMOUNT Yr 2	AMOUNT Yr 3	
19	Travel for Instructors to teach 16 trainings in yrs 1 & 2, 8 trainings in yr 3									*$25,936.00*	*$25,936.00*	*$12,968.00*	
20	Administrative Travel									*$4,980.00*	*$4,980.00*	*$4,980.00*	
21	Venue rental for training									*$8,000.00*	*$8,000.00*	*$4,000.00*	
22	ROUNDED TOTAL									*$38,916.00*	*$38,916.00*	*$21,948.00*	$99,780.00
23													
24	Equipment for Instructional Delivery									AMOUNT Yr 1	AMOUNT Yr 2	AMOUNT Yr 3	
25	Computers, AV Project and video recorder									$5,400.00	0	0	
26	Training Web site									$0.00	$3,000	$3,000	
27	ROUNDED TOTAL									$5,400.00	$3,000	$3,000	$11,400.00
28													
29	Administrative									AMOUNT Yr 1	AMOUNT Yr 2	AMOUNT Yr 3	
30	Telephone hot line									$2,000.00	$2,000	$2,000	
31	ROUNDED TOTAL									$2,000.00	$2,000	$2,000	$6,000.00
32													
33	Direct per Yr									*298,347.00*	*295,947.00*	*276,578.00*	
34	Indirect per Yr									*29,834.70*	*29,594.70*	*27,657.80*	$87,087.20
35	Total									*328,181.70*	*325,541.70*	*304,235.80*	*$957,959.20*

Part XII. Involved Organizations (Acknowledged Support – Non Funded)

Linda Estes RN, BS, NHA
Director of Quality and Regulatory Affairs
Tennessee Health Care Association
5120 Virginia Way
Brentwood, TN 37027
Phone: 615-834-6520
Lestes@thca.org

Lauren Meeker, LMSW
State Long-Term Care Ombudsman
TN Commission on Aging and Disability
502 Deaderick Street, 9th Floor, Andrew Jackson Building
Nashville, TN 37243-0860
Phone: 615.837.5112
lauren.meeker@tn.gov

Brian Gard, President
Emergency Management Association of Tennessee
226 Anne Dallas Dudley Blvd., Ste. 700
Nashville, TN 37219
Phone: 615-532-3767
bgard1@utk.edu

GENERAL ASSURANCES

Assurance is hereby provided that:

1. This program will be administered in accordance with all applicable statutes, regulations, program plans and applications:
   a. The laws of the State of Tennessee;
   b. Title VI of the federal Civil Rights Act of 1964;
   c. The Equal Employment Opportunity Act and the regulations issued there under by the federal government;
   d. The Americans with Disabilities Act of 1990 and the regulations issued there under by the federal government;
   e. The condition that the submitted application was independently arrived at, without collusion, under penalty of perjury; and,
   f. The condition that no amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Agency in connection with any grant resulting from this application.
2. Each agency receiving funds under any grant resulting from this application shall use these funds only to supplement, and not to supplant federal, state and local funds that, in the absence of such funds would otherwise be spent for activities under this section.
3. The grantee will file financial reports and claims for reimbursement in accordance with procedures prescribed by the State of Tennessee Department of Health.
4. Grantees awarded grants resulting from this application process will evaluate its program periodically to assess its progress toward achieving its goals and objectives and use its evaluation results to refine, improve and strengthen its program and to refine its goals and objectives as appropriate.
5. If applicable, the program will take place in a safe and easily accessible facility.

CERTIFICATION/SIGNATURE

I, THE UNDERSIGNED, CERTIFY that the information contained in the application is complete and accurate to the best of my knowledge; that the necessary assurances of compliance with applicable state/federal statutes, rules and regulations will be met; and, that the indicated agency designated in this application is authorized to administer this grant.

I FURTHER CERTIFY that the assurances listed above have been satisfied and that all facts, figures and representation in this application are correct to the best of my knowledge.

Michael L Freeman Digitally signed by Michael L Freeman Date: 2019.02.01 14:17:03 -06'00' 2/1/2019

Signature of Applicant Agency Administrator — Date Signed (Month/Day/Year)

Budget Justification (10% IDR)

Key Personnel Job Descriptions

VUMC: *Michael L. Freeman, PhD (Co-PI 25% effort, 3 calendar months, yrs 1 & 2) will oversee all aspects of the project including survey development and implementation, analyze survey data, design and development of curriculum and instructional materials for students, instructor vetting, supervision of instructional deliveries, face-to-face course instruction, web design and development, facility plan analysis, overseeing administration responsibilities, generating progressing reports etc. In year 3, Dr Freeman's effort will drop to 10%, 0.12 calendar months.*

VUMC: *John J. Walsh, PhD. (Co-PI 100% effort, 12 calendar months) will oversee all aspects of the project including survey development and implementation, analyze survey data, design and development of curriculum and instructional materials for students, instructor vetting, supervision of instructional deliveries, face-to-face course instruction, web design and development, facility plan analysis, overseeing administration responsibilities, generating progressing reports etc.*

VUMC: *Program Coordinator TBD (100% effort, 12 calendar months) will be responsible for coordinating training, coordination of community and regional resources, as well as conducting administrative duties. Will also assist non-VUMC 1099 contractors in their various duties.*

Non-VUMC 1099 Contractors TBN: *Rates are based on Vanderbilt job classifications and codes.*

Analyst (1) will review submitted facility's emergency preparedness plans. Will develop review matrix for CMS reporting and fulfillment of program benchmarks and deliverables (yrs 1 & 2). Approximately 920.5 hrs. per year x $22.00 per hr. = $20,251.00 (Yrs 1 & 2)

Web Manager (1) will develop interactive web site and maintain web site (Yrs 1-3). Approximately 1000 hrs. per year x $20.00 per hr. = $20000.00 (Yrs 1-3)

Biostatistician (1) will perform statistical analysis of data collected during training (Yr 3). Analyzed data will be used by the state of TN & program evaluation. Approximately 1350 hrs. per year x $15.00 per hr. = $20,250.00

Instructors (2) will travel to various regions in state of TN to conduct training. Instructors will conduct a minimum of 16 training events per yr (yrs1 & 2). In year 3 there will be 8 face to face training events. Instructors are vetted utilizing criteria based on subject matter expertise, professional experience, and/or education. Instructors paid $150.00 per delivery x 16 classes per year = $2400.00 x (2) instructors per deliveries = $4800.00 per year (Yrs 1-2). Yr 3 @ 8 class deliveries = $1200.00 x (2) instructors per deliveries = $2400.00.

Travel: *Travel costs for instructors and administrative travel, as required, is based on GSA FY 2019 Per Diem and POV mileage rates for Tennessee. This includes daily instructor rate ($150 per day), reimbursement for travel, hotel, and food. (we have budgeted $25939 per yr for yrs 1 & 2. In year 3 travel is budgeted for $13,000). Per Diem rates will vary and are optimized due to variation in course delivery locations which are TBD. Only authorized rates will be used.*

Instructional Travel – 16 trainings for years 1 & 2: two face-to-face courses per year in all eight Healthcare Coalition (HCC) regions. Two instructors per course, requiring 3 night hotel stays.
Mileage - $.58 per mile, 16 round trips/ 2 instructors; estimated average trip – 425 mi.

- *16 round trips x 2 instructors @ 425 mi. (ea.) x $.58 = 7,888 per yrs 1 & 2*
- *8 round trips x 2 instructors @ 425 mi. (ea.) x $.58 = 3944 for yr 3*

Meals - $61 per diem rate x 16 round trips (3 days ea.) x 2 instructors = $5,856 yrs 1 & 2
$61 per diem rate x 8 round trips (3 days ea.) x 2 instructors = $ 2928 , yr 3
Lodging - $127 per diem rate x 16 trips (3 days ea.) x 2 instructors = $12,192 yrs 1 & 2
$127 per diem rate x 8 trips (3 days ea.) x 2 instructors = $6096 yr 3
Total Instructional Travel yr 1 = $25,939; yr 2 = $25,939; yr 3 = $12,969

Travel to TN Health Care Coalition Regional Meetings or other appropriate outreach meetings – 8 meetings/yr
Mileage - $.58 per mile, 8 round trips, estimated average trip – 425 mi.

- *8 trips @ 425 mi. x $.58 = $1,972 per year*

Meals - $61 per diem rate x 8 round trips (2 days ea.) = $976 per year

Lodging - $127 per diem rate x 8 round trips (2 days ea.) = $2,032 per year
Travel per yr $4,980 x 3 yrs = $14,940; Total Travel: $38,919 + $38919 + $25,949 = $103,787

Biosketches

John J. Walsh, PhD

Education: University of Oklahoma, Norman, OK, B.A. in Political Science, 1973
Oklahoma City University, Oklahoma City, OK, M.S. Crim Justice Admin, 1980
Northumbria University, Newcastle upon Tyne, UK PhD, Disaster & Development Studies, 2016

Academic Positions

2001-2002 Associate Dir, National Center for Biomedical Research and Training, LSU
2002-2014 Assistant Prof and Assistant Dir, National Center for Emergency Preparedness, Vanderbilt University School of Nursing
2014- present Co-Director, Program in Disaster Research and Training, Vanderbilt University Medical Center

Professional Certifications and Memberships (Abbreviated)

- American Nurses Credentialing Center, National Healthcare Disaster Certification, Standard Setting Panel – member, December 2016 – present.
- Assistant Secretary for Preparedness and Response (ASPR), U.S. Dept. of Health and Human Services, ASPR TRACIE Subject Matter Expert (SME) Cadre, 2017 – present.
- Certified Healthcare Emergency Professional (CHEP), International Board for Certification of Safety Managers (IBFCSM), Certification Number #1209, 2017 - present.
- Emergency Management Accreditation Program (EMAP), Assessor, 2016 - present.
- Master Exercise Practitioner (MEP) certification: U.S. Department of Homeland Security (FEMA) 2006 - present.
- National Emergency Services Coalition for Medical Preparedness, member, 2011 – present.
- Association of Continuity Professionals, 2010 – present.

Consultations (Abbreviated)

- Third UN World Conference on Disaster Risk Reduction, Northumbria University Delegation (Major Groups), Sendai, Japan, March 14-18, 2015.
- Disaster Nursing Advisor, UK Universities and Response Agencies Exploratory Group (for Indiana University and The MESH Coalition), February 14-21, 2015.
- CDC Anthrax Vaccine Prioritization Project Review Team, 2012. National Emergency Services Coalition for Medical Preparedness, member, 2011 – present

Michael L. Freeman, PhD

Education: Colorado State University, Fort Collins, CO, B.S. in Zoology, 1974
Colorado State University, Fort Collins, CO, PhD, in Radiation Biology, 1988

Academic Positions

1983-1989 Assistant Professor of Radiology, Vanderbilt University School of Medicine
1990-1999 Associate Professor of Radiology with tenure, Vanderbilt University School of Medicine
2003-2014 Professor of Radiation Oncology & Dir, Division of Radiation Biology, Vanderbilt University School of Medicine
2014 - Co-Director Program in Disaster Research and Training, Vanderbilt University Medical Center
2015 Interim Chair, Department of Radiation Oncology, Vanderbilt University Medical Center
2016 Professor of Radiation Oncology, Vanderbilt University Medical Center

Selected Scientific Review Panels since 2010

2011- 2016 Biotechnology & Biological Sciences Research Council of the United Kingdom, Dutch Cancer Society
2013-2018 NCI Board of Scientific Councilors, Clinical Sciences and Epidemiology
2016-present CDMRP/DMRDP, Chair of Ad hoc study sections

Selected Lectures for Training Personnel in Emergency Response

Emergency Management Association of Tennessee Annual Conference, Jan 29-31, 2018, Sevierville, TN Radiological Emergencies
International Association of Emergency Managers, IAEM USA Region 4 Conference, April 22-25, 2018, Nashville, TN, Radiological Emergencies