

South Carolina Public Health Preparedness Student Corps (SCPHPSC)

Evaluation Plan: April 1, 2022 – June 30, 2024

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Introduction:

The Covid-19 pandemic exposed public health workforce needs in South Carolina (SC) and globally. Needs to a) increase the availability of trained personnel skilled to function as emergency responders, b) responder behavioral health and self-care/anti-compassion fatigue resources, c) health related workforce development resources, and d) racially and socially just strategies that target and aid underserved and under-resourced populations were spotlighted. The SCPHPSC was designed and implemented to engage diverse disciplined, undergraduate students within five SC public institutions of higher learning, as an expanded and prepared workforce in response to these needs. This evaluation plan was designed to guide assessment of the project's programmatic efforts.

Evaluation Team:

The evaluation team consists of a higher education administrator and scientist in human service program evaluation and a nursing science prepared educator with expertise in population/community health and program planning, implementation, and evaluation.

Project Stakeholders - Users, Needs, Uses:

Project stakeholders (project team members, undergraduate student participants, current and future financial sponsors, and public health authorities) will use the evaluation findings for different purposes. Table 1 summarizes users of this evaluation, what they need to or would like to know from the evaluation, and how they intend to use that information to achieve their respective needs.

Table 1

Evaluation Users, Need, and Uses

Users	Need/Want to Know	Uses
Project team members	Whether project operates as planned (i.e., Work Plan objectives)	Implement change to maximize effectiveness of the project
Undergraduate student participants	Impact on knowledge about the MRC/PHRC	Determine value to student development and career
Financial sponsors	Whether project functions efficiently (i.e., productivity with minimum wasted expense)	Determine whether continued or expanded funding is warranted
SC public health officials	Impact on outcomes of the SC PHRC	Determine level of advocacy for sustainability of the project

Background and Description of the SCPHPSC:

The background of the SCPHPSC includes the need to incorporate emergency preparedness and response training for diverse disciplined undergraduate college students since this group (along with healthcare professionals) can be facilitated and effectively deployed during a crisis. Students who complete appropriate training can play an essential role in pandemic management as well as support the medical workforce in disaster scenarios. Preparing and assimilating these "specialist" trained students within the current United States Medical Reserve Corps (MRC) workforce holds the potential for creating an evidence-based and sustainable mechanism toward helping to fill public health workforce gaps. The MRC engages volunteers to strengthen public health, improve emergency response capabilities, and build community resiliency.

Project Goal: The goal of the SCPHPSC is to increase access to an interdisciplinary, sustainable pipeline of culturally competent students for emergency and public health response within local, state, and global communities.

Project Objectives:

SCPHPSC student participants will be engaged in the successful completion of the following:

1. MRC training via self-paced online modules after SCSERVE registration and background check in collaboration with the regional SC PHRC;
2. Federal Emergency Management Agency Incident Command training via self-paced online modules;
3. Contact tracing certification training including the natural history of SARS-Cov-2 via self-paced online modules;
4. Evidence-based health equity related instruction: program management, behavioral health self-care, social determinants of health, human caring, care of marginalized populations, and global/transcultural health via self-paced online modules;
5. Workforce development immersion activities that range from advanced practice nursing care shadowing experiences within rural and medically underserved regions of SC and development of group specific emergency management plans to reflection on the leadership aims of local and national organizations: SC Public Health Association, SC Health Occupations Students of America, SC Nurses Association, Pre-medical Society, Appalachian American Alliance of Nurse Practitioners, and the Clemson University Center for Research on Health Disparities; and
6. End-of-project conference participation to highlight insights gained and implications of workforce development toward community resilience and health equity.

SCPHPSC Logic Model:

A Logic Model is presented to complement this evaluation plan. Project resources, activities, outputs, and outcomes are listed to visualize how the project components are linked and interconnected to produce results (see Table 2). Resources/inputs are key investments into the project and include academic faculty and staff, information technology (IT) specialists, higher education (land grant) infrastructure, statewide institutions of higher learning collaborators, student incentive stipend, SC public health staff, grant/contracts administration, and financial grant funding. Project activities comprise actions implemented to produce desired outcomes: Interdisciplinary undergraduate student population, computer-assisted-instruction development, advisory board support, statewide project networking conference/recorded proceedings, project marketing campaign/website, and student participant reflections data about their project experience. Outputs represent the key results of project activities and include 450 annual student project participants, access to evidence-based health equity education modules and public health response and preparedness education curriculum, and a public health workforce pipeline. Outcomes of the project reflect its major achievements: A prepared public health response/preparedness community, evidence-based public health response/preparedness workforce development framework, and statewide collaboration toward public health and community resilience.

Community resilience is the long-term goal of the SCPHPSC. It reflects a community's ability to prepare for anticipated hazards, adapt to changing conditions, and withstand and recover from disruptions (National Institute of Standards and Technology, 2022). Key steps to resilience are disaster preparedness that includes prevention, protection, mitigation, response, and recovery.

Table 2
SCPHPSC Logic Model

			O U T C O M E S		
Inputs/Resources	Activities	Outputs	Short-term	Intermediate	Long-term
<ul style="list-style-type: none"> • Academic faculty, information tech. & grants management specialists • Higher education (i.e., land grant institution) infrastructure • Statewide collaborators (i.e., four institutions of higher learning) • Project target participant (i.e., undergraduate students) stipend • Project grant funding 	<ul style="list-style-type: none"> • Recruit interdisciplinary undergraduate student population pool • Develop computer-assisted instruction development • Establish project advisory board stakeholders • Convene annual networking conference/recorded proceedings • Initiate project marketing campaign & website • Collect student participant reflections data about project 	<ul style="list-style-type: none"> • 450 annual project student participants • Six evidence-based health equity education modules • One evidence-based public health response & preparedness education curriculum • SC public health response & preparedness workforce pipeline 	<ul style="list-style-type: none"> • Access to an interdisciplinary, sustainable pipeline of emergency preparedness & response trained, culturally competent, public/population health workforce that is deployable by the regional MRC 	<ul style="list-style-type: none"> • Access to a replicable workforce development model accessible to local, statewide, and global communities 	<ul style="list-style-type: none"> • Community resiliency associated with disaster preparedness and response

Evaluation Questions and Measurements:

A. To measure whether the project operates as planned (i.e., Work Plan):

1. What is the level to which all project Work Plan objectives have been met?

Method:

- The project Work Plan will be reviewed quarterly and at the end of program years #1 (6.15.22), #2 (6.15.23), and #3 (6.30.24) to assess the level that each objective (and its activities) has been implemented within designated timeframes. (process and outcome)
 - Responses to the following questions will be documented (monthly meeting minutes) for all (5) project sites during each monthly statewide project meeting: *“what is progressing as planned re: project implementation?”* and *“what requires change in implementation toward improvement?”* (process)
2. What is the level to which all project components (SCPHPSC Tracking Form) have been completed by student participants at all project sites?

Method:

- The SCPHPSC Tracking Form, for each project site, will be reviewed quarterly and at the end of program years #1 (6.15.22), #2 (6.15.23), and #3 (6.15.24) to document the level that each project component [i.e., FEMA100c, FEMA100b, contract tracing, health equity education modules (6), PHRC modules, immersion (site-specific)] has been completed by students. (process and outcome)

- The SCDHEC Reporting Form will be reviewed quarterly and at the end of program years #1 (6.15.22), #2 (6.15.23), and #3 (6.30.24) to assess the level of adherence to project sponsor’s reporting guidelines.

B. To measure the impact on students’ knowledge of the MRC/PHRC:

1. At what point in time did you become aware of the MRC/PHRC?

Method:

- A response to the following question will be posed to all student participants during program years #1, #2, and #3: *Were you aware of the MRC/PHRC prior to being introduced to the SCPHPSC?* (outcome)
- A response to the following question to all student participants will be documented at the beginning of program years #1, #2, and #3: *What effect (1-2 words) do you think this experience (as a SCPHPSC participant) will have on you?* (process)
- A response (Likert scale) to the following statement by all SCPHPSC Annual Conference (post evaluation) student attendees will be documented prior to engagement in project activities: *“I am better able to share information about the MRC with others as a result of this conference?”* (process)
- A response (Likert scale-5 point: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.) to two questions will be administered to all student participants (at all sites) at the conclusion of their participation in all project activities: 1) *My knowledge of marginalized populations, as related to the MRC, has improved due to participation in the project* (outcome). 2) *My awareness of public health response and preparedness has increased due to participation in the project* (outcome).

C. To measure whether the project functions efficiently (i.e., productivity with minimum wasted expense):

1. What is the level of adherence to required reporting and fiscal management guidelines as documented by the project’s lead organization?

Method:

- The project budget, in relation to complementing invoices (all project sites), will be reviewed quarterly by the lead organization project director and reconciled, as indicated, within 30 days of discovery.
- The SCDHEC Reporting Form will be completed and submitted, per established quarterly periods, during project year #1 (June 25, 2022); #2 (Sept. 25, 2022; Dec. 26, 2022; Mar. 26, 2023; June 25, 2023); and #3 (Sept. 25, 2023; Dec. 26, 2023; Mar. 26, 2024; June 25, 2024 (process and outcome)

D. To measure whether there is an impact on SCPHPSC outcomes:

1. Is there a change (from baseline) in SC PHRC enrollment at the end of project year #3 (June 30, 2024)?

Method:

1. The total number of student participants enrolled within the SCPHRC compared to that of general enrollment within SC, at the end of project year #3 (June 30, 2024), will be documented.

Data Collection:

In sum, diverse data collection methods are used in this evaluation: Record review, survey, and interview (See Table 3). Record review (SCPHPSC Work Plan) by the lead organization (i.e., Clemson University) will be used to assess the level to which project objectives are met based on project outcome completions (SCPHPSC Tracking Form) by all sites, adherence to SC DHEC/CDC reporting requirements (SCDHEC Reporting Form) by all sites, and student participants’ perceptions (one “word cloud”) about project expectations prior to engagement in project activities.

Survey (Likert Scale question) will be used to assess student participants’ awareness of emergency preparedness and response and the MRC/PHRC prior to engagement in project activities. In addition, two survey questions (Likert Scale) will be used to assess student participants’ perceptions about the project after they have completed all project activities.

Record review (meeting minutes) data from all sites' teams members, will be collected and used to foster ongoing improvement of the project (plan-do-study-act) as each monthly statewide project meeting will include specific questions re: progress and digress from planned implementation. A focus group (group interview) will also be used to generate end-of-2-year program period data about "lessons learned" as perceived by 6-10 members of the SCPHPSC Advisory Board to include 3-5 SC public health officials.

Table 3

Data Collection Methods

Indicators	Data Collection Method	Data Source
Project objectives (all 5 sites)	Record Review	SCPHPSC Work Plan
Project student participant activities (FEMA100c, FEMA100b, contract tracing, health equity education modules (6), PHRC modules, site-specific immersion activities)	Record Review	SCPHPSC Tracking Form
Sponsor reporting requirements (8)	Record Review	SCDHEC Reporting Form
Project student participants' pre-perceptions about SCPHPSC	Record Review (i.e., "word cloud")	SCPHPSC Annual Conference Student Participant Attendees
Project student participants' perceptions about emergency preparedness and MRC/PHRC pre-engagement in project activities	Survey (one question-Likert Scale)	SCPHPSC Annual Conference Student Participant Attendees' Conference Evaluation
Project student participants' perceptions about SCPHPSC post completion of project activities	Survey (two questions: 5-point Likert Scale)	Two Questions: 1) <i>My knowledge of marginalized populations, as related to the MRC, has improved due to participation in the project (outcome).</i> 2) <i>My awareness of public health response and preparedness has increased due to participation in the project (outcome).</i>
Plan-Do-Study-Act input of project progress and digress by all sites	Record Review	Monthly Statewide Meeting Agenda Item: "what is progressing as planned re: project implementation?" and "what requires change in implementation toward improvement?"
Lessons-learned about the SCPHPSC	Interview (group)	Focus Group (SCPHPSC Advisory Board and SC Public Health Officials)

Analysis and Interpretation of Conclusions:

The project evaluators will produce a cumulative report of all measures by September 1, 2024. The report will be interpreted in relation to the project goal and the following student participant outcomes benchmarks: Ninety-five percent (95%) of student participants, at each site, will complete all SCPHPSC and site-specific immersion activities. Findings will be used to inform performance improvement of subsequent phases of the SCPHPSC.

Dissemination of the Report:

Evaluation findings will be disseminated via various channels including oral and print modalities. Presentations will be presented at diverse student-centered organizations and behavioral and health sciences forums within all SC project sites as well as globally. An evaluation executive summary will be drafted and offered as a presentation to SC public health officials. Also, an article will also be developed for publishing within print and online sources including the project's website.