

**Council on Education for Public Health
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REVIEW FOR ACCREDITATION
OF THE
PUBLIC HEALTH PROGRAM
AT
VANDERBILT UNIVERSITY

COUNCIL ON EDUCATION FOR PUBLIC HEALTH

SITE VISIT DATES:

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Introduction

This report presents the findings of the Council on Education for Public Health (CEPH) regarding the Public Health Program at Vanderbilt University. The report assesses the program's compliance with the *Accreditation Criteria for Public Health Programs, amended June 2011*. This accreditation review included the conduct of a self-study process by program constituents, the preparation of a document describing the program and its features in relation to the criteria for accreditation and a visit in February 2015 by a team of external peer reviewers. During the visit, the team had an opportunity to interview program and university officials, administrators, teaching faculty, students, alumni and community representatives and to verify information in the self-study document by reviewing materials provided in a resource file. The team was afforded full cooperation in its efforts to assess the program and verify the self-study document.

Located in Nashville, Tennessee, Vanderbilt is a private, research-intensive university and medical center. Vanderbilt enrolls nearly 7,000 undergraduate and nearly 6,000 graduate and professional students. The gender distribution of the student population is 47% men and 53% women. The university has more than 3,500 full-time faculty and more than 400 part-time faculty. The institution likewise employs nearly 20,000 full-time staff and more than 700 part-time staff. Of the university's 10 colleges and schools, the School of Medicine appoints the largest percentage of faculty, with nearly 2,500 faculty appointments.

Housed in the School of Medicine, the MPH program is an interdisciplinary program founded in 1996. The program's academic home is the newly named Department of Health Policy, formerly the Department of Preventive Medicine.

Established to train future research scientists and public health professionals, the MPH program functions as a collaboration of disciplines drawing on faculty expertise from various disciplines and departments as well as from the external practice community. The program was initially founded as the public health training base for clinical epidemiologists, but has since expanded its admissions criteria and is now inclusive of individuals without clinical or doctoral training.

This is the program's second CEPH accreditation review. The program's first review in 2010 resulted in a five-year accreditation term, the maximum term available for a first-time review. The program was required to complete an interim report about its coverage of the core knowledge areas, and the Council accepted this report as evidence of compliance in 2012.

Characteristics of a Public Health Program

To be considered eligible for accreditation review by CEPH, a public health program shall demonstrate the following characteristics:

- a. The program shall be a part of an institution of higher education that is accredited by a regional accrediting body recognized by the US Department of Education or its equivalent in other countries.
- b. The program and its faculty and students shall have the same rights, privileges and status as other professional preparation programs that are components of its parent institution.
- c. The program shall function as a collaboration of disciplines, addressing the health of populations and the community through instruction, research and service. Using an ecological perspective, the public health program should provide a special learning environment that supports interdisciplinary communication, promotes a broad intellectual framework for problem solving and fosters the development of professional public health values.
- d. The public health program shall maintain an organizational culture that embraces the vision, goals and values common to public health. The program shall maintain this organizational culture through leadership, institutional rewards and dedication of resources in order to infuse public health values and goals into all aspects of the program's activities.
- e. The program shall have faculty and other human, physical, financial and learning resources to provide both breadth and depth of educational opportunity in the areas of knowledge basic to public health. At a minimum, the program shall offer the Master of Public Health (MPH) degree, or an equivalent professional degree.
- f. The program shall plan, develop and evaluate its instructional, research and service activities in ways that assure sensitivity to the perceptions and needs of its students and that combines educational excellence with applicability to the world of public health practice.

These characteristics are evident in the public health program at Vanderbilt University. Vanderbilt has been accredited by the Southern Association of Colleges and Schools since 1895. The program and its faculty and students have the same rights, privileges and status as other professional preparation programs at the institution. The public health program comprises multiple disciplines and uses a matrixed management model with multiple reporting lines. Faculty of the MPH program have ongoing research projects in Sub-Saharan Africa, which create rich learning opportunities for global health students. The program has the faculty, physical, financial and learning resources to provide breadth and depth in public health educational content.

1.0 THE PUBLIC HEALTH PROGRAM.

1.1 Mission.

The program shall have a clearly formulated and publicly stated mission with supporting goals, objectives and values.

This criterion is met. The program has a clearly formulated and publicly stated mission with supporting goals, objectives and values. The MPH Advisory Committee (which includes students, community public health professionals, faculty and the associate dean for clinical and translational scientist development) formalized the program's mission, goals and objectives in July 2007. The program made revisions to the mission, goals and objectives in 2009 and added values as it prepared for its initial accreditation review. Subsequent revisions to the mission, goals, objectives and values were made in 2013 when a new global health concentration was added to the program and again in June 2014 as part of this accreditation review. The program sought public comment from students, faculty, alumni and the general public through meetings, announcements, email correspondence and the MPH program website. The program's mission is as follows:

To train future research scientists and public health professionals to be leaders and innovators dedicated to improving public health in a program environment rich in learning, discovery, and service.

To fulfill its mission, the program has established goals related to education, research and service. These goals are each supported by three to four measurable objectives.

The mission, goals and objectives are available to all stakeholders and the general public on the MPH program website. These guiding documents have also been disseminated to students, faculty and alumni through email updates and are included in student orientation materials. Faculty and students who were interviewed during the site visit indicated that they were aware of the mission, goals, objectives and values of the program.

The values that guide the program arise from a commitment to public health as stated in the 2002 Institute of Medicine report as "what we, as a society, do collectively to assure the conditions for people to be healthy." As members of the institutional environment at Vanderbilt and as a degree-granting program of the School of Medicine, the values that guide the MPH program represent integration of the public health values with the overarching values of the institution and the school. These values address intellectual freedom, equality, honesty and integrity, collaboration and lifelong learning.

The program's mission, goals and objectives prescribe and limit the activities of the program in ways that permit both the rational allocation of resources and evaluation of outcomes. The mission, goals and objectives reflect the program's defined values.

1.2 Evaluation and Planning.

The program shall have an explicit process for monitoring and evaluating its overall efforts against its mission, goals and objectives; for assessing the program's effectiveness in serving its various constituencies; and for using evaluation results in ongoing planning and decision making to achieve its mission. As part of the evaluation process, the program must conduct an analytical self-study that analyzes performance against the accreditation criteria.

This criterion is met with commentary. Quantifiable indicators linked to program objectives facilitate monitoring the program's progress toward achieving its goals. How students, faculty, alumni and employers provide data that allow for an ongoing assessment of objective achievement is well described in the self-study, as is a strategic planning process that uses this input to direct future initiatives and changes in the program.

Data are collected throughout the year through surveys, evaluations, interviews, reports, informal feedback and official meetings. Reports on program performance are provided annually to the MPH Advisory Committee.

If stakeholders make recommendations for changes, those recommendations are reviewed and discussed during MPH Operations Committee meetings, and an action plan is developed. Major program changes are reviewed by the department chair, the director of the Institute for Medicine and Public Health and the MPH Advisory Committee.

The program's evaluation processes are driven by the data collected for quantifiable indicators associated with program objectives. Each quantifiable indicator has been linked to specific data collection methods. The program manager is responsible for compiling data, generating reports and recording meetings. Initial development of processes and procedures occurs through regular Operations Committee meetings. In addition, the MPH program manager and a number of committees are responsible for specific tasks and report back to the MPH Operations Committee.

The commentary relates to the need to clearly articulate the processes for systematic review of outcome measures data and implementation of programmatic changes based on the data in the self-study document. The self-study provides examples of program improvements that have been made as a result of constituent feedback, but the cause of these programmatic changes do not seem to be based on the analysis of outcome measures data. It should be noted, however, that in AY 2013-2014 the program met the targets for 31 out of 40 objectives.

Students are engaged in various evaluation efforts for the program. Process evaluations, such as advising meetings, course evaluations and annual focus groups, incorporate both first- and second-year students. Outcome evaluations such as practicum and thesis evaluations, exit surveys and interviews are

linked to second-year and/or graduating students. During the site visit, program leaders and students said that feedback received from these evaluations commonly leads to program improvements.

Faculty provide input during MPH Curriculum Committee and full faculty meetings pertaining to overall program operations as well as to specific program issues.

A strategic planning process is planned every three to five years to enhance the program's ability to achieve its mission and goals. The planning process includes consideration of the program's past performance relative to its mission, goals and objectives and strategic directions that should be pursued to enhance the program. Results of the strategic planning process have included the creation of the global health track in 2012 and the health policy track scheduled to begin in fall 2015.

The most recent strategic plan in 2013 led to the identification of five key strategies:

1. Explore opportunities for strategic expansion
2. Make stronger connections
3. Expand the use of innovative teaching techniques
4. Pursue philanthropy to support continued program excellence
5. Share the program's successes to increase its local, regional and national reputation

In spring 2014, the program began the implementation phase of the strategic plan to guide its efforts over the next three to five years. This phase includes the development of the track in health policy, efforts to strengthen connections with the Metro Health Department through a formal memorandum of understanding and piloting an online modular course in public health informatics in fall 2015.

1.3 Institutional Environment.

The program shall be an integral part of an accredited institution of higher education.

This criterion is met. Vanderbilt is accredited by the Southern Association of Colleges and Schools. The most recent reaffirmation of accreditation occurred in 2007, and the next review will take place in 2017. The university also responds to 24 specialized accreditors in such areas as audiology, business, medical education, engineering, nursing, teacher education, law and ministry.

The university is led by a chancellor who reports to Vanderbilt's Board of Trustees. Five supporting vice chancellors oversee development and alumni relations, finance, public affairs, academic affairs and health affairs. The vice chancellor for health affairs has oversight of the School of Nursing and the School of Medicine. The vice chancellor for health affairs concurrently serves as the School of Medicine dean.

The dean is supported by associate and senior associate deans that oversee the following areas: health sciences education; health affairs and administration; research; graduate education, post-doctoral affairs

and biomedical sciences; faculty affairs; diversity; and clinical and translational scientist development. The School of Medicine has 31 departments, 36 centers and seven institutes. In addition to housing the MPH program, the Department of Health Policy houses the Institute for Medicine and Public Health.

The MPH program is seen as an integral component of the School of Medicine and the institution at large. The program adds unique value to the institution's medical education program as it was historically developed to train Vanderbilt clinicians. The MPH program director reports directly to the chair of the Department of Health Policy.

The program also has three primary lines of accountability to School of Medicine administrators. The program reports to the senior associate dean of health sciences education on student affairs-related matters and reports to the associate dean for clinical and translational scientist development for programmatic issues. In regard to finances and budgeting, the MPH program works with the Department of Health Policy's finance team and ultimately reports to the department chair and the associate vice chancellor for public health and health care. The MPH program's budget is developed by the program director with input from the Operations Committee. The proposed budget is submitted annually to the School of Medicine dean and associate vice chancellor for public health and health care/senior associate dean for population health sciences.

The MPH track directors are responsible for assessing faculty needs within the program and for working with the department chair and program director to recruit teaching faculty to the MPH program.

1.4 Organization and Administration.

The program shall provide an organizational setting conducive to public health learning, research and service. The organizational setting shall facilitate interdisciplinary communication, cooperation and collaboration that contribute to achieving the program's public health mission. The organizational structure shall effectively support the work of the program's constituents.

This criterion is met. The program has an organizational setting that is conducive to public health learning, research and service. The current program director has been in place since January 2014 and works closely with the track directors to administer the program.

The program director drafts the MPH budget annually and monitors expenditures on a monthly basis. The program director reports to the senior associate dean for health sciences education for program issues related to students including admissions, enrollment, course registration and student resources and services. The School of Medicine's policies and procedures for students serve as the basis for program policies, although the program also has the freedom to develop policies more specific to MPH students.

The program director also reports to the associate dean for clinical and translational science development. In her administrative role in the Institute for Medicine and Public Health, the associate dean convenes the directors of graduate programs in the institute every other month, which includes the epidemiology PhD, biostatistics MS and PhD, bioinformatics MS and PhD and MPH programs. These programs share web interfaces and develop joint policies and activities. All report data to the associate dean and share Institute for Medicine and Public Health resources.

In 2013-2014, reorganization of the Institute for Medicine and Public Health was designed to consolidate administrative functions as a means to reduce overhead costs. Additional reorganization of the university was being discussed at the time of the site visit. The university reorganization will remove the Vanderbilt University Medical Center from the academic side of the university. Program- and school-level administrators said that the proposed changes will better align the human resources, legal and financial structures. The reorganization is expected to occur in fall 2015. On-site meetings with the senior associate dean for health sciences education indicated that the program will not experience adverse effects from this reorganization.

1.5 Governance.

The program administration and faculty shall have clearly defined rights and responsibilities concerning program governance and academic policies. Students shall, where appropriate, have participatory roles in the conduct of program evaluation procedures, policy setting and decision making.

This criterion is met. The MPH program operates within an organizational culture that is highly collaborative in governance and decision making. The MPH program's internal governance structure comprises committees and individuals responsible for carrying out functions related to student admissions, data collection and monitoring, curricular oversight and strategic planning, among others. Students, public health practitioners and faculty across departments have participatory roles in program governance, adding richness of thought and interdisciplinary perspectives to the program's administration and curricula.

The MPH program has five standing committees: Advisory Committee, Curriculum Committee, Admissions and Promotions Committee, Diversity Committee and Operations Committee. The Advisory Committee provides long-term strategic planning for the program and builds networks with external constituents. Final authority for general program policy development and planning and curricular changes resides with the Advisory Committee, though faculty have input. Membership includes the MPH program director, department chair, School of Medicine faculty and administrators, public health practitioners and alumni.

The Curriculum Committee meets twice per year and ensures that instructional content is consistent with the program's mission and is suitable for professional competence. This committee determines academic

standards and polices. Membership includes program administrators, faculty, two students, three alumni and one public health practitioner.

The Admissions and Promotions Committee is responsible for student recruitment into the program. The committee is specifically charged with ensuring the applicant pool consists of well-qualified and diverse candidates. The committee includes program administrators and faculty.

The Diversity Committee advises faculty on strategies to incorporate elements of diversity into the curriculum. The committee meets biannually and includes program administrators, faculty and four students.

The Operations Committee oversees all programmatic operations (eg, orientation, admissions standards, curriculum, etc). Resource and budget management involves the Operations Committee, as it reviews the program's annual budget. The committee meets monthly and consists of program administrators and faculty. The Curriculum Committee and the Admissions and Promotions Committee report to the Operations Committee.

The annual MPH program faculty meetings provide other opportunities for faculty input on program governance. Responsibility over student admissions processes rests with the program.

The School of Medicine is responsible for faculty recruitment, promotion and tenure; however, the Operations Committee monitors faculty promotion in an effort to inform faculty involvement in curricula and program activities. Faculty service and research expectations are determined by the faculty members' department chair, but MPH program administrators provide input on faculty expectations.

Program faculty are actively involved in university governance through participation in committees such as the Committee on Educational Programs, the Innovations Committee, the Vanderbilt International Office Research Grant Evaluation Committee, the Tenure Review Committee, the University Committee on Religious Life and the Critical Resources Deliberation Committee.

1.6 Fiscal Resources.

The program shall have financial resources adequate to fulfill its stated mission and goals, and its instructional, research and service objectives.

This criterion is met. The program has sufficient financial support to sustain all core functions and operations. Revenues have increased substantially from 2010 (less than \$690,000 per year to more than \$1.15 million in 2014), as shown in Table 1. Revenues have exceeded expenses in all years since 2010. Modest further growth is expected with the launching of the new health policy concentration in fall 2015.

All tuition, minus a 10.42% School of Medicine overhead fee, is distributed to the MPH program. The MPH program has an operating reserve approximately equal to one year's program costs. In addition, it maintains reserves to fund at least three years of program-sponsored scholarships.

Table 1. Sources of Funds and Expenditures by Major Category, 2010 to 2014					
	2010	2011	2012	2013	2014
Source of Funds					
Tuition & Fees (Gross)	\$689,624	\$583,779	\$729,782	\$1,045,982	\$1,151,347
Grants/Contracts	N/A	N/A	N/A	\$4,200	N/A
Total	\$689,624	\$583,779	\$729,782	\$1,050,182	\$1,151,347
Expenditures					
Faculty Salaries & Benefits	\$199,659	\$241,506	\$306,798	\$432,939	\$444,796
Staff Salaries & Benefits	\$68,490	\$90,339	\$123,162	\$180,180	\$180,657
Operations	\$48,846	\$57,736	\$69,449	\$45,622	\$40,064
Travel	\$10,252	\$5,335	\$6,238	\$13,477	\$1,956
Student Support	\$66,327	\$45,406	\$53,336	\$132,149	\$272,920
University Tax	\$71,859	\$60,830	\$76,043	\$108,991	\$119,970
Total	\$465,433	\$501,153	\$635,027	\$913,357	\$1,060,365
Net	\$224,192	\$82,626	\$94,754	\$132,625	\$90,983

The budget is created by the program director in consultation with the Department of Health Policy's finance team. The budget is then approved by the department chair, the associate vice chancellor for public health and health care, the vice chancellor for health affairs and the dean of the School of Medicine.

The program has identified three measures by which it assesses the adequacy of its fiscal resources. These measures track the availability of full-tuition scholarships based on merit, availability of full-tuition scholarships to increase diversity within the student body and whether tuition generates sufficient funds to cover all teaching expenses. The program has met or exceeded its targets for all measures in each of the last three years.

1.7 Faculty and Other Resources.

The program shall have personnel and other resources adequate to fulfill its stated mission and goals, and its instructional, research and service objectives.

This criterion is met. The MPH program has sufficient faculty, staff and other resources to support its degree offerings. The program has a total of 26 primary faculty members, contributing 20.28 FTE. The global health concentration has seven primary faculty who contribute a total of 5.25 FTE. The epidemiology concentration has 19 primary faculty members who contribute a total of 14.78 FTE.

In 2012-2013, the program had a total student enrollment of 38. In 2013-2014, 49 total students were enrolled in the program. In 2014-2015, there were a total of 45 students enrolled (25 in epidemiology and 20 in global health).

The program is also supported by 94 secondary faculty, six affiliate faculty and three adjunct faculty members. The program defines secondary as university-employed faculty who contribute to instructional delivery, but who contribute less than 0.50 FTE to the program. Affiliate faculty are defined as those who contribute to student advising, but do not partake in instructional delivery. Adjunct faculty are public health professionals who contribute to instructional delivery but do not hold faculty appointments at the university.

In addition to faculty, the program is supported by two non-faculty, non-student personnel, which include a program manager (1 FTE) and a practicum director (.60 FTE). Site visitors concluded that the staff resources are adequate and sufficient for program needs.

The MPH program's administrative offices are dispersed between the School of Medicine building and a commercial building adjacent to campus. The program director's office is located within the Department of Health Policy in the commercial building. The global health and epidemiology tracks' administrative offices are located in the Vanderbilt Institute for Global Health and the Institute for Medicine and Public Health, respectively.

The public health program holds classes in the School of Medicine building. The classroom has the capability to sub-divide into three separate and distinct classroom spaces, if needed. The Eskind Biomedical Library offers computer classroom space as well as small gathering spaces for students. In addition, each faculty and staff member has a personal computer in his or her office space and several have additional hardware and software systems for use at home, on travel and for field research.

The library has access to more than 3,725 full-text electronic journals related to health and medicine, and librarians are available to provide targeted support to students, residents, faculty and researchers.

The program has identified three measures by which it assesses the adequacy of its personnel and other resources. The program has set targets that primary faculty members will dedicate at least 15.0 FTE to the program, student-faculty ratios (SFRs) will be less than 2:1 and at least 20 MPH students will be involved in faculty research projects each year. The program exceeded its faculty FTE target in each of the last three years. The program reported SFRs of 2.6:1, 2.1:1 and 2.7:1 in each of the last three years.

Finally, 17, 24 and 22 students participated in faculty research in each of the last three years. Site visitors determined that the program's targets are ambitious yet reasonable.

1.8 Diversity.

The program shall demonstrate a commitment to diversity and shall evidence an ongoing practice of cultural competence in learning, research and service practices.

This criterion is met with commentary. The program values and strives to create an inclusive and diverse learning community that enhances the experience for all learners and results in better outcomes for public health. The program sets targets for admission and retention of students so as to reflect the gender and racial/ethnic profile of Tennessee residents. The MPH Operations Committee, Diversity Committee and the senior associate dean for diversity in graduate medical education have developed programs and procedures to improve diversity within the program. These efforts include two annual scholarships to qualified underrepresented minority applicants, web links to the university's Office of Diversity Affairs and targeted communications with underrepresented faculty and medical students. Faculty members are encouraged to incorporate cultural competence into their course content. The program has hosted a series of David Satcher Public Health Scholars lectures since 2009. The David Satcher Public Health Scholars Program provides tuition support to students from underrepresented backgrounds and provides them with the opportunity to conduct research at the Satcher Health Leadership Institute. The program honors the public health contributions of David Satcher, MD, PhD, and his commitment to eliminate health disparities for racial and ethnic minorities and individuals from economically disadvantaged backgrounds. A standing Diversity Committee was also established in 2009 to make recommendations on strategies to recruit and retain an inclusive and diverse population of students, faculty and staff.

The MPH program supports and subscribes to the university's policies and procedures related to nondiscrimination, student conduct and academic integrity. Discussions to increase diversity occur in Advisory Committee meetings, Operations Committee meetings and Diversity Committee meetings, all attempting to increase the range of diversity within the program. With the development of the global health track, there is an increased opportunity to explore health disparities and cultural competency.

The School of Medicine established an Office for Diversity Affairs, headed by a senior associate dean, who has initiated several efforts at the university level that support diversity efforts at the program level. As the health policy track grows and comes online in fall 2015, the Department of Health Policy has committed additional resources to the David Satcher Scholarship for underrepresented students, which will allow the program to provide three scholarships. School of Medicine administrators explained that they monitor the school's diversity and admissions trends to identify potential areas needing improvement.

Program targets have been established and exceeded in the areas of gender diversity, particularly staff and student female diversity. The program has identified seven measures by which it evaluates its success in achieving a diverse complement of faculty, staff and students. The program aims to have 15% of primary faculty members and 25% of staff from underrepresented minority groups; it had 12% and 25%, respectively, in 2014-2015. Among incoming students from underrepresented minority groups, the program enrolled 23%, 38%, 27% and 9% in the last four years; its goal is to enroll at least 20% each year. The program seeks to have a primary faculty complement made up of at least 40% women; it currently has 31%. Among incoming students, the program aims to have 10% from international locations; it enrolled 17%, 14% and 6% in the last three years.

The commentary relates to the fact that the program lags in meeting its targets for faculty and students from underrepresented minority groups. While the program does seem to be making a concerted effort to recruit underrepresented students, such as through the David Satcher Scholarship, this effort alone has not been successful in allowing the program to achieve its goals for underrepresented minority diversity. In its response to the site visitor's report, the program described new outreach strategies to increase faculty and student diversity from underrepresented minority groups, including recruitment programs with regional HBCUs and its own medical school. In addition, the program reports an increase in its faculty diversity with a recent hiring of two female faculty members and one underrepresented minority faculty member. MPH program leaders also acknowledge that they want to expand the concept of diversity and have plans to integrate instruction on inclusion and diversity into the curriculum in the future. The David Satcher scholarship and lecture series, utilization of the SOPHAS application system and the launch of the global health track are anticipated to lead to increased diversity in the program.

2.0 INSTRUCTIONAL PROGRAMS.

2.1 Degree Offerings.

The program shall offer instructional programs reflecting its stated mission and goals, leading to the Master of Public Health (MPH) or equivalent professional master's degree. The program may offer a generalist MPH degree and/or an MPH with areas of specialization. The program, depending on how it defines the unit of accreditation, may offer other degrees, if consistent with its mission and resources.

This criterion is met. The program offers the MPH degree in epidemiology and global health as well as three joint degrees, as shown in Table 2. The program is in the process of developing a third track in health policy, which will enroll students in fall 2015. Given the track's ongoing development, the site visit team was not able to review all necessary materials during the site visit; therefore, the Council will review this new track for compliance upon submission of a detailed substantive change notice that reflects competencies and finalized required coursework.

Table 2. Instructional Matrix		
	Academic	Professional
Master's Degrees		
Epidemiology		MPH
Global Health		MPH
Joint Degrees		
Medicine		MD/MPH
Education, International Education Policy and Management		MEd/MPH
Latin American Studies		MA/MPH

The epidemiology track focuses on population-based quantitative evaluation and primarily seeks students with strong clinical backgrounds. Applicants to this track are often physicians who have completed their residency training and other health care professionals trained at the doctoral level.

The global health track focuses on managing global health initiatives and impacting public policy decisions in global markets. The global health track is open to students of all educational and professional backgrounds, with exceptional academic performance at the bachelor's level being the prerequisite. In addition to the core coursework, global health students take courses in foundations of global health, essential skills in public health, leadership, policy and management in global health and global health ethics.

The programs of study consist of 16 credit hours dedicated to core coursework, nine to 13 credit hours of track-specific coursework, 14 credit hours toward the thesis and practicum and three to six credit hours of electives.

2.2 Program Length.

An MPH degree program or equivalent professional public health master's degree must be at least 42 semester-credit units in length.

This criterion is met. The MPH in global health requires 42 credit hours for degree completion, and the epidemiology track requires 49 credit hours. The epidemiology track functions on a month-long block course format, while the global health track primarily operates on a 14-week semester schedule.

One credit hour is equivalent to about 36 hours of academic effort and 12 to 15 contact hours. Most of the courses required in the MPH program are three to four credit hours in length. The intensive one-month blocks include two- to three-hour class sessions on multiple days of each week for four weeks, with considerable outside preparation required.

No student has graduated with fewer than 42 credits in the last three years.

2.3 Public Health Core Knowledge.

All graduate professional public health degree students must complete sufficient coursework to attain depth and breadth in the five core areas of public health knowledge.

This criterion is met with commentary. The core curriculum is taught through courses that cover the five core areas of public health knowledge, as shown in Table 3. In addition, students engage in a practicum and thesis that provide opportunities for applied learning of public health core concepts.

Core Knowledge Area	Course Number & Title	Credits
Biostatistics	Biostatistics I, PUBH 5502	4
Epidemiology	Epidemiology I, PUBH 5501	4
Environmental Health Sciences	Environmental Health, PUBH 5516	3
Social & Behavioral Sciences	Social and Behavioral Science for Public Health, PUBH 5514	3
Health Services Administration (for epidemiology track)	Health Services Administration: Public Health Delivery, PUBH 5539	1
	Health Services Administration: Healthcare Systems, PUBH 5537	2
	Health Services Administration: Program & Policy Evaluation, PUBH 5538	1
Health Services Administration (for global health track)	Health Services Administration: Public Health Delivery, PUBH 5539	1
	Health Services Administration: Leadership and Management in Global Health, PUBH 5540	3

During the last accreditation review in 2010, the site visit team identified deficits in the areas of environmental health, health services administration and social and behavioral health. Since that review, the environmental health course has been expanded from two to three credits with increased course content, greater depth of instruction and more rigorous expectations for students. The program has also expanded the social and behavioral health course to include an equal focus on theory and methods—particularly qualitative methods—in public health. The courses in health services administration now focus more intentionally on the planning, organization, administration, management, evaluation and policy analysis of health and public health programs broadly as opposed to a singular focus on patient and hospital care.

The commentary relates to the lack of coverage of management and leadership topics for students pursuing the epidemiology track. Students and alumni who met with site visitors mentioned this gap and the desire for more content in these areas.

Waivers for core public health courses are not permitted, though students may transfer up to 15 credit hours of equivalent coursework taken outside of the MPH program. These may be the program's courses

completed by non-degree students who then transfer into the program or courses completed at another institution. Students must provide evidence that the content is appropriate and has equivalent requirements. The program director and relevant track director review syllabi to make a determination.

2.4 Practical Skills.

All graduate professional public health degree students must develop skills in basic public health concepts and demonstrate the application of these concepts through a practice experience that is relevant to students' areas of specialization.

This criterion is met. The MPH practicum experience provides students with the opportunity to develop and apply the knowledge and skills acquired through coursework in a public health agency or other environment in which a public health function is performed.

The practicum provides the opportunity to develop and extend competencies that are initially introduced in didactic coursework. Since the addition of the global health track, the program has increased communication with site supervisors, formalized procedures and transitioned to electronic forms for tracking.

Students meet with the practicum director to develop an appropriate practicum experience. Epidemiology students spend at least 240 hours at the practicum site and/or performing work directly related to the practicum. Global health students spend about 400 hours in an international or relevant domestic setting. The practicum contact hours are structured; for example, students spend one six-week (epidemiology) or 10-week (global health) block or 20 hours per week for 12 or 20 weeks. Students in the global health track are also required to complete a one-hour project development course, which focuses on the development of the practicum and thesis topic.

Students in the global health track complete eight credit hours of work in the practicum. Students in the epidemiology track complete six credit hours in the practicum. The program has intentionally designed a longer practicum for global health students because these students tend to be younger and less focused on a career path. The longer practicum period strengthens their practical skills and provides structured time working in the field. Faculty and students noted that the practicum allows for a considerable period of applied learning.

Evaluation of the practicum experience involves all participants: site supervisors, students and the practicum director. The site supervisor completes a final evaluation of the student in his or her practicum placement. The site supervisors' evaluation incorporates assessment of students' skills and public health competencies as well as supervisors' interactions with the MPH program. Students are asked to evaluate the site supervisor and the site as well as the overall practicum experience and public health competencies. Students also evaluate their interactions with the practicum director. The Curriculum

Committee and Operations Committee review the evaluations and make recommendations to the practicum director, who then incorporates changes into communications and processes for later cohorts.

Policies and procedures are available to students in an MPH Practicum Handbook. Forms for the practicum agreement, completion documentation, progress reports and evaluation forms are all made available to students. As part of the practicum, students are required to submit the following: 1) a practicum agreement form that lists the site, site supervisor and the nature and scope of the experience, 2) practicum progress reports that detail activities and describe student progress as well as any changes to objectives and 3) a practicum completion form, with a final product, site supervisor evaluation and student evaluation.

The practicum colloquium provides 1) an opportunity for students to showcase their work and further develop MPH competencies, 2) exposure to practicum opportunities for newer cohorts, 3) strengthened relationships between Vanderbilt and local public health sites and 4) networking opportunities for students, faculty and public health professionals in the community.

Students and alumni who met with site visitors expressed appreciation for the opportunity to participate in a practicum. They said that it provided them with an opportunity to apply concepts learned in the classroom to real-life situations. Some alumni even noted that the practicum experience helped them to identify a career path and initiate a career in that direction. The efforts of the practicum director to clarify the practicum goals, describe the process, make connections, secure placements, conduct follow ups and provide feedback on progress was appreciated by students.

Waivers for the practicum are possible; however, only students with extensive prior practical experience are considered. Students must demonstrate a substantive experience in a public health setting in which they were able to accomplish the practicum objectives through a specific project or other experience. Students who want to petition for a waiver must submit a request form to the practicum director for review by the Curriculum Committee. Five students received a waiver in the last three years, and students do not receive credit hours for the waived practicum.

2.5 Culminating Experience.

All graduate professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience.

This criterion is met. All students are required to complete a master's thesis, which is the defined culminating experience for the program. The thesis is a substantive and original body of work that allows students to synthesize and integrate knowledge from their public health coursework and practicum experiences, apply it to a particular topic area and communicate their ideas and findings through a

scholarly written product. Students are expected to address a significant public health concern under the guidance of a mentor and demonstrate mastery of relevant public health competencies. Both students and faculty told site visitors that the thesis experience is the most important component of the program because it requires the application of a variety of skills and integration of knowledge coupled with a strong emphasis on individualized mentoring.

All students are required to participate in at least two credits of didactic coursework for the culminating experience: the required course in protocol (epidemiology) or project development (global health track) and the required MPH seminar, in which students present their thesis findings in a one-hour research talk. Students are required to take an additional six (epidemiology) or four (global health) credits for supervised research, but may take up to 14 credits depending on the balance of other courses taken in their second year. In the final semester of the program, all MPH students present a one-hour research seminar to fellow students, primary faculty, mentors and alumni. The seminar format allows for questions and interaction. Following the oral presentation, all students submit a written manuscript. Students are evaluated on the strength of their thesis product and presentation along with their demonstration of competencies pertinent to the thesis. Two readers are required for each thesis project, and evaluation at the program level is conducted by either the track director or an appointed faculty member.

For the epidemiology track, the thesis must be a substantive piece of translational research that results in a manuscript suitable for submission to a peer-reviewed publication. The research may either comprise the collection of original data, novel analysis of extant data or structured synthesis of previously reported research (eg, meta-analysis). In the last three years, 72% of students have published their theses or published on topics closely related to their theses following graduation.

For the global health track, the thesis may be a substantive piece of translational research or it may take other formats such as a policy analysis, case study, capstone project, strategic plan, curriculum or project/program evaluation. All but one global health culminating experience has been a thesis.

At the time that prospective epidemiology students apply to the program, they are required to identify a research mentor and provide a brief (two- to five-page) description of a potential thesis project. The Admissions and Promotions Committee takes the mentor and the research plan into account when making an admissions decision. The program considers this initial identification of the research question key to allowing students to apply the concepts they will be learning during the didactic coursework. The program allows flexibility in refining research plans based on knowledge acquired in the program or for other circumstances, but program leaders said that having a project identified early has resulted in high-quality research.

During the spring semester of the first year, epidemiology students work with their mentors to produce a five- to seven-page literature review. This review is submitted to the program for approval prior to the protocol development course. In the protocol development course (offered in May of the first year), students give oral presentations describing their planned research. Students present the background information, research question and planned design, analysis plan and limitations of their public health research. Other first-year students, primary faculty and mentors attend each presentation and provide feedback to students.

At the completion of the protocol development course, students submit a written protocol for approval by their primary research mentor and the director of protocol development. After protocol approval, students work with their mentor to complete their thesis research. Advising meetings in the second year focus on progress toward thesis completion and troubleshooting for issues that arise during the conduct of the research.

Students in the global health track identify their project and mentor by the fall semester of their second year. A draft thesis proposal is required during the summer between the first and second years. That proposal is further refined during the fall thesis workshops. The need for additional thesis support was identified early in the implementation of the global health track, which resulted in the creation of fall thesis workshops that focus on various aspects of thesis development.

Written thesis policies and procedures are available on the program website and are frequently discussed with students by program faculty. Site visitors reviewed the students' work products and conclude that the culminating experience products are rigorous, of professional quality and demonstrate an in depth understanding of public health concepts.

2.6 Required Competencies.

For each degree program and area of specialization within each program identified in the instructional matrix, there shall be clearly stated competencies that guide the development of degree programs. The program must identify competencies for graduate professional, academic and baccalaureate public health degree programs. Additionally, the program must identify competencies for specializations within the degree program at all levels (bachelor's, master's and doctoral).

This criterion is met. The program is guided by a set of core and cross-cutting public health competencies, in addition to track-specific competencies. The 19 core and seven cross-cutting competencies address a unique set of applied knowledge and skills across the broad disciplines of public health.

Competencies are developed in an iterative fashion by program leadership and faculty, with input from the standing committees and from current students and MPH graduates. The competencies are based on

national consensus guidelines, on practice and research experiences and from recommendations from external advisors. The course directors use the competencies to design learning objectives for each course, with feedback from the Curriculum Committee. In June 2014, the competencies were reviewed and updated by program faculty and by the Curriculum and Advisory Committees.

The program defines seven competencies for each concentration offered. The program's core, cross-cutting and track-specific competencies are unique modifications of those promulgated by ASPPH. Using the ASPPH epidemiology competencies as a basis for the epidemiology track competencies, the program developed a set of rigorous and detailed competencies unique to the program.

During the design and development of the global health track, program leaders reviewed recommendations from ASPPH and the Consortium of Universities for Global Health and tailored these recommendations to the specific goals and objectives of the program. The draft competencies were then circulated to each course director for review and input, resulting in several modifications. The MPH Advisory Committee, the Curriculum Committee and the full MPH faculty reviewed the global health competencies in 2011 prior to the launch of the track. The competencies were made publicly available in spring 2012, and MPH students and recent graduates received an email copy of the competencies for review and comment.

The program assesses the changing needs of public health practice through Advisory Committee meetings, faculty participation in professional societies and national professional conferences, workforce development efforts and through information gathered from practicum evaluations, exit interviews, alumni surveys and MPH employer surveys. The public health workforce needs assessment activities provide information about other potential competencies.

The competencies are posted on the MPH program website and are also discussed with students during orientation. At the beginning of each semester, students receive an email communication with a link to the competencies.

Site visitors reviewed required-course syllabi and found that all relevant competencies and related learning objectives are included. Students and faculty are asked to assess of the achievement of course objectives and relevant competencies at the end of each course.

2.7 Assessment Procedures.

There shall be procedures for assessing and documenting the extent to which each student has demonstrated achievement of the competencies defined for his or her degree program and area of concentration.

This criterion is met with commentary. The program employs a number of mechanisms to assess student competency attainment. During the practicum experience, students are evaluated by preceptors on their ability to demonstrate the program's cross-cutting competencies and other basic public health skills. Students likewise self-assess their performance during the practicum on 12 skills that directly correlate to nine core competencies as well as one cross-cutting competency. During the culminating experience for epidemiology students, these readers evaluate students on 13 competencies comprising a cross-sampling of core, cross-cutting and concentration-specific competencies for epidemiology.

While the program assesses student competency attainment through the practicum and culminating experiences, the commentary is given to encourage the program to gather student self-assessments on the attainment of each core and track-specific competency (through tools such as the annual exit survey, etc.).”

The program collects alumni input every three years via a survey. Students who graduated between 2010 and 2013 were surveyed in fall 2013 for perspectives on various issues within the MPH program. The survey, which was distributed via email and conducted online, had a 98% response rate. The survey included questions about current employment, job satisfaction, experience and level of satisfaction with the MPH program, quality of various aspects of the MPH program and personal accomplishments. Graduates are also asked about the program's objective of having alumni who feel prepared to compete for funding, which supports the program goal of advancing knowledge through evaluation and discovery.

The program uses alumni surveys to assess achievement of competencies and the ability to apply these competencies in an employment setting. The alumni survey is conducted every three years, and the most recent survey was distributed to 51 alumni in fall 2013. Fifty alumni responded to the survey, which explicitly assesses one core competency, one cross-cutting competency and one epidemiology track competency. The first three competencies are those that are assessed in either the practicum or thesis. The most recent survey did not include an assessment of global health competencies because there were no global health alumni at the time of the survey. Program leaders said that future alumni surveys will capture global health competencies.

The program also surveys employers on graduates' ability to perform competencies in an employment setting. The program's December 2013 survey yielded responses from 28 of 32 employers (an 88% response rate). In most areas, nearly all employers said that the MPH graduates under their supervision

were adequately or well prepared. Employers identified three areas where students would have benefitted from additional training: communicating in oral (3.7% of employers) and written (11.1%) forms and selecting and employing appropriate research designs to address public health problems (3.7%). To respond to this feedback, the program is actively seeking ways to integrate institutional expertise in biomedical informatics into the program.

The program participated in an ASPPH pilot survey that collected detailed alumni employment information. Of the 53 students who graduated since 2012, 50 are employed and three are continuing their education.

Over the last four academic years, the program's graduation rates for each cohort have been over 70% in the maximum allowable time to graduate. The 2010-2011 cohort had a 92.3% graduation rate (12 of 13), the 2011-2012 cohort had an 82.4% graduation rate (14 of 17) and the 2012-2013 cohort had a 95.8% graduation rate (23 of 24).

2.8 Bachelor's Degrees in Public Health.

If the program offers baccalaureate public health degrees, they shall include the following elements:

Required Coursework in Public Health Core Knowledge: students must complete courses that provide a basic understanding of the five core public health knowledge areas defined in Criterion 2.1, including one course that focuses on epidemiology. Collectively, this coursework should be at least the equivalent of 12 semester-credit hours.

Elective Public Health Coursework: in addition to the required public health core knowledge courses, students must complete additional public health-related courses.

Public health-related courses may include those addressing social, economic, quantitative, geographic, educational and other issues that impact the health of populations and health disparities within and across populations.

Capstone Experience: students must complete an experience that provides opportunities to apply public health principles outside of a typical classroom setting and builds on public health coursework. This experience should be at least equivalent to three semester-credit hours or sufficient to satisfy the typical capstone requirement for a bachelor's degree at the parent university. The experience may be tailored to students' expected post-baccalaureate goals (eg, graduate and/or professional school, entry-level employment), and a variety of experiences that meet university requirements may be appropriate. Acceptable capstone experiences might include one or more of the following: internship, service-learning project, senior seminar, portfolio project, research paper or honors thesis.

The required public health core coursework and capstone experience must be taught (in the case of coursework) and supervised (in the case of capstone experiences) by faculty documented in Criteria 4.1.a and 4.1.b.

This criterion is not applicable.

2.9 Academic Degrees.

If the program also offers curricula for graduate academic degrees, students pursuing them shall obtain a broad introduction to public health, as well as an understanding about how their discipline-based specialization contributes to achieving the goals of public health.

This criterion is not applicable.

2.10 Doctoral Degrees.

The program may offer doctoral degree programs, if consistent with its mission and resources.

This criterion is not applicable.

2.11 Joint Degrees.

If the program offers joint degree programs, the required curriculum for the professional public health degree shall be equivalent to that required for a separate public health degree.

This criterion is met. The program offers three joint degree programs: the MA/MPH, MEd/MPH and MD/MPH. Reviewers confirmed that the MPH program of study for joint degree students is equivalent to those earning a standalone MPH degree. All joint degree students must satisfactorily complete all core and track-specific courses, with no external program substitutions. Students are, however, permitted to substitute three to six credit hours of MPH elective coursework with courses from their non-public health degree. To date, one student has graduated from the joint degree programs (one MD/MPH student).

The program maintains a list of preapproved courses from each of the other degrees that can be counted as MPH electives. While the list includes some undergraduate courses, the program has strict policies on the use of these courses. The undergraduate courses may only be permitted if 1) a comparable course is not offered at the graduate level, 2) students justify how they will use the course to enhance their public health training and 3) the undergraduate course can be modified to increase rigor and content appropriate for a graduate-level course. MPH students who have expressed interest in taking undergraduate courses have primarily been interested in courses related to basic sciences and foreign languages. Program leaders have encouraged these students to audit the course and receive zero credit; the course would not be counted toward the MPH program. To date, no students have counted any undergraduate courses as MPH electives.

2.12 Distance Education or Executive Degree Programs.

If the program offers degree programs using formats or methods other than students attending regular on-site course sessions spread over a standard term, these degree programs must a) be consistent with the mission of the program and within the program's established areas of expertise; b) be guided by clearly articulated student learning outcomes that are rigorously evaluated; c) be subject to the same quality control processes that other degree programs in the university are; and d) provide planned and evaluated learning experiences that take into consideration and are responsive to the characteristics and needs of adult learners. If the program offers distance education or executive degree programs, it must provide needed support for these programs, including administrative, travel, communication and student services. The program must have an ongoing program to evaluate the academic effectiveness of the format, to

assess learning methods and to systematically use this information to stimulate program improvements. The program must have processes in place through which it establishes that the student who registers in a distance education or correspondence education course or degree is the same student who participates in and completes the course and degree and receives academic credit.

This criterion is not applicable.

3.0 CREATION, APPLICATION AND ADVANCEMENT OF KNOWLEDGE.

3.1 Research.

The program shall pursue an active research program, consistent with its mission, through which its faculty and students contribute to the knowledge base of the public health disciplines, including research directed at improving the practice of public health.

This criterion is met. MPH faculty are engaged in public health-relevant research consistent with the program's stated mission and goals. Program faculty have extensive research agendas in areas such as pharmacoepidemiology, vaccine safety, vaccine preventable diseases, diabetes treatment and prevention, health disparities, global health, health economics, quality improvement, breast cancer epidemiology and obesity prevention. As a group, faculty have a substantial record of attracting extramural funding, publishing in highly selective journals, serving on committees that influence policy and serving on study sections and as journal reviewers. Faculty contribute to the advancement of national and global research agendas in their areas of research focus.

From 2011 to 2013, primary faculty members published a median of four to six peer-reviewed articles annually. Many articles appeared in high-impact journals including the *New England Journal of Medicine*, *The Lancet* and the *Journal of the American Medical Association*. Some of the articles resulted in policy changes relevant to public health.

Research at Vanderbilt is organized around departments and centers, and the MPH program benefits from operating in a research-rich environment. The School of Medicine's reputation for research is reflected in the amount of federal and private support it receives. The school currently has 865 National Institutes of Health (NIH) awards exceeding \$367 million in annual funding, \$636 million in total Medical Center funding and close to \$800 million in total annual research funding across all Vanderbilt schools. The Medical Center's grant portfolio currently includes 26 NIH center grants, 79 NIH training (K) awards and 37 NIH training (T32) grants.

Public health research is conducted by faculty, fellows and students associated with the Institute for Medicine and Public Health. The Institute for Medicine and Public Health is Vanderbilt's home for multiple centers and programs and more than 200 faculty who are engaged in clinical and translational research and population health sciences. The institute is university-wide and includes centers, programs and

activities outside of the School of Medicine. Institute investigators have more than \$130 million in total funding and have multiple research training programs, largely in the areas of epidemiology, clinical outcomes, health behavior, health literacy, health disparities and health services research. The Institute for Medicine and Public Health was created as Vanderbilt's focal point for public health in November 2007 and is in a rapid growth and development phase.

Program faculty participate in numerous partnerships with local, state, national and international public health agencies and community-based organizations. These initiatives draw on collaborations with public health practitioners and serve as a source of information and as a mechanism to empower communities to work collectively to address unique health issues. Some of these relationships operate under contracts or memoranda of understanding. Most relationships are between the faculty member's home department and the community agency. Examples of the partnerships currently in place include efforts with the Tennessee State Department of Health, the HIV Impact Project, Tennessee Medicaid and the Tennessee FoodNet Program.

Research is a requirement of all students concentrating in epidemiology and is done by the majority of global health students. Students frequently participate in research projects with their primary mentors. The thesis project affords all students opportunities to engage in research. Projects may be initiated by students or developed collaboratively with faculty and/or community-based advisors. MPH faculty members supervised 19 student research projects between 2011 and 2014.

The program has identified seven measures by which it evaluates the success of its research activities. These measures relate to the production of peer-reviewed publications, the dissemination of research findings through public forums and press interviews, collaborative research projects, student involvement in research and the publication of student theses. Nearly all measures exceeded the program's targets in each of the last three years.

3.2 Service.

The program shall pursue active service activities, consistent with its mission, through which faculty and students contribute to the advancement of public health practice.

This criterion is met. Service is an integral part of the program's mission to prepare students to be leaders and innovators in "a program environment rich in learning, discovery, and service."

The Faculty Manual describes the importance of service through "university outreach (including patient care and other professional services to the university and the community) and contributions to professional and learned societies." Site visitors reviewed the websites containing the policies governing service, tenure and promotion and found them to be clear and easily accessible. While service is not a

major component considered in tenure and promotion, faculty are still expected to perform some service activities, either in the community or to the institution.

Of the primary and secondary faculty identified in the self-study document, 21 faculty members were involved in a total of 130 service activities in the last three years. Examples of faculty service roles include serving as committee members on boards of trustees, on advisory committees, on editorial boards, on expert panels and as grant reviewers for a range of public and private public health and professional organizations. During on-site discussions about service, faculty indicated that they participate in service associated with their various research projects, particularly those in international settings.

The program highlighted examples of service by six students who served in leadership roles within the profession and the community. These students worked with organizations such as Healthy Hoops South Carolina, the International Center for Diarrheal Disease Research in Bangladesh and the Sweethearts Adolescent Girls Diabetes Support Group. One MPH student, who is sponsored by the VA Quality Scholars program, organized a community service project for the student-body.

To evaluate the success of its service efforts, the program tracks the number of community-based public health professionals that serve on the Advisory Committee and teach required courses, student presentations at conferences, faculty collaborations with community-based partners and faculty engagement in service through public health agencies. The program met its targets in each of the last three years.

In its response to the site visit's report, the program described multifaceted new approaches to increasing student service, for example, through leadership opportunities in community projects and student organizations. While students who met with site visitors said that they are often too busy with requirements of the program to take on additional program-related service work, they said that they are made aware of opportunities to participate in community service. To address this, the program also responded that it is initiating a new course to expand service opportunities and integrate experiential learning into the course work.

3.3 Workforce Development.

The program shall engage in activities other than its offering of degree programs that support the professional development of the public health workforce.

This criterion is met. The program's workforce development activities began in 2008 with a needs assessment in consultation with the Metro Nashville and Tennessee Health Department leadership. Based on feedback, the program implemented procedures, practices and evaluations to support continuing education and workforce development. The most common responses were for training in quantitative analytic skills (defining a problem, posing a question to answer, understanding basic research

and epidemiology); advocacy (understanding how to plan and influence change); leadership/systems thinking; policy development and program planning skills; and communication skills.

In 2010, the Nashville Public Learning Collaborative was established as a partnership between the Vanderbilt University MPH Program, the Meharry Medical College MSPH Program, the Tennessee State University MPH program and Nashville's Metro Public Health Department. The collaborative developed a curriculum around three broad public health concepts, and six sessions were delivered to 110 local public health professionals. The Nashville Public Learning Collaborative also planned and delivered a curriculum for 2013-2014. The collaborative serves as a coordinated approach to providing workforce development to local public health practitioners. The program continues to pursue workforce development efforts with the Nashville Public Learning Collaborative.

Site visitors learned on site that the program has assigned responsibility for workforce development efforts to the global health track associate director. Program faculty discussed plans to continue to perform public health needs assessments every two years and to develop a series of professional development workshops. In addition, faculty and community partners noted that the Metro Public Health Department is actively seeking accreditation by the Public Health Accreditation Board, which requires ongoing training for its nearly 500 employees. Likewise, it was noted that the department is involved in high-level discussions with state health department leaders to determine leadership and management training needs for senior health department staff.

4.0 FACULTY, STAFF AND STUDENTS.

4.1 Faculty Qualifications.

The program shall have a clearly defined faculty which, by virtue of its distribution, multidisciplinary nature, educational preparation, practice experience and research and instructional competence, is able to fully support the program's mission, goals and objectives.

This criterion is met. The program has a clearly defined faculty complement that is well qualified to deliver the MPH program by virtue of its training and experience. Primary and other faculty members have expertise in the five core knowledge areas as well as in the areas of concentration offered by the program.

The program's primary faculty members have appointments in the Departments of Health Policy, Pediatrics, Medicine, Obstetrics/Gynecology and Biostatistics. Nearly all of the primary faculty members, and many of the secondary faculty members, have public health-related graduate degrees and are engaged in public health-related research and/or practice.

Several members of the program's faculty have held or currently hold positions within the public health practice community, which allows them to provide their professional perspective to the educational process. Three faculty members were Epidemic Intelligence Service officers with the Centers for Disease Control and Prevention (CDC), and one remained with the CDC for 21 years designing, implementing and analyzing population-based surveillance systems before joining the MPH faculty. An additional faculty member served as a branch chief for two branches at NIH. The global health track director spends a portion of his time working in low- and middle-income countries in his role with the Vanderbilt Institute for Global Health. Another faculty member is the chief epidemiologist for the Tennessee Department of Health. The program historically has had strong ties to the Tennessee Department of Health and more recently has engaged with the local health department serving Nashville and surrounding communities. Several additional health department officials hold Vanderbilt faculty appointments in the Department of Health Policy.

4.2 Faculty Policies and Procedures.

The program shall have well-defined policies and procedures to recruit, appoint and promote qualified faculty, to evaluate competence and performance of faculty, and to support the professional development and advancement of faculty.

This criterion is met. The program has well-defined policies and procedures to evaluate faculty competence and performance and support the professional development of its faculty members. Policies governing recruitment, retention and promotion of university-based faculty rest with the departments in which individuals have primary academic appointments. Faculty affairs are governed by the rules of the university and the bylaws of the School of Medicine. The program director, when requested, provides input to department chairs about the level and quality of faculty participation as instructors, advisors and contributors to the program. The program's Curriculum Committee reviews the teaching evaluations annually, and the MPH program has the ability to retain instructors or seek a replacement in cases of continuous suboptimal evaluations.

Approximately 90% of all full-time appointments within the school are on one of the following tracks: 1) basic science investigator/physician scientist investigator, 2) basic science educator/clinician educator and 3) clinical practice. Appointments and promotions to the senior ranks on these three tracks are initiated within the faculty member's department and are evaluated by the school's Committee on Faculty Appointments and Promotions. This committee makes recommendations to the dean and the Executive Faculty through the Executive Committee of the Executive Faculty.

On both the basic science investigator/physician scientist investigator track and the basic science educator/clinician educator track, teaching is an important criterion for appointment and promotion to senior ranks. Teaching is one of the core missions of the school, and it can take numerous forms and involve a variety of learners. Teaching occurs in lectures, small discussion groups, during clinical rounds

and procedures and in the context of research training and mentoring. Faculty members may participate in the education of medical and graduate students, allied health professionals, residents and post-doctoral fellows, practicing physicians, faculty investigators and others in the community. The distinction between these two tracks relates to the different criteria required for promotion to senior academic ranks.

In the School of Medicine, appointment as an assistant professor on the investigator tenure track requires that the faculty member be evaluated and approved for tenure within nine years of the time of initial appointment. The awarding of tenure usually accompanies promotion to the rank of associate professor. Appointment renewals recommended for assistant professors on the tenure track must include a departmental statement affirming the faculty member's progress toward being proposed for promotion and tenure.

There are no time limits for promotion to associate professor on the basic science educator/clinician educator track or the clinical practice track. Likewise, there are no time limits for promotion from associate to full professor on any track.

Recommendations for appointments and promotions on all tracks originate with department chairs, who act with the advice of departmental Appointments and Promotions Committees. These committees consist of all full-time, tenured professors within a department or, in the case of large departments, at least six full-time, tenured professors. Recommendations from the chairs are forwarded to the dean, who seeks the advice of the school's Committee on Faculty Appointments and Promotions. This committee consists of 11 faculty members at the rank of professor representing diverse disciplines within the school. Upon a favorable recommendation from this committee, the dean forwards the recommendation to the Executive Faculty of the School of Medicine, who act on behalf of the faculty of the school to review and endorse the recommendation. Recommendations acted on favorably are forwarded to the vice chancellor for health affairs. In the case of faculty on the basic science educator/clinician educator track or the clinical practice track, the vice chancellor gives final approval. In the case involving a recommendation for award of tenure, the vice chancellor for health affairs obtains a procedural review of the recommendation by the Medical Center Promotion and Tenure Review Committee. The vice chancellor then forwards recommendations for tenure to the chancellor, who requests endorsement by the Board of Trustees. Negative decisions for promotion on either track may be appealed by the department chair or by the faculty member according to the procedures in the Faculty Manual.

School of Medicine faculty are initially evaluated for competency and performance at the time of initial appointment. For most departments, the chair, acting under the advice of senior faculty on the department's Appointments and Promotions Committee, makes a request for appointment of a faculty member to the dean. The School of Medicine reviews and approves these appointments. Faculty are also

evaluated annually by their academic supervisor and by their chair. At the time that a faculty member is being considered for promotion and/or tenure, a review occurs at the department and school level. The policies and procedures for faculty appointment and promotion are described in detail on the School of Medicine's Faculty Affairs and Career Development Office website.

The primary locus of faculty development is within academic departments, many of which include annual funds for professional development. The program does provide for the professional growth and development of individual faculty members by providing opportunity for students to work with faculty on research projects and by providing support for faculty expenditures to cover some expenses such as textbooks and software acquisition. The university's School of Education provides seminars pertaining to faculty development of educational skills and exposure to new techniques. It also provides individual teaching remediation, upon request.

All courses are monitored through end-of-course student evaluations and feedback. The evaluations, which are mandatory for students to complete, assess the quality and scope of the curriculum, the effectiveness of the instructor and specific questions tailored to each course. The MPH Operations Committee reviews mean and median scores from final course evaluations. If the committee detects patterns, the program director provides specific feedback to the course director. The MPH Curriculum Committee also reviews course evaluations at the end of each semester. The track directors forward specific feedback to the course directors, as needed. The program shares summary course evaluations with the MPH Advisory Committee each year.

4.3 Student Recruitment and Admissions.

The program shall have student recruitment and admissions policies and procedures designed to locate and select qualified individuals capable of taking advantage of the program's various learning activities, which will enable each of them to develop competence for a career in public health.

This criterion is met. The program aims to be a highly competitive program, and as such, it attracts and trains well-qualified and highly competent individuals capable of undertaking and advancing in public health leadership roles. The program has delivered public health training to a number of leaders in the Vanderbilt medical community. Based on the program's graduation rates and students' prior professional and educational experience, students are highly competent and qualified from an achievement perspective.

Since fall 2013, the program has seen a slight decrease in the number of applicants to its epidemiology track. In 2013-2014, 18 prospective students applied, and 61% were accepted. Of those accepted, 91% enrolled. Application growth over the last three years has increased exponentially for the global health track, showing a 200% increase since it began in fall 2012. Program leaders attribute this growth to the

program's participation in the SOPHAS application system, which centralized and streamlined the program's application process. Program constituents said that participation in SOPHAS has also created more visibility for the program.

The epidemiology track was historically designed to train clinical epidemiologists, but has recently expanded its admissions criteria to admit students without clinical backgrounds or doctoral training. Still, 97% of the epidemiology track students who entered between 2011 and 2013 were doctorally trained.

The admissions deadline for applying to the program is March of every year, and the Admissions Committee reviews applications on a rolling basis. Applications are first reviewed by the MPH program manager and then sent to the Admissions Committee members for review and a vote. Final authority for admissions decisions rests with the program. The program seeks the most qualified students and does not admit students on any other basis than merit, though the program does not have a stated GPA minimum or GRE/MCAT score requirement. It is strongly preferred that prospective students have two years of relevant, post-undergraduate professional experience.

The program has a number of feeder mechanisms to attract students. One such way is the Quality Scholars Clinical Research Fellowship at Vanderbilt funded by the US Department of Veterans Affairs. The program started in 1996 by the current School of Medicine associate vice chancellor for public health and health care. The program is for physicians but has been requiring its fellows to complete an MPH degree with the Vanderbilt MPH program since 1998. The fellowship allows students to complete the MPH degree tuition free. Another mechanism, which particularly serves to recruit and retain underrepresented students, is the David Satcher Scholarship award. The program is hopeful that it will begin receiving students from Mozambique through the NIH-funded Fogarty International Scholarship.

To date, the program has had success in attracting well-qualified students and has had a large enough applicant pool to allow for selectivity. Therefore, the program has not needed to engage in traditional active recruitment mechanisms, such as recruitment at conferences or graduate school fairs.

The program has identified seven measures by which it evaluates its success in enrolling a qualified student body. These measures relate to the educational preparation of incoming students, the cultural diversity of the student body and the likelihood of graduates to make substantial contributions to the field of public health. The program has nearly met or exceeded its targets in each of the last three years.

4.4 Advising and Career Counseling.

There shall be available a clearly explained and accessible academic advising system for students, as well as readily available career and placement advice.

This criterion is met. The program has a clear and accessible academic advising system as well as readily available career counseling. Student advisement begins during orientation. All students receive face-to-face information about the program requirements, thesis work, program deadlines and use of a mentor. The program and track directors are available to meet with students as needed at any time. During each semester, the track directors either communicate electronically or meet with individual students to discuss their performance in courses, their academic plans for the upcoming semester and to solicit feedback on their practicum and thesis progress. In addition, students are asked whether the program can assist them in any way. All academic advising is done by track directors or associate track directors who are well versed in program requirements, objectives and competencies.

Students are assigned a primary mentor in the program. This mentor is identified at the time of program admission and serves as a research mentor—and in most cases—a career mentor. The track director communicates with each student's primary mentor at the beginning of each semester to identify potential problems and to provide the mentor with information about expectations for students in the upcoming semester. Mentors are encouraged to discuss program expectations with their mentees as well.

With the addition of the global health track, the need for expanded career counseling and development opportunities for different career paths was identified. In response, the program designed a professional development series. In 2013-2014, seven sessions were offered covering such topics as searching for positions, resume writing, career planning, networking, navigating the global health job market, and salary negotiation. Additional panel discussions were held during the same timeframe.

The program conducted an evaluation at the end of the professional development series. On a scale of 1 to 5, with 1 being the highest, most topics were rated between 1.0 and 2.0. In a survey conducted with students about satisfaction with advising services, epidemiology students were most satisfied with the mentor-mentee relationship (mean of 1.40) and least satisfied with the clinical career seminars (mean of 2.20), which is still a relatively high score. Global health students, for which only one year of data is available, had a mean score of 1.78 for the mentor-mentee relationship, 2.56 for overall academic advising, 2.83 for the clinical career seminars and 3.22 for career counseling. During on-site discussions, students and faculty spoke highly of the mentor-mentee relationship that is established early on in the program.

The MPH website includes extensive information about career development and links to the university's Translational Scientist Development website. The School of Medicine offers professional development

sessions, and other resources are available for grant writing and opportunities in research and biomedical ethics.

Program leaders told site visitors that as the program grows and admits more students with limited career experience, it will need to think about how it can tailor advising and career counseling to meet the needs of this new student population.

Agenda

COUNCIL ON EDUCATION FOR PUBLIC HEALTH ACCREDITATION SITE VISIT

Vanderbilt University Master of Public Health Program

February 23-24, 2015

Monday, February 23, 2015

- 8:30 am Site Visit Team Request for Additional Documents
Marie Martin, MEd, Global Health Track Co-Director, Vanderbilt MPH Program
Annie Smart, Manager, Vanderbilt MPH Program
- 8:45 am Executive Session
- 9:30 am Break
- 9:45 am Meeting with Program and Department Administrators
Marie Griffin, MD, MPH Director, Vanderbilt MPH Program
Melissa McPheeters, PhD, MPH, Epidemiology Track Director, Vanderbilt MPH Program
Doug Heimburger, MD, MS, Global Health Track Director, Vanderbilt MPH Program
Marie Martin, MEd, Global Health Track Co-Director, Vanderbilt MPH Program
David Stevenson, PhD, Health Policy Track Director, Vanderbilt MPH Program
Annie Smart, Manager, Vanderbilt MPH Program
- 10:45 am Break
- 11:00 am Meeting with Faculty Related to Curriculum and Degree Programs
Brian Heuser, EdD, MTS, Assistant Professor of the Practice of International Education Policy (Global Health)
Troy Moon, MD, MPH, Assistant Professor of Pediatrics, Division of Infectious Diseases (Global Health)
Amy Richardson, MPH, Practicum Director, Vanderbilt MPH Program
Yu Shyr, PhD, Professor, Department of Biostatistics
Richard Epstein, PhD, MPH, Associate Professor of Psychiatry
Sunil Kripalani, MD, MSc, Associate Professor of Medicine
- 12:00 pm Break
- 12:15 pm Lunch with Students
Angie Boehmer, RN, Global Health track
Mariu Carlo, MD, Epidemiology track
Erin Graves, RN, Global Health track
Erin Hamilton, Global Health track
Kristy Kummerow, MD, Epidemiology track
Paula McIntyre, MS, Global Health track
Elizabeth Rose, MEd, Global Health track
Thomas Spain, MD, Epidemiology track
Emily Sheldon, Global Health track
Cristin Quinn, Global Health track
- 1:15 pm Break
- 1:30 pm Meeting with Faculty Related to Research, Service, Workforce Development, Faculty Issues
Kathryn Edwards, MD, Sarah H. Sell and Cornelius Vanderbilt Chair in Pediatrics, Director, Vaccine Research Program
Meira Epplein, PhD, Assistant Professor of Medicine, Division of Epidemiology
Carlos Grijalva, MD, MPH, Associate Professor of Health Policy
Troy Moon, MD, MPH, Assistant Professor of Pediatrics, Division of Infectious Diseases
Ben Poulouse, MD, MPH, Associate Professor, Department of Surgery, Division of General Surgery
William Schaffner, MD, Professor of Health Policy
- 2:30 pm Break
- 2:45 pm Resource File Review and Executive Session

- 3:45 pm Break
- 4:00 pm Meeting with Alumni, Community Representatives, Preceptors
Charlotte Buehler, MS, MPH, alumna
Bill Cooper, MD, MPH, alumnus
Adriana Hung, MD, MPH, alumna
Tim Jones, MD, State Epidemiologist, Tennessee Department of Health
Marion Kainer, MBBS, MPH, Director, Healthcare Associated Infections and Antimicrobial Resistance Program,
Tennessee Department of Health
Celia Larson-Pearce, PhD, Director, Research and Evaluation, Metro Public Health Department
Derek Williams, MD, MPH, alumnus, Assistant Professor, Pediatric Hospital Medicine.
- 5:00 pm Adjourn

Tuesday, February 24, 2015

- 8:30 am Meeting with Institutional Academic Leadership / University Officials
Melinda J. Beeuwkes Buntin, PhD, Chair, Department of Health Policy
Robert Dittus, MD, MPH, Associate Vice-Chancellor for Public Health and Health Care, Director of the Institute
for Medicine and Public Health, Senior Associate Dean for Population Health Sciences, Professor of
Medicine
Katherine Hartmann, MD, PhD, Deputy Director for the Institute for Medicine and Public Health
Associate Dean for Clinical and Translational Scientist Development, Professor of Obstetrics and
Gynecology
Bonnie Miller, MD, Associate Vice Chancellor for Health Affairs, Senior Associate Dean for Health Sciences
Education
- 9:15 am Break
- 9:30 am Executive Session and Report Preparation
- 12:30 pm Exit Interview
Marie Griffin, MD, MPH, Director, Vanderbilt MPH Program
Melinda J. Beeuwkes Buntin, PhD, Chair, Department of Health Policy
Annie Smart, Manager, Vanderbilt MPH Program