Master of Public Health Program

Self-Study Report

January 2015

Council on Education for Public Health

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Comprehensive List of Abbreviations

AAP	American Academy of Pediatrics
ACE	Angiotensin-Converting Enzyme
ACL	Anterior Cruciate Ligament
ADHD	Attention Deficit Hyperactivity Disorder
AHRQ	Agency for Healthcare Research and Quality
AIDS	Acquired Immune Deficiency Syndrome
AITRP	AIDS International Training and Research Program
B	Black (race/ethnicity)
BDD	Benefits Delivery at Discharge
BMC	BioMed Central
BMJ	British Medical Journal
C&P	Conditions and Performance
CDC	Centers for Disease Control and Prevention
CDER	Center for Drug Evaluation and Research
CEO	Chief Executive Officer
CEPH	Council on Education for Public Health
CERT	Center for Education and Research on Therapeutics
CFAR	Center for AIDS Research
CFO	Chief Financial Officer
CHD	Coronary Heart Disease
CIDRZ	Center for Infectious Disease in Zambia
CME	Continuing Medical Education
Co-I	Co-Investigator
COO	Chief Operating Officer
CTSA	Clinical and Translational Science Award
CV	Curriculum Vitae
CVD	Cardiovascular Disease
DAIDS	Division of Acquired Imunodeficiency Syndrome
DC	District of Columbia
DeCIDE	Developing Evidence to Inform Decisions about Effectiveness
DNA	Deoxyribonucleic Acid
DOH	Department of Health
DrPH	Doctor of Public Health
DVM	Doctor of Veterinary Medicine
EBL	Eskind Biomedical Library
EIP	Emerging Infection Program
EIS	Epidemic Intelligence Service
eMERGE	Electronic Medical Records and Genomics
EMR	Electronic Medical Records
EPSDT	Early Periodic Screening, Diagnosis, and Treatment
ESRD	End Stage Renal Disease
EXPORT	Excellence in Partnerships for Community Outreach, and Research on Disparities in Health and Training
F	Female (gender)
FAAFP	Fellow, American Academy of Family Physicians
FDA	Food and Drug Administration
FL	Florida
FTE	Full Time Equivalents
GBS	Guillain-Barre Syndrome
GI	Gastrointestinal
GME	Graduate Medical Education
GOCCC	Governor's Officer of Children's Care Coordination
GRECC	Geriatric Research Education and Clinical Center
H	Hispanic (race/ethnicity)
HAART	Highly Active AntiRetroviral (anti-HIV) Therapy
HIV	Human Immunodeficiency Virus
HSR&D	Health Services Research & Development
ICD-9-CM	International Classification of Diseases, Ninth Revision, Clinical Modification
ICU	Intensive Care Unit
IDSA	Infectious Disease Society of America
IOM	Institute of Medicine
JAMA	Journal of the American Medical Association
JD	Juris Doctor
KDOQI	Kidney Disease Outcomes Quality Initiative
M	Male (gender)
MBA	Master of Business Administration
MCJCH	Monroe Carell, Jr. Children's Hospital
MCO	Managed Care Organization
MD	Doctor of Medicine
MMC	Meharry Medical College
MO	Missouri
MPH	Master of Public Health
MS	Master of Science
MSc	Master of Science
MSCI	Master of Science in Clinical Investigation
N, n	Number
NA, N/A	Not Applicable
NAIAD	National Institute of Allergy and Infectious Disease
NCI	National Cancer Institute
NCRR	National Center for Research Resources
NEJM	New England Journal of Medicine
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases
NIH	National Institutes of Health
NSAID	Non-Steroidal Anti-Inflammatory Drugs
OEF/OIF	Operation Enduring Freedom/Operation Iraqi Freedom
PCC	Patient Care Centers
PEPFAR	President's Emergency Plan for AIDS Relief
PhD	Doctor of Philosophy
PH	Public Health
PHP	Primary Healthcare Provider
PHV	Psychiatric Hospital at Vanderbilt
PI	Principal Investigator
PLoS	Public Library of Science
PTSD	Post Traumatic Stress Disorder
RCT	Randomized Controlled Trial
RN	Registered Nurse
ScD	Doctor of Science
SCHIP	State Children's Health Insurance Program
SOM	School of Medicine
SON	School of Nursing
SPORE	Specialized Program Of Research Excellence
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
TBI	Traumatic Brain Injury
TGF	Transforming Growth Factor
TN	Tennessee
TVC	The Vanderbilt Clinic
UME	Undergraduate Medical Education
UNICEF	United Nations Children's Fund
US	United States
USPHS	United States Public Health Services
VA	Veterans Administration or Department of Veterans Affairs
VA	Virginia
VC	Vice Chancellor
VCH	Vanderbilt Children's Hospital
VICC	Vanderbilt Ingram Cancer Center
VICTR	Vanderbilt Institute of Clinical and Translation Research
VMG	Vanderbilt Medical Group
VUH	Vanderbilt University Hospital
VUMC	Vanderbilt University Medical Center
W	White (race/ethnicity)
WHO	World Health Organization

Vanderbilt University
Master of Public Health Program
Self-Study Report for Accreditation

Executive Summary

Program Overview

The Vanderbilt Master of Public Health is an interdisciplinary program founded in 1996 to train future research scientists and public health professionals dedicated to improving the public health. Since our last review, we have created two separate tracks, Epidemiology and Global Health. The Global Health track was launched in 2012, thus expanding the number of students, faculty, administrators, courses and practicum placements for the MPH program. A substantive change proposal was approved by CEPH (August 2014) for the establishment of a third track in health policy in 2015. The Health Policy track will draw on faculty expertise in a newly established Department of Health Policy at Vanderbilt (formerly the Department of Preventive Medicine) and strong collaborative relationships with federal, state and local health agencies.

The focus of the Epidemiology track is population-based quantitative evaluation. Thus, it seeks students who have a strong clinical background--generally physicians or other doctoral-qualified professionals--and provides them with additional training that fosters their development as public health scientists or professionals. The Epidemiology track has included primarily physicians who have completed their residency training, or other health care professionals at a comparable level. Applicants are often clinical research fellows or faculty who seek training for a future career in epidemiologic, clinical, or health services research.

The Global Health track is designed to educate innovative public health leaders to manage global health initiatives and to contribute to public policy that improves global health. The Global Health track is open to a diverse array of individuals who desire to make an impact in global health. Applicants may have a doctoral or other professional degree, or have exceptional qualifications with a bachelor's degree.

Training in this MPH program for both tracks includes didactic coursework in the five core public health disciplines, a practicum, and a thesis. Since the accreditation review in early 2010, the program has graduated 82 students, including 73 Epidemiology track and 9 Global health track students.

Mission/Goals/Objectives

The mission of the Vanderbilt MPH Program is 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.

The mission, goals and objectives for the program have been adjusted since our self-study report in 2010 based on extensive review and discussion by all program stakeholders. The most recent

modification of the mission statement occurred following the June 2014 Advisory Committee meeting. The mission is supported by the following goals:

1. Educate innovative and effective public health researchers, faculty, and practitioners.
2. Advance knowledge in the public health sciences through research and discovery.
3. Contribute to sound public health policies and practices by dissemination of knowledge and community collaboration.

Instructional Program

The MPH includes didactic course work, a practicum, and a thesis, with a total of 42 credit hours required. There are two tracks, Epidemiology and Global Health. Students in both tracks take five core courses together including Epidemiology-1, Biostatistics-1, Social and Behavioral Science for Public Health, Environment Health, and Public Health Delivery. Other required courses for the Epidemiology track students include Epidemiology-2, Biostatistics-2, Research Ethics, Health Care Systems, Program and Policy Evaluation, Grant Writing and Scientific Communication. Other required courses for Global Health track students are Foundations of Global Health, Essential Skills in Global Health, Ethics in Global Health, and Leadership and Management in Global Health.

The practicum promotes skills development by providing students a specific assignment supervised by a preceptor in an environment in which a public health function is performed. The thesis allows students to synthesize and integrate knowledge from their public health course work and practicum experiences, apply it to a particular topic area, and communicate their ideas and findings through a scholarly written product. The final product may take different forms, but all students identify a topic and focus area, conduct a literature review, formulate a research question, develop a protocol or structured plan, collect and analyze data when appropriate, and prepare an oral presentation as well as an original written work. In the Epidemiology track, the thesis project is a substantive piece of translational research that results in a manuscript suitable for submission to a biomedical peer-reviewed publication. The research may include collection of original data, novel analysis of extant data, or structured synthesis of previously reported research (e.g., meta-analysis). In the Global Health track, formats for the thesis include, but are not limited to, a substantive piece of translational research, policy document, capstone project, strategic plan, curriculum or project/program evaluation.

The only academic degree offered is the MPH; since 2010, 81 students have graduated with a solo degree and one with an MD/MPH. The MD/MPH has been limited to a small number of outstanding students who must complete all 42 MPH course hours; no credit toward the MPH degree is provided for Medical School courses. We have recently approved a second dual degree with the M.Ed. in International Education Policy and Management at the Vanderbilt George Peabody College of Education and Human Development and will matriculate the first student into the dual degree in 2014. An additional dual degree with the M.A. in Latin American Studies in the Graduate School was approved in July 2014, and the first student will graduate from this program in 2017.

Students

Since the addition of the Global Health track in 2012, entering classes have comprised 20-25 students each. MPH courses (which may be taken by non-MPH students) typically have 10-30 students. To date, no MPH course has had more than 40 enrolled students. The MPH seeks to recruit highly qualified and diverse students. For the classes entering between 2011 and 2013, 44 of 45 Epidemiology track students had doctoral preparation and the remaining one is in the human genetics PhD program. For the Global Health track students who entered in 2012 and 2013, 2 had PhDs, 4 had master's degrees, 3 were doing a combined MD/MPH degree, and 8 had bachelor's degrees only.

Following the 2010 self-study process, a Diversity Committee comprising program administration, faculty, students, and School of Medicine leadership was formed to enhance diversity efforts of the MPH program. Diversity in the program has increased substantially over the past decade due to in part to the creation of the MPH David Satcher Scholarship, which awards two full scholarships per year to students from underrepresented backgrounds in public health.

Knowledge

MPH faculty and students utilize multiple research resources, including the Department of Health Policy, the Institute for Medicine and Public Health, the Institute for Global Health, the Health Services Research Center, and a Veterans Administration Geriatric Research, Education and Clinical Center. Much of this research, especially that of the Department of Health Policy is conducted in collaboration with public health agencies, including the Tennessee Department of Health, the Metropolitan Nashville Department of Health, the Centers for Disease Control and the U.S. Food and Drug Administration (FDA). During the three calendar years ranging from 2011 and 2013, 74 primary and secondary faculty had an average of $69,862,321 of extramural research funding annually. Since 2010, the primary and secondary faculty collectively had over 1100 peer-reviewed publications. Faculty and students provide service at the local, state, national, and international levels, as exemplified by recent service for local and state public health agencies, international organizations and ministries of health globally.

Since our last review, we have also established The Nashville Public Health Learning Collaborative (NPHLC), a partnership between our program and Meharry Medical College Master of Science in Public Health (MSPH) Program, Tennessee State University M.P.H. program, and Nashville's Metro Public Health Department. The mission of the NPHLC is to enhance the professional development of the public health workforce in the Nashville community.

Governance

The MPH program is housed in the Vanderbilt School of Medicine, which grants the degree. Since our last review, the department home for the MPH program has changed to the new Department of Health Policy (established in 2013), which was previously the Department of Preventive Medicine. The program is administered by a Program Director and two Track Directors who work through the Operations Committee, which reports through the Associate

Dean for Clinical and Translational Scientist Development to the Senior Associate Dean for Population Health Sciences who, in turn reports to the Dean of the School of Medicine. MPH operations are guided by Curriculum, Admissions and Promotions, and Diversity Committees. Overall program policy and conduct is monitored by a 15 person Advisory Committee, which includes four community public health professionals from the Centers for Disease Control and Prevention (1), Tennessee Department of Health (2), and Metro Nashville Health Department (1).

Summary of 2014 Self-Study Assessment

Section		*Assessment*
1.0	The Public Health Program	
1.1	Mission	Met
1.2	Evaluation	Met with comment
1.3	Institutional Environment	Met
1.4	Organization and Administration	Met
1.5	Governance	Met
1.6	Fiscal Resources	Met
1.7	Faculty and Other Resources	Met
1.8	Diversity	Not met
2.0	Instructional Programs	
2.1	Degree Offerings	Met
2.2	Program Length	Met
2.3	Public Health Core Knowledge	Met with comment
2.4	Practical Skills	Met with comment
2.5	Culminating Experience	Met
2.6	Required Competencies	Met
2.7	Assessment Procedures	Met with comment
2.8	Bachelor's Degrees in Public Health	Not applicable
2.9	Academic Degrees	Not applicable
2.10	Doctoral Degrees	Not applicable
2.11	Joint Degrees	Met
2.12	Distance Education/Executive Degree Programs	Not applicable
3.0	Creation, Application and Advancement of Knowledge	
3.1	Research	Met
3.2	Service	Met
3.3	Workforce Development	Not met
4.0	Faculty, Staff and Students	
4.1	Faculty Qualifications	Met
4.2	Faculty Policies and Procedures	Met
4.3	Student Recruitment and Admissions	Met
4.4	Advising and Career Counseling	Met with comment

Criterion 1

The Public Health Program

Vanderbilt University

Master of Public Health Program

Self-Study Report

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.

The Vanderbilt Master of Public Health is an interdisciplinary program founded in 1996 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. It was established by faculty in the Vanderbilt University School of Medicine Department of Preventive Medicine (now the Department of Health Policy). The Program is housed in the Department of Health Policy in the Institute for Medicine and Public Health within the School of Medicine and thus shares the School's core focus on excellence in education, discovery, and service.

For its first 15 years, the program focused on preparing physicians and other doctoral prepared individuals for careers in academics and public health. Thus, students received rigorous quantitative epidemiology preparation through didactic coursework, an applied skills practicum, and a research thesis. The program was intentionally small to allow for an individualized approach, enrolling 8-15 students per year in the two-year program. This approach was quite successful, and the program's graduates include several leaders in public health and academic medicine with an extraordinary track record of research funding, publications, and contributions to improve public health in the U.S. and abroad. In addition, the program has been recognized for its excellent teaching and mentoring, with many of the core faculty garnering institutional teaching awards and recognition.

The program received full five-year accreditation by the Council on Education for Public Health in 2010. Guided by the self-study process for accreditation, the program began considering strategic directions for expansion. At the same time, the Vanderbilt Institute for Global Health (VIGH) was considering a graduate program to equip trainees to engage in public health in international settings. Leveraging these opportunities, the program collaborated with faculty in VIGH to develop a Global Health track, which enrolled its first students in 2012. This track attracted a broad range of students. The increased diversity of enrolled students in terms of backgrounds and career goals has benefitted Epidemiology and Global Health track students, as well as our program faculty and leadership.

The self-study process and addition of the Global Health track have helped to achieve a range of other benefits including greater operational standardization, enhanced practicum opportunities, expanded programming such as the Practicum Colloquium, greater use of of web applications for evaluation and surveys, increased publicity and web presence, broadened staff and faculty expertise, enhanced opportunities for using online and electronic file-sharing systems, and stronger administrative infrastructure.

The focus of the Epidemiology track remains population-based quantitative evaluation. The Global Health track is designed to educate innovative public health leaders to manage global health initiatives and to contribute to public policy that improves global health.

The mission statement of the program was formalized by the MPH Advisory Committee, with input from students, alumni, public health professionals, and faculty in July, 2007. Minor revisions were made in subsequent years, and the most recent review and revision occurred June 2014. The addition of the phrase "Understanding … the benefits of a culturally diverse faculty, staff, and student body" to the values statement was agreed upon at the June 2014 meeting as well. The process for revision of the mission statement is described in section 1.1.d.

a. A clear and concise mission statement for the program as a whole.

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.

b. A statement of values that guides the program.

The MPH program is firmly committed to public health values, concepts, and ethics. 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 University 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.

As an institution, Vanderbilt publicly lists the following values as those held most highly by the institution:

- Intellectual freedom that supports open inquiry.
- Equality, compassion, and excellence in all endeavors.

Values from the School of Medicine, Vanderbilt University, and overall public health values were integrated and comprise the core values of the Vanderbilt MPH program:

- Intellectual freedom that supports open inquiry.
- Equality, compassion, and excellence in all endeavors.
- Commitment to perform activities in a scholarly manner, based on an understanding of the need to engage in lifelong learning.
- Commitment to achieve excellence in professional area(s) of individual interest.
- The capacity to recognize and accept limitations in one's knowledge and skills, and to acknowledge and rectify personal shortcomings that may result from those limitations.
- Honesty and integrity in all interactions.
- Understanding of, and respect for, the roles of other professionals, the benefits of a culturally diverse faculty, staff, and student body, and of the need for collaboration to promote the health of populations.

These values are operationalized in the Advisory Committee's ongoing review of the program's mission, goals, and objectives. The values are posted on the MPH website and are reviewed by faculty at least once per year.

c. One or more goal statements for each major function by which the program intends to attain its mission, including instruction, research, and service.

To fulfill its mission, the Vanderbilt MPH Program has the following goals:

1. Educate innovative and effective public health researchers, faculty, and practitioners. [instruction]
2. Advance knowledge in the public health sciences through research and discovery. [research]
3. Contribute to sound public health policies and practices through dissemination of knowledge and community collaboration. [service]

d. A set of measurable objectives with quantifiable indicators related to each goal statement as provided in Criterion 1.1.c. In some cases, qualitative indicators may be used as appropriate.

The three goals of the Vanderbilt MPH Program are both distinct and inter-related. For example, we believe that a critically effective way to support our teaching and service is through a strong emphasis on research. Furthermore, teaching and research are enhanced enormously through faculty and student involvement in public health policy and service activities. This is reflected in our goals and in the interdependence of our objectives for achieving them. We pursue each of our goals through meeting the objectives listed under them.

Table 1.1.d Mission-Guided Goals and Measurable Objectives

Goal	Objective	Quantifiable indicator
1. Educate innovative and effective public health researchers, faculty, and practitioners.	1a. Recruit highly talented students with cultural diversity that are committed to public health and will likely make substantial contributions to the field.	• 100% students with doctoral preparation or a minimum of 2 years of health experience. [Epidemiology track] • At least 60% of students with at least 1 year of experience in a low-resource setting domestically or internationally. [Global Health Track] • At least 20% of admitted students who are racial/ethnic minorities or from economically disadvantaged backgrounds/countries. • At least 75% of graduates have long-term career goals that include public health. • At least 75% of graduates publish in the field of public health within 3 years of graduation. • At least 75% of graduates present at local, national or international conferences during their time in the MPH program. • At least 30% of graduates work for local, state, federal, or international public health agencies.
	1b. Provide students with exposure to outstanding faculty in the range of disciplines and specialties	• At least 15.0 FTE of primary faculty time is dedicated to teaching or activities relevant to the public health program. • At least 100% of primary faculty have doctoral preparation or terminal degrees in their field.

	consistent with the program's mission.	• The faculty-student ratio is less than 2. • 100% of primary faculty teaching core courses have experience in at least one core competency of the program. • At least 75% of primary faculty taught course mean effectiveness ratings are >7 (scale 1 to 9). • At least 15% of primary faculty are racial/ethnic minorities. • At least 30% of primary faculty are women.
	1c. Provide excellent educational programs and opportunities.	• At least 75% of all overall course evaluations have mean scores >7 (scale 1 to 9). • Course syllabi cumulatively address 100% of core competencies. • At least 90% of Practicum preceptors evaluate students as having gained mastery of all 7 competencies. • At least 90% of Program leadership evaluations for thesis presentations rate students as demonstrating 15 of 23 core competencies. • Learning objectives and competencies are included in syllabi and mapped to all course content. • Students report they have achieved competency in all core subjects in Public Health determined by a mean score of 1.5 or lower on the exit survey question which uses a scale of 1-4 (1=Agree Completely, 4=Disagree Completely). • At least 75% of students indicate that they would recommend the program to others. • At least 15% of MPH program administrators are racial/ethnic minorities. • At least 1.5 full tuition scholarships are available annually (generated by tuition revenue for the program). • At least 1.5 full tuition full scholarships are available annually for students who are from a racial/ethnic minority or economically disadvantaged background/country (generated by tuition revenue for the program). • Tuition generates sufficient funds to cover all teaching expenses.
	1d. Promote lifelong learning.	• Students indicate an interest in continuing educational opportunities in public health determined by a mean score of 3 or higher on the exit survey which uses a scale of 1-4 (1=Not Interested, 4=Extremely Interested). • Students indicate an interest in continuing educational opportunities in epidemiology determined by a mean score of 3 or higher on the exit survey which uses a scale of 1-4 (1=Not Interested, 4=Extremely Interested).
2. Advance knowledge in the public health	2a. Contribute scientific knowledge in the public health	• 100% of primary faculty publish at least 1 article per year in a peer-reviewed journal. • Primary faculty publish an average of at least 3 articles

sciences through research and discovery.	disciplines.	per year in peer-reviewed journals. • At least 75% of primary faculty are involved as Principal or Co-Investigator on at least one grant per year. • 60% of students publish at least one article related to their thesis within 3 years of graduation.
	2b. Foster an environment that promotes creativity, collaboration, and interdisciplinary research.	• At least 75% of primary faculty collaborate with at least one member of another department on research projects or grants. • At least 20 MPH students per class will participate on MPH primary or secondary faculty research projects.
	2c. Train researchers and public health practitioners to compete successfully for funding in the public health sciences.	• Students agree that they feel prepared for the grant process by evaluating the grant writing course with a median score greater than 7 on a scale of 1 to 9. [Epidemiology track] • Students agree that they feel prepared to compete for funding as evaluated through the Exit Surveys with an average mean score of 1.5 or lower. [Epidemiology track]
3. Contribute to sound public health policies and practices through dissemination of knowledge and community collaboration.	3a. Build and foster community alliances that bridge public health science and practice.	• At least 3 public health professionals from the community will serve on the MPH Advisory Committee. • The MPH program faculty participate in a community-based public health needs assessment at least every 2 years. • At least 5 courses per year include a lecture from a community-based public health professional.
	3b. Disseminate public health knowledge and research findings to policy-makers, public health professionals, and the general community.	• At least 75% of primary faculty members participate in at least one public forum or press interview a year to disseminate research findings to policy-makers, public health professionals, and the general community. • 100% of students disseminate information from their practicum or thesis projects to the general community through participation in at least one conference during the program.
	3c. Engage in collaborative research, training, and service activities with governmental and non-governmental organizations in the community.	• At least 70% of MPH primary faculty members are engaged in at least one collaborative research project with a community-based collaborator every year. • At least 90% of primary faculty members are engaged in service through local, state, national and/or international public health agencies or to the field itself.

Note: Outcome measures for each of the program objectives for each of the last three years are shown in Table 1.2.d.

e. Description of the manner through which the mission, goals, and objectives were developed, including a description of how various specific stakeholder groups were involved in their development.

The MPH Advisory Committee, which includes program leadership, faculty, School of Medicine leadership, students, alumni, and public health professionals, provides oversight of MPH activities and guidance for long-range planning. These key constituencies and others were included in the initial development of the MPH Mission Statement, Goals and Objectives in July 2007 and involved in subsequent revisions. The development process has included discussion in committee meetings and through email correspondence. Additionally, the program has sought public comment from other students, faculty, alumni, and the general public through the posting of the mission statement, goals, and objectives on the MPH program website. In February 2013, the MPH Advisory Committee reviewed and approved the current Mission Statement, Goals, and Objectives. This review was done as part of the strategic planning process, which is described in greater detail in Section 1.2. An additional review of the mission, goals, objectives and values of the program occurred in June 2014 MPH Advisory Committee meeting when the mission and value statement were modified to reflect the needs and vision of the program.

f. Description of how the mission, values, goals and objectives are made available to the program's constituent groups, including the general public, and how they are routinely reviewed and revised to ensure relevance.

The mission, goals, and objectives are available to all stakeholders and the general public through the MPH website (https://medschool.vanderbilt.edu/mph/mission). These have also been disseminated to students, faculty, and alumni through e-mail updates and are included in student orientation materials.

The monitoring of the mission, goals, and objectives occurs systematically at several levels:

1. The Operations Committee continuously reviews the missions, goals, and objectives for the program. The MPH Operations Committee includes Marie Griffin (Program Director), Melissa McPheeters (Epidemiology Track Director), Douglas Heimburger (Global Health Track Director), Marie Martin (Associate Global Health Track Director), Amy Richardson (Practicum Director), and Annie Smart (Program Manager).
2. Primary faculty members review the mission, goals, and objectives at least once per year in faculty meetings. The review and comments are incorporated in the meeting notes for faculty meetings (see Resource File). At the time of our first self-study, the mission, goals, and objectives were reviewed twice yearly, but we have found an annual review to be sufficient.
3. At all annual Advisory Committee meetings, there is discussion about whether the missions, values, goals and objectives continue to meet the needs of the program.
    a. Suggestions for change gathered from any stakeholders throughout the year are presented to the Advisory Committee.
    b. Based on discussion at this meeting, committee members may be asked to vote on alternate versions during or soon after the annual meeting.

    c. The MPH and Track Directors decide on the final wording that incorporates input from the Advisory Committee.
4. The Operations Committee compiles data annually on the program metrics and outcomes, along with guided questions for the Advisory Committee to consider:
    a. An excel spreadsheet with table templates for each outcome measure is created by the Operations Committee.
    b. The Operations Committee collects additional outcome data as needed.
    c. The MPH Advisory Committee receives and reviews outcome data, using the outcome measures shown in Table 1.2.a.
5. The Operations Committee also gathers additional input from students through the Alumni Survey, and Exit Survey and Interviews (see Resource File) which are reviewed annually during Operations Committee meetings and at the MPH Advisory Committee meetings.

Revisions since 2009 Self-study

Based on feedback received from key constituencies during the 2009 self-study process, revisions were made to the mission, goals and objectives in 2010. Minor revisions were made in February 2013, when language was changed to better reflect the mix of students with addition of the Global Health Track. We conducted three focus groups with Global Health track students in Spring 2013 and Fall 2013 to provide additional insight into the strengths, weaknesses and opportunities for enhancement for the track and program related to the objectives, curriculum, administrative support, academic advising, practica and thesis development. Prior to the June 2014 Advisory Committee meeting, several stakeholders expressed interest in shortening the Mission Statement. There was also a suggestion to include cultural diversity as part of our mission. At the June 2014 meeting, there was broad agreement about how to shorten the Mission Statement. Most attending the meeting believed that cultural diversity should be added to our "Values" rather than "Mission," and this was done. Finally, there was a concern that the Mission was misleading concerning which students we were targeting. Following the 2014 meeting, Advisory Committee members were asked to vote on 3 alternative Mission Statements, and there was almost unanimous approval of one, with several suggestions for minor changes. The final wording was approved by consensus of the MPH and Track Directors.

g. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

<u>Strengths:</u>

- Mission, goals, and objectives statements that were developed with input from key constituencies, are updated at least once per year (last in June 2014), are publicly available on the program website, and are supported by a statement of values that guide the program.
- A set of program values that reflect the institution's values, the School of Medicine's values, and values pertinent to public health.

- Based on the CEPH self-study response in 2010, which noted that our objectives for our goals needed to be measurable, we have expanded the quantifiable indicators for our objectives.
- We have integrated assessment of our mission, goals, and objectives into our regular workflow, including it on agendas in the Operations Committee, faculty, and Advisory Committee meetings, further addressing the CEPH self-study response from 2010.
- Students review the mission, goals, and objectives at orientation and receive email notifications about the mission, goals, and objectives through the advising process. They provide feedback through a variety of mechanisms, including surveys, interviews and focus groups.

Weaknesses:

- While we generate reports on our program mission, goals, objectives and values for our various stakeholders, we had not solicited feedback on our assessment plan, including measurement tools and procedures, until June 2014.
- Additionally, our reports to our MPH Advisory Council had not included progress on each measurable indicator, which we opted to include in our June 2014 meeting.

Plans to ensure that this criterion continues to be met:

- While we have spent considerable time expanding and developing quantifiable indicators for our objectives, we would like to continuously enhance these indicators. As a result of our new 2013 membership in the Association of Schools and Programs in Public Health, we have adopted the SOPHAS application. This will allow us to gather additional data on applicants and matriculating students into our program.

1.2 Evaluation. 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 defined in this document.

The MPH program has developed intentional and dynamic processes for monitoring, evaluating and assessing the program's efforts related to mission, goals and objectives. Continuous evaluation is conducted throughout the year and informs program planning and quality enhancement efforts.

The Program Director and Track Directors are responsible for routine monitoring of activities pertaining to curriculum; student recruitment and retention; financial, material, and personnel resources; administrative/office procedures; standards of academic performance; faculty development; program information and marketing. Data are collected throughout the year through surveys, evaluations, interviews, reports, informal feedback and official meetings. That information is reviewed by the Operations Committee and decisions based on the data reflected in the minutes of the regular (at least monthly) meetings. In addition, specific data may be reviewed by other committees as well including course evaluations by the curriculum committee and progress in achieving a diverse student body by the diversity committee. Annual reports on program performance are provided annually to the Advisory Committee (which includes students, community public health professionals, and faculty, and the Associate Dean for Clinical and Translational Scientist Development). Each of these groups is encouraged to provide comments.

If there are recommendations for changes made by particular stakeholders or by the Operations Committee, those recommendations are reviewed and discussed during the regular Operations Committee meetings and an action plan is developed. Major program changes are reviewed by the Department of Health Policy Chair (formerly Department of Preventive Medicine), the Director of the Institute for Medicine and Public Health, and the Advisory Committee. By way of example, when the Global Health track was first proposed, it required considerable discussion, synchronization and planning to ensure that it was value-added for the MPH program as a whole and met the needs of various constituencies. All stakeholders, including the Operations Committee, Curriculum Committee, Advisory Committee, School of Medicine leadership and students were consulted. The final approval came through the School of Medicine leadership, who viewed the expansion of the program as beneficial, expanding the opportunities for the program to train leaders and practitioners for a greater variety of public health careers in global or local settings.

The addition of the Global Health track has resulted in the doubling of most aspects of the program including students, faculty, and administrative support. The Operations Committee has changed to reflect this increased complexity and has the flexibility to meet weekly when needed. For example, the Operations Committee met weekly for a year prior to the launch of the Global Health track, and again from January through June 2014 met on a weekly basis due to the change in program leadership and finalizing and beginning implementation of the Strategic Plan. The

Program Director and Track Directors have delegated responsibility for public health practicum activities, including identification of opportunities for practicum placement and evaluation to the Practicum Director, Amy Richardson.

Following the 2010 self-study process, a Diversity Committee comprising program administration, faculty, students, and School of Medicine leadership was formed to enhance diversity efforts of the MPH program. The Diversity Committee is led by Kecia Carroll, MD, MPH, a graduate of the program and faculty member in the Department of Pediatrics. The Diversity Committee leads efforts to recruit talented and diverse students, incorporate issues of inclusion and diversity into the curriculum, and hosts the annual David Satcher scholarship lecture. These efforts are evaluated through student metrics, course evaluations and evaluations of the events surrounding the David Satcher scholarship lecture. More information on diversity efforts is included in Section 1.8.

a. Description of the evaluation processes used to monitor progress against objectives defined in Criterion 1.1.d, including identification of the data systems and responsible parties associated with each objective and with the evaluation process as a whole. If these are common across all objectives, they need be described only once. If systems and responsible parties vary by objective or topic area, sufficient information must be provided to identify the systems and responsible party for each.

The outcome evaluation plan for the Vanderbilt MPH program is illustrated in Table 1.2.a. Each objective has been linked to specific data collection methods, which are described in detail below. Annie Smart, the Program Manager, is responsible for compiling data, generating reports and recording meetings. As mentioned in the previous section, much of the initial program evaluation and development of processes and procedures occurs through regular Operations Committee meetings. In addition, a number of committees serve specific tasks and report to the Operations Committee. These include decisions on admissions and scholarships (Admissions and Promotions Committee), assertion of completion of all graduation requirements (Admissions and Promotions Committee), and review of courses evaluations (bi-annual Curriculum Committee meetings). Program evaluation also occurs through the CEPH self-study process, which is reflected in this document. Program effectiveness is assessed using information from a number of sources, including:

Student input
Students are engaged in various evaluation efforts for the program. The *process evaluations* incorporate both first and second year students and *outcome evaluations* are linked to second year or graduating students.

<u>Process Evaluations</u>

- *Advising Meetings.* During bi-annual advising meetings with the respective Track Directors, each student is asked to provide feedback about the program. These comments are then forwarded as a composite to the Operations Committee for review and consideration. By way of example, it was suggested that the program communicate with thesis advisors at the beginning of each semester to update them on expectations of students for the coming months. This was implemented and has been favorably received by students and advisors.

During one year, several students commented that some aspects of the statistical package being taught in biostatistics were confusing. This information was provided to the course director, who removed these lectures from the course the following year.

- *Course Evaluations.* At the end of each course, anonymous on-line course evaluations are administered to each student taking the course through a secure data management system called REDCap (see Resource File). REDCap allows the program to track completion, automate reminders and generate reports. The course evaluation includes Likert-scale items, combined with open-ended questions addressing the following domains:
    - Difficulty level of the course
    - Course organization
    - Instructor effectiveness
    - Text quality
    - Overall course rating

  In addition, there are often course specific questions added by the course director regarding course structure, lecturers, small group discussion, etc. For example, in the Protocol Development course, the Course Director was considering changing the presentation format for student presentations. A question was included in the course evaluation, which guided the decision to maintain the existing structure due to the overwhelming support for it. The evaluations also include written general comments.

  We have had 100% completion of course evaluations for every course offered since 2000. Completion of course evaluations (which take no more than 5-10 minutes to complete) is mandatory, and reminders are sent through REDCap until the surveys have been completed by all students. Grades are not released until all evaluations are complete. We follow this policy because accurate course evaluations are a cornerstone for maintaining a high-quality curriculum, and such accuracy requires that all students provide input.

- *Focus Groups.* Focus groups have been held each year with the global health track students in an effort to enhance the new offerings of the program. Several students in the 2012 focus group suggested that the Global Health Practicum Development course in the fall could be spread out over the entire semester as opposed to being held in the month of December, thereby allowing students greater mentorship as they networked with organizations and developed their practicum projects. The course was redesigned for Fall 2013 and received very positive student evaluations.

<u>Outcome Evaluations</u>

- *Practicum Evaluation*. Both students and site supervisors complete evaluation of the practicum experience. The site supervisors evaluate MPH students based on the program competencies associated with the practicum. That feedback is shared with the student. Students detail their experience and feedback in practicum reports which are also used by the Practicum Director for continued enhancement efforts. More information on this process is included in Section 2.4.
- *Thesis Evaluation*. Outcome data from the progress of students through the final culminating experience is included in programmatic reports. All MPH students must complete a thesis as a requirement of the program. More information on this process is included in Section 2.5.

- *Exit Surveys and Interviews*. The Office of Biomedical Research Education & Training conducts exit interviews with a sample of graduating students. The exit interview consists of an anonymous online survey (completed by all students) and a face-to-face student focus group (for students available at the given time/date). Prior to 2014, the Program Director attended the first 30 minutes of the focus group and then left; since then, the Program Director no longer participates in this process. Reports from the exit interviews are provided back to the Operations Committee and summaries are presented to the Advisory Committee. See resource files for the exit surveys and section b. below for response to most recent exit surveys.

Faculty input
During faculty and Curriculum Committee meetings, MPH program faculty are invited to provide input into overall program operation, as well as specific program issues. During the most recent strategic planning process, the Director of the Center for Teaching and Learning at Vanderbilt led program faculty in a curriculum development workshop dedicated to innovative teaching pedagogies and instructional techniques. This provided an opportunity to gather important feedback on individual courses and share best practices amongst faculty. In addition, several faculty have begun to use the "flipped classroom" approach, which has evidence for increased learning effectiveness.

Alumni input
The MPH program conducts a survey of alumni every 3 years. Students who graduated within a 3-year period (2010-2013) were surveyed in Fall 2013 to get their perspective 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 their current position, job satisfaction, experience and level of satisfaction with the MPH program, quality of various aspects of the MPH program, and personal accomplishments. The program also asked students about the program objective of having alumni who feel prepared to compete for funding, which supports the program goal of advancing knowledge through evaluation and discovery. Detailed survey results are found in section 2.7.f.

Employer input
The MPH program surveys employers of recent MPH graduates every 3 years. Employers of selected graduates from 2010-2013 were surveyed in Fall 2013 with regard to whether the program is accomplishing the goal of producing innovative and effective public health researchers, faculty, and practitioners. The survey was distributed by email to employers identified by the graduates with a link to an online survey and had an 88% response rate. The survey included questions probing the adequacy of student preparation in the MPH program's core competencies. The survey also sought open-ended comments. Detailed survey results are found in section 2.7.f.

Strategic Planning Process
The 2010 CEPH accreditation report identified weaknesses in the use of program evaluation tools to inform continued evaluation and planning for the program. As part of our recent strategic planning process, we compiled data from course evaluations, program evaluations, employer surveys, exit surveys, alumni surveys and other evaluation efforts to guide committee discussions

on the development of the program. The data helped us to identify areas for improvement and reinforce areas of strength. We utilized a broad group of stakeholders such as faculty, students, alumni, and community representatives in all of these efforts. In terms of meeting our objectives, we have included threshold targets for each of our measures and where appropriate, stretch targets are included as a means of encouraging continued enhancement of the program.

Every three to five years, the program completes a strategic planning process to enhance the program's ability to achieve its mission in the future. The planning process includes consideration of the past performance of the program relative to its missions, goals, and objectives and strategic directions that should be pursued to enhance the program. Informed by the strategic planning process that accompanied the program's first self-study in 2010, the Global Health track was developed and implemented. This took nearly two years to launch and subsequent evaluation of that track has included focus groups, anonymous surveys, individual faculty meetings, Curriculum Committee, Advisory Committee and Operations Committee reviews [see Resource file].

In 2013, program leadership recognized the evolving needs for engagement in public health. At the same time, the School of Medicine developed a new Department of Health Policy, which created additional opportunities. Thus, the program embarked on an ambitious strategic planning process to guide the program over the next 3-5 years. The strategic plan was designed to address a series of important questions:

- What are the program's core values? What should they be?
- Should we stay a "boutique" program, or should we grow? If so, in which areas?
- Should we offer more dual degrees? More tracks? In what areas?
- How do we distinguish ourselves from other programs?
- Are there educational approaches that we should explore to help us achieve our goals?
- What would excellence look like in 3 years? In 5 years? In 10 years?

The Strategic Plan was guided by a steering committee made up of program leadership, faculty, students, alumni, and public health professionals. The steering committee mapped out a plan for obtaining broad input from all key stakeholders, including the above groups and School of Medicine leadership.

In Fall 2013, a series of focus groups and individual key informant interviews were conducted with: faculty, students, public health professionals, administration/staff, alumni, employers, potential students, persons from underrepresented groups, and School of Medicine leaders. The process also included collecting data on the current activities of the program, resources, students, metrics, context, and mission. Notes from these meetings were reviewed by the Steering Committee to identify key themes, which were refined in a series of meetings and discussions in late Fall 2013.

Five key strategies emerged during this process, including:

- Explore opportunities for strategic expansion.
- Make stronger connections.
- Expand the use of innovative teaching techniques.

- Pursue philanthropy to support continued program excellence.
- Share the program's successes to increase its local, regional, and national reputation.

A draft strategic plan was developed by the steering committee and posted publicly on the website for comment and circulated to key stakeholders by email. Following a period of public comment, these suggestions were incorporated into the final document. In spring 2014, the program began the Implementation Phase of the Strategic Plan to guide the program over the next 3-5 years. That included initial development of a new track in Health Policy (which has been approved by CEPH through a substantive change request as of August 2014), efforts to strengthen connections with the Metro Health Department through a formal Memorandum of Understanding, and piloting of an online modular course in Informatics in Public Health in Fall 2015. The Plan was discussed at the June 2014 Advisory Committee meeting. The Operations Committee will determine if each of these strategies will require a discrete workgroup and before January 2015 chart a timeline for addressing each strategy.

b. Description of how the results of the evaluation processes described in Criterion 1.2.a are monitored, analyzed, communicated and regularly used by managers responsible for enhancing the quality of programs and activities.

Case Study 1: Practicum Enhances Program Quality

In 2004, when the program leadership developed a strategic plan to seek accreditation, one of the major changes was the addition of a required practicum. Since the addition of this requirement, students have noted the practicum as one of the most positive experiences of the program. The MPH program has dedicated considerable MPH resources to the practicum in order to optimize its value for each student, from travel-related support to the addition of an MPH Practicum Colloquium in January 2014. The colloquium provided MPH students in both the Epidemiology and Global Health tracks an opportunity to present their practica experiences in a conference-like setting and compete for professional development funding. Students received feedback from faculty, students, and local practicum supervisors while enhancing their presentation skills. The colloquium was so well-received that it will become an annual event for the program.

Reports generated by the Program Manager through the various evaluation procedures described above allow the program to assess progress against mission, goals, and objectives. Performance measures for each objective and data sources needed to construct each performance measure were identified as a part of the self-study process. The program's performance measures are fully articulated in section 1.2.a.

Our excellent course evaluation system provides an example of how evaluation and planning enhance the quality of programs and activities. Once all evaluations for a course have been received, the program manager compiles numeric responses and verbatim comments into a single course evaluation report, which is distributed to the course director, the Program Director, and the Track Directors. The Track Director acknowledges the contribution of the faculty member and may comment on some aspect of the evaluations. By way of example, a new Social and Behavioral Methods Course Director utilized a new pedagogy this year called the "Flipped Classroom." It was a resounding success, and the Course Director was applauded for his use of innovative educational techniques.

At the end of each semester, the Curriculum Committee reviews all course evaluations and provides input and recommendations. In the Curriculum Committee, student and alumni

comments are particularly valuable to place evaluations in perspective. It is after this more thorough review that Track Directors may talk directly to Course Directors if specific changes are recommended by the Committee.

Course evaluations play an integral role in program planning. For example, 2 years ago, students expressed some concerns about the difficulty of the Biostatistics 2 course. Students expressed similar concerns about the course in the exit interviews. The course director was open to revising both the format and content of his lectures. The Epidemiology 2 course director agreed to review the content of the Biostatistics 2 course and also made important suggestions regarding the format. Important changes included limiting lectures to 45 minutes, increased use of a teaching assistant (provided by the program), and limiting the amount of material presented. The following year, this course received its best rating ever, and the course director remained very happy with the content he was presenting and the reception of the students to the material. As the Global Health track has developed, course evaluations have been used to generate dialogue on best practices and opportunities for course enhancements. The course directors for the core global health courses have met quarterly to discuss course development and reinforce synergies across courses and minimize redundancies. Course evaluations provide additional insight from students, which serve to strengthen the courses and the track.

Exit surveys are used to identify strengths and weaknesses in particular areas and enhance quality improvement efforts for the program as a whole. In 2014, the exit survey was adjusted and expanded significantly to capture additional data on the varied experiences that students in both the Epidemiology and Global Health tracks had in the program. In addition, the exit interview process was revamped. The interview prompts were expanded and framed as a SWOT (strengths, weaknesses, opportunities and threats) analysis for the program. Neither the program director nor track directors were present for these interviews in an effort to generate robust discussion with the objective interviewer, a full-time staff member in the School of Medicine's Biomedical Research Education and Training (BRET) Office. The 2014 results were reviewed in the Operations Committee meetings and during the June 2014 Advisory Committee meeting. Recommendations for program enhancements are noted below.

Recent changes that have resulted from program evaluation include:

- Expansion of the David Satcher Public Health Scholars program to include Global Health track students, which provides full tuition scholarship support and the opportunity to participate in the activities at the David Satcher Center for Health Disparities at Morehouse Medical College for the student's practicum.
- Increased focus on global health in the course content to reflect the addition of the global health track and the recognition of local, national and global aspects of public health.
- Re-organization of Biostatistics 2 to include less lecture time and more in-class problem solving and increased use of a teaching assistant.
- Continuous improvement of public health delivery and environmental health courses based on targeted feedback.
- Based on the 2014 Exit Interviews, proposed changes to the program will include expansion of career development sessions, improved course registration system, increased rigor and practical skills-based projects in the global health courses, and continued enhancement of program requirements and expectations.

c. Data regarding the program's performance on each measurable objective described in Criterion 1.1.d must be provided for each of the last three years. To the extent that these data duplicate those required under other criteria (e.g., 1.6, 2.7, 3.1, 3.2, 3.3, 4.1, 4.3, or 4.4), the program should parenthetically identify the criteria where the data also appear. See CEPH Outcome Measures Template.

Program goals specific to education, research and service, with corresponding objectives and performance measures have been adopted and disseminated to program administration, School of Medicine leadership, program faculty, students, alumni, and community-based stakeholders. Administrative practices and curriculum are guided by 40 individual performance measures, including 26 focused on education, seven focused on research, and seven focused on service. Each performance measure has a specified target. Performance measures by program goals and objectives are shown in Table 1.2.a. Targets for each goal were developed in the process of review of outcome measures by program administration, faculty, students, and members of the MPH Advisory and Curriculum Committees. Threshold targets are stated and, where appropriate, stretch targets are included as a means of encouraging forward progress for the program. The philosophy guiding target and stretch goals was based on past historical performance of the program and the overall missions and goals of the program. For example, because nearly all of our students in the Epidemiology Track have doctoral preparation, we believe that all of our primary faculty should also have a terminal degree in their field. Thus a goal of 100% for this measure was chosen.

Table 1.2.a MPH Program Outcome Measures & Results (2010-2015)*
**select years where appropriate*

a. Educate innovative and effective public health researchers, faculty, and practitioners.				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
Recruit highly talented students with cultural diversity who are committed to population health and will likely make substantial contributions to the field.				
Students have doctoral preparation and/or sufficient health-related experience to facilitate participation in the program. [Epidemiology Track]	% of incoming students with doctoral preparation or a minimum of 2 years of health-related experience	Annual Admissions Committee Actions	100%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
Students have experience working in a low resource setting domestically or internationally.* [Global Health Track]	% of incoming students with at least 1 year of experience in a low resource setting domestically or internationally	Annual Admissions Committee Actions	At least 60% (Stretch: 80%)	11-12: ---- 12-13: 20% 13-14: 29% 14-15: 69% *Note: First Global Health track students matriculated in 2012
Student body is culturally diverse.	% of incoming students who are racial/ethnic minorities or from economically disadvantages backgrounds/countries	Annual Admissions Committee Actions	At least 20% (Stretch: 30%)	11-12: 29% 12-13: 38% 13-14: 27% 14-15: 13%

Table 1.2.a MPH Program Outcome Measures & Results (2010-2015)* **select years where appropriate*				
a. Educate innovative and effective public health researchers, faculty, and practitioners.				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
Graduates express commitment to public health as a long term career goal.	% of graduates whose long-term career goals include public health	Exit interviews	At least 75% (Stretch: 100%)	10-11: 100% 11-12: 93% 12-13: 86% 13-14: 87%
Graduates are likely to make substantial contributions in the field.	% of graduates who publish in the field of public health within 3 years of graduation	Publication search, CV review	At least 75% (Stretch 80%)	2011: 94% 2012: 100% 2013: 86%* (Note: 3 years have not yet elapsed)
Graduates are likely to make substantial contributions in the field.	% of graduates who present at local, national or international conferences during their time in the MPH program	Exit survey	At least 75% (Stretch 80%)	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Graduates are likely to make substantial contributions to the field.	% of graduates in local, state, federal, or international public health agencies	Program review, ASPPH alumni survey	At least 30% (Stretch 50%)	10-11: 18% 11-12: 23% 12-13: 6% 13-14: 32%
Provide students exposure to outstanding faculty in the range of disciplines and specialties consistent with the program's mission.				
At least 15 FTE of faculty time is dedicated to teaching or activities relevant to the public health program.	FTE count of primary faculty	Annual curriculum review	15.0 FTE	11-12: 10.78 12-13: 17.3 13-14: 20.6 14-15: 20.3
Faculty have terminal degrees in their field.	% of primary faculty with doctoral preparation or terminal degrees in their field	Annual curriculum review	100%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
There are sufficient faculty to teach and mentor students.	Faculty/Student ratio (primary and secondary)	Annual Review	< 2	11-12: 2.2 12-13: 2.6 13-14: 2.1 14-15: 2.7
Faculty have experience in the range of disciplines pertinent to the core competencies: epidemiology, biostatistics, social and behavioral sciences, and global health.	Primary faculty teaching core offerings have experience in at least one core competency	Annual curriculum review	100% - Each core discipline is covered	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Faculty are considered to be excellent teachers by the students.	Primary faculty effectiveness ratings with mean scores >7 for each course	Course evaluations	At least 75% of courses (Stretch: 100%)	10-11: 93% 11-12: 93% 12-13: 91% 13-14: 91%
The faculty are culturally diverse.	% of primary faculty who are racial/ethnic minorities	Annual Review	At least 15% (Stretch 30%)	11-12: 21% 12-13: 13% 13-14: 12% 14-15: 12%

Table 1.2.a MPH Program Outcome Measures & Results (2010-2015)* **select years where appropriate*				
a. Educate innovative and effective public health researchers, faculty, and practitioners.				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
The faculty represents a balance of gender.	% of primary faculty who are women	Annual Review	At least 40% (Stretch 50%)	11-12: 21% 12-13: 30% 13-14: 31% 14:15: 31%
Provide excellent educational programs and opportunities				
The program has excellent educational offerings.	Overall course evaluations with mean scores >7	Course evaluations	At least 75% of courses (Stretch: 100%)	10-11: 93% 11-12: 93% 12-13: 82% 13-14: 91%
Courses address core competencies.	Course syllabi address 100% of core competencies	Course syllabi	100% of core competencies covered	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Students exhibit mastery of core public health competencies in a community-based setting.*	Practicum preceptors evaluate students' mastery of all 7 competencies	Annual practicum evaluation	At least 90% of students demonstrate mastery in all competencies (Stretch: 100%)	10-11: 50% 11-12: 67% 12-13: 33% 13-14: 82% *Note: there is significant missing data from 2010-2013.
Students exhibit mastery of core public health competencies in their thesis seminar presentation.	Program leadership rates students as demonstrating 15 of 23 core competencies	Curriculum Committee review	At least 90% of students demonstrate mastery in at least 15 core competencies (Stretch: 100%)	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Learning objectives and competencies identified in curriculum map to respective course content.	Learning objectives and competencies are included in syllabi and mapped to course content	Curriculum Committee review annually	100% of syllabi meet this target	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Students report they have achieved competency in the core subjects in Public Health (biostatistics, epidemiology, environmental health, Health services administration, Social and behavioral sciences).	On a scale of 1-4 (1=Agree Completely, 4=Disagree Completely), average mean score 1.5 or lower	Exit Survey	Average mean score of 1.5 or lower	10-11: 1.77 11-12: 1.70 12-13: 1.57 13-14: Epi: 1.37 GH: 2.182
The MPH program administration is culturally diverse.	% of program administrators who are racial/ethnic minorities	Annual Review	At least 15% (Stretch 30%)	10-11: 0% 11-12: 13% 12-13: 11% 13-14: 11% 14-15: 17%
At least 1.5 (one prior to 2012) full tuition scholarships are available annually (generated by tuition revenue for the program).	1.5 or more full tuition scholarships annually (generated by tuition revenue for the program)	Admissions and Promotion Committee	1.5 full tuition scholarships annually	10-11: 1 11-12: 1 12-13: 2 13-14: 2 14-15: 2

Table 1.2.a MPH Program Outcome Measures & Results (2010-2015)* **select years where appropriate*				
a. Educate innovative and effective public health researchers, faculty, and practitioners.				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
At least 1.5 (one prior to 2012) additional full tuition scholarships are available annually for students who are from a racial/ethnic minority or economically disadvantaged background/country (generated by tuition revenue for the program).	1.5 or more full tuition scholarships annually for students who are from a racial/ethnic minority or economically disadvantaged background/country (generated by tuition revenue for the program).	Admissions and Promotion Committee	1.5 full tuition scholarships annually	10-11: 1 11-12: 1 12-13: 2 13-14: 2 14-15: 1.5
Tuition generates sufficient funds to cover all teaching expenses.	Tuition revenue covers expenses	Health Policy MPH Finance Team	100%	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Students would recommend the MPH program to others.	At least 75% of graduating students indicated agreement by selecting "yes"	Exit Survey	At least 75% of graduating students	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 74%
Promote lifelong learning				
Students indicate an interest in continuing educational opportunities in epidemiology [Epidemiology Track]	On a scale of 1-4 (1=Not Interested, 4=Extremely Interested)	Exit Survey	Mean score of 3 or higher	10-11: 3.09 11-12: 3.42 12-13: 3.07 13-14: ----- *Note: problem with this question in the 2014 Epi exit survey
Students indicate an interest in ongoing continuing educational opportunities in public health.	On a scale of 1-4 (1=Not Interested, 4=Extremely Interested)	Exit Survey	Mean score of 3 or higher	10-11: 3.27 11-12: 3.43 12-13: 2.79 13-14:3.25[GH] *Note: problem with this question in the 2014 Epi exit survey

Table 1.2.a. MPH Program Outcome Measures & Results (2011-2015*), continued				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
b. Advance knowledge in the public health sciences through research and discovery.				
Contribute scientific knowledge in the public health disciplines.				
Faculty members contribute scientific knowledge by publishing articles in the peer-reviewed literature.	% of primary faculty publishing at least 1 article in the peer-reviewed literature per year	Faculty CV review	100%	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 84%

Table 1.2.a. MPH Program Outcome Measures & Results (2011-2015*), continued				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
b. Advance knowledge in the public health sciences through research and discovery.				
Faculty members contribute scientific knowledge by publishing articles in the peer-reviewed literature.	N articles per primary faculty member (median) per year	Faculty CV review	Median of at least 3 articles per primary faculty member per year	10-11: 6.7 11-12: 6.9 12-13: 3.9 13-14: 3.9
Faculty members obtain grants to support public health research.	% of primary faculty members with grant support as PI or Co-Investigator each year	Faculty CV review	At least 75% [Stretch of 80%]	10-11: 100% 11-12: 100% 12-13: 75% 13-14: 75%
MPH students publish their MPH theses or on a topic closely related to their theses.	% of students who publish at least one article related to their thesis within 3 years of graduation	CV Review and PubMed Search	At least 60% [Stretch of 75%]	2010: 76% 2011: 92% 2012: 83% 2013: 86%* *Note: full 3 years have not elapsed
Foster an environment that promotes creativity, collaboration, and interdisciplinary research, including engagement of students in faculty research.				
Faculty collaborate with at least one member of another department on research projects or grants.	% of Primary faculty collaborate with at least one member of another department on research projects or grants.	Faculty CV review	At least 75% of primary faculty	11-12: 100% (14 of 14) 12-13: 91% (21 of 23) 13-14: 88% (23 of 26) 14-15: 88% (23 of 26)
MPH students are involved in faculty research projects.	N of MPH students (second year) who participate in MPH primary or secondary faculty research	Annual Review and Exit survey	At least 20	11-12: 13 (100%) 12-13: 17 (100%) 13-14: 24 (100%) 14-15: 22 (100%)
Train researchers and public health practitioners to compete successfully for funding in the public health sciences.				
Training in grant-writing is rated as excellent by students. [Epidemiology track]	Overall course evaluation for grant writing course has a median score >7	Course evaluations	The median rating for this course will be >7	10-11: 9 11-12: 8 12-13: 8 13-14: 8
Alumni feel prepared to compete for funding. [Epidemiology track]	On a scale of 1-4 (1=Agree Completely, 4=Disagree Completely)	Exit survey	Average mean score 1.5 or lower	10-11: 1.33 11-12: 1.85 12-13: 1.57 13-14: 1.38

Table 1.2.a. MPH Program Outcome Measures & Results (2011-2014*), continued				
c. Contribute to sound public health policies and practices through dissemination of knowledge and community collaboration.				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
Build and foster community alliances that bridge public health science and practice.				
Community-based public health professionals are included on the MPH Advisory Committee.	Inclusion of N public health professionals from the community on MPH Advisory Committee	Committee Roster	At least 3	11-12: 7 12-13: 4 13-14: 4
The MPH program faculty participate in a community-based public health needs assessment at least every 2 years.*	Needs assessment is performed every 2 years	Needs assessment	100% completion of needs assessment	11-12: 100% 12-13: --- 13-14: 100% *Note: this assessment is only conducted every two years
Community-based public health professionals are involved in teaching core courses.	N core courses with at least 1 lecture by a community-based public health professional	MPH Core Syllabi	At least 5	10-11: 9 11-12: 9 12-13: 9 13-14: 9 14-15: 9
Disseminate public health knowledge and research findings to policy-makers, public health professionals, and the general community.				
MPH faculty disseminate research findings to policy-makers, public health professionals & the general community through participation in public forums and press interviews.	% of primary faculty who participate in at least 1 press activity and/or public forum per year	Faculty CV review	At least 75%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
MPH students disseminate information from their practicum or thesis projects to the general community through participation in conferences.	% participation rate by MPH graduating students in at least one public-health/health-care related conferences during program	Exit surveys	100%	10-11: 100% (17 of 17) 11-12: 100% (12 of 12) 12-13: 100% (16 of 16) 13-14: 100% (24 of 24)
Engage in collaborative evaluation, training, and service activities with governmental and non-governmental organizations in the community.				
MPH faculty are engaged in collaborative research projects with a community-based collaborator.	% of primary faculty engaged in research projects with a community-based collaborator per year	Faculty CV and/or program review	At least 70%	11-12: 64% (9 of 14) 12-13: 74% (17 of 23) 13-14: 73% (19 of 26) 14-15: 73% (19 of 26)
MPH faculty are engaged in service through service to local, state, national and/or international public health agencies or to the field itself.	% of primary faculty with at least 1 service activity per year to local, state, national and/or international public health agencies or to the field itself	Faculty CV and/or program review	At least 90%	11-12: 93% (13 of 14) 12-13: 91% (21 of 23) 13-14: 85% (22 of 26)

d. Description of the manner in which the self-study document was developed, including effective opportunities for input by important program constituents, including institutional officers, administrative staff, faculty, students, alumni and representatives of the public health community.

While self-assessment is necessarily an ongoing process, the current focus on self-study activities began during December 2013. The program's Operations Committee set a timeline for examining accreditation criteria and distributed workload among Operations Committee members, key program leadership, and program staff. Marie Martin, co-director of the Global Health Track and an expert in international education is devoting 20% of her time to this effort. She meets weekly with the Director to review progress. A draft will be posted on-line for review and anonymous comment by the public. Students, faculty, alumni, and university colleagues are invited to review and comment on draft sections through email communications and posting on the MPH website. Comments received by these methods are recorded and considered by the Director.

The Advisory Committee assessed the program's overall performance with respect to the program having met performance measures identified above. Input from the Advisory Committee and other stakeholders will be incorporated into the plans for implementing our Strategic Plan.

e. Assessment of the extent to which this criterion is met, and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

As part of the Strategic Planning process, various focus groups addressed strengths, weaknesses, opportunities and threats for the program, the program's focus and size, the current and future degree offerings, and educational approaches as well as the core values of the program. A candid assessment of strengths and weaknesses in included in the Resource file.

We believe this criterion is met with comment. An analysis of the Vanderbilt MPH program has identified:

<u>Strengths:</u>

- Procedures for program evaluation and planning that include specification of program objectives and performance measures specific to education, evaluation and service;
- Program governance that reflects input from key stakeholders, including recently augmented representation from community public health professionals from the Centers for Disease Control and Prevention, the Metro Nashville Health Department, and the Tennessee Department of Health.
- Responses from assessment procedures that have been incorporated into program planning and operations. For example, in response to our comparison of course offerings to our competencies in Health Services Administration, we have expanded our Health Services Administration course offerings by adding 2 courses, Public Health Delivery and Healthcare Systems. The first is co-taught by a Vanderbilt faculty member and the Tennessee State epidemiologist. The second is taught by a faculty member in Vanderbilt Owen School of Management. The planning for these additional modules occurred in summer 2009 and the

first expanded offering occurred in April 2010. Further changes were made in 2013, when the Health Care Systems component (required for Epidemiology Track students) was expanded to 2 credits and taught at Vanderbilt's Owen Business School where MPH students mixed with business students. Public Health Delivery remains 1 credit and is a requirement for all students. Syllabi for all the Health Services Administration courses are available in the Resource File (1.2).

- A self-study was completed with considered input and communication from key stakeholders. Sections of the self-study were drafted by key stakeholders. The entire document was distributed to faculty, students, curriculum, and Advisory Committee members and was made available for public comment. Comments for all stakeholders, including public health professionals, students, alumni, faculty, and School of Medicine leadership were included in the final document.
- We have incorporated assessment of our outcome measures into Operations Committee activities. Outcomes are also shared at least once per year with the Advisory Committee, the Curriculum Committee, and the faculty.
- We have implemented procedures to ensure that the considerable benefits derived from the self-study process continue, including alumni surveys, employer surveys, and expanded questions in the exit interviews. Additional track related and general programmatic questions have been added to the exit surveys in an effort to collect additional data for quality improvement purposes.

<u>Weaknesses:</u>

- Although our proportion of culturally diverse students met our threshold target in 2013-2014, we noted that this was a decrease from previous years. Thus, we implemented several new initiatives to enhance the cultural and racial diversity of our student body which are described in greater detail in Section 1.8.
- While we collected information on preceptors' perceptions of students in their practica, it was not collected in a systemic way, and we are missing a lot of data. Beginning in 2013-2014, we began collecting this information online in an effort to combat missing data.
- We did not previously collect contact information and employer information from graduating seniors in a standardized format, but have revamped our exit interviews and survey to capture that information for future Alumni and Employer Surveys.

<u>Plans to ensure that this criterion continues to be met:</u>

- As a new member of the Association of Schools and Programs in Public Health, we are now using the common application tool of SOPHAS. This will allow us to gather additional data for use in evaluating our diversity efforts such as primary language spoken at home, whether the student is the first in the family to attain a bachelor or graduate degree, etc.
- We recognized that the measures associated with preparing graduates for funding opportunities were largely focused on those pursuing careers in academic medicine. We will be developing a future course on funding as it relates to grant-writing and other funding initiatives in public health more broadly.
- Move forward with key strategies which have emerged during the strategic planning process.
- Faculty in the Global Health track have recently been awarded seed funding for the development of an innovative, online informatics in global public health course in AY 2014-2015.

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

a. A brief description of the institution in which the program is located, along with the names of accrediting bodies (other than CEPH) to which the institution responds.

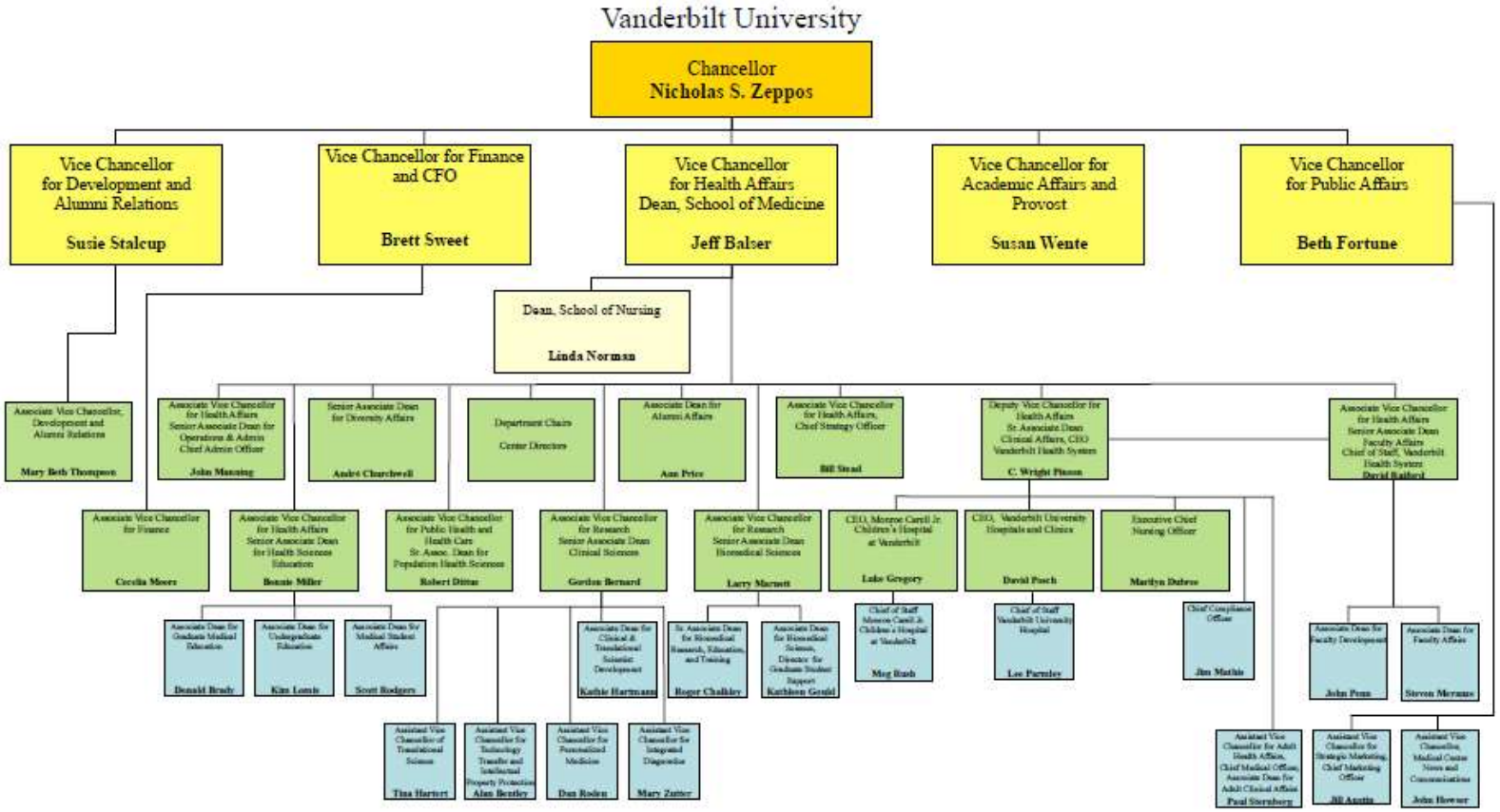
The MPH program is a degree granting program of the Vanderbilt University School of Medicine (VUSM), which is accredited through the Liaison Committee on Medical Education. Vanderbilt University School of Medicine was founded in 1878 and is the ideal environment for the MPH program to succeed. Biomedical research at Vanderbilt has long been recognized for its contributions to the advancement of medicine. The School of Medicine claims two Nobel Laureates, Earl Sutherland, Jr., in 1971 and Stanley Cohen in 1986. Vanderbilt is currently ranks 9th among all US Medical Schools in NIH funding. VUSM received $292,413,440 in NIH grant support during calendar year 2013, and moved up four places from its 2012 ranking by adding an additional $5,723,560 in funding. In 2013, four of VUSM's basic science research departments and six of its clinical departments were ranked among the nation's top 10 in NIH funding relative to similar departments at peer institutions. VUSM's NIH-funded Clinical and Translational Science Award, awarded first in 2007 for $40 million and renewed in 2012 for $46 million, has been the catalyst to bring basic and clinical researchers together and has provided pilot grants, educational resources, and biostatistics and informatics support essential for taking a good idea from the laboratory to the clinic and into the community.

The School of Medicine is one school within Vanderbilt University, a private research university of 6,835 undergraduate and 5,960 graduate and professional students. The university comprises 10 schools, multiple National Centers and The Freedom Forum First Amendment Center. The MPH program draws upon the broad expertise of the Vanderbilt Institute for Global Health, which facilitates new international partnerships and works to strengthen existing global relationships involving Vanderbilt faculty, VU centers and institutes, and affiliated institutions at home and around the world. Vanderbilt offers undergraduate programs in the liberal arts and sciences, engineering, music, education and human development as well as a full range of graduate and professional degrees. Vanderbilt University is accredited by several bodies, including: Commission on Colleges of the Southern Association of Colleges and Schools, Association to Advance Collegiate Schools of Business International, American Bar Association, Council of the Section of Legal Education and Admissions to the Bar, Accrediting Board for Engineering and Technology, American College of Nurse-Midwives, Division of Accreditation, American Chemical Society, American Psychological Association, American Speech-Language-Hearing Association, Council on Academic Accreditation in Audiology and Speech-Language Pathology, Association of Theological Schools in the United States and Canada, Commission on Accrediting, Commission on Accreditation of Allied Health Education Programs, Council for Accreditation of Counseling and Related Educational Programs, Liaison Committee on Medical Education. National Association of Schools of Music, Commission on Accreditation, National Council for Accreditation of Teacher Education, and the National League for Nursing Accrediting Commission. A complete list of accrediting agencies is available here: https://virg.vanderbilt.edu/virgweb/fb.aspx?show=1&view=3&detail=23.

b. One or more organizational charts of the university indicating the program's relationship to the other components of the institution, including reporting lines and clearly depicting how the program reports to or is supervised by other components of the institution.

The organizational chart below (and included in the Electronic Resource File) shows the relationship of the program to the other components of the School of Medicine and the University.

Figure 1.3.a.
VANDERBILT UNIVERSITY MEDICAL CENTER ORGANIZATIONAL CHART



The Vanderbilt MPH program is one of several masters programs housed in the School of Medicine. All of these programs report to Dr. Katherine Hartmann, Associate Dean for Clinical and Translational Scientist Development. The MPH program interfaces with Vanderbilt's Master of Science in Clinical Investigation in several ways. For example, many of the Vanderbilt MSCI students take core MPH courses with our students, including Epidemiology 2 and Grant Writing; while many MPH students take Clinical Trials, which is an MSCI course. In addition to core course offerings, MPH and MSCI students at Vanderbilt participate in the monthly Clinical and Translational Scientist Development Seminar Series, as well as the annual Visiting Scholars Day and the annual Career and Research Day, where students from both programs present updates on their thesis projects.

In addition to the MSCI students, librarians, biomedical informatics masters students, and genetics doctoral students often take MPH course offerings. Graduate students from other schools and colleges at Vanderbilt also take the core global health courses, which have appealed in particular to students in such programs as the M.Ed. in International Education Policy and Management (Peabody College of Education and Human Development), the M.A. in Latin American Studies and the M.A. in Medicine, Health and Society (College of Arts and Science, Graduate School). We find that this interdisciplinary learning environment exposes our students to different perspectives and approaches when considering public health issues.

In November 2014, an announcement was made that Vanderbilt's Board of Trust had directed the institution's senior leadership to reconfigure VUMC as a not-for-profit academic medical center to be financially distinct from Vanderbilt University. However, the two organizations will remain tightly woven together by mission and the respected Vanderbilt name. This merger will not effect the organizational structure for the MPH program as it will remain with VUMC. An official letter will be issued to all accrediting bodies, including CEPH, from Vanderbilt describing the changes to the institution in 2015. The merger is expected to be complete in 2016.

Lines of accountability, including access to higher-level university officials.

The university is self-governing under a Board of Trust that, since the beginning, has elected its own members and officers. The university's general government is vested in the Board of Trust. The immediate government of the university is committed to the Chancellor, who is elected by the Board of Trust. The Board of Trust has a Standing Committee with responsibilities for the Medical Center to provide more direct involvement of the Board of Trust in Medical Center activities. The Medical Center Board meets eight times each year. The more significant issues that require prior approval by the Board of Trust are the appointment of faculty to tenure and the commitment of funds for major construction.

The Chancellor (Nicholas Zeppos) delegates operational responsibilities for academic and other programs at the Medical Center to Dr. Jeffrey Balser, the Vice Chancellor for Health Affairs, who is also the Dean of the School of Medicine. Dr. Balser delegates management of the component parts of the Medical Center to the Senior Associate Dean of Health Sciences Education, the Dean of Nursing, and other senior administrators. The Senior Associate Dean for Health Sciences, Bonnie Miller, oversees the VUSM enterprise across the educational continuum, including undergraduate medical education, graduate medical education, continuing medical education/continuing professional development. The Associate Dean for Clinical and Translational Scientist Development, Katherine Hartmann, has programmatic oversight for the

MPH program and other masters programs preparing graduates for careers in clinical and translational science. Dr. Melinda Buntin, Chair of the Department of Health Policy, and Dr. Robert Dittus, Associate Vice Chancellor for Public Health and Health Care, have financial oversight responsibilities for the MPH program. The lines of authority among the Chancellor, the Vice Chancellor for Health Affairs, the Dean of the School of Medicine, and the Associate Dean are clearly drawn and provide for effective communication and coordination.

Names and titles of faculty ranks and tracks are set by the university and are described in the Faculty Manual (http://www.vanderbilt.edu/facman/index.html). Internal organization of Departments and Divisions is set by the Dean of the School of Medicine, acting with the advice of the Executive Faculty.

c. Description of the program's involvement and role in the following:

- **Budgeting and resource allocation, including budget negotiations, indirect cost recoveries, distribution of tuition and fees, and support for fund-raising**

The MPH budget is created by the MPH operations group each year for review and approval by the Departmental level finance team. All tuitions and fees, less an 11% Dean's tax, are returned to the program for operations. The finance team includes Dr. Griffin, the Program Director; Dr. Buntin, the Department Chair; Annie Smart, Program Manager; Ron Janetta MBA, the financial administrator and his assistant Sanel Filipovic. The budget is presented annually to Dr. Dittus, Associate Vice Chancellor for Public Health and Health Care, and Dr. Balser, the Dean, for review. Because research grants and contracts are administered at the Department and Center level, there is no indirect cost recovery for the program. All fund-raising efforts for individual programs must be coordinated through the Vanderbilt University Development Office. To date, there has been no effort to raise money for the program from alumni/ae or other benefactors.

- **Personnel recruitment, selection and advancement, including faculty and staff**

General policies and procedures are in place at a campus level to guide personnel decisions and are described in the Human Resources Policy Manual (http://hr.vanderbilt.edu/). Faculty personnel guidelines are described in the Vanderbilt University Faculty Manual (http://www.vanderbilt.edu/facman/index.html). All faculty and staff are also members of specific Departments, and most of these Departments are located within the School of Medicine. The MPH program may recruit specific faculty to teach in the program. Faculty members' decisions to join the MPH faculty are usually made in consultation with their Department Chairs. The curriculum committee may make recommendations about specific faculty depending on student evaluations. Ultimately, the Track Directors in consultation with the MPH Director are responsible for maintaining and/or replacing MPH teaching faculty. Although the MPH program leadership may choose not to renew a faculty member's teaching role, or conversely recommend specific faculty members for teaching awards or special commendation, advancement in rank is a Departmental activity. The MPH program has a small core staff, who are also located within Departments or Institutes. The program leadership works within Department or Institute guidelines to recruit new staff. Advancement of staff also occurs at the Department/Institute level.

- **Academic standards and policies, including establishment and oversight of curricula**

The program has responsibility for establishing academic standards and policies, including establishment and oversight of curricula with input from the Associate Dean. The establishment of academic standards and policies is performed by the Operations Group with oversight from the Advisory Group. The oversight of curricula is provided by the Curriculum Committee.

d. If a collaborative program, descriptions of all participating institutions and delineation of their relationships to the program.

This is not applicable. The program is not a collaboration among institutions.

e. If a collaborative program, a copy of the formal written agreement that establishes the rights and obligations of the participating universities in regard to the program's operation.

This is not applicable. The program is not a collaboration among institutions.

f. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- An environment where the program is governed by policies and procedures as a unit of the School of Medicine with clear reporting lines through the School and the University.
- Location within the Institute for Medicine and Public Health assures a campus-wide presence and connections with other degree-granting programs including epidemiology, biostatistics, and bioinformatics.
- Strong connections to the Department of Health Policy and the Institute for Global Health strengthens expertise in core public health areas as well as global health and opens global health opportunities up to all students.
- The MPH program operates in a multidisciplinary environment where students are exposed to individuals from various professional backgrounds and perspectives.

Weaknesses:

- Over the last 5 years, MPH leadership and staff has been spread between Pediatrics, Preventive Medicine (now Health Policy), and the Institute for Global Health. The Director and Program Manager were in different locations and different Departments, not ideal for supervisory activities.
- Prior to the introduction of the Global Health track, most MPH students were Vanderbilt house staff or faculty, and had clinical and academic supervisors and a clear academic home. The recruitment of students without other Vanderbilt connections exposes the need for policies and procedures that reflect this change in student population.

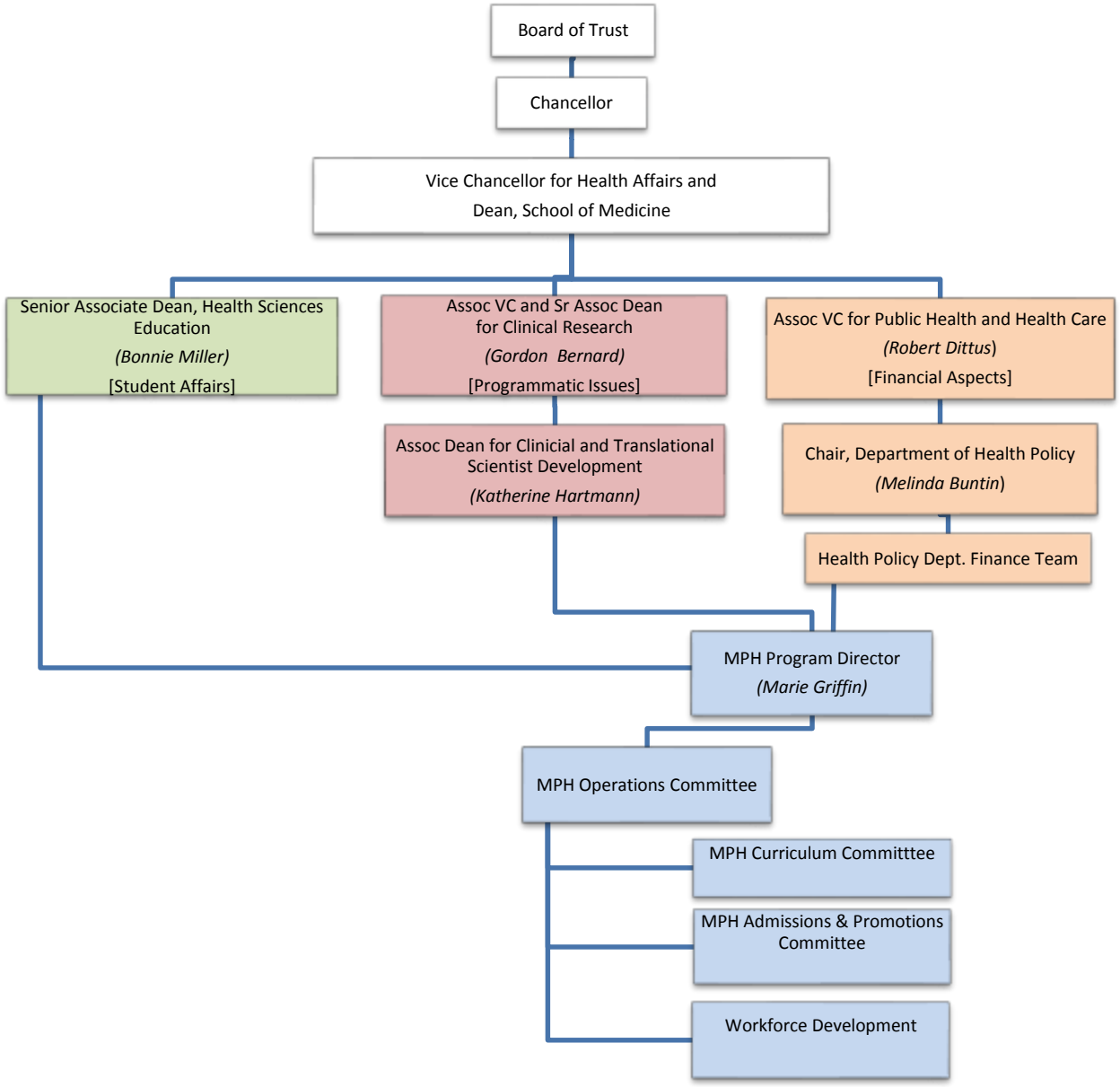
Plans to ensure that this criterion continues to be met:

- The MPH leadership now resides primarily in the Department of Health Policy (Program Director, Epidemiology Track Director, proposed Health Policy track director) and the Institute for Global Health (Global Health Track Director). The Program Manager is also located in the Department of Health Policy and reports to the Director.
- The MPH program Operations Committee is revising and developing policies and procedures to be applicable and more relevant to all students in the MPH program.
- The program has begun to identify areas where programmatic standard operating procedures and policies need to be created for all students (i.e. student conduct, academic expectations associated with scholarships).
- Recruitment and training of non-physician students will increase the number of mid-level epidemiologists that will be available to work as research assistants and in other capacities at Vanderbilt. It may also increase to pool of epidemiology PhD candidates. This should strengthen collaborations with the Division of Epidemiology and other research divisions/departments.

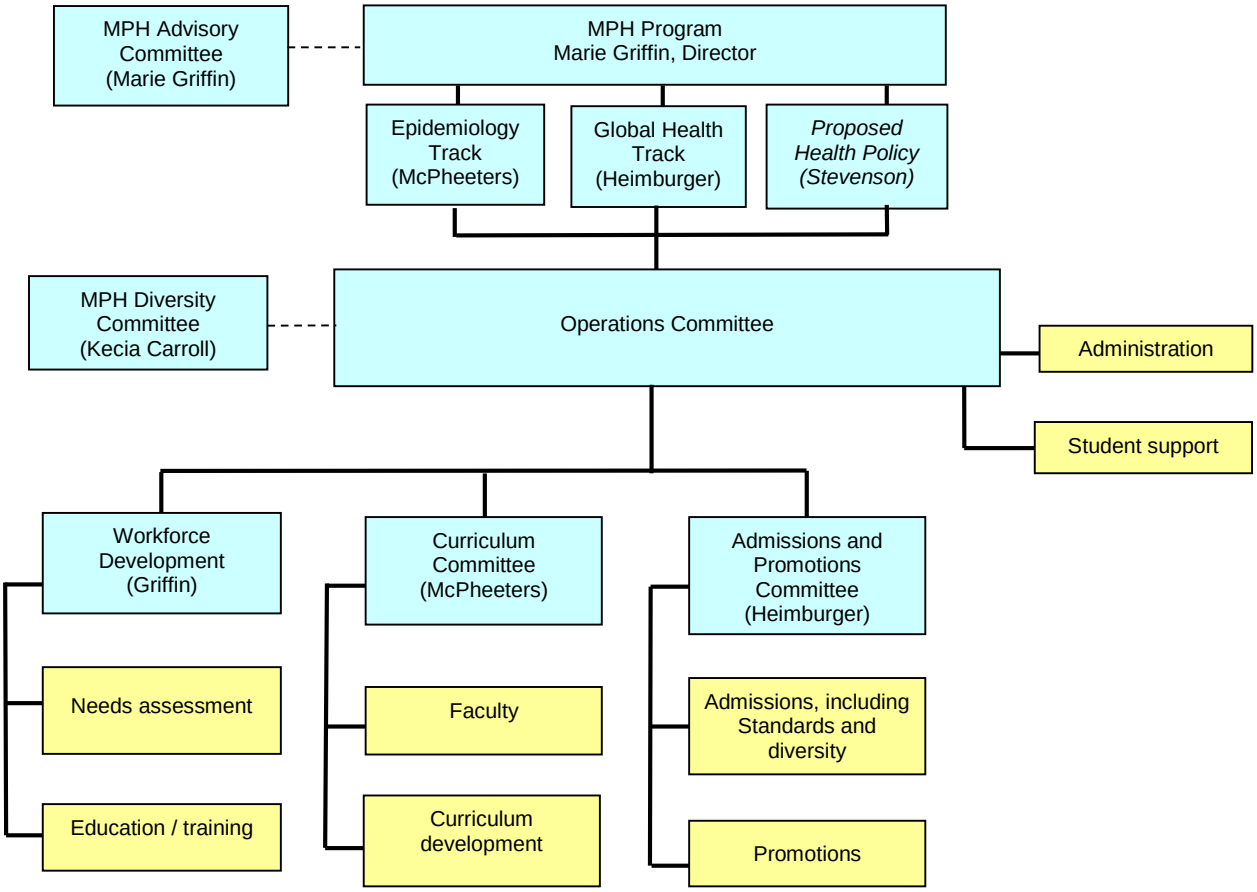
1.4 Organization and Administration. The program shall provide an organizational setting conducive to teaching and learning, research, and service. The organizational setting shall facilitate interdisciplinary communication, cooperation and collaboration. The organizational structure shall effectively support the work of the program's constituents.

a. One or more organizational charts showing the administrative organization of the program, indicating relationships among its component offices or other administrative units and its relationship to higher-level departments, schools, and divisions.

Figure 1.4.a.
VANDERBILT MPH PROGRAM
ORGANIZATIONAL STRUCTURE (REPORTING LINES)



VANDERBILT MPH PROGRAM
ORGANIZATIONAL STRUCTURE (INTERNAL)



b. Description of the roles and responsibilities of the major units in the organizational chart.

Marie R. Griffin, MD, MPH, is the Director of the MPH program. Dr. Griffin has been central to the administration of the program since its inception in September 1996 and officially assumed directorship in January 2014. Dr. Griffin, Professor of Health Policy and Medicine, is an internist and pharmacoepidemiologist, who co-founded the program with Wayne Ray, taught Epidemiology 1 for the first 15 years of the program, taught the first 5 years of environmental health, developed the program's first practicum course, and had been the Epidemiology Track Director for 2 years prior to assuming the role of MPH Director. Dr. Griffin works closely in administration of the program with the Global Health Track Director, Douglas Heimburger, MD, MS, and the Epidemiology Track Director, Melissa McPheeters, PhD, MPH.

Dr. Griffin drafts the MPH budget annually and monitors expenditures on a monthly basis through the *Health Policy Department Finance Team* which consists of Melinda Buntin, Chair of Health Policy; Annie Smart, Program Manager; and Departmental administrative officers, Ron Janetta, MBA, and Sanel Filipovic. This group is also responsible for student billing.

Dr. Griffin reports to Dr. Bonnie Miller, Senior Associate Dean for Health Science for program issues related to students including admissions, enrollment and course registration, and student resources and services. The School of Medicine Policy and Procedures for students serves as the basis for program policies, although the program also has the freedom to develop policies more specific for the MPH students. Dr. Griffin also reports to Dr. Katherine Hartmann, Associate Dean for Clinical and Translational Scientist Development. In her administrative role in the Institute of Medicine and Public Health (IMPH), Dr. Hartmann convenes the Directors of graduate programs in IMPH including the Epidemiology PhD, Biostatistics MS and PhD, Bioinformatics MS and PhD, and the MPH program every other month. These programs share IMPH resources and all report data to Dr. Hartmann requested by ASPPH, share web interfaces, and develop joint policies and activities. Dr. Hartmann also meets quarterly with clinical and translational masters program leaders to plan career development activities and identify resources for students, especially related to development of researchers. Programs provide Dr. Harmann with information about academic advancement of their students.

The **MPH Advisory Committee** is chaired by Marie Griffin and is responsible for oversight of all program activities. The Advisory Committee's role is to provide oversight of MPH evaluation, provide guidance for long-range planning, strengthen ties to key constituencies, including public health professionals, public health researchers, students, alumni, and faculty. Each of these key constituencies is represented on the MPH Advisory Committee. The MPH Advisory Committee is governed by bylaws, which are available in the Resource File.

The **MPH Operations Committee** comprises the Program and Track Directors, the Practicum Director and the Program Manager. This group oversees coordinating key MPH Committees, scheduling events, coordination and dissemination of program advertising, and logistical issues related to admission, orientation, registration, and graduation of students.

Oversight of curriculum activities is the responsibility of the **MPH Curriculum Committee**, chaired by Melissa McPheeters. The Curriculum Committee is charged with oversight of faculty and curriculum development, including the program's rigorous course evaluation efforts. The committee meets twice yearly, first to review fall course evaluations and second to review the Spring and Summer course evaluations. The Chair of the Curriculum Committee and/or the Director is charged with giving any additional feedback from those meeting to faculty when warranted.

Admissions and Promotions activities are led by Douglas Heimburger, who chairs the **MPH Admissions and Promotions Committee**. Activities include oversight of application and admissions processes for incoming students, including development of and adherence to admissions standards, along with implementation of diversity efforts under advice from the Diversity Committee. This group is also responsible for scholarship decisions. This committee is also responsible for reviewing graduation packets and all promotion decisions for students.

The **MPH Diversity Committee** is led by Kecia Carroll and spearheads efforts to recruit talented and diverse students, incorporate issues of inclusion and diversity into the curriculum, and hosts the annual David Satcher Public Health Scholarship lecture.

The Nashville Public Health Learning Collaborative (NPHLC) was established in 2010. It is a partnership between Meharry Medical College Master of Science in Public Health (MSPH) Program, Vanderbilt University Master of Public Health (M.P.H.), Tennessee State University M.P.H. program, and Nashville's Metro Public Health Department. The mission of the NPHLC is to enhance the professional development of the public health workforce in the Nashville community. More specifically, it is designed to engage the public health workforce in identifying and applying community-based public health competencies to real world settings. The planning committee comprises a representative from each of the academic institutions, as well as administrative leadership from the Health Department. The key elements of the collaborative are 1) the planning committee, 2) topic selection, 3) case development, and 4) co-presenters from each academic institution. The main outcome of the learning collaborative is to create a more competent local public health workforce.

b. Description of the manner in which interdisciplinary coordination, cooperation and collaboration occur and support public health learning, research and service.

The MPH program is by its nature interdisciplinary. The program faculty include individuals from several academic disciplines, including physicians, epidemiologists, biostatisticians, community public health professionals, sociologists, psychologists, economists, attorneys, and educators. Many of the courses, such as the various Health Services Administration courses utilize faculty from outside the School of Medicine, including nurses, economists, and public health practitioners.

The MPH program also fosters interdisciplinary coordination, cooperation, and collaboration through participation of Dr. Griffin on the School of Medicine Clinical and Translational Scientist Development Liaison Committee, which includes representatives from programs from several disciplines, including masters and doctoral programs in clinical research, medical bioinformatics, nursing, human genetics, medical physics, biomedical engineering, and psychology. Through quarterly meetings, the group identifies ways to foster cooperation and collaboration among the programs. For example, the Committee developed a standard process for students in each of the programs to apply for course enrollment in other programs, allowing for interdisciplinary training among each program. In addition, the group often discusses best practices with respect to curriculum development, course evaluation, and student recruitment. The activities of Vanderbilt's four Programs in Public Health (MPH as well as epidemiology PhD, biostatistics MS and PhD, and bioinformatics MS and PhD) also rely on close cooperation, which was described in section 1.2a.

The addition of the Global Health track has brought substantial interdisciplinary collaboration through diverse faculty and projects. Graduate students from other disciplines across campus enroll in global health track core courses, thereby increasing the inter- and trans-disciplinary dialogue on public health topics and interventions.

Under a 2013-14 Vanderbilt re-organization, five "education pods" were created. The Institute for Medicine and Public Health's Programs in Public Health is one such pod and includes Directors of the graduate programs in epidemiology (PhD), biostatistics (MS and PhD), bioinformatics (MS and PhD), and the MPH program. The groups began meeting twice monthly

in the Fall of 2013. The committee is currently working to create a more uniform web presence to help increase local and national recognition, and to standardize some of the individual program operations. These groups will share informational activities for recruitment of students, who will benefit from a more uniform presentation of available degrees and courses. In addition, both educational and social opportunities for students will be shared in this forum.

Other interdisciplinary coordination is supported by the many interfaces between individual MPH faculty and several Vanderbilt and Meharry programs, including faculty from the following schools and programs:

- Vanderbilt Owen School of Management
- Vanderbilt Peabody School of Education
- Vanderbilt Graduate School
- Vanderbilt School of Nursing
- Vanderbilt School of Law
- Veterans Administration Geriatric Research and Education Center
- Vanderbilt Kennedy Center
- Vanderbilt Meharry Alliance

In August 2009, the Director for Minority Recruitment and the Director for Students met with the Dean of Meharry Medical College to identify strategies for engaging Meharry faculty in the Satcher Scholars program and to identify potential applicants for the scholarship. Other interactions with Meharry come through the Vanderbilt Meharry Alliance, which is specifically designed to foster collaboration between the two schools. Several MPH faculty, including Dr. Robert Dittus, are active in the Alliance. Representatives from Meharry and Vanderbilt also participate in workforce development activities with representatives from Tennessee State University and the Metropolitan Health Department (see section 3.3 on workforce development).

Interdisciplinary coordination also occurs with links to the local and state

Case Study 2: Interdisciplinary Partnerships with State and Federal Government Provide Opportunities for Faculty and Student Research

An example of interdisciplinary collaboration with state government is through the work that Dr. Wayne Ray and other program faculty conduct with the Tennessee Department of Health and the TennCare Bureau. For over 30 years, Dr. Ray has held a contract with TennCare to conduct quality improvement efforts for Tennesseans. A series of studies on medical care and appropriate prophylaxis for children with sickle cell disease enrolled in TennCare has been performed by three MPH students working with Drs. Griffin, Cooper, and Ray resulting in publications in Am J Hematol (2005), Arch Adolesc Med (2010), and Pediatr Blood Cancer (2013). Dr. Epstein (MPH 2012), a clinical psychologist in the Department of Psychiatry, worked with Drs. Ray and Cooper on several studies that utilized TennCare data including use of anti-epileptics in pregnancy (Paedeatr Perinat Epidemiol 2012). Dr. Derek Williams (MPH 2011) worked with Dr. Buddy Creech (MPH 2006) and Drs. Cooper and Griffin on the comparative effectiveness of antibiotic treatment strategies for pediatric skin and soft-tissue infections (Pediatrics 2011) using TennCare data.

An example of interdisciplinary collaboration with federal government is involvement of students in the AHRQ-funded evidence-based practice reviews. Melissa McPheeters, PhD, is the Epidemiology Track Director and Director of Vanderbilt's AHRQ-funded Evidence-Based Practice Center (EPC). The EPC is one of 11 programs funded by the Agency for Healthcare Research and Quality to conduct systematic reviews of important clinical and public health topics. The reviews are rigorous, objective reviews of the science and are intended to inform guidelines and clinical practice. MPH students join review teams and participate in the entirety of the project - from working with stakeholders to ensure that the key questions and protocol are appropriate and likely to lead to research that is implementable and useful, throughout the process of identifying, reviewing and analyzing the data. They engage in regular conference calls with the Federal and professional organization partners, and take lead roles in developing the final report. In the last 3 years, 4 MPH students have participated and had at least one first author publication from this work.

health departments as well as federal agencies. These links are fully described in Section 3.2.

Several faculty are active participants in interdisciplinary centers at Vanderbilt, which provide opportunities for students to engage in research and service. For example, Dr. Griffin, the Program Director, also directed the Vanderbilt DEcIDE center over the last 10 years, and is a faculty member in the Veteran's Affairs GRECC. The DEcIDE center helped support Dr. Christianne Roumie (Medicine [General Internal Medicine], MPH 2005), Dr. Carlos Grijalva (Health Policy, MPH 2006), and Dr. Adriana Hung (Medicine [Nephrology], MPH 2008) perform studies of comparative effectiveness of diabetes treatments. Resulting publications in Annals of Internal Medicine and JAMA had accompanying editorial and one in Pharmacoepidemiology and Drug Safety won 2014 Outstanding Paper of the Year. Dr. Cooper, our previous MPH Director, has also been the program director for an interdisciplinary training program funded by the National Institute for Child Health, which has funded several MPH students.

The Vanderbilt Center for Health Services Research was formally created in 2000. Dr. Russell Rothman is the current Director. The Center currently includes over 150 faculty and 100 support staff engaged in research. The Center has an overall program emphasis on improving healthcare outcomes. Faculty represent diverse disciplines including clinical medicine, nursing, public health, social sciences, management sciences, and the humanities. Key research foci of the Center include: clinical epidemiology and outcomes research, clinical improvement and quality research, clinical economics and decision science, health promotion and disease management, behavioral health, comparative effectiveness research, community health and health policy. The Center can provide core services related to implementation sciences and quality improvement, database management and evaluation, qualitative research, health communication, health behavior measurement and intervention, and community engagement. At least two to three students per year are mentored by faculty in this center and participate in weekly center conferences.

c. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion has been met with commentary. An analysis of the Vanderbilt MPH program has identified:

<u>Strengths:</u>

- The program operates in an organizational setting conducive to teaching and learning, evaluation and service.
- There are clear roles and responsibilities for program administrators and leadership.
- Interdisciplinary coordination and collaboration, which are supported by faculty and administration and provide opportunities for student participation in important public health research and service opportunities.

<u>Weaknesses:</u>

- The MPH may be seen by many as a "stand alone" program, since connections to other relevant master and doctoral programs are still weak and not reflected in our web presence or outreach materials.

Plans to ensure that this criterion continues to be met:

- The program annually seeks input from the Advisory Committee on ways to enhance interdisciplinary collaborations.
- We have joined the Association of Schools and Programs in Public Health and enhancing connections with relevant programs both within and outside our Institution.
- As mentioned above (p.37), reorganization of the Vanderbilt University Medical Center in 2013-14 consolidated administrative activities through the Institute of Medicine and Public Health such that the MPH Program Director and track directors are now engaged in regular communication and coordination with other Master's degree programs (biostatistics and biomedical informatics) and PhD programs in biostatistics and epidemiology. The web presence of these programs will be harmonized and unified, and they will co-host SOPHAS Virtual Fairs.

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 conduct of program evaluation procedures, policy-setting, and decision-making.

a. A list of standing and important ad hoc committees, with a statement of charge, composition and current membership for each.

Advisory Committee

The *Advisory Committee* is charged with providing oversight of MPH program evaluation, guidance for long-range planning, strengthening of ties to key constituencies (including public health professionals, public health researchers, students, alumni, and faculty), and general advice regarding program operations. The Committee meets annually. The Advisory Committee includes the MPH Program Director (who chairs the Advisory Committee) and the Track Directors and includes at least 1 representative from each of the following key constituencies:

- Community Public Health
- Faculty
- Students
- Alumni

Case Study 3: Development of policies and procedures with sufficient specificity for all students.

For the first 10 years of the program, most students were members of Vanderbilt house staff or faculty with clear academic homes. In addition, most were physicians. With the addition of the Global Health Track, many students are being recruited from outside Vanderbilt and most of them are not physicians. There are several other School of Medicine programs (e.g. Master programs in speech and hearing) that enroll students that are similar to ours. Currently, each program has its own policies and procedures but if a student has a grievance or ethics issue and there is a need to go beyond the program level, the School of Medicine intervenes. For issues dealing with the honor code, the current practice involves appearing before an Honor Council, comprising medical students (peers for most in the School of Medicine). The School of Medicine has convened a workgroup with representation from our students to develop more specific policies and procedures for Master-level students within the School of Medicine. One of our global health track students is serving on that workgroup. In the meantime, the current faculty ombudsmen for ethics and grievance issues are available to help with our students.

In addition, the Committee includes a representative of the School of Medicine administration and the Department of Health Policy.

Members are identified by recommendation of the current members of the Advisory Committee and invited to serve renewable three year terms. Current students are invited during their first year and are invited to remain as alumni representatives if they desire. The activities of the Committee are governed by bylaws that have been approved by the Committee and are reviewed and updated annually.

Table 1.5.a. MPH Program Advisory Committee Membership (2014-2015)

Name	Constituencies	Affiliation
Marie Griffin, MD, MPH (Chair)	Program Administration, Faculty	Professor, Health Policy and Medicine
Melinda Buntin	Medical School Administration	Chair, Health Policy
Kecia Carroll, MD, MPH	Alumna, Faculty	Assistant Professor of Pediatrics

Table 1.5.a. MPH Program Advisory Committee Membership (2014-2015)		
Name	**Constituencies**	**Affiliation**
William Cooper, MD, MPH	Alumni, Faculty	Professor and Vice Chair, Pediatrics
Jennifer Green, MD, MPH	Alumna	Assistant Professor, Med-Peds, General Internal Medicine and Public Health
Douglas Heimburger, MD, MS	Faulty, Program Administration	Professor of Medicine, Associate Director, Vanderbilt Institute for Global Health
Melissa McPheeters, PhD, MPH	Faulty, Program Administration	Research Associate Professor of Health Policy, Director of the Evidence-Based Practice Center
Denise Koo, MD, MPH	Community Public Health	Centers for Disease Control
William Paul, MD, MPH	Community Public Health	Commissioner, Metropolitan Nashville Health Department
Timothy Jones, MD, MPH	Community Public Health	State Epidemiologist, Tennessee Department of Health
Katherine Hartmann, MD	Medical School Administration	Professor of Obstetrics and Gynecology, Associate Dean for Clinical and Translational Scientist Development
Michael Warren, MD, MPH	Alumni	Medical Director, Governor's Office of Children's Care Coordination, State of Tennessee
Benjamin Poulouse, MD, MPH	Alumni	Associate Professor of Surgery
William Schaffner, MD	Faculty	Professor, Health Policy
David Stevenson, PhD, SM	Faculty, Program Administration	Associate Professor, Health Policy
Candace McNaughton, MD, MPH	Alumna	Assistant Professor, Emergency Medicine

Curriculum Committee

The *Curriculum Committee* is charged with providing oversight of MPH program curriculum and related instruction consistent with the program's mission, goals, objectives, and values and appropriate for demonstrated professional competencies as identified by the program. The Committee monitors, and as needed, makes recommendations regarding courses offered within the program for relevance of learning objectives, appropriateness of procedures for assessing student competencies and quality of faculty and student performance within courses. The Committee meets twice a year. The Curriculum Committee includes representatives from the following constituencies:

- Community Public Health
- Program Administration
- Faculty
- Students
- Alumni

Members are identified by recommendation of the current members of the Committee and invited to serve renewable three-year terms. Current students are invited during their first year and are invited to remain as alumni representatives if they desire. The activities of the Committee are governed by bylaws that have been approved by the Committee and are reviewed and updated annually.

Table 1.5.b. MPH Curriculum Committee Membership (2014-2015)		
Name	**Constituencies**	**Affiliation**
Melissa McPheeters, PhD, MPH (Chair)	Faculty, Program Administration	Research Associate Professor of Health Policy, Director of the Evidence-Based Practice Center
Marie Griffin, MD, MPH	Faculty, Program Administration	Professor, Health Policy and Medicine
Douglas Heimburger, MD, MS	Faulty, Program Administration	Professor of Medicine, Associate Director, Vanderbilt Institute for Global Health
David Stevenson, PhD, SM	Faculty, Program Administration	Associate Professor, Health Policy
Marion Kainer, MD, MPH	Community Public Health	Tennessee Department of Health
Dan Barocas, MD, MPH	Alumni	Assistant Professor , Urology
Amma Bosompem, M.S.	Current Student	Global Health track
Kristy Kummerow, M.D.	Current Student	Resident L-1, General Surgery
Wes Self, MD, MPH	Alumni	Assistant Professor, Emergency Medicine
Ashley Karpinos, MD, MPH	Alumna	Primary Care Sports Medicine Fellow

Admissions and Promotions Committee

This *Admissions and Promotions Committee* is charged with recruiting an appropriate, well-qualified and diverse student body according to priorities and policies established by the program's Advisory Committee and consistent with School of Medicine requirements and accreditation standards of CEPH. The Committee meets at the beginning of the recruiting season to review planned recruitment activities, then as needed (at least once) to review applications and offer admissions to prospective students. The Committee includes:

- Program Administration
- Diversity Committee Representative
- Faculty representative

Members are identified by recommendation of the current members of the Committee and invited to serve renewable three year terms. Current students are invited during their first year and are invited to remain as alumni representatives if they desire. The activities of the Committee are governed by bylaws that have been approved by the Committee and are reviewed and updated annually.

Table 1.5.c. MPH Admissions and Promotions Committee Membership (2014-2015)		
Name	**Constituencies**	**Affiliation**
Douglas Heimburger, MD, MS (Chair)	Program Administration, Faculty	Professor of Medicine, Associate Director, Vanderbilt Institute for Global Health
Marie Griffin, MD, MPH	Faculty	Professor, Health Policy
Kecia Carroll, MD, MPH	Alumna, Diversity Committee Representative	Assistant Professor of Pediatrics
Melissa McPheeters, PhD, MPH	Program Administration, Faculty	Research Associate Professor of Health Policy, Director of the Evidence-Based Practice Center

David Stevenson, PhD, SM	Faculty, Program Administration	Associate Professor, Health Policy
Marie Martin, MEd	Program Administration	Assistant Director, Vanderbilt Institute for Global Health
Annie Smart	Program Administration	MPH Program Manager and Director of Admissions

Diversity Committee

The *Diversity Committee* is charged with enhancing the diversity of the program at all levels, including students, faculty, and staff and for providing advice to the faculty on strategies to incorporate relevant issues of health disparities into course offerings. The Committee meets at least twice a year and includes at least one individual from the following:

- Program Administration
- Faculty representative
- School of Medicine Diversity leadership
- Student Representative

Members are identified by recommendation of the current members of the Committee and invited to serve renewable three year terms. Current students are invited during their first year and are invited to remain as alumni representatives if they desire. The activities of the Committee are governed by bylaws that have been approved by the Committee and are reviewed and updated annually.

Table 1.5.d. MPH Diversity Committee Membership (2014-2015)

Name	Constituencies	Affiliation
Kecia Carroll, MD, MPH (Chair)	Alumna, Faculty	Assistant Professor of Pediatrics
Andre' Churchwell, MD	Medical School Dean for Diversity in Graduate Medical Education	Associate Professor of Medicine
Carlos Grijalva, MD, MPH	Faculty	Associate Professor, Health Policy
Muktar Aliyu, MBBS, DrPh, MPH	Faculty	Associate Professor of Medicine, Associate Director of Research, VIGH
Walter Clair, MD	Medical School	Assistant Professor, Vanderbilt Heart and vascular Institute
Uche Sampson, MD	Medical School	Assistant Professor, Cardiovascular Medicine
Adriana Bialostozky, MD	Medical School	Instructor, Pediatrics
Mariu Carlo, MD	Current Student	MPH Epi Track Student (Satcher Fellow)
Najibah Galandanci, MD	Current Student	MPH Epi Track Student (Satcher Fellow)
Bhinnata Piya	Current Student	MPH GH Track Student (Satcher Fellow)
Scott Revey, MA	Current Student	MPH GH Track Student (Satcher Fellow)

Operations Committee

The Vanderbilt MPH Program Operation Committee is charged with providing oversight of MPH program operations consistent with the program's mission, goals, objectives, and values

and appropriate for demonstrated professional competencies as identified by the program. The committee oversees and as needed, makes recommendations regarding admission, orientation, registration, evaluation and graduation of students. It also oversees coordinating key MPH Committees, scheduling events, coordination and dissemination of program advertising, and logistical issues related to program administration. The committee meets at least once per month.

- MPH Program Director
- Track Directors (Epidemiology, Global Health, future Health Policy)
- MPH Practicum Director
- MPH Admissions Director
- MPH Program Manager

The Chair of the Operations Committee is also Director of the MPH Program. The activities of the Committee are governed by bylaws that have been approved by the Committee and are reviewed and updated annually.

Table 1.5.e. MPH Operations Committee

Name	Constituencies	Affiliation
Marie Griffin, MD, MPH	Faculty	Professor, Health Policy
Douglas Heimburger, MD, MS (chair)	Program Administration, Faculty	Professor of Medicine, Associate Director, Vanderbilt Institute for Global Health
Melissa McPheeters, PhD, MPH	Program Administration, Faculty	Research Associate Professor of Ob/Gyn, Director of the Evidence-Based Practice Center
David Stevenson, PhD, MPH	Program Administration, Faculty	Associate Professor, Health Policy
Marie Martin, MEd	Program Administration	Assistant Director, Vanderbilt Institute for Global Health
Annie Smart	Program Administration	MPH Program Manager
Amy Richardson	Program Administration	MPH Practicum Director

Faculty Meetings

The Vanderbilt MPH Program holds an annual faculty meeting at the beginning of each academic year. All program faculty are encouraged to attend. The meetings are led by the Program Director who begins by introducing new faculty instructors and providing updates on recent or upcoming program developments. The Program Director then reviews the Program mission, values, and competencies and leads a discussion about what it means to be a competency based program. Next, the Track Directors provide updates on each track for the upcoming academic year and briefly introduce the incoming students. Typically, the Program Director follows with a review of the program's academic policies before announcements regarding program administration (instructor compensation, accreditation, etc). A large portion of the meeting is reserved for faculty comments, questions, and recommendations.

b. Identification of how the following functions are addressed within the program's committees and organizational structure:

1. **General program policy development**
2. **Planning**
3. **Resource and budget allocation**
4. **Student recruitment, admission, and award of degrees**
5. **Faculty recruitment, retention, promotion and tenure**
6. **Academic standards and policies**
7. **Research and service expectations and policies**

Within Vanderbilt University and School of Medicine guidelines and the MPH program's priorities, values, mission, goals, and objectives, administrative, governance, and academic policies and procedures are established jointly by program administrators, faculty, students, alumni, and community-based public health representatives through the framework shown in figure 1.4.a.

The program's Operations Group consists of the Program Director, Track Directors, Associate Global Health Track Director, Practicum Director, and Program Manager/. The Operations Group is charged with implementing programmatic activities, development and monitoring of program budgets, and facilitation of the activities of the other MPH Standing Committees. The Operations Group typically proposes program policies for consideration and endorsement by the standing MPH Committees, which include the MPH Advisory Committee, the Curriculum Committee, and the Admissions and Promotions Committee.

1. **General program policy development** occurs through the MPH Advisory Committee. The Operations Committee typically identifies issues of need for the Advisory Committee agenda and then a broad discussion is held among the members of the Advisory Committee, which includes representation from community public health professionals, faculty, students, School of Medicine leadership, and alumni. For policies that affect key constituencies, policies are also sent for review by specific groups. For example, when the MPH core competencies were modified based on the addition of the Global Health track, they were first reviewed by the Advisory Committee and then sent for review and refinement by the MPH faculty and then by current students and program alumni.

2. **Planning** occurs at all levels of the program. Long range planning is conducted with the MPH Advisory Committee, with input from the Associate Dean for Clinical and Translational Scientist Development. Planning for day to day operations is conducted by the Operations Committee during weekly meetings. Long term planning is guided by the Strategic Plan.

3. **Resource and budget allocation** planning occurs in the Operations Committee guided by the Health Policy Department Finance Team. An annual budget is determined by Dr. Griffin with the finance team based on operating expenses, number of students enrolled, and new initiatives. This budget is reviewed by the Operations Committee. The Finance

team meets monthly to monitor tuition income and expenses. Quarterly expense and revenue reports are generated for review by the by the Program Director.

4. **Student recruitment, admission, and award of degrees** is coordinated by the MPH Admissions and Promotions Committee. The Admissions and Promotions Committee reviews and approves all recruiting materials and participates in recruitment efforts. For example, members of the Admissions and Promotions Committee visit new Department chairs and directors of training grants to describe the program and facilitate recruitment of students. The Program Manager coordinates all marketing efforts beyond Vanderbilt through electronic announcements and communications, printed materials for national meetings and virtual information sessions for applicants. Admission of students occurs through the MPH Admissions and Promotions Committee, which has final say on admission. Awarding of degrees occurs through the School of Medicine.

5. The Operations Committee monitors **faculty recruitment and retention** for purposes of course direction and program involvement, based in part on input from the curriculum committee review which occurs after each course, and globally at least once per year. The MPH program is not involved in faculty promotion, and tenure In the School of Medicine, appointments, promotions, and tenure decisions are governed by the bylaws of the School of Medicine. Nominations for junior ranks are made by department chairs and approved by the Dean's Office. Appointments at senior rank, promotion, and tenure are reviewed by each department's Appointments and Promotions Committee. There are two main faculty tracks at Vanderbilt: clinician educator/basic science educator and physician scientist/basic scientist (tenure track). Recommendations for appointments and promotions on both tracks originate with department chairs, who act with the advice of Departmental Appointments and Promotions Committees. These Committees consist of all full-time tenured full professors within a department or in the case of large departments at least six full-time tenured full professors. Recommendations from the Chairs are forwarded to the Dean, who seeks the advice of the Committee on Faculty Appointments and Promotions of the School of Medicine. This Committee consists of eleven faculty members at the rank of Professor representing diverse disciplines within the School of Medicine from both tracks. Upon favorable recommendation of this Committee, the Dean forwards the recommendation to the Executive Faculty of the School of Medicine, which acts on behalf of the faculty of the School of Medicine in making a decision on the recommendation. Recommendations acted on favorably are forwarded to the Vice Chancellor for Health Affairs. In the case of faculty on the **Educator track** the Vice Chancellor gives final approval or disapproval. In the case of promotions to tenure of faculty on the **Investigator track,** 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 forwards recommendations for tenure to the Chancellor, who requests endorsement by the Board of Trust. Appointments to tenure are not official until approved by the Board of Trust. 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 (http://vanderbilt.edu/faculty-manual/).*

6. **Academic standards and policies** are typically determined by the Curriculum Committee, with input from a broad representation where appropriate.

7. **Research and service expectations and policies** are typically determined by the Department Chair for each faculty member. The MPH program administrative leadership communicates with the faculty member and the faculty member's academic supervisor in areas of faculty expectations.

c. A copy of the bylaws, or other policy documents that determines the rights and obligations of administrators, faculty and students in governance of the program, if applicable.

The rights and obligations of administrators, faculty, and students in governance of the program are guided by Vanderbilt University and School of Medicine by-laws (available at http://www.vanderbilt.edu/boardoftrust/bylaws/index.php and http://www.vanderbilt.edu/catalogs/medical/Medical_Catalog.pdf). Students are governed by the School of Medicine's policies and procedures, which indicate the rights and obligations of students (see https://medschool.vanderbilt.edu/registrar/handbook). Program specific policies and procedures are included on the MPH program website (https://medschool.vanderbilt.edu/mph/policies).

d. Identification of program faculty who hold membership on university committees, through which faculty contribute to the activities of the university.

MPH primary and secondary program faculty are active participants in the life of the University:

Service Activities by Faculty	**2010-2014 | University-related service**
Faculty Name	**Organization | Role | Activity or Project | Year**
Brooke Ackerly	Vanderbilt University, Committee Member, Political Science Graduate Committee, 2012-2013
	Vanderbilt University, Committee Member, Women's and Gender Studies Steering Committee, 2013-2014
	Vanderbilt University, Committee Member, Women's and Gender Studies Hiring Committee, 2011-2012
	Vanderbilt University, Committee Member, Committee on Educational Programs, 2010-2013
	Vanderbilt University, Committee Member, College of Arts & Science Program in Career Development, Steering Committee
	Vanderbilt University, Committee Member, University Senate Committee for the Review of Greek Life, 2013-present
	Vanderbilt University, Committee Member, Vanderbilt International Office Research Grant Evaluation Committee, 2013
	Vanderbilt University, Chair, Search Committee for the Director of Religious Life, 2012
	Vanderbilt University, Chair, University Committee on Religious Life, 2010-2013

	Vanderbilt University, Committee Member, University Committee on Religious Life, 2004-2013
	Vanderbilt University, Committee Member, Writing Studio Advisory Board, 2007-2011
Muktar Hassan Aliyu	Vanderbilt-Meharry Center for AIDS Research, Co-Lead, Global HIV Scientific Working Group, 2011-present
	Vanderbilt University, Diversity Committee, MPH Program, 2012-present
	Vanderbilt Institute for Global Health, Leadership Team Member, 2012-present
Carolyn Marie Audet	Vanderbilt Institute for Global Health, Team Leader, Mozambique Research Activities, 2012-present
Kecia Nicole Carroll	Vanderbilt University Medical Center, Committee Chair, Diversity Committee, Master of Public Health Program, 2012-present
	Vanderbilt University Medical Center, Committee Member, Diversity Committee, Master of Public Health Program, 2008-present
	Vanderbilt University Medical Center, Committee Member, Advisory Board, Master of Public Health Program, 2008-present
	Vanderbilt University Medical Center, Interviewer, Admissions Committee, 2008-present
	Vanderbilt University Medical Center, Committee Member, Research Advisory Committee, Department of Pediatrics, 2009-present
William D. Dupont	Medical Center Tenure Review Committee, Committee Member, 2010-2012
	Vanderbilt University Medical Center, Committee Member, Tenure Review Committee, 2010-2012
Quentin Eichbaum	Vanderbilt University Medical Center, Committee Member, Transfusion Committee, 2011-present
	Vanderbilt University Medical Center, Committee Member, Vein-to-Vein Committee, 2011-present
	Vanderbilt University Medical Center, Committee Member, Blood Utilization Committee, 2011-present
	Vanderbilt University Medical Center, Committee Member, Stem Cell Transplant QA Committee, 2011-present
	Vanderbilt University Medical Center, Committee Member, Liver Transplant Review Committee, 2012-2013
	Vanderbilt University, Committee Chair, VUSM Global Health Education Committee, 2011-2013
	Vanderbilt University, Committee Member, Curriculum 2.0 Innovation and Enterprise Committee - Innovation committee for Curriculum 2.0, 2010-present
	Vanderbilt University, Committee Member, Curriculum 2.0 Steering Committee - Implementation of new VUSM Curriculum 2.0, 2010-present
	Vanderbilt University School of Medicine, Committee Member, Admissions Committee, 2011-2013
	VUSM Masters in Public Health, Committee Member, Global Health Track Committee, 2010-present
	VUSM Medical Student Scholarly Project, Committee Member, Planning Committee, 2010-present
Richard A. Epstein, Jr.	Barbara Gay Lectureship Committee, Division of Child & Adolescent Psychiatry, Department of Psychiatry, School of Medicine Vanderbilt University, Committee Member, 2012-2013

	Vanderbilt University, Committee Member, Barbara Gay Lectureship Committee, Division of Child & Adolescent Psychiatry, Department of Psychiatry, School of Medicine, 2012-2013
Carol Etherington	Vanderbilt Center for Latin America Studies, Committee Member, Steering Committee, 2010-2012
	Guatemala Executive Planning Committee, Committee Member, 2011-present
	Vanderbilt University, Committee Member, MPH in Global Health Program Planning Committee, 2012
John Graves	Vanderbilt University, Committee Member, Innovations Committee
Marie R. Griffin	Vanderbilt University, Committee Member, Executive Committee MPH Program, 2011-present
	Vanderbilt University, Committee Chair, Addiction Medicine Search Committee, 2011-2012
	Vanderbilt University, Committee Chair, Geriatrics Search Committee, 2012-2013
	Vanderbilt University, Committee Member, Committee on Appointments and Promotion, Department of Medicine, 2012-present
	Vanderbilt University, Committee Member, Faculty Appointments and Promotions Committee, School of Medicine, 2012-present
	Vanderbilt University, Committee Member, Masters in Public Health Program Executive Committee, 2011-present
	Vanderbilt University, Committee Chair, MPH Curriculum Committee, 2005-present
Carlos G. Grijalva	Vanderbilt University Medical Center, Committee Member, Research 2 Curriculum Advisory Committee, 2013-present
	Vanderbilt University Medical Center, Committee Member, Research 2 Faculty Directors Committee, 2013-present
	Vanderbilt University, Committee Member, Master of Public Health (MPH) Program – Diversity Committee, 2013-present
Connie Allen Haley	Vanderbilt University, Committee Member, Advisory Committee for the Vanderbilt University Masters in Public Health Program, 2007-present
Douglas C. Heimburger	Vanderbilt University Institute for Global Health, Committee Member, Search committee, Associate Director for Research, 2011-2012
	Vanderbilt University, Committee Member, Master of Public Health Program – Executive Committee, Curriculum Committee, Admissions Committee, 2011-present
	Vanderbilt-Meharry Center for AIDS Research (CFAR), Committee Member, 2011-present
	Vanderbilt University, Board Member, Canby Robinson Society, 2011-present
	Vanderbilt University, Schaffner Society Advisor, Division of Epidemiology, 2011-present
	Vanderbilt University, Committee Leader, Global Health Thread, Vanderbilt University School of Medicine Curriculum 2.0, 2011-present
	Vanderbilt University, Educational Program / Structure / Content Subcommittee Member, Institutional Self-Study Task Force for Liaison Committee on Medical Education (LCME), 2012
	Vanderbilt University, Committee Member, Nutrition Education Faculty Committee, 2012-present

Elizabeth Heitman	Ethics Committee, Member, 2012-present
	Meharry-Vanderbilt Alliance Interprofessional Education Faculty Committee, Member, Formerly Interdisciplinary Clinical Case Competition Faculty Committee, 2013-present
	Vanderbilt University, Co-Chair, Ethics Committee, 2007-present
	Vanderbilt University, Member, Ethics Committee, 2004-present
	Vanderbilt University, Member, Organ Donor Advisory Committee, 2004-present
	Vanderbilt University, Member, BioVU Ethics Advisory Board, 2006-present
	Vanderbilt University, Member, Institutional Critical Care Committee; Policy Subcommittee, 2006-present
	Vanderbilt University Medical Center, Member, Medical Center Conflicts of Interest Committee, 2008-present
	Vanderbilt University, Member, Critical Resources Deliberation Committee, 2009-present
Brian L. Heuser	Peabody College, Vanderbilt University, Faculty Affairs Committee Chair, Peabody Faculty Council, 2012-2013
	Peabody College, Vanderbilt University, Committee Member, Peabody Financial Aid Committee, 2014
	Peabody College, Vanderbilt University, Coordinating Committee & Student Admissions Committee Member, International Education Policy and Management (IEPM) Master's Program, 2007-present
	Peabody College, Vanderbilt University, Committee Member, Department of Leadership, Policy and Organizations (LPO) International Education Committee, 2013-present
	Peabody College, Vanderbilt University, Committee Member, Peabody HOD/LPO Departmental Coordinating Committee, 2012-present
	Vanderbilt Institute for Global Health (VIGH), Committee Member, Masters Advisory Committee, 2010-present
	Vanderbilt University, Committee Member, Faculty Advisory Committee for European Studies and the Max Kade Center, 2013-present
	Peabody College, Vanderbilt University, Committee Member, Leadership Alliance Coordinating Committee, 2009-present
	Vanderbilt Office of Honors Scholarships, Committee Member, Fulbright Scholars Selection Committee, 2009-present
	Vanderbilt International Education Task Force, Committee Chair, International Organizations Committee, 2012-2013
	Peabody College, Vanderbilt University, Committee Member, Peabody/Human and Organizational Development (HOD) Honors Program Review, 2011-2012
	Peabody College, Vanderbilt University, Committee Member, Peabody Diversity Committee, 2010-2012
	Vanderbilt Center for Latin American Studies (CLAS), Committee Member, Steering Committee, 2009-2011
	Vanderbilt Center for Latin American Studies (CLAS), Committee Member, Graduate Admissions and Summer Awards Committee, 2010-2011
	Peabody College, Vanderbilt University, Committee Member, Student Recruitment and Financial Aid Committee, Department of Leadership, Policy and Organizations, 2009-2011

	Peabody College, Vanderbilt University, Committee Member, Peabody College HOD Major - Track Leaders Planning Committee, 2009-2011
	Vanderbilt University, Committee Member, Vanderbilt Institutional Research Group (VIRG) Assessment Planning and Implementation Committee, 2007-2011
Talat Alp Ikizler	Vanderbilt University, Co-Chair, Vanderbilt Institutional Clinical Translational Research Center Scientific Review Committee, 2009-present
Sunil Kripalani	Vanderbilt University Medical Center, Committee Member, Handover Steering Committee, 2009-2012
	Vanderbilt University Medical Center, Committee Member, Handover Communication Tool Core Committee, 2009-2011
	Vanderbilt University Medical Center, Member, Morbidity, Mortality, and Improvement Task Force, 2009-2011
	Vanderbilt University Medical Center, Committee Member, Geriatric Dosing Advisor Quality Improvement Committee, 2009-2011
	Vanderbilt University Medical Center, Committee Member, Heart Failure Hospital to Home Quality Improvement Committee, 2009-2011
	Vanderbilt University Medical Center, Committee Member, Medication Use Safety Improvement Committee, 2009-2011
	Vanderbilt University Medical Center, Committee Member, Operations Committee, Institute for Medicine and Public Health, 2010-present
	Vanderbilt University Medical Center, Committee Member, Hospital Discharge Executive Committee, 2011-2012
	Vanderbilt University Medical Center, Committee Member, Medicine Resident Work Hours Task Force, 2011-2012
	Vanderbilt University Medical Center, Committee Member, Search committee, William Anderson Spickard Jr., M.D. Chair in Medicine, 2011-2013
	Vanderbilt University Medical Center, Committee Member, Patient Education Clinical Oversight Committee, 2011-present
	Vanderbilt University Medical Center, Committee Member, Executive Committee, Division of General Internal Medicine and Public Health, 2011-present
	Vanderbilt University Medical Center, Committee Member, Executive Committee, Vanderbilt Center for Health Services Research, 2011-present
	Vanderbilt University Medical Center, Committee Member, Transition Management Steering Committee, 2012-2014
	Vanderbilt University, Co-Director, Department of Medicine Grand Rounds Speaker Committee for Division of General Internal Medicine and Public Health, 2010-2013
Melissa McPheeters	Vanderbilt University Medical Center, Committee Member, Research Committee, Department of Obstetrics and Gynecology, 2011
Velma McBride Murry	Vanderbilt University, Committee Member, Peabody College, Affirmation Action and Diversity Committee, 2011-2012
	Vanderbilt University, Committee Chair, Human and Organizational Development Admissions Committee, 2010-2011
	Vanderbilt University, Committee Member, Human and Organizational Development Admissions Committee, 2010-2012
	Vanderbilt University, Committee Member, Human and Organizational Development, Faculty Search Committee, 2012

	Vanderbilt University, Committee Member, Institutional Review Board Committee, 2012-2014
	Vanderbilt University, Committee Member, Human & Organizational Department, Admissions Committee, 2013-2014
David Fredrick Penson	Vanderbilt CTSA, Committee Member, Scientific Review Committee, 2011-2013
	Vanderbilt University, Committee Member, Physician-Scientist Development Award review committee, 2011-2013
	Vanderbilt University, Board Member, Vanderbilt Medical Scholars Program Advisory board, 2012-present
Douglas Demaree Perkins	Vanderbilt University, Committee Member, University Standing Committee on Athletics, 2009-2012
	Vanderbilt University, Committee Member, Vanderbilt Fulbright Fellowship Faculty Review Committee, 2009-2011
	Vanderbilt University, Committee Chair, Peabody Faculty Council Research Committee, 2011
	Vanderbilt University, Committee Member, HOD Executive Committee, 2011-present
	Vanderbilt University, Committee Member, HOD Graduate International Committee, 2011-present
	Vanderbilt University, Committee Member, CRA Program Curriculum Subcommittee, 2008 – present
	Vanderbilt University, Chair, CRA Admissions Committee, 2013-2014
	Vanderbilt University, Committee Member, Ad Hoc HOD Promotion Committees for Drs. James Fraser & Paul Speer, 2013
	Vanderbilt University, Committee Member, HOD undergraduate Community Leadership & Development Track Committee, 2000-present
	Vanderbilt University, Committee Member, Community Research & Action Doctoral Program Committee, 2001-present
Sten H. Vermund	Vanderbilt University, Committee Member, Vanderbilt Children's Hospital International Committee, 2005-2011
	Vanderbilt University, Committee Member, Executive Committee of the Executive Faculty (ECEF), 2012-present
	Vanderbilt University, Internal Advisory Board Member, Vanderbilt Institute for Clinical and Translational Research (VICTR), 2012-present
C. William Wester	Vanderbilt University Medical Center, Division of Infectious Diseases, Committee Member, Fellowship Program Planning Committee (FPPC), 2010-present
	Collaboration between the International AIDS Society , University of Washington (UW), University of Alabama Center for AIDS Research (CFAR), and Institute of Translational Health Sciences, Ad Hoc Grant Reviewer, Creative and Novel Ideas in HIV Research (CNIHR) Developmental Grant Program, 2011
	Vanderbilt University School of Medicine, Committee Member, Division of Infectious Diseases Education Committee, 2011-present
	Vanderbilt University School of Medicine, Committee Member, Department of Medicine, Division of Infectious Diseases Chairperson Search Committee, 2012-2013

Vanderbilt University School of Medicine, Committee Member, Interview Admissions Committee (IAC), 2012-present

e. Description of student roles in governance, including any formal student organizations.

Students play a significant role in the program's decision-making, communication, and socialization. They help set policy, implement procedures, conduct evaluations and provide "real time" feedback to program administrators. Student representatives hold seats and have full rights of participation on the Advisory Committee, the Curriculum Committee, and the Diversity Committee.

f. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- There is a committee structure to support program governance and administration.
- Faculty are recruited, retained, promoted, and tenured through the school and department in which they hold primary appointments; the program's role in these processes is advisory by nature.
- Similarly, research and service expectations for participating faculty are set by department/division heads.
- There is a program administration structure that engages faculty for periods of time (i.e. courses) and works with Department Chairs to reflect time/effort commitment to the program within their academic profiles.
- There are university-wide policies regarding rights, obligations, and expectations of faculty that are developed and widely distributed in print and electronically.
- Guidelines and expectations regarding shared decision-making by faculty, staff, students, alumni, and community public health stakeholders through the program's committee structure that are widely distributed in print and electronically.
- The faculty plays extensive and important roles on university committees.,
- There is explicit and extensive involvement of students in decision-making and policy implementation.

Weaknesses:

- As the MPH program continued to grow and develop, more specific policies related to faculty, administrators and students will be helpful.
- Faculty meet officially as a group only once yearly and may not be aware of program policies, procedures and changes.

Plans to ensure that this criterion continues to be met:

- We plan to continue to support our faculty in their interdisciplinary teaching, research, and service activities by continuing a governance structure that includes broad input from faculty, students, administration, and public health professionals.
- As the program and number of faculty members grow, we plan to devise ways to keep all faculty up to date on program policies, procedures, and developments.

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.

There is sufficient financial support for sustaining all core functions and operations and allowing the program to achieve the program's mission, goals and objectives.

a. Description of the budgetary and allocation processes, including all sources of funding supportive of the instruction, research and service activities. This description should include, as appropriate, discussion about legislative appropriations, formula for funds distribution, tuition generation and retention, gifts, grants and contracts, indirect cost recovery, taxes or levies imposed by the university or other entity within the university, and other policies that impact the fiscal resources available to the program.

All tuition, minus a 10.42% School of Medicine fee which covers School overhead, is accrued through the School of Medicine and distributed to the MPH program. Tuition is set annually by the Vanderbilt Board of Trust; for 2014-2015, the MPH I tuition is $32,835 and MPH II tuition is $16,240. Thus, for each full time fee-paying MPH student enrolled in 2014-2015, the program receives $29,413.60 (MPH I) and $14,547.80 (MPH II). In addition, students who are not in other degree granting programs who take individual courses, pay $1,365 per credit hour, of which the program receives $1,222.77 per credit hour. The School of Medicine also provides office space, classroom space, and computer support for program needs. The MPH program has a policy of maintaining an operating reserve of one year's program costs, which is supported by the School of Medicine. In addition, the program maintains additional reserves to fund at least three years of costs to support program-sponsored scholarships. The primary support for public health research and service comes from the departments in which MPH faculty hold academic appointments and the School of Medicine.

b. A clearly formulated program budget statement, showing sources of all available funds and expenditures by major categories, since the last accreditation visit or for the last five years, whichever is longer. If the program does not have a separate budget, it must present an estimate of available funds and expenditures by major category and explain the basis of the estimate. This information must be presented in a table format as appropriate to the program. See CEPH Data Template 1.6.1.

Table 1.6.1 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
Other (explain)	N/A	N/A	N/A	N/A	N/A
Total	465,433	501,153	635,027	913,357	1,060,365
Net	224,192	82,626	94,754	132,625	90,983

NOTE: Not all categories listed above will be relevant to all schools/programs. Omit any blank or NA rows & use "other" rows to add categories as needed. Use footnotes or narrative to define categories as necessary.

c. If the program is a collaborative one sponsored by two or more universities, the budget statement must make clear the financial contributions of each sponsoring university to the overall program budget. This should be accompanied by a description of how tuition and other income is shared, including indirect cost returns for research generated by public health program faculty who may have their primary appointment elsewhere.

This is not applicable. We do not have a collaborative program with another institution.

d. Identification of measurable objectives by which the program assesses the adequacy of its fiscal resources, along with data regarding the program's performance against those measures for each of the last three years.

Table 1.6.d MPH Program Outcome Measures & Results related to Adequacy of Fiscal Resources, 2011-2015 (see Table 1.2.a for additional outcomes)

Measure	Indicator	Assessment	Target	Outcome
At least 1.5 (one prior to 2012) full tuition scholarships are available annually (generated by tuition revenue for the program).	1.5 or more full tuition scholarships annually (generated by tuition revenue for the program)	Admissions and Promotion Committee	Target: 1.5 full tuition scholarships annually	10-11: 1 11-12: 1 12-13: 2 13-14: 2 14-15: 2
At least 1.5 (one prior to 2012) additional full tuition scholarships are available annually for students who are from a racial/ethnic minority or economically disadvantaged background/country (generated by tuition revenue for the program).	1.5 or more full tuition scholarships annually for students who are from a racial/ethnic minority or economically disadvantaged background/country (generated by tuition revenue for the program).	Admissions and Promotion Committee	Target: 1.5 full tuition scholarships annually	10-11: 1 11-12: 1 12-13: 2 13-14: 2 14-15: 1.5
Tuition generates sufficient funds to cover all teaching expenses.	Tuition revenue covers expenses	Health Policy MPH Finance Team	100%	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

<u>Strengths:</u>

- A budgetary and allocation process is in place to set program fiscal priorities, receive revenue through tuition, secure additional institutional commitments, and authorize and monitor operational expenditures.
- Budgetary statements for previous and current academic years are available and ready for review and comment by the site visit team.
- The program accrued resources to successfully develop and start the global health track (planning 2010-12, first class enrolled Fall 2012), and to start funding development of the planned health policy track (planning 2014-15, first class expected Fall 2015).

Weaknesses:

- Significant changes to organizational and accounting structures were made during the 2014-2015 fiscal year and there is still some clarification of budgeting processes that is needed.

Plans to ensure that this criterion continues to be met:

- There is a commitment to ensuring the continued financial stability of the program. We have specifically allocated operating resources to support the operating budget for one academic year in the event that student enrollment drops or there is a significant decrease in the availability of training grant resources to support tuition costs for clinical fellows and other trainees.
- We will work with School of Medicine Leadership to ensure that there are sufficient funds to carry out recommendations identified in the strategic plan.
- We will develop a system to evaluate funding requests from faculty to maintain and upgrade facilities.
- We plan to set aside funds for student participation in conferences, which will be allocated through a competitive application process.

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.

The commitment of time and effort to teaching, research, institutional service or clinical care by every member of the Vanderbilt University School of Medicine faculty or other university faculty is negotiated between the faculty member and their Department chair to reflect an individual's capabilities and interests, as well as the needs of the institution.

For the 2014-2015 Academic Year, the Vanderbilt MPH program has 26 primary and 94 secondary faculty members, , whose contributions to the program are augmented by 9 affiliate and adjunct faculty. The individual faculty members are listed in the following tables according to the extent of their involvement with the MPH program. Collectively, they, along with the considerable resources of Vanderbilt and the Nashville and Tennessee public health communities provide our students with a remarkable educational, research, and service experience.

In determining faculty effort based on faculty full-time equivalents (FTE), the program uses the definitions identified in 1.7.b.

a. A concise statement or chart defining the number (headcount) of primary faculty employed by the program for each of the last three years, organized by concentration.

As noted above, the MPH program includes 26 primary faculty. Their activities include regular teaching of public health classes. Their advising, service, and research effort affect the program and its students. To be considered public health related research, the research is of a nature such that MPH students could and do serve as collaborators. In all cases, examples from the projects directly influence classroom teaching in public health and advising of public health students.

Together, the primary faculty account for 20.28 FTEs of program effort which includes teaching, advising, service, research, and/or other program support for the public health program. Primary Faculty, their affiliations and focal areas, along with allocation of effort across the public health program are shown in Table 4.1.1.

Table 1.7.1 Headcount of Primary Faculty from 2011-2015

	2011-2012	2012-2013	2013-2014	2014-2015
Epidemiology Track *(Note: currently includes future Health Policy track faculty*)	14	16	19	19
Global Health Track	*(track not yet established)*	7	7	7

b. A table delineating the number of faculty, students and SFRs, organized by concentration, for each of the last three years (calendar years or academic years) prior to the site visit. Data must be presented in a table format (see CEPH Data Template 1.7.2) and include at least the following information: a) headcount of primary faculty, b) FTE conversion of faculty based on % time devoted to public health instruction, research and

service, c) headcount of other faculty involved in the program (adjunct, part-time, secondary appointments, etc.), d) FTE conversion of other faculty based on estimate of % time commitment, e) total headcount of primary faculty plus other (non-primary) faculty. All programs must provide data for a), b) and i) and may provide data for c), d) and j) depending on whether the program intends to include the contributions of other faculty in its FTE calculations.

Table 1.7.2 Faculty, Students and Student/Faculty Ratios by Department or Specialty Area for AY 2014-2015

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
Epidemiology *(Note: currently includes future Health Policy track faculty*)	19	14.78	64	17.68	83	32.46	25	25	1.7	.77
Global Health	7	5.25	39	14.1	46	19.35	20	20	3.8	1.0

Key:
HC = Head Count
Primary = Full-time faculty who support the teaching programs—see CEPH FAQ on Required Faculty Resources for definition
FTE = Full-time-equivalent
Other = Adjunct, part-time and secondary faculty
Total = Primary + Other
SFR = Student/Faculty Ratio

Footnote:

MPH Program Faculty Effort (FTE) Assignments for Activities	
Teaching	
Course directorship	5% FTE per credit hour
Course teaching	2-5% based on amount of teaching
Advising/Mentoring (beyond advising expected of faculty in individual courses)	
Mentorship (thesis, career development)	1-5%
Academic advising (outside of teaching)	1-5%
Service	
Public Health Service	2-15%
(Committees, Hearings, etc.)	
Research	
Research activities	Actual % determined by effort
Program Support	
Program Director	30%
Epidemiology Track Director	20%
Global Health Track Director	15%

Associate Global Health Track Director	20%
Diversity Committee Director	10%
Program Manager	100%
Practicum Director	60%
Program Biostatistician	20%
Program Administrative Assistant	5%
Standing Committee Member	2-5%

Based on the amount of effort that each faculty member contributes to public health activities, the program includes four types of faculty, described below:

- **Primary faculty** devote >0.5 FTE of their time and effort in activities associated with the program;
- **Secondary faculty** devote 0.05 to 0.49 FTE to the program;
- **Affiliated faculty** play important advising roles, but do not meet the definition of primary or secondary faculty; and,
- **Adjunct faculty** who are community public health professionals engaged in teaching in the program who do not have Vanderbilt faculty appointments.

c. A concise statement or chart concerning the headcount and FTE of non-faculty, non-student personnel (administration and staff) who support the program.

The program is administered by a director, three tracks directors, one associate track director and six additional program faculty/support personnel.

Name	% Effort	Role
Marie Griffin, MD, MPH	30	Program Director
Annie Smart	100	Program Manager
Douglas Heimburger, MD, MS	15	Track Director, Global Health
Melissa McPheeters, PhD, MPH	20	Track Director, Epidemiology
David Stevenson, PhD, MPH	20	Track Director, Health Policy
Marie Martin, MEd	20	Associate Track Director, Global Health
Troy Moon, MD, MPH	10	Thesis Advisor, Global Health Track
Amy Richardson, MPH	60	Practicum Director
Kecia Carroll, MD, MPH	15	Diversity Committee Director
Yuwei Zhu, MD, MS	20	Biostatistician, Epidemiology Track
Ernest Guerra	5	Administrative Assistant

d. Description of the space available to the program for various purposes (offices, classrooms, common space for student use, etc.), by location.

The program draws on many resources available throughout the Vanderbilt University Medical Center (e.g. library, classrooms, computer facilities) and the School of Medicine (e.g. faculty office space, committed time and effort, administrative support services).

The program administration is housed in various locations on campus, including the Village at Vanderbilt and 2525 West End Avenue. While located in different buildings, all program leadership and administrators are linked through a common, shared server to facilitate program development, implementation and evaluation. The office of the Program Director, Marie Griffin, is located within space assigned to the School of Medicine's Department of Health Policy. The Global Health track administration is housed at the Vanderbilt Institute for Global Health, the Epidemiology Track Director is in the Institute for Medicine and Public Health, the Health Policy Track Director and Program Administrative Assistant are in the Department of Health Policy, all of which are located in the 2525 West End Avenue building bordering campus.

The Vanderbilt School of Medicine provides space, facilities, and equipment necessary to deliver our curriculum. The SOM offers dedicated classroom and gathering space for students in a state-of-the-art classroom facility within the Department of Health Policy space. The 864

square foot space includes a large classroom with movable walls to divide into three smaller seminar rooms. Within the classroom space there are computer projection capabilities for the full classroom and each of the three seminar rooms. Students gather in this space between classes and at other times for small group work, etc. Most of the program teaching occurs in this space. There is an additional conference room in the Department along with conference facilities in the 2525 West End building that are used for seminars and small groups.

Other activities can occur in a variety of rooms within the Medical Center. For example, Light Hall, the School of Medicine's primary classroom building, has classroom space available for use, which was the primary location of program courses until the renovation of the current dedicated space in 2006.

e. A concise description of the laboratory space and description of the kind, quantity and special features or special equipment.

This is not applicable. The program does not directly access laboratory space within its educational programs. Individual faculty using laboratories in their research negotiate access through the departments and centers in which they hold appointments.

f. A concise statement concerning the amount, location, and types of computer facilities and resources for students, faculty, administration, and staff.

A wide range of computer facilities and resources are available for students, faculty, administrators, and staff. Each faculty member and administrator has, at the minimum, a personal computer located in his or her office, and several also have additional hardware for use at home, for travel, or for field research. All staff members have their own personal computer and work space and are free to use the other computers located within the department. There are three projectors available in the MPH classroom space and a fourth portable projector available for use by students, faculty, and staff. The Eskind Biomedical Library offers computer classroom space as well as small gathering spaces for students.

g. A concise description of library/information resources available for program use, including a description of library capacity to provide digital (electronic) content, access mechanisms, training opportunities and document-delivery services

The Annette and Irwin Eskind Biomedical Library (EBL) is a modern 78,000 net square feet facility, dedicated in April 1994. With a staff of 40, the library collects and provides access to materials to support the teaching, research, and service missions of Vanderbilt University Medical Center. It also facilitates the Vanderbilt community's understanding of information resources and use through customized training sessions and asynchronous assistance services. Librarians help students, residents and faculty stay abreast of the latest findings in the literature by providing targeted support to researchers.

To facilitate information access at the point of need, EBL's practice philosophy centers on the provision of electronic resources related to medicine, nursing and the biosciences and services that integrate evidence seamlessly into VUMC workflow. EBL's comprehensive,

multidimensional Digital Library offers fast, targeted access to online books, journals, databases and websites. Through this portal, EBL provides access to over 3,725 full-text electronic journal titles, a number that is continually expanding. For materials not available in digital format or of historical value, the library maintains a print collection of over 203,028 volumes, of which about 80,066 are monographs and about 122,962 are serials. The library receives ~85 print serial titles and has a small collection of non-print material. There are seven other libraries across campus, including the Peabody School of Education and Human Development and the main Jean and Alexander Heard Library, which are accessible by students.

h. A concise statement of any other resources not mentioned above, if applicable

The program draws upon knowledge, experience, and opportunities available through the local metropolitan health department, the Tennessee Department of Health (located less than 2 miles from campus), community health agencies, for profit and non-profit organizations for student research and practicum projects, as well as research partnerships that provide opportunities for understanding "real world" public health issues. The program has long-standing collaborative education, service, and research relationships with many organizations, as well as with regional, state, national, and global agencies. Examples of partners include:

- Agency for Healthcare Research and Quality
- Bokamoso Hospital, Botswana
- Center for International Blood and Marrow Transplant Research
- US Centers for Disease Control and Prevention
- US Food and Drug Administration
- Fogarty International Center, US National Institutes of Health
- Friends in Global Health, Zambézia Province, Mozambique
- Zambia Ministry of Health
- University of Zambia
- UNICEF, Pakistan
- China CDC
- Great Plains Public Health Leadership Institute
- Metropolitan Nashville Fire Department
- Metropolitan Nashville Health Department
- Perdue Research Group
- TennCare Bureau
- Tennessee Department of Health
- Tennessee Institute for Medicine and Public Health
- Tennessee Office for Children's Care Coordination
- Tuberculosis Control Program, Metro Health Department
- Veterans Administration Quality Scholars Program

i. Identification of measurable objectives through which the program assesses the adequacy of its resources, along with data regarding the program's performance against

those measures for each of the last three years.

Table 1.7.i. Measurable Objectives related to Adequacy of Resources from 2010-2015 (see Table 1.2.a for additional outcomes)				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
At least 15 FTE of faculty time is dedicated to teaching or activities relevant to the public health program.	FTE count of primary faculty	Annual curriculum review	15.0 FTE	11-12: 10.78 12-13: 17.3 13-14: 20.6 14-15: 20.3
There are sufficient faculty to teach and mentor students.	Faculty/Student ratio for program (primary and secondary)	Annual Review	< 2	11-12: 2.2 12-13: 2.6 13-14: 2.1 14-15: 2.7
MPH students are involved in faculty research projects.	N of MPH students (second year) who participate in MPH primary or secondary faculty research	Annual Review and Exit survey	20	11-12: 13 (100%) 12-13: 17 (100%) 13-14: 24 (100%) 14-15: 22 (100%)

n. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met with comment. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- Primary and secondary faculty commitments to teaching, advising, serving, and generating new knowledge through research to provide a rich learning environment with a very low student to faculty ratio; and,
- Support staff, facilities, equipment, and services to support educational activities of the program.

Weaknesses:

- The program currently lacks an endowment or alumni contribution system from which to generate additional scholarship and other programmatic funding.

Plans to ensure that this criterion continues to be met:

- We are committed to supporting our faculty through several efforts, including payment for teaching efforts and encouraging faculty participation in program governance.

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.

The Vanderbilt MPH program has demonstrated a commitment to diversity, which has become even more specialized and targeted since the last CEPH self-study.

i. Description of the program's under-represented populations, including a rationale for the designation.

In line with Vanderbilt University's (VU) and Vanderbilt University School of Medicine's (VUSM) designations, the MPH program's under-represented minority (URM) populations include African-Americans, Hispanic/Latinos, Native Americans, and Pacific Islanders, and female gender as these groups have been historically underrepresented at Vanderbilt University compared to their representation in the Tennessee and the US populations. The Master of Public Health program values inclusion and diversity in our students and in our faculty. We believe that having an inclusive and diverse learning community enhances the experience for all of our learners and results in better outcomes for public health. Increasing the inclusion of individuals from URM backgrounds will be important in our efforts to develop public health professionals with broad skills regarding diversity and cultural competency as we seek to create innovative and stimulating learning environments, prepare students to work with diverse communities who are able to recognize and adapt to cultural differences, and engage diverse communities and improve public health. Aligned with VU and VUSM policies, the MPH program recognizes that diversity extends beyond race/ethnicity and gender and includes factors such as religion, color, national or ethnic origin, age, disability, military service, sexual orientation, gender identity, gender expression.

ii. A list of goals for achieving diversity and cultural competence within the program, and a description of how diversity-related goals are consistent with the university's mission, strategic plan and other initiatives on diversity, as applicable.

1. Recruit and retain highly talented students with cultural diversity

The mission of the Vanderbilt MPH Program is 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 Vanderbilt MPH Program has three major goals which includes educating innovative and effective public health researchers, faculty, and practitioners. A key objective to reach this goal includes recruiting highly talented students with cultural diversity who are committed to public health and will likely make substantial contributions to the field. The program sets targets for admission and retention of students so as to reflect the sex and race/ethnic profile of Tennessee residents (as illustrated in our stretch goals in the outcome measures in Table 1.2). The MPH Operations group, Diversity Committee, and the Senior Associate Dean for Diversity in Graduate Medical Education have developed programs and procedures to increase minority recruitment including:

- The MPH program provides 1-2 scholarships annually to qualified underrepresented minority applicants, named for Dr. David Satcher.

- Program applicants are invited to meet with a member of the Diversity Committee to identify other resources.
- All applying students are informed of our diversity efforts during the interview process and during orientation.
- The MPH program has website links to the Office for Diversity Affairs at VUSM.
- Dr. Churchwell, the Senior Associate Dean for Diversity at VUSM, distributes MPH brochures at national meetings, including the Student National Medical Association meeting.
- The MPH program communicates with underrepresented faculty, house officers, and medical students about the program and our diversity efforts, using data from Dr. Churchwell's Diversity Office.

The David Satcher Public Health Scholars program was implemented to enhance the diversity of individuals working in academic disciplines related to public health and to increase cultural awareness within the MPH Program. The Vanderbilt MPH David Satcher Public Health Scholars Program honors the public health contributions of David Satcher, MD, PhD, 16th Surgeon General of the United States, former president of Meharry Medical College, and current Director of the Sather Health Leadership Institute at Morehouse School of Medicine, including his commitment to improve public health policy for all Americans and to eliminate health disparities for minorities, poor people, and other disadvantaged groups. The scholarships, which provide tuition support for the two year program, are awarded based on merit to applicants from under-represented minority groups. Application for the Scholars Program occurs at the time of initial application to the MPH program. Scholars and other MPH students with an interest in health disparities have the opportunity to pursue practicum work at the Satcher Health Leadership Institute at Morehouse School of Medicine. Program funds are made available to cover costs associated with the practicum.

2. Incorporate cultural diversity throughout the MPH curriculum that addresses factors such as race, sex, religion, color, ethnicity, national or ethnic origin, age, disability, military service, sexual orientation, gender identity, gender expression, language, and socioeconomic background. We encourage our faculty to incorporate cultural competency in their course materials and the program provides systematic opportunities for faculty to assess the extent that diversity and cultural competency are addressed in their courses and to identify areas to be strengthened. For example, in September 2013 the MPH program organized a cultural competency workshop for faculty and MPH leadership "Incorporating Inclusion and Diversity into the MPH Curriculum" led by Dr. Ana Núñez, Associate Dean for Urban Health Equity, Education and Research, Director of the Center of Excellence and Director of the Women's Health Education Program Professor of Medicine, Drexel University College of Medicine. During this cultural competency workshop, the faculty had the opportunity to identify within their MPH courses where knowledge, attitudes, and skills relevant to cultural competency were addressed, needed to be strengthened, or incorporated and this assessment will inform our cultural competency efforts. The assessment tool questions were adapted from the Tools for Assessing Cultural Competence Training (TACCT) which Dr. Núñez was instrumental in developing. In addition, during this workshop Dr. Núñez facilitated a discussion around key concepts in cultural competency as well as demonstrated how multi-media approaches could be used to incorporate cultural competency into the curriculum.

During Curriculum Committee and Advisory Committee meetings, we actively discuss ways to ensure that the curriculum includes diverse perspectives. Information from student feedback is incorporated into these efforts as well. Examples include incorporation of global health cases, topics and articles into the core public health courses and modules addressing racial disparities into the curriculum of the Epidemiology 1 course. The addition of the global health track provided an opportunity to further expand the focus on cultural issues and health disparities found in low-resourced settings.

In addition to the cultural competency efforts incorporated in the MPH curriculum, the David Satcher Public Health Scholars program is a multifaceted program designed to increase cultural awareness within the MPH Program. For example, the annual Vanderbilt MPH David Satcher Public Health Scholars visiting lectureship was established in 2009:

- 2009 Dr. David Satcher, inaugural lecturer
- 2010 Dr. Deborah Prothrow-Stith, Associate Dean and Professor of Public Health Practice at the Harvard School of Public Health,
- 2011 Dr. Michele Holmes, Associate Professor at Harvard School of Public Health,
- 2012 Dr. Herman Taylor, PI of the Jackson Heart Study, Professor of Medicine and Aaron Shirley Endowed Chair for the Study of Health Disparities at the University of Mississippi Medical Center,
- 2013 Dr. Ana Núñez, Associate Dean for Urban Health Equity, Education and Research, Director of the Center of Excellence and Director of the Women's Health Education Program, Professor of Medicine, Drexel University College of Medicine.
- 2014 Dr. Donald Hopkins, Vice President and Director of Health Programs, The Carter Center

In addition to meeting with students and MPH administration and faculty, the Satcher Lecturer gives a lecture to the Epidemiology I students as well as a Dean's Lecture to the entire Vanderbilt community. The Epidemiology I lectures have highlighted the design, implementation, and follow-up involved in conducting large cohort studies focusing on the Nurses' Health Study (Dr. Michele Holmes 2011), contributions of the Jackson Heart study which longitudinally assesses cardiovascular health and other chronic medical conditions in a prospective cohort of over 5,000 African American adults who reside in Jackson, Mississippi (Dr. Herman Taylor 2012), and the importance of considering sex and gender in medicine and the impact on health (Dr. Ana Núnez 2013). The Dean's lecture to the entire medical school have included, "Youth Violence Prevention: The Interface between Health Care Delivery, Public Health & Community" (2010), "The Next Health Frontier: Chronic Diseases in Africa" (2011), "Profiling Heart Health and Heart Risk in a Southern African American Population" (2012), and "Finding the Personal in Personalized Medicine" (2013). Our upcoming September 2014 David Satcher Public Health Scholars visiting lecturer will be Dr. Donald R. Hopkins, Vice President of Health Programs at the Carter Center at Emory University and leader of the Center's international health programs and the Mental Health Program. Dr. Hopkins will meet with and teach the students as well as share his experiences, including his leadership in the international campaign to eradicate Guinea worm disease, with the Vanderbilt and local public health communities.

To further supplement what is learned in the classroom and to increase student interactions with public health, medical, education, and nursing faculty and institutional leaders, we organize a yearly roundtable discussion that is led by Dr. Andre' Churchwell, Senior Associate Dean for Diversity Affairs. Topics from 2010-2013 have included, "Strategies to Incorporate Cultural Competency into Educational Offerings" (2010), "Diversity in Education and Workforce Development" (2011), "Community Based Disparities Research, a Focus on Cardiovascular Health Research: Challenges and Opportunities" (2012), and "Overcoming Challenges for Under-represented Minorities and Women in Academic Medicine" (2013). These sessions are open to attendance by students, faculty, and institutional leaders and inform programming and policies.

3. Maintain a standing and active Diversity Committee

The Vanderbilt MPH Diversity Committee was established in 2009 and includes program administrators, faculty, students, and School of Medicine leadership. The Diversity Committee monitors and makes recommendations on strategies to recruit an inclusive and diverse population of students, faculty and staff, and ways to enhance course offerings to ensure students consider issues of health disparities in the context of their learning. The committee meets at least twice per year.

4. Increase the diversity of the MPH Program faculty and staff

A role of the Diversity Committee is to work with MPH Leadership, Vanderbilt University School of Medicine leadership, and Human Resources in efforts to enhance recruitment, retention, and advancement of diverse individuals. As outlined below, the Vanderbilt University leadership has extensive experience in developing and implementing policies aimed at increasing workforce diversity.

Our diversity-related goals are highly consistent with the university's mission, strategic plan and other initiatives on diversity. With a team of partners and advocates, and strong leadership at the institution, Vanderbilt University School of Medicine has taken a position in this country as one of the leaders in working toward broad diversity.

The changes during the past 10 years at VUSM have been profound. In 1997, an institutional strategic plan was developed recommending an Office for Diversity. Implemented in 2002, this recommendation has had an important and dramatic impact on the medical education program at VUSM as well as our graduate training and research initiatives (see https://medschool.vanderbilt.edu/diversity/). The Office for Diversity in Medical Education was established in July 2002 and the Office of Graduate Medical Education and Faculty Affairs was created in 2007. In 2011, all initiatives were merged into the Office for Diversity Affairs, which is funded through Jeffrey Balser, M.D., Dean and Vice-Chancellor, and led by Andre′ L. Churchwell, M.D., Associate Professor of Medicine, Radiology and Radiological Sciences, and Biomedical Engineering and Senior Associate Dean of Diversity (80% time commitment). Kimberly N. Vinson, M.D., Assistant Professor serves as Assistant Dean for Diversity (30% time commitment). The Office "houses" the diversity efforts in Graduate Medical Education and Faculty Affairs and Medical Education programs for undergraduate medical students and has 4 full-time administrative staff members. The Dean's Office has provided scholarship support (15 URM scholarships with 75% tuition support in 2011-2012)

as well as new programs to increase diversity for the past 8 years. The recipients of these scholarships include students from diverse backgrounds (i.e. race, ethnicity, geographic location, socioeconomic status, female gender, disability status and other factors are included in broadening our class diversity). The scholarships and commitment to a nurturing culture has led us to a rank of number 6 by the Student National Medical Association in their 2011 Diversity Rankings of all Medical Schools.

The Associate Dean for Diversity has been a member of the MPH Diversity Committee since its inception and works closely with the MPH Program in diversity and inclusion efforts. **In efforts to increase trainee and faculty diversity**, Vanderbilt University School of Medicine has also implemented a diversity incentive plan which has led to greater diversity in the medical school and a structure to prospectively increase diversity in graduate medical education and faculty ranks. The plan's goal is to increase, in phases, diversity in the areas consistent with Vanderbilt University's nondiscrimination statement [race, sex, religion, color, national or ethnic origin, age, disability, military service, sexual orientation, gender identity, or gender expression]. http://www.vanderbilt.edu/ead and greater detail in section 1.8.A.vi.

Importantly, the MPH Program's effort to integrate cultural competency throughout the curriculum dovetails with the VUSM's efforts and implementation of a Diversity and Health Disparities Curriculum as a component of the newly implemented Curriculum 2.0 in the Medical School. This curriculum will integrate topics such as understanding bias and prejudice, diversity, cultural competency, health disparities, and barriers to minority participation in research using a variety of suggested teaching methods including lectures, small groups, standardized patients, and immersion experiences. In addition, the Office of Inclusion and Health Equity at the Monroe Carell Children's Hospital was established in 2012 to promote inclusion and equity for children in families, in part by ensuring that faculty, staff, and learners receive appropriate education and training to deliver effective, high quality health care. In summary, the current MPH goals are highly consistent with our institution's mission and diversity initiatives.

iii. Policies that support a climate free of harassment and discrimination and that value the contributions of all forms of diversity; the program should also document its commitment to maintaining/using these policies. The MPH program supports and subscribes to the policies and procedures on nondiscrimination and student conduct and academic integrity of Vanderbilt University and the School of Medicine (see http://www.vanderbilt.edu/studentaccountability/policies-procedures). The University and the MPH program support a climate free of harassment and discrimination that is found at http://vanderbilt.edu/faculty-manual/part-iii-university-principles-and-policies/ch2-nondiscrimination/). The nondiscrimination statement is annually reviewed and updated, as needed, by the Equal Opportunity, Affirmative Action and Disability Services Department, the General Counsel's Office, and the Chancellor. Anita Jenious is Director of the Opportunity Development Center (EAC).

The policies have led to an environment that values the contributions of all forms of diversity. A partial listing of the important areas covered by the University policies includes:

- Sexual Misconduct

- Threat, Harassment, Stalking, or Intimidation: Directives to Desist
- Fireworks, Firearms, Other Weapons, and Explosives
- Damage to Property
- Hazing
- Use of University Computers and Data Networks
- Use of the University Telephone System
- The Student Conduct System
- Guidelines for Cases of Sexual Misconduct
- Appellate Review Board Appeals

iv. Policies that support a climate for working and learning in a diverse setting.
The Vanderbilt MPH program and Vanderbilt University is committed to fostering learning and work environments in which all individuals are and feel valued and respected and are able thrive, fully participate, and be effective in their respective positions. A number of policies support our commitment to recruiting and supporting a diverse faculty and student body. (see http://vanderbilt.edu/faculty-manual/vanderbilt-university-compliance-program-and-standards-of-conduct/ and http://www.vanderbilt.edu/studentaccountability/policies-procedures) The MPH Program has developed and implemented a number of policies to support working and learning in diverse settings.

1. Create learning environments where respectful intellectual discourse is facilitated.
2. Inclusion of under-represented minorities and other diverse individuals on Program committees to inform key decisions and policies.

v. Policies and plans to develop, review and maintain curricula and other opportunities including service learning that address and build competency in diversity and cultural considerations.

The Vanderbilt MPH Program is committed to developing a culturally competent faculty, staff, and student body that have the broad skills regarding diversity and cultural competency to work with and be responsive to diverse individuals and communities. During Advisory Committee, Operations Committee, and Diversity Committee meetings, there are discussions of the program's diversity and cultural competency efforts. While the David Satcher scholarship and annual lecture have been successful in increasing diversity among the student body and raising awareness of diversity and health disparities, more efforts can be made to increase diversity. Acting upon recommendations from the Diversity Committee and Program leadership, in September 2013 the MPH program organized a cultural competency workshop for faculty titled "Incorporating Inclusion and Diversity into the Cultural Competency Curriculum" led by Dr. Ana Núñez. During this cultural competency workshop, using materials adapted from the TACCT, the faculty were able to identify cultural competency concepts and topics that addressed, needed improvement or to be incorporated into their curriculum. This served as a survey of the course offerings and will inform future efforts to incorporate cultural competency into the curriculum. In addition, during this workshop, faculty actively participated in multi-media approaches aimed at building skills in incorporating cultural competency into their curricula. We intend to offer yearly opportunities for faculty and staff to develop and maintain curricula that address and build competency in diversity and cultural competency.

> In the June 2014 Advisory Committee meeting, there was agreement that continued enhancement of diversity would be important, both in the vision and mission statements but also in the program's offerings. The value statement was revised to specifically include diversity: "An understanding of, and respect for, the roles of other professionals, *the benefits of a culturally diverse faculty, staff, and student body,* and of the need to collaborate with others in promoting the health of populations."

As presented in section 1.8.A.ii., The David Satcher Public Health Scholars program is a multifaceted annual program designed to increase cultural awareness and competency within the MPH Program. The Program consists of course lectures to students, Dean's lectures that are promoted school wide, roundtable discussions, networking and informal mentoring and career planning sessions, and skills building workshops all focused on enhancing diversity and increasing cultural awareness and competency. We have offered this program consistently since 2009 and plan to continue this programming for the foreseeable future. The MPH practicum is an additional opportunity for students to engage in educational and service opportunities that increase awareness and build competency in diversity and cultural considerations.

vi. Policies and plans to recruit, develop, promote and retain a diverse faculty.
The Vanderbilt MPH program and Vanderbilt University have a commitment to recruiting and supporting a diverse faculty. A number of policies support this commitment, as described in the Vanderbilt Faculty Manual, http://vanderbilt.edu/faculty-manual/part-iii-university-principles-and-policies/ch2-nondiscrimination/. No exclusion in recruitment and employment or retention is made on the basis of age, gender, race, disability, sexual orientation, religion or national origin. Affirmative Action and Equal Opportunity policies are described in the Faculty Manual. The Provost and the Vice Chancellors assist the Chancellor in administering the provisions of the Affirmative Action Plan. The staff of the Opportunity Development Center monitors the University's compliance with equal opportunity and affirmative action laws and coordinates and implements the provisions of the Affirmative Action Plan. The VUSM has an Office for Diversity in Medical Education, which is charged with "recruiting and maintaining a diversified body of graduate, postdoctoral, and professional students, residents, fellows, and faculty in an environment that is dedicated to excellence." (http://www.mc.vanderbilt.edu/medschool/diversity/odme.php).

Senior Associate Dean for Diversity Affairs Andre' Churchwell directs the Office and has regular interactions with the MPH program, including serving on our Diversity Committee. Vanderbilt is a member of the Leadership Alliance, an academic consortium of 33 institutions of higher learning, whose mission is to develop underrepresented students into outstanding leaders and role models in academic, business, and the public sector (http://www.theleadershipalliance.org). Diversity efforts are evaluated school wide on an annual basis with input provided from the Associate Dean to the Dean. Dr. Churchwell has also been instrumental in communicating program efforts for diversity to the Dean and Chancellor. In addition, the Associate Dean for Diversity worked with Dean Balser to develop a diversity incentive plan which was implemented in 2009. The diversity incentive plan builds on the initial Diversity Plan 2005 and the 2009 plan has led to greater diversity in the medical school and a structure to prospectively increase diversity in graduate medical education and faculty ranks. Overall, the plan's goal is to increase, in phases, diversity in the

areas consistent with Vanderbilt University's nondiscrimination statement [race, sex, religion, color, national or ethnic origin, age, disability, military service, sexual orientation, gender identity, or gender expression] (http://www.vanderbilt.edu/ead). In brief, the Chairs in the School of Medicine provide annual results on diversity performance measures to the Vice Chancellor for Health Affairs, Dean of the School of Medicine along with the other reported year end performance results. The Chairs' yearly performance measurements include consideration of their Report on Diversity Initiatives. The weight given to this factor is determined yearly between the Dean and the Chairs. Measures which are followed include: 1) Increase the good faith efforts to recruit more diversified faculty in the Department 2) Increase the diversity of post-docs, housestaff (including fellows), and instructors in the department and 3) Increase the number of consultation/collaboration events involving diverse faculty or related to health disparity community issues, number of speakers invited for basic science department lectures/seminar series, or other efforts.

vii. Policies and plans to recruit, develop, promote and retain a diverse staff.
The MPH Program and Vanderbilt have a strong commitment to develop, promote, and retain a diverse faculty and staff. The MPH Leadership and the Diversity Committee will work with Vanderbilt University School of Medicine leadership and Human Resources in efforts to enhance recruitment, retention, and advancement of diverse staff members.

viii. Policies and plans to recruit, admit, retain and graduate a diverse student body.
As reflected in our objectives, the program is committed to creating an environment that includes a culturally diverse student body. The MPH program has collaborated with the Associate Dean for Diversity Affairs to develop a specific program for minority recruitment. The School of Medicine leadership is involved on the MPH Diversity Committee and provides important insight.

Until recently, the primary flow of students into the program came from Vanderbilt and Meharry training programs and junior faculty. Thus, the diversity of the program was largely dependent on the diversity of the clinical fellow and faculty populations. Because we wanted to demonstrate leadership in diversity for programs at Vanderbilt, the Operations Group, in consultation with the Director for Minority Recruitment, Vanderbilt's Associate Dean for Diversity, the Admissions Committee, and now more recently with the Diversity Committee, worked to identify strategies to enhance diversity. There was consensus that depending on the primary source populations for diversity would not be sufficient to have the public health workforce reflect the populations we serve. Thus, the program implemented several important initiatives to enhance our student diversity, as highlighted in 1.8ii. including: scholarships to URM students, interaction with applicants with members of the Diversity Committee and discussion of diversity efforts, website links for the VUSM Office of Diversity, dissemination of MPH brochures by the Associate Dean of Diversity at national meetings aimed at URM students, and disseminating information regarding the MPH Program and Satcher scholarship to prospective students.

In order to further expand the application pool, in particular with the addition of the Global health track, the Vanderbilt MPH program has continued to reach out to various constituencies. For example, the Program has developed materials specifically for the Satcher

Scholars Program for dissemination to prospective applicants. These flyers are delivered to offices and distributed via email, including the below at Vanderbilt University:

- Bishop Joseph Johnson Black Cultural Center at Vanderbilt University
- VU-EDGE (Enhancing Diversity in Graduate Education)
- The Office of Student Leadership Development (OSLD)
- The student leaders for VU-OBGAPS.
- Officers for the Alliance for Cultural Diversity in Research at Vanderbilt can be found here.
- Leadership and staff at the Bishop Joseph Johnson Black Cultural Center.
- Student leaders in
    - Black Student Nurses Organization (BSNO)
    - Latino Medical Student Association (LMSA)
    - Levi Watkins, Jr., MD, Premedical Conference for Underrepresented Minorities
    - Minority Association of Pre-Medical Students (MAPS)
    - Student National Medical Association
    - Vanderbilt International Students Association (VISA)

In addition, materials are also distributed to the following non-Vanderbilt University organizations:

- Fisk Office of Career Development and Leadership
- Fisk pre-health career student organizations and advisors
- TSU Career Development Center
- TSU pre-health career student organizations

ix. Regular evaluation of the effectiveness of the above-listed measures.
The MPH Operations Committee evaluates the policies and measures described above on an annual basis. The Admissions and Promotions Committee considers these measures annually during recruitment and admissions processes. The Curriculum Committee reviews competencies and course evaluations, and engages faculty in discussions related to increasing diversity in the curriculum during meetings. And lastly, the Advisory Committee reviews data related to diversity efforts and provides recommendations, as necessary, during annual meetings.

1.8.b. Evidence that shows that the plan or policies are being implemented. Examples may include mission/goals/objectives that reference diversity or cultural competence, syllabi and other course materials, lists of student experiences demonstrating diverse settings, records and statistics on faculty, staff and student recruitment, admission and retention.

As highlighted in previous sections, the program has committed to diversity initiatives that enhance the quality of opportunities and expand the opportunities for students and faculty. These are described below:

A commitment to diversity is explicit in the **objectives** of the MPH program:

- Recruit highly talented students with cultural diversity who are committed to public health and will likely make substantial contributions to the field.

- Provide students exposure to outstanding faculty in the range of disciplines and specialties consistent with the program's mission.
- Provide excellent educational programs and opportunities.

A commitment to diversity is explicit in the identified **competencies** of the MPH program.

- Apply evidence-based knowledge of health determinants to public health issues.
- Employ ethical principles and behaviors.
- Perform professional activities with cultural competence.
- Promote cultural and ethnic diversity in public health research and practice.
- Effectively engage in interdisciplinary and inter-
- professional collaboration to advance research, policy, or practice goals.

A commitment to diversity is explicit in the values of the MPH program.

- An understanding of, and respect for, the roles of other professionals, *the benefits of a culturally diverse faculty, staff, and student body*, and of the need to collaborate with others in promoting the health of populations.

Courses

The expansion of the global health track has greatly expanded didactic opportunities for exploration of health disparities, cultural competency, ethics and diverse populations. Other core public health courses have increased attention focused on global disparities through case studies, relevant scholarly articles and class discussion. As an example, the environmental health course has incorporated issues of environmental justice and the role of the community into Environmental Health. The examples in class include many case studies that are global health as well as well as both global and local issues that demonstrate the role of disparities in increasing exposure to environmental hazards and affect the degree to which they are mitigated.

Practica

The expansion of the program to include the Global Health track has greatly increased the types and locations of practica and thesis projects. These are described in greater detail in Section 2.4.

Student Diversity (see table below)

The MPH Program has a fairly diverse student body that for the past 4 years the incoming class has included URM students with percentages of 23% (2011-2012), 38% (2012-2013), 27% (2013-2014), and 9% (2014-2015) of the student body. In addition, for the past 4 years, the percentages of female students in the entering class have been 41% (2011-2012), 67% (2012-2013), 68% (2013-2014) and 70% (2014-2015). Additionally, we have a number of international students with percentages over the previous 4 years as 6% (2011-2012), 17% (2012-2013), 14% (2013-2014), and 6% (2014-2015).

Diversity Committee

The Diversity Committee was established in 2009 and the Dr. David Satcher Public Health Scholars Program has been ongoing since 2009 with the associated lectures, workshops, and round table discussions.

Documentation

We have provided in the appendices documentation of Diversity Committee minutes, practicum listings, and course syllabi.

1.8.c. Description of how the diversity plan or policies were developed, including an explanation of the constituent groups involved.

We have worked closely with VUSM Diversity leadership, MPH faculty and students, the Diversity Committee, and the local public health leadership to develop our diversity policies. Diverse groups of stakeholders at all levels were interviewed during our strategic planning process and are intentionally recruited to participate on MPH Program committees. Importantly, the Diversity Committee, which includes VUSM leadership, serves as a primary body to inform the MPH leadership regarding determining and setting priorities in policy implementation.

1.8.d. Description of how the plan or policies are monitored, how the plan is used by the program and how often the plan is reviewed.

The MPH Diversity Committee and the MPH leadership are primarily responsible for planning, implementing, and monitoring of diversity policies. The plans and policies are reviewed annually at committee meetings and outcome metrics provided by the Operations Committee are also reviewed at that time.

1.8.e. Identification of measurable objectives by which the program may evaluate its success in achieving a diverse complement of faculty, staff and students, along with data regarding the performance of the program against those measures for each of the last three years. See CEPH Data Template 1.8.1. At a minimum, the program must include four objectives, at least two of which relate to race/ethnicity. For non-US-based institutions of higher education, matters regarding the feasibility of race/ethnicity reporting will be handled on a case-by-case basis. Measurable objectives must align with the program's definition of under-represented populations in Criterion 1.8.a.

Template 1.8.1. Summary of Data for Faculty, Students, and/or Staff (2010-2015)							
Category/Definition	Method of collection	Data Source	Target	2011-2012	2012-2013	2013-2014	2014-2015
Primary faculty from URM* groups	Self-report	Employee files	15%	21%	13%	12%	12%
Staff from URM groups	Self-report	Employee files	25%	0% 0/2	0% 0/5	0% 0/5	25% 1/4
Incoming Students from URM groups	Self-report	Enrollment files	20%	23% 4/17	38% 9/24	27% 6/22	9% 2/23
Primary faculty who are women	Self-report	Employee files	40%	21%	30%	31%	31%
Staff who are women	Self-report	Employee files	50%	100% 2/2	100% 5/5	100% 5/5	75% 3/4
Incoming Students who	Self-report	Enrollment	50%	41%	71%	68%	70%

are women		files		7/17	17/24	15/22	16/23
Incoming International students	Self-report	Enrollment files	10%	6% 1/17	17% 4/24	14% 3/22	6% 1/23

*Under-represented minority group (URM) targets are based on the racial/ethnic profile of Tennessee residents which is approximately 22.3%. URM racial/ethnic groups include African-Americans, Hispanic/Latinos, Native Americans, and Pacific Islanders.

Table 1.8.a Outcomes Related to MPH Program Diversity (see Table 1.2.a for additional outcomes)

Measure	Indicator	Assessment	Target	Outcome
Student body is culturally diverse.	% of incoming students who are racial/ethnic minorities or from economically disadvantages backgrounds/countries	Annual Admissions Committee Actions	At least 20% (Stretch: 30%)	11-12: 29% 12-13: 38% 13-14: 27% 14-15: 13%
The faculty are culturally diverse.	% of primary faculty who are racial/ethnic minorities	Annual Review	At least 15% (Stretch 30%)	11-12: 21% 12-13: 13% 13-14: 12% 14-15: 12%
The faculty represents a balance of gender.	% of primary faculty who are women	Annual Review	At least 40% (Stretch 50%)	11-12: 21% 12-13: 30% 13-14: 31% 14:15: 31%
The MPH program administration is culturally diverse.	% of program administrators who are racial/ethnic minorities	Annual Review	15% (Stretch 30%)	10-11: 0% 11-12: 13% 12-13: 11% 13-14: 11% 14-15: 17%

1.8.f. Assessment of the extent to which this criterion is met and an analysis of the school's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is not met. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- The VUSOM and the MPH Program have demonstrated a strong commitment to improving diversity within the student body and education and training.
- The VUSOM has implemented an incentive based diversity plan across all departments.
- The importance of diversity is integrated within the MPH program objectives.
- The Diversity Committee, which consists of individuals from Program administration, VUSOM leadership, faculty, and the student body, provides input from a diverse group of individuals.
- The David Satcher Scholars Program has provided tuition support for students, which has helped increase student diversity, and also provides professional development and education around topics related to diversity.

- The MPH Program has exceeded targets for 1) URM students and 2) female students over the past 3 years. We will continue efforts and monitor whether these objectives continue to be sustained.

Weaknesses:

- Template 1.8.E demonstrates that the MPH Program has not met its target for 1) faculty from URM groups, 2) incoming students from URM groups, 3) faculty who are women, or 4) incoming international students.
- A review of how inclusion and diversity are integrated in the MPH curriculum is in the early stages.

Plans to ensure that the criterion is met:

- The MPH Program will work closely with the Diversity Committee, which includes VUSOM Office for Diversity Affairs leadership, and Vanderbilt Human resources as appropriate to develop and implement policies to enhance URM and gender diversity of faculty, students, and staff with initial efforts focused on areas that fall short of targets.
- The MPH Program will work closely with the Diversity Committee and the VUSOM Office of Diversity leadership to implement professional development and networking opportunities for URM, international, and culturally diverse students to enhance recruitment and retention efforts. For example, in 2013 the VUSOM Office for Diversity implemented a mentoring program in which each entering URM medical student was offered the opportunity to have a URM "life coach" faculty mentor as a resource to discuss issues such as challenges, life and career choices, and networking. The MPH Program will follow this model.
- The MPH Diversity and Curriculum Committees will continue work to strengthen and incorporate diversity throughout the MPH curricula.
- The Epidemiology and Global Health track course directors will explore developing a tool that allows students to systemically assess how their materials address areas relevant to cultural competency and/or health equity. This importantly serves as a prompt for instructors to include material relevant to cultural competency into their course materials.
- Consistent with the VUSOM, the MPH Program diversity objectives have centered around African-Americans and Latinos as these groups have been historically underrepresented in the South. In addition, The MPH Program will work with the Diversity Committee and VU and VUSOM leadership to identify and design ways to systematically collect data on additional diversity objectives deemed relevant to the mission, goals, and objectives of the program.
- Annually review School of Medicine Policies regarding diversity to assure that they fit MPH program needs and aspirations and consider whether specific program policies are needed.

Criterion 2

Instructional Programs

Vanderbilt University

Master of Public Health Program

Self-Study Report

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.

a. An instructional matrix presenting all of the program's degree programs and areas of specialization, including bachelor's, master's and doctoral degrees, as appropriate. If multiple areas of specialization are available, these should be included. The matrix should distinguish between professional and academic degrees for all graduate degrees offered and should identify any programs that are offered in distance learning or other formats. Non-degree programs, such as certificates or continuing education, should not be included in the matrix. See CEPH Data Template 2.1.1.

The Vanderbilt MPH program leads to an MPH degree and comprises two areas of specialization: Epidemiology and Global Health. The program prepares students to become research scientists and/or public health professionals who are also leaders and innovators dedicated to improving public health and preventing disease and disability. The program's mission, goals, objectives, and competencies are designed to prepare students to investigate, acquire, organize, analyze, and disseminate new knowledge in a variety of public health fields. Our graduates advance health policy and improve health for populations through their scholarly activity, their engagement in collaborations with community-based public health professionals, and their direct involvement in community health. The Epidemiology track focuses on quantitative evaluation in health sciences, and students are expected to develop competencies in the professional practice of public health principles. It is designed for physicians or other doctoral-prepared individuals who desire a career focused on quantitative evaluation of population health, programs and policies. The Global Health track is designed to educate innovative public health leaders to manage global health initiatives and to contribute to public policy that improves global health. A substantive change proposal was submitted to CEPH (June 2014) for the establishment of a third track in health policy in 2015. The Health Policy track will draw on faculty expertise in a newly established department of Health Policy at Vanderbilt (formerly the Department of Preventive Medicine) and strong collaborative relationships with federal, state and local health agencies.

The program also offers interdisciplinary education for students desiring dual study in Medicine (MD/MPH). The combined degree program is limited in size (usually 0-3 students per year), and the program is very selective in the students it admits to the program. Students in the combined degree program typically demonstrate the maturity and independence associated with fellows or junior faculty. The combined MD/MPH program includes all of the 42 credit hours for the MPH program, with the medical school counting some of the MPH credits towards the MD degree. Combined degree students are expected to complete all requirements of the MPH degree. Currently, none of the MD degree credits are used to satisfy the requirements of the MPH program.

In 2014, the program matriculated the first student into a dual degree with a Masters of Education program in International Education Policy and Management, which is housed in the George Peabody College of Education and Human Development at Vanderbilt. An additional dual degree with the Master of Arts in Latin American Studies was approved July 2014. These dual degree programs are described in greater detail in Section 2.10.

Table 2.1.1. Instructional Matrix – Degrees & Specializations		
	Academic	Professional
Masters Degrees		
Specialization/Concentration/Focus Area		Degree*
Public Health, Epidemiology		MPH
Public Health, Global Health		MPH
Joint Degrees		
2nd (non-public health) area		Degree*
Medical Doctor		MD, MPH
Master of Education, International Education Policy and Management,		MEd, MPH
Master of Arts, Latin American Studies		MA, MPH

**There are relatively new doctoral programs in epidemiology (2009) and biostatistics (2011), which are housed in the graduate school. These doctoral degrees are not within the academic unit under CEPH accreditation review. Administration, faculty, and curriculum of the PhD degrees are distinct from those of the MPH program.*

b. The bulletin or other official publication, which describes all degree programs listed in the instructional matrix, including a list of required courses and their course descriptions. The bulletin or other official publication may be online, with appropriate links noted.

The curriculum is described in the program brochure, available in the Resource File. The curriculum is described on the program's website (https://medschool.vanderbilt.edu/mph/courses).

Academic requirements for the Epidemiology and Global Health track are described in an instructional matrix available on our website (https://medschool.vanderbilt.edu/mph/track-summaries).

c. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- A Master in Public Health degree that is guided by its mission, goals and objectives.
- A competency-driven program with concentrations in epidemiology and global health.

- An area of particular strength for the program is quantitative evaluation in health sciences, with demonstrated success (see outcome measures in 1.2). The expansion of the program to include a track in global health capitalizes on the significant expertise, resources and networks of the Vanderbilt Institute for Global Health.
- Program descriptions, including core courses and track-specific courses, are widely available through program brochures and an updated and more easily navigable website.
- A strong commitment to offering a high quality educational program that uses course evaluations, outcome measures, exit interviews, alumni surveys, and employer surveys to guide continued improvement of the program.

Weaknesses:

- Students may take electives offered by other Vanderbilt programs, but clear links to most salient electives for MPH students have not been made to date.
- The dual degree programs in International Education Policy and Management and Latin America Studies launched in Fall 2014; the course of study for these students has not been finalized and will likely require individual attention.

Plans to ensure that the criterion is met:

- The development of a Health Policy track, which will launch in fall 2015, will draw upon the faculty expertise at Vanderbilt and opportunities in Nashville for field experience and research. The required courses for this track have been determined, and clear descriptions will be posted.
- The Institute for Medicine and Public Health, which is the educational umbrella for the MPH as well as graduate programs in epidemiology, biostatistics, and bioinformatics, is working to create a web presence that will make access to courses in each of these programs more accessible to all students.

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

a. Definition of a credit with regard to classroom/contact hours.

The MPH program considers 1 credit to represent the equivalent of about 36 hours of academic effort and 12-15 contact hours. Most of the MPH core courses carry 3-4 credit hours, with a 4-credit hour course having the equivalent of 144 hours of academic effort and a minimum of 48 contact hours. The program offers most of the core public health courses in intensive 1 month blocks during the fall semester, with classes meeting for 2-3 hour sessions for 1-4 for four weeks, with considerable outside preparation required. Starting in the spring semester of the first year, the students in each track enroll in track-specific courses. Those in the Epidemiology track continue with month-long block courses, but students in the Global Health track follow a traditional 14 week semester with 3 hour seminars offered weekly for each course. For the practicum and thesis, 1 credit hour is equivalent to at least one week of full time effort.

b. Information about the minimum degree requirements for all professional public health master's degree curricula shown in the instructional matrix. If the program or university uses a unit of academic credit or an academic term different from the standard semester or quarter, this difference should be explained and an equivalency presented in a table or narrative.

The curriculum requires completion of 42 credits, distributed among courses, practicum and thesis activities as shown in Table 2.2.a. The required core public health courses include Biostatistics, Epidemiology, Environmental Health Sciences, Health Services Administration (HSA:Public Health Systems), and Social and Behavioral Sciences and are typically taken in the fall semester of the first year. Students in both tracks of the MPH program enroll in these core public health courses and also complete the required track-specific courses. Students in the Epidemiology track take advanced courses in Epidemiology, Biostatistics and Health Service Administration (HSA:Program and Policy Evaluation, HSA:Health Care Delivery) as well as Research Ethics. Students in the Global Health track enroll in Foundations of Global Health, Essential Skills in Global Health (formerly Foundational Skills in Global Health), Health Services Administration (HSA: Leadership and Management in Global Health), and Global Health Ethics. All students may enroll in MPH elective courses, such as Decision Analysis or Clinical Trials, or in other courses offered through other schools and colleges at Vanderbilt. Approval for elective courses is granted by Track Directors after the student submits a description of the course and receives course director approval. The MPH Practicum is equivalent to 6 credit hours (240 contact hours) for the Epidemiology track and 8 credit hours (400 contact hours) for the Global Health track. Credit hours for the MPH thesis vary by individual student, but range from 6 to 14, with most students receiving 4-8 credit hours. Selected students may do most of their course work the first year and spend most of the remaining year working on their thesis research and earn up to 14 credits; however, this is the exception.

Table 2.2.b.: Course Requirements for MPH degree	
Core Public Health Courses	
Epidemiology 1 [4 credit hours] Biostatistics 1 [4 credit hours] Environmental Health [3 credit hours] Social and Behavioral Science [3 credit hours] Health Services Administration: Public Health Systems [1 credit hour] Ethics [1 credit hour]	
Epidemiology Track Core Courses	**Global Health Track Core Courses**
Epidemiology 2 [4 credit hours] Biostatistics 2 [4 credit hours] Health Services Administration: Health Care Systems [2 credit hours] Health Services Administration: Program and Policy Evaluation [2 credit hours] Grant Writing and Scientific Communication [1 credit hour]	Foundational of Global Health [3 credit hours] Health Services Administration: Leadership and Management in Global Health [3 credit hours] Essential Skills in Global Health [3 credit hours]
Practicum	**Practicum**
Public Health Practicum [6 credit hours]	Public Health Practicum [8 credit hours]
MPH Thesis	**MPH Thesis**
Protocol Development [1 credit hour] Independent Thesis Research [at least 6 credit hours] MPH Seminar Thesis Presentation [1 credit hour]	Project Development [1 credit hour] Independent Thesis Research [4 credit hours] MPH Seminar Thesis Presentation [1 credit hour]
Elective Hours	**Elective Hours**
Decision Analysis [3 credit hours] Clinical Trials [3 credit hours]	Electives (emphasis on education, management/leadership, or biomedical informatics) [at least 3 credit hours]
42 Required Course Credits	**42 Required Course Credits**

c. Information about the number of professional public health master's degrees awarded for fewer than 42 semester credit units, or equivalent, over each of the last three years. A summary of the reasons should be included.

The MPH program began requiring 42 credit hours for the class beginning September 2007 and has only awarded the degree to students who completed 42 or more hours of course credit. Individuals who have completed courses outside the MPH program (e.g., MPH courses completed as non-degree students or courses completed at another institution) could request up to 15 credit hours be transferred with evidence of appropriateness of content, equivalence of requirements, and review of syllabus offerings by the MPH Director and relevant Track Director.

d. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- A requirement that students complete 42 credit hours for graduation, including students in the combined MD/MPH program, in which students must complete all 42 MPH credits to graduate.
- Graduates who have all completed the required number of credits since the 42 credit hour requirement was implemented.

Weaknesses:

- During the implementation stage of the global health track, there was initial uncertainty surrounding what courses were acceptable for credit in that track as well as requirements for the practicum and thesis, but those issues were addressed quickly and resulted in the development of new tracking systems and standard operating procedures.
- During the course of this self-study, we realized that maximum credit hours for thesis and practicum were not in place. In addition, students were not given clear guidelines as to the amount of work expected for thesis credit hours.

Plans to ensure that this criterion is met:

- We will continue to use our Advisory and Curriculum Committees to rigorously evaluate our educational offerings to ensure the highest quality program of sufficient length to prepare our students for careers in public health.
- We have clarified our expectations for contact hours and work for both didactic and mentored activities and will communicate these expectations with faculty and students.

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.

a. Identification of the means by which the program assures that all graduate professional public health degree students have fundamental competence in the areas of knowledge basic to public health. If this means is common across the program, it need be described only once. If it varies by degree or specialty area, sufficient information must be provided to assess compliance by each. See CEPH Data Template 2.3.1.

The Vanderbilt MPH program is focused on training future public health research scientists and leaders dedicated to improving public health and preventing disease and disability. There are ample opportunities for students to acquire a broad mastery of public health concepts. The curriculum is distributed among core courses which cover the public health core competencies as shown in Table 2.3.1.

Case Study 4: Graduates Improve Public Health Applying Skills Learned in MPH Program

April Pettit, MD, MPH Class of 2010, *is credited with recognizing the "index case" in the nation-wide outbreak of fungal meningitis. As an instructor (now Assistant Professor) in the Division of Infectious Diseases at Vanderbilt, she was the first to link the illness to contaminated steroid injections a patient received at a nearby clinic.* ***Dr. Kathleen Neuzil*** *recently announced WHO prequalification of a lifesaving Japanese encephalitis vaccine for children. As director of the Vaccine Access and Delivery Program at PATH, Kathleen Neuzil, MD, MPH Class of 1998, directs the non-profit health care organization's activities in vaccine access and delivery. After graduating from the Vanderbilt MPH Program in 2014,* ***Dr. Rachel Idowu*** *joined the Epidemiology Intelligence Service of the U.S. Centers for Disease Control and Prevention (CDC) as a medical epidemiologist assigned to the CDC's Center for Global Health. As part of her MPH work, she lived and worked in Nairobi as a 2011-2012 Fogarty International Clinical Research Fellow, partnering with officials in the Kenyan Ministry of Health to research the delivery of surgical and anesthesia care in Kenya.*

Beyond the program's missions and goals, curriculum content is guided by selected competencies expected of all program graduates (see Section 2.6). In addition, students engage in a practicum and thesis project, which provide excellent opportunities for applied learning of important public health core topics. Procedures to assess the competency of students completing the program, specifically focusing on the core public health areas are described in Section 2.6.

During the last accreditation review, the site-visit team identified deficits in the areas of environmental health, health services administration and social and behavioral health. Since the report, the environmental health course has been expanded from a 2 to 3 credit hour course focusing on an increase in course content, greater depth of instruction and more rigorous expectations for students. There are also expanded and enhanced course offerings in health services administration through partnership with the Vanderbilt Owen School of Management's graduate program in health care administration and the Vanderbilt Peabody College of Education and Human Develpoment's Department of Leadership, Policy, and Organization for a new core course in Leadership and Management, a required course for the Global Health track. The courses in HSA 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 program has also expanded the Social and Behavioral Health course to include an equal focus on theory and methods in public health. Epidemiology track students are required to take three specific health services administration courses and the Global Health track students are required to take two specific health services administration courses (see Table 2.2.b above).

Several of our graduates have had considerable success as academic faculty members in Schools of Medicine where their professional activities guide improvements in health policy and public health. Other graduates have improved public health through positions in public health.

Table 2.3.1 Core Public Health Knowledge: Required Courses Addressing Public Health Core Knowledge Areas for MPH Degree

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

b. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met with comment. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- A curriculum that addresses core competencies specifically targeted to the core public health knowledge areas.
- Competencies that reflect the program's missions, goals, and objectives, and in turn are reflected in the learning objectives of core courses.
- A self-study process that led the program to expand offerings in environmental health, health services administration and social and behavioral health.
- Annual review of program offerings and competencies by the Advisory Committees, which include community public health professionals, helps to ensure that the course offerings provide students with knowledge necessary to achieve the core competencies.

- Bi-annual review of the curriculum by the Curriculum Committee to evaluate the alignment of curriculum with core public health knowledge (course syllabi, evaluations and exit interviews).
- Requirements that students complete practical and applied experiences in order to provide additional exposure to the core public health concepts.
- Additional cross-institutional partnerships in curriculum development and teaching, thereby strengthening the interdisciplinary nature of the program and program expertise.

Weaknesses:

- While we have increased the number of contact hours and credits for Environmental Health, and the course receives excellent reviews, the program lacks broad expertise in this public health domain.
- Much of the coursework still focuses on clinicians who will work in academic settings, who were our original target population. With increased diversity of our students, additional course offerings are needed.

Plans to ensure that the criterion is met:

- Development of a new MPH grant writing course with an expanded focus on grant policy development and administration for a variety of funding bodies. A goal of the course will be to develop skills related to organizational strategic planning, capacity building and the creative and disciplined execution of grant funds.
- Development of an expanded *online* Public Health informatics course to be launched in fall 2015. A seed grant has provided funding to incorporate innovative technology, external expertise in the domain (e.g. CDC) and design the curriculum.
- Additional efforts to engage with external experts in areas such as Environmental Health are being considered to augment the expertise of the MPH faculty.
- Consideration of courses that will appeal to both our students and to the local public health workforce (leadership, management) are being considered.

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.

a. Description of the program's policies and procedures regarding practice placements

The MPH practicum seeks to provide students the opportunity to develop and use the knowledge and skills acquired in the academic program in a public health agency or other environment in which a public health function is performed (e.g., hospital infection control program). The practicum supervisor must come from the receiving site and is usually different from the student's academic advisor. The practicum also 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 transitioned to utilization of electronic forms for tracking, increased communication with site supervisors, and implemented formal procedures for student/Practicum Director planning meetings.

Examples of competencies covered during practica include the development of policy, enhancing communication skills, understanding of public and private financing mechanisms, and understanding organizational behavior and change. It is each student's responsibility, with the assistance of the Practicum Director, to find, arrange, and complete a satisfactory field experience that fulfills program requirements. A practicum must develop skills in basic public health concepts and demonstrate the application of these concepts through a practice experience that is relevant to the student's areas of specialization and can take on a practice or a research orientation.

Case Study 5: Student's Practicum Project Increases Public Health Capacity

One of the primary goals of the practicum is to create a "win-win" experience for both students and sites, allowing students to further develop their MPH competencies and allowing sites to expand their public health capacity. Eduard Vasilevskis, a 2013 Epidemiology Track graduate, had his practicum placement with the Vanderbilt Center for Clinical Improvement. Dr. Vasilevskis worked with the Center to develop an "all-cause"hospital readmission prediction model that utilized clinical and social determinant data. The project highlighted the interdisciplinary nature of public health, utilizing expertise of team of clinicians, statisticians, health care leaders at Vanderbilt, home health experts, informatics, and quality improvement experts, and brought change to aid clinicians, social workers, and case-managers in appropriately targeting resources to assist patient populations. It also provided a framework to improve transitions in care between the hospital and the community, informing future research, quality improvement initiatives, and policy discussions.

Each practicum placement should have the following components:

1. An opportunity to work with a practicing professional who is functioning as a public health practitioner (responsible for some aspect of population health) for a public health institution, private agency, or organization.
2. Attend managerial/planning meetings involving a variety of people in the organization.
3. Responsibility for one or more specific projects that results in a product, written or otherwise, that is of value to the organization. The number and types of projects performed by the student are left to the discretion of the site supervisor in recognition of the agency's needs, time constraints and the student's interests and capabilities.

4. Undertake other activities that the site supervisor may assign and which have mutual benefit.
5. Foster development of an understanding of the political context within which public health activities are conducted.
6. Meet regularly with a site supervisor who can guide the student and serve as a public health role model.

A field experience may occasionally serve as the basis for both the practicum and a thesis. However, the practicum must be distinct and independent from the thesis. For example, one Global Health track student worked with Partners in Health's domestic violence initiatives in Chiapas, Mexico, engaging in a domestic violence needs assessment for her practicum, and conducting a youth risk behavior survey for her thesis.

Students meet with the Practicum Director to develop an appropriate practicum experience. Epidemiology track students spend at least 240 hours at the practicum site(s) and/or performing work directly related to the practicum. Global Health track students spend approximately 400 hours in an international or relevant domestic setting. This is structured time, such as one 6-week (Epidemiology) or 10-week (Global Health) block or 20 hours per week for 12 or 20 weeks. Flexibility is allowed if the student, site supervisor, and Practicum Director agree and clearly communicate an alternative option and the rationale for it.

Selection of Sites

All practicum arrangements are ultimately the responsibility of the student and subject to program approval. The student is primarily responsible for sending out inquiries, setting up meetings, ensuring communication among those involved, and making preliminary arrangements. The student is encouraged to seek information and advice from former and current students, their faculty advisor, other faculty, their MPH Track Director and the MPH Practicum Director. The student is responsible for contacting the MPH Practicum Director before beginning the practicum so that an MPH Practicum Agreement is initiated before the student starts the practicum.

A wide range of organizations and agencies can provide valuable field experiences. In general, any organization that provides, plans for, coordinates, organizes, pays for, or regulates public health services is a valid training site. The site should enable the student to develop further and to apply specific skills or competencies learned in the academic program and provide a supervisor who can regularly schedule time with the student.

Some examples of practicum organizations include:

- Federal agencies (e.g., Department of Health and Human Services, Veterans Administration, Occupational Safety and Health Administration, Food and Drug Administration, Agency for Healthcare Research and Quality, Centers for Disease Control and Prevention).
- State, county or city health departments
- Low and middle income countries' Ministries of Health and health departments
- Other state and local health and social service agencies
- Managed care organizations

- Neighborhood health centers and community clinics
- Hospitals (public, not-for-profit, for-profit, psychiatric, rehabilitation)
- Global health organizations and clinics
- Community mental health centers
- Environmental health consulting companies
- Industrial settings
- Multi-specialty medical practices

As a part of our partnership with Dr. David Satcher through the Vanderbilt MPH David Satcher Public Health Scholars program, students with an interest in health disparities can conduct their practicum at Morehouse Medical College with the Satcher Leadership Institute. An opportunity to spend 4 or more weeks at Morehouse with other Satcher Leaderhip Institute Fellows is available to one MPH student annually. Satcher Scholar recipients have first priority for this practicum experience.

Students in the Global Health track are required to complete a 1-hour Project Development Course, which focuses on development of the individual student's practicum and thesis. Each student completes a relevant skill-process activity and a draft of his/her practicum agreement. The course equips students to distinguish between the Practicum and Thesis experiences and begin planning and preparing for both. Students also have the opportunity to hear and learn from panels of previous students who share about their practica and theses.

Methods for Approving Preceptors
The Practicum Director assists the student in identifying professional and career objectives, clarifying learning objectives and identifying appropriate practicum sites. Through in-person meetings in the first semester and continued interactions (in person and virtual) throughout the remaining semesters, the Practicum Director works with the Track Directors and assists students in the development of their placements and identification of supervisors. The Practicum Director also assures that the practicum field placement negotiated between the student and site is appropriate and meets program requirements, is responsible for assisting the student in developing the MPH Practicum, monitors the progress of the project and is available for student support if requested by the student or the site supervisor, and makes an assessment of the project and assigns academic credits upon completion.

The supervisor is not required to have an MPH or other public health degree but should consider his/her work to be public health in nature and have public health skills and knowledge to direct the on-site experience of the student. The site supervisor should have expertise in the assigned project areas, experience and status within the organization, and interest and competence in supervising and mentoring.

Opportunities for Orientation and Support of Preceptors
The site supervisor is responsible for overseeing the student’s practicum. The site supervisor also assists the student in the development of the MPH Practicum Agreement, and reviews and signs the Agreement prior to the field placement.

Students initiate contact with the site supervisors and explain the practicum experience. Since the last self-evaluation, the program has created a standardized form to share with all site supervisors at the beginning of the practicum experience to facilitate clear expectations and open doors of communication between sites and programs that the Practicum Director sends via email shortly after students' practicum agreement are submitted. The Practicum Director is available via telephone and/or in-person for support and clarification before, during, and after the practicum experience; level of interactions vary based on student and agency needs. Expectations and explanations are also available on the MPH website.

Approaches for Faculty Supervision of Students
Each student's practicum is supervised by the Practicum Director (staff with an MPH) in consultation with the Track Directors. In addition, all students have mentoring committees comprising Vanderbilt faculty members and professionals in the student's field of interest who will play an integral role in the student's preparation for a career that uses their public health skills. For Global Health Track students, the mentoring committee is also tasked with offering advice with respect to the design of the student's practicum and thesis. Roles and expectations are delineated in the MPH Mentor Handbook.

Means of Evaluating Student Performance, Placement Sites, and Preceptor Qualifications
Students are required to submit the following:

1) Practicum Agreement Form that includes the site, site supervisor, and the nature and scope of the experience;
2) Practicum Progress Report that details activities to date and describes their progress, any changes to objectives, and is approved by the Site Supervisor and Practicum Director;
3) Practicum Completion Form, with a final product, site supervisor evaluation, and student evaluation.

Evaluation of the practicum experience involves all participants: site supervisors evaluate the students and the practicum program with an online evaluation, and students evaluate the sites, site supervisors, and practicum program, also with an online evaluation. The site supervisor completes a final evaluation of the student in his/her practicum placement. Since our last self-study, our site supervisors' evaluation of students has incorporated 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 group review the evaluations and make recommendations to Practicum Director who incorporates changes into communications and processes for later cohorts.

Criteria for Waiving, Altering or Reducing the Experience
Students with extensive prior practical public health experience may apply for a waiver from the course. However, students may only be waived from the practicum if they can clearly 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 in that setting. Students who believe they meet the criteria for waiver of the practicum requirement

must submit a Practicum Experience Waiver Request Form to the Practicum Director for review by the Curriculum Committee. Typically, the student will request this waiver in his/her first semester in the program. The curriculum committee will vote on acceptability of the experience. The Practicum Director will notify the student of waiver acceptance if majority of committee agrees. Students will not receive credit hours for the waived practicum.

The following circumstances do not support a waiver request:

- Clinical practice by itself does not constitute public health experience.
- Possession of a prior professional degree in another field or prior work experience that is not closely related to the academic objectives of the student's degree program.
- Independent or supervised research.

If students want/need to alter or reduce the experience, they may talk to the Practicum Director, who will discuss any changes with the Program Director and/or Curriculum Committee, as applicable. Examples of allowed alterations have included leniency in on-site time for Global Health Track students. Up to 80 hours are allowed off-site (typically before traveling to the practicum site), but must be documented in the practicum log; must be clearly documented as practicum *work*; and must involve very close and clear communication with the site supervisor.

b. Identification of agencies and preceptors used for practice experiences for students, by specialty area, for the last two academic years.

Agency	Preceptor	Specialty Area
2013-2014		
La Asociación Civil Impacta Salud y Educación (IMPACTA) Av. Almiante Miguel Grau 1010 Lima, Peru	David Lee, MSW, MPH Program Coordinator, IMPACTA	Global Health
AIDS Healthcare Foundation, Zambia Plot No. 59, Unit 3 Great North Road. Emmasdale P.O. Box 34596 Lusaka, Zambia 10101	Victoria Kalota Program Director AIDS Healthcare Foundation	Global Health
Catholic Charities of Tennessee 10 South 6th Street Nashville, TN 37206	Jennifer Clark Refugee Resettlement Health Navigator	Global Health
Center for Clinical Improvement, Vanderbilt 1211 21st Ave. South Nashville, TN 37212	Roger Dmochowski, MD Associate Dean, Patient Safety & Healthcare Quality	Epidemiology
Center for Clinical Improvement, Vanderbilt 2135 Blakemore Ave. Nashville, TN 37212	Tim Geiger, MD Asst. Professor, General Surgery	Epidemiology
Epicentro Salud Lima, Peru	Hugo Sanchez Executive Director	Global Health
Fundación Infant Buenos Aires, Argentina	Maria Gallego Training manager	Global Health
Lwala Community Alliance (Kenya) P.O. Box 60688	Mindy Skelton On-site Coordinator	Global Health & Epidemiology

Nashville, TN 37206		
Macha Research Trust/Malaria Institute at Macha P.O. Box 630 166 Choma, Zambia	Phil Thuma, MD Senior Scientific Advisor Sungano Mharakurwa Lab Director	Global Health
Metropolitan Planning Organization Nashville 800 Second Ave. South Nashville, TN 37219-6300	Leslie Meehan, MPA Director of Healthy Communities, Nashville MPO	Epidemiology
MissionPoint Health 523 Mainstream Drive Nashville, TN 37228	Elizabeth Skafish, MSW Manager, Integrated Care Team	Global Health
Partners in Health/Compañeros en Salud 5a Avenida Norte Oriente No. 42 Angel Albino Corzo, Chiapas, Mexico 30370	Hugo Flores, MD Director, PIH, Chiapas	Global Health
Presbyterian Church of East Africa, Nakuru West Parish P.O. Box 7120 Nakuru, Kenya	Samuel Kiige Projects Manager, PCEA Nakuru West Parish	Global Health
Satcher Health Leadership Institute 720 Westview Drive, SW Room 241 Atlanta, GA 30310	Harry Heiman, MD, MPH Director of Health Policy, Satcher Health Leadership Institute	Epidemiology
School of Public Health, Shandong University 44 Wenhua Xiu Road Jinan, Shandong, P.R. China 250012	Fuzhong Xue, MD, MPH, PhD Dean of Public Health School, Shandong University	Global Health
Tennessee Department of Health, HIV/STD Division 425 5th Ave. North Cordell Hull Bldg., 1st floor Nashville, TN 37243	Carolyn Wester, MD Medical Director, Section of HIV/AIDS	Epidemiology
Tennessee Department of Health, TB Elimination Program 425 5th Ave. North Cordell Hull Bldg., 1st floor Nashville, TN 37243	Jon Warkentin, MD, MPH State TB Control Officer, TB Elimination Program	Epidemiology
VA Tennessee Valley Healthcare System 1310 24th Ave. South Nashville, TN 37212	Christianne Roumie, MD, MPH Assoc. Director, VA National Quality Scholars Program	Epidemiology
Vanderbilt Children's Hospital, Infection Control 2200 Children's Way Nashville, TN 37212	Greg Wilson, MD Assoc. Professor of Pediatrics, Infectious Diseases greg.wilson@vanderbilt.edu	Epidemiology
Vanderbilt Stallworth Rehabilitation Hospital 2201 Children's Way Nashville, TN 37212	Jack Boone Administrative Officer of Physical Medicine & Rehabilitation	Epidemiology
Vanderbilt University Hospital 1211 Medical Center Drive Nashville, TN 37232	Tom Talbot, MD, MPH Chief Hospital Epidemiologist Assoc. Professor of Med. & Prev. Med.	Epidemiology
Vanderbilt University Hospital 1211 Medical Center Drive Nashville, TN 37232	Jim Jirjis, MD Chief Medical Informatics Officer	Epidemiology
World Health Organization, Bangladesh	Mostafa Zaman, MBBS, MPH, PhD	Global Health

House #: CWN A 16, Road#: 48, Gulshan 2 Dhaka, Bangladesh 1212	National Professional Officer, Non-Communicable Diseases	
Agency	**Preceptor**	**Specialty Area**
2012-2013 *Note, the Epidemiology Track had second-year students conducting practica		
Friends in Global Health Maputo, Mozambique	Phil Ciampa, MD, MPH Vanderbilt Institute for Global Health	Epidemiology
Hospital Italiano de Buenos Aires	Javier Saimovici, MD Chief of Home Care Section, Hospital Italiano de Buenos Aires	Epidemiology
Metro Nashville Public Schools (Stratford High School)	Mitch Bellamy, MS, ATC, LAT; Assistant Director of Sports Medicine, Vanderbilt University	Epidemiology
Satcher Health Leadership Institute	Brian McGregor, MD, Morehouse School of Medicine, Atlanta, Georgia	Epidemiology
Tennessee Department of Health Cancer Registry	Martin Whiteside, DC, PhD, MSPH Director, Office of Cancer Registry	Epidemiology
Tennessee Department of Health, Office of Policy, Planning & Assessment	Lori Ferranti,PhD, MBA, MSN, Director,	Epidemiology
Tennessee Department of Health, Division of Family Health & Wellness	Michael Warren, MD,MPH, FAAP, Tennessee Department of Health	Epidemiology
Tennessee Department of Health, Traumatic Brain Injury Program	Jean Doster, Director, Traumatic Brain Injury Program- TN Dept of Health Oscar Guillamondegui, MD, Assistant Professor of Surgery- Vanderbilt TBI program	Epidemiology
VA Tennessee Valley Health Systems	Christianne Roumie, MD, MPH, Tennessee Valley Health Systems, Veterans Affairs Hospital	Epidemiology
Vanderbilt Center for Clinical Improvement	Julie Morath, MS, RN Vanderbilt Center for Clinical Improvement	Epidemiology
Vanderbilt Evidence Based Practice Center Institute for Medicine & Public Health	Melissa McPheeters, MPH, PhD Co Director Vanderbilt Evidence Based Practice, VUMC	Epidemiology
Vanderbilt University Medical Center HPV Impact Vaccine Monitoring Project with the Tennessee Immunization Program	Karen Bloch, MD, MPH, Assistant Professor of Medicine, VUMC	Epidemiology

c. Data on the number of students receiving a waiver of the practice experience for each of the last three years.

Five students received waivers in the last three years. Most of these students were foreign nationals who had public health work experience in their own countries but lacked credentials prior to joining the MPH program.

Cohort	Student Name	Experience
2013-2014	Moyo, Chrispine	National Antiretroviral Therapy Coordinator, Ministry of Health, Zambia (Sept. 2010 – Aug. 2012) Responsibilities: Program M&E; Data management; Strategic planning 1. Oversight of the National ART program with about 500,000 patients in 10 provinces and 480 sites. Conducting data and clinical audits for program quality and evaluation.

		2. Coordinating the non-governmental partners involved in ART services 3. Forecasting and Quantification for ARVs and other commodities 4. Development and adapting of treatment guidelines 5. Participation in the production of the biannual United Nations General Assembly Special Session UNGASS report. 6. WHO guidelines and Service Delivery Technical Working Groups
2013-2014	Nyirenda, Chris	District Medical Officer, Ministry of Health, Zambia (March 2002 – Aug 2012) Responsibilities: i. HIV/AIDS point person - oversight of clinicians i. Identifying HIV and providing HTC and ART i. Consultancy services on multi-drug resistant TB program v. Program management and administrative oversight
2012-2013	Dove, Dwayne	Fellow (July 2010 – July 2011) Vanderbilt Evidence-Based Practice Center Responsibilities: 1. Assisted team of investigators to produce AHRQ white paper on issues surrounding cerebral palsy (CP) 2. Assisted in systemic review of treatments for adolescents and young adults with autism spectrum disorders 3. Conference calls and team meetings 4. Traveled for team meeting on CP white paper
2012-2013	Tique, Jose	Friends in Global Health, LLC (Oct.2009-July 2011) Maputo, Mozambique Responsibilities: 1. Coordinated and implemented programs, services, and clinics in Mozambique to expand, provide and integrate HIV/AIDS care and treatment 2. Provided technical support and assistance for integrated HIV/AIDS care and treatment services in rural health facility to meet target indicators of Ministry of Health of Mozambique 3. Liaised between Friends in Global Health and project P.I. 4. Utilized monitoring tools to evaluate functions of district health services 5. Coordinated support to expand opening of HIV clinic in rural district 6. Key leader in quality improvement pilot to improve mother/child retention in PMTCT program sites 7. Performed direct clinical mentoring of health staff
2011-2012	Ye, Shaodong	National Center for AIDS/STD Prevention and Control, China CDC 1. Served as project officer of HIV Prevention Project (collaboration between NGOs, Health Nine Project, World Bank, China Ministry of Health) to help strengthen capacity and carry out community-based interventions in high-risk populations (2000-2005) 2. Participated in surveillance strengthening project at Asian Development Bank post-SARS (Oct.'03-Jun.'05) 3. Project Officer of Reproductive Health/Family Planning Project, which aimed to increase utilization of quality, integrated, client-centered reproductive health/family planning services (2005-2007)

d. Data on the number of preventive medicine, occupational medicine, aerospace medicine and general preventive medicine and public health residents completing the academic program for each of the last three years, along with information on their practicum rotations.

We have not had any preventive medicine, occupational medicine, aerospace medicine and general preventive medicine and public health residents in the last three years.

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met with comment. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- Overall, the Vanderbilt Master in Public Health program has improved its practicum experience through diversifying its focus, streamlining operational processes, and standardizing supervision and evaluation requirements.
- The practicum allows students to apply the knowledge and skills being acquired through their courses of study in practical and substantial ways. One student noted, "I had a bit of a rocky start with my practicum associated with unanticipated delays. However, the reasons for the delays were themselves instructive and ultimately helpful for me. The overall experience was excellent and exposed me to different aspects of public health relating to tuberculosis that I would not otherwise have experienced." Another student stated, "[The work I did in my practicum] fits exactly with my current career arc, but the context of the MPH curricula makes it even more meaningful."
- A Project Development Course has been created for Global Health track students to begin developing their practica and theses experiences during their first semester in the program.
- Enhancement of individualized mentorship about the practicum through meetings with the Practicum Director and students' mentoring committees.
- Expansion of opportunities to access the vast networks of Vanderbilt faculty and staff connections to public health placements (which have been even further expanded through the addition of the Global Health track).
- The program has migrated practicum forms to electronic formats and has developed new/updated forms to clarify expectations, learning objectives, and evaluation criteria for students and site supervisors.
- 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.

Weaknesses:

- Despite the numerous strengths, the program still has room for improvement. In the past three years, we've had a relatively large number of practicum placements within the Vanderbilt community (Vanderbilt Hospital, Children's Hospital, and/or related centers and clinics). Although these provide excellent learning opportunities, the program misses the opportunity to create connections outside the institution.
- We have not found a streamlined way to introduce students to potential practicum placement sites/projects.
- The transitions within the MPH program, including incorporation of the Global Health track, and changes in leadership and support personnel also resulted in changes that left students lacking clarity (e.g., change in due date for practicum products, while it occurred very early in the course of study, left some students delayed and others confused). As

program dates, procedures, etc., have now been clarified and solidified, this weakness should be addressed.

Plans to ensure that this criterion is met:

- The Practicum Director aims to nurture relationships with the Tennessee Department of Health and the Metro Nashville Public Health Department (a Memorandum of Understanding was finalized in April 2014 after over a year of processing within MPHD), as well as additional non-profit public health agencies.
- A more thoroughly-developed repository for potential placement sites (which would include past placements/projects, newly developed relationships, and community-contributed projects) will be developed.
- The program may move the Project Development course to a modular format and open it to students in both tracks, allowing all students additional flexibility, support and guidance in the development of their field experiences.

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.

a. Identification of the culminating experience required for each professional public health degree program. If this is common across the program's professional degree programs, it need be described only once. If it varies by degree or specialty area, sufficient information must be provided to assess compliance by each.

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 course work 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 15-23 core public health competencies.

Case Study 6: Culminating Experience Results in incorporation of a health literacy assessment for Vanderbilt's transplant-eligible patients

Leigh Anne Dageforde did her MPH training as part of her surgery residency training. Her thesis was an assessment of health literacy in patients being evaluated for kidney transplantation and their primary support persons. She found that caregivers had similar health literacy as patients. Her work has highlighted some of the difficulty patients have with communication about transplants. She elected to extend her research training an additional year to work on development of a valid health literacy tool that could be incorporated into an existing battery of surveys of patient-reported outcomes for Vanderbilt transplant patients. Dageforde plans to complete her residency and then do a transplant fellowship.

Thesis Requirements and Standards

The MPH Thesis may take on different formats, depending on the student's track focus and interests. Regardless of the format chosen, the student must apply critical thought, systematic analysis, and clear presentation.

At orientation, we briefly discuss the thesis and introduce the notion that we describe as, "When we see your thesis oral presentation and written paper, we want the material covered in your classes to be reflected." We repeat this theme in advising sessions as a reminder that we expect the thesis to specifically integrate concepts covered and competencies acquired throughout the program. Early introduction of these concepts should result in a more positive culminating experience.

All students are required to participate in at least two credit hours of didactic courses for the culminating experience: the required course in Protocol (Epidemiology Track) or Project (Global Health Track) Development and the required MPH Seminar Course in which students present their thesis findings in a one hour research talk. Students are required to take an additional 6 (Epidemiology Track) or 4 (Global Health Track) credit hours for supervised research, but may take up to 14 credit hours depending on the balance of other courses taken in their second year. In the final semester of the program both Epidemiology and Global

Health track students present a 1 hour research seminar to their fellow students (first and second year MPH students), primary faculty, mentors, and alumni. The seminar format allows for interchange and questions. 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 core competencies pertinent to the thesis.

During the 2010 CEPH self-study review, concerns were raised about the focus on quantitative competencies for thesis work and the exclusion of competencies relating to areas such as health administration and environmental health. Since the Accreditation Report, the competencies associated with the thesis have been expanded to include more than quantitative skills. The addition of the Global Health Track has further expanded the competencies of the thesis, and in that Track final products can take a variety of forms including research manuscripts, program evaluations, needs assessments and policy reports. Thesis projects are broader in scope and have demonstrated attainment of competencies beyond quantitative skills. Two readers are now required for each thesis project and evaluation at the program level is conducted by either the Track Director or an appointed faculty member (see Resource File for Thesis Guidelines).

Epidemiology Track

For the Epidemiology track, the MPH 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 collection of original data, novel analysis of extant data, or structured synthesis of previously reported research (e.g., meta-analysis). In the past three years, every student has completed the thesis and 72% of students have published their theses or on topics closely-related to their theses following graduation.

MPH Students who published articles or theses [starting with 2010 graduates]				
	2010 Graduates	2011 Graduates	2012 Graduates	2013 Graduates
Number of students who publish at least 1 article in this time period	16/17	12/12	11/12	12/14
Number who publish their thesis or publish on a topic closely related to their thesis research.	13/17	11/12	10/12	12/14
Total number of published articles to date in public health and medicine	121	69	57	70

**Note: Students who graudated in 2010 will have had more time to publish that those who graduated in 2013. This table highlights the contributions made ove time to the body of public health knowledge by MPH graduates in this time period. This only represents graduates of the epidemiology track since the first global health track graduates were in Spring 2014.*

At the time of program application, students in this track have been required to identify a research mentor and provide a brief (2-5 pages) description of a potential thesis project. The Admissions and Promotions Committee takes the mentor and the research plan into account

when deciding on admission. The program considers this initial identification of the research question as key to allowing students to apply the concepts they will be learning during the didactic course work. The program allows flexibility in refining research plans based on knowledge acquired in the program or for other circumstances, but having a project identified early has resulted in a much higher quality of research for this track.

During the spring of the first year of the program, students in the Epidemiology track work with their mentors to produce a 5-7 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 year 1), 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. We have found that this interactive process is highly beneficial for the presenter as well as for fellow students and faculty.

At 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 towards thesis completion and troubleshooting for issues that arise during the conduct of the research.

Global Health Track

For the Global Health track, the MPH Thesis may be a substantive piece of translational research, or take on other formats such as a policy analysis, case study, capstone project, strategic plan, curriculum or project/program evaluation.

The students in this 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, resulting in the creation of fall thesis workshops which focus on various aspects of thesis development.

b. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

Outcomes related to the advancement of public health sciences through research and discovery (see Table 1.2.a. for additional metrics)				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
MPH students publish their MPH theses or on a topic closely related to their theses.	% of students who publish at least one article related to their thesis within 3 years of graduation	CV Review and PubMed Search	At least 60% [Stretch of 75%]	2010: 76% 2011: 92% 2012: 83% 2013: 86%* *Note: full 3 years have not elapsed
Graduates are likely to make substantial contributions in the	% of graduates who publish in the field of	Publication search, CV	At least 75% (Stretch	2011: 94% 2012: 100%

field.	public health within 3 years of graduation	review	80%)	2013: 86%* (Note: 3 years have not yet elapsed)

We believe that this criterion is met. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- The integration of thesis work throughout the program encourages students to consciously incorporate skills and knowledge that they acquire from their coursework and practicum experience into their culminating experience.
- In the thesis process, students are able to develop and enhance their skills in the following areas: literature review, research design, protocol development, data collection and analysis, and oral and written presentations.
- The thesis work is conducted in a collaborative, supportive environment with appropriate guidance to ensure a high quality product.
- There is an extremely high rate of project completion that is attributable to several initiatives that we introduced over the past 5-7 years, including:
    - Requiring that Epidemiology track students identify a mentor and project at the time of application to the program. This ensures that the student has an understanding of the thesis requirements and a feasible project;
    - Discussion of thesis requirements at several points early in the program, including orientation and the first year fall advising session;
    - Clearly communicating thesis project deadlines which are broken down into pieces to facilitate completion (literature review, written protocol, oral presentation, written thesis);
    - Incorporation of thesis work into coursework (i.e., the Protocol Development course);
    - Communicating with students and thesis mentors about program expectations at the beginning of every semester;
    - Providing biostatistician support at the protocol development phase; and,
    - Program follow-up with students who are delayed in completing their thesis.

Weaknesses:

- The formats for theses that are not traditional research projects (acceptable in the Global Health Track) need to be further delineated for students, advisors and thesis readers.
- Metrics to measure theses in which the goal is not peer-reviewed publication need to be developed and clear to program mentors and participants.

Plans to ensure that this criterion is met:

- The Global Health Thesis Research fall workshops will be expanded further in Fall 2014 and will be incorporated into the 4 credit hour Research Thesis course. By way of example, there are sessions dedicated to developing research questions and testable hypotheses, statistical methods, and effective mentorship. Students are expected to meet

with their research mentors during the second year of the program to refine research questions and study design.

- Continued attention to individual students and provision of clear expectations and milestones.
- Augmenting our periodic advising to make clear that the thesis is intended to provide opportunities to apply competencies learned through coursework by distributing the core competencies to students in advising sessions and reminding them of the need to integrate the two experiences.

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 programs at all levels (bachelor's, master's and doctoral).

a. Identification of a set of competencies that all graduate professional public health degree students and baccalaureate public health degree students, regardless of concentration, major or specialty area, must attain. There should be one set for each graduate professional public health degree and baccalaureate public health degree offered by the program (eg, one set each for BSPH, MPH and DrPH).

The Vanderbilt MPH program requires all graduates of the program to demonstrate specific knowledge and skills related to public health practice. The program is guided by a set of core and cross-cutting public health competencies, in addition to track-specific competencies. The core and cross-cutting competencies address a unique set of applied knowledge, skills, and other attributes across the broad disciplines within the program, including biostatistics, epidemiology, environmental health sciences, health services administration, and social and behavioral sciences. The purpose of the curricular content is to prepare future research scientists and public health professionals to be leaders and innovators dedicated to improving public health. The specific competencies for the program include:

Core Master of Public Health Competencies:

1. Describe and quantify the distribution of health-related states in populations.
2. Use basic terminology and definitions of epidemiology.
3. Identify key data sources for epidemiologic purposes.
4. Identify the major observational study designs (cohort, case-control, nested case-control) and the strengths and weaknesses of each.
5. Select and generate appropriate graphical and numerical summaries of data
6. Use principles of hypothesis testing to make inferences about populations from samples.
7. Communicate study or program findings including interpretation of statistical analyses to others.
8. Use computer software to conduct basic statistical analysis.
9. Employ principles of sound and secure data management.
10. Identify the principles and limitations of public health screening programs.
11. Interpret study findings within relevant sociocultural contexts.
12. Explain environmental and occupational impacts on the health of selected populations and communities.
13. Communicate prevention and control strategies used in environmental and occupational health.
14. Identify, differentiate among, and describe the elements of the organization, financing and delivery of health services.

15. Identify suboptimal practice/performance in health services and systems and strategies for improving practice, and methods to evaluate implementation of such strategies.
16. Identify commonly referenced determinants of health behavior.
17. Define basic principles of measurement, attributes, and motivation.
18. Communicate theoretical principles, constructs, and models used to understand and affect health behaviors.
19. Plan and assess interventions based on complexities of human behavior and behavior change theory.

Cross-Cutting Competencies:

1. Communicate public health principles and concepts through various written and verbal strategies.
2. Apply evidence-based knowledge of health determinants to public health issues.
3. Employ ethical principles and behaviors.
4. Perform professional activities with cultural competence.
5. Promote cultural and ethnic diversity in public health research and practice.
6. Effectively engage in interdisciplinary and interprofessional collaboration to advance research, policy, or practice goals.
7. Apply public health knowledge and skills in practice settings.

b. Identification of a set of competencies for each concentration, major or specialization (depending on the terminology used by the program) identified in the instructional matrix, including professional and academic graduate degree curricula and baccalaureate public health degree curricula.

As mentioned previously in this document, the Vanderbilt MPH Program has two tracks: Epidemiology and Global Health. Track-specific competencies are outlined below:

Epidemiology Track

1. Identify appropriate methods of study design, analysis, and data synthesis to address population-based health problems
2. Identify circumstances under which non-randomized (observational) designs are the best approach to addressing important health-related knowledge gaps.
3. Recognize the assumptions and limitations of common statistical methods and choose appropriate approaches for analysis.
4. Perform residual analyses to assess how well models fit the data and to detect outliers.
5. Understand assumptions underlying simple and multiple linear regression models. Know how to analyze and make inferences from these models.
6. Understand assumptions and uses of logistic regression, Poisson regression and survival analysis. Know how to analyze and make inferences from these models.
7. Use tabular and graphical methods to explain model results.

Global Health Track

1. Identify determinants of global health and development from an interdisciplinary vantage point.

2. Identify interventions used to ameliorate health and developmental problems, particularly in low-resource settings.
3. Explain and employ research and evaluation methodologies used commonly in the field of global health.
4. Demonstrate knowledge of key community development principles.
5. Demonstrate proficiency in various organizational management and administration techniques.
6. Identify fundamentals of organizational behavior and change and key organizational leadership principles
7. Recognize the role of policy development and advocacy in global health

c. A matrix that identifies the learning experiences (eg, specific course or activity within a course, practicum, culminating experience or other degree requirement) by which the competencies defined in Criteria 2.6.a and 2.6.b are met. If these are common across the program, a single matrix for each degree will suffice. If they vary, sufficient information must be provided to assess compliance by each degree or specialty area.

Table 2.6.1. Courses and other learning experiences by which the competencies are met [Core Master of Public Health Competencies]

	Core Courses								**Global Health Courses**				**Epidemiology Courses**				
Core Master of Public Health Competencies	Epidemiology 1	Biostatistics 1	Social & Beh Sci for Public Health	Environmental Health	HSA: Public Health Systems	Ethics	Thesis	Public Health Practicum	Project Development	Foundations in Global Health	Foundational Skills in GH	HSA: Lship & Mgt in GH	Epidemiology 2	Biostatistics 2	HSA: Program and Policy	Protocol Development	Grant Writing
Describe and quantify the distribution of health-related states in populations.	✓		✓				✓		✓				✓		✓	✓	
Use basic terminology and definitions of epidemiology.	✓						✓	✓	✓				✓		✓	✓	✓
Identify key data sources for epidemiologic purposes	✓						✓	✓	✓				✓			✓	
Identify the major observational study designs (cohort, case-control, nested case-control) and the strengths and weaknesses of each.	✓						✓		✓				✓	✓		✓	
Select and generate appropriate graphical and numerical summaries of data		✓					✓		✓					✓	✓	✓	
Use principles of hypothesis testing to make inferences about populations from samples.		✓					✓		✓					✓	✓	✓	

Communicate study or program findings including interpretation of statistical analyses to others.	✓	✓					✓	✓	✓					✓	✓	✓	✓
Use computer software to conduct simple statistical analysis.		✓					✓							✓	✓		
Employ principles of sound and secure data management.		✓					✓	✓						✓			
Identify the principles and limitations of public health screening programs					✓										✓		
Interpret study findings within relevant sociocultural contexts	✓					✓				✓			✓				
Explain environmental and occupational impacts on the health of selected populations and communities				✓		✓				✓							
Communicate prevention and control strategies used in environmental health and occupation health				✓								✓					
Identify, differentiate among, and describe the elements of the organization, financing and delivery of health services.	✓			✓	✓							✓			✓		
Identify suboptimal practice/performance in health services and systems and strategies for improving practice, and methods to evaluate implementation of such strategies.					✓			✓				✓					
Identify commonly referenced determinants of health behavior			✓	✓		✓		✓		✓							
Define basic principles of measurement, attributes, and motivation			✓				✓		✓							✓	
Communicate theoretical principles, constructs, and models used to understand and affect health behaviors.			✓				✓	✓	✓							✓	
Plan and assess interventions based on complexities of human behavior and behavior change theory.			✓				✓		✓							✓	

Table 2.6.1. Courses and other learning experiences by which the competencies are met [Cross- Cutting Competencies]

	Core Courses						Global Health Courses						Epidemiology Courses				
Cross-Cutting Competencies	Epidemiology 1	Biostatistics 1	Social & Beh Sci for Public Health	Environmental Health	HSA: Public Health Systems	Ethics	Thesis	Public Health Practicum	Project Development	Foundations in Global Health	Foundational Skills in GH	HSA: Lship & Mgt in GH	Epidemiology 2	Biostatistics 2	HSA: Program and Policy	Protocol Development	Grant Writing

Communicate public health principles and concepts through various written and verbal strategies	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Apply evidence-based knowledge of health determinants to public health issues.	✓		✓	✓	✓				✓	✓			✓		✓	✓	✓
Employ ethical principles and behaviors.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Perform professional activities with cultural competence	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	
Promote cultural and ethnic diversity in public health research and practice	✓				✓	✓			✓	✓	✓	✓					
Effectively engage in interdisciplinary and interprofessional collaboration to advance research, policy, or practice goals.							✓	✓	✓	✓	✓	✓			✓	✓	✓
Apply public health knowledge					✓			✓									

and skills in practice settings																

Table 2.6.1. Courses and other learning experiences by which the competencies are met [Epidemiology Track Competencies]

	Core Courses							Global Health Courses				Epidemiology Courses				
Epidemiology Track Competencies	**Epidemiology 1**	**Biostatistics 1**	**Social & Beh Sci for Public Health**	**Environmental Health**	**HSA: Public Health Systems**	**Ethics**	**Thesis**	**Public Health Practicum**	**Project Development**	**Foundations in Global Health**	**Foundational Skills in GH**	**HSA: Lship & Mgt in GH**	**Epidemiology 2**	**Biostatistics 2**	**HSA: Program and Policy**	**Protocol Development**	**Grant Writing**
Identify appropriate methods of study design, analysis, and data synthesis to address population-based health problems	✓	✓					✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Identify circumstances under which non-randomized (observational) designs are the best approach to addressing important health-related knowledge gaps.	✓						✓		✓	✓		✓		✓	✓	✓	✓
Recognize the assumptions and limitations of common statistical methods and choose appropriate approaches for analysis.		✓					✓		✓	✓				✓	✓	✓	✓
Perform residual analyses to assess how well models fit the data and detect outliers							✓			✓				✓	✓	✓	✓
Understand assumptions underlying simple and multiple linear regression models. Know how to analyze and make inferences from these models.							✓		✓	✓					✓	✓	✓

Understand assumptions and uses of logistic regression, Poisson regression and survival analysis. Know how to analyze and make inferences from these models.							✓			✓					✓	✓	✓
Use tabular and graphical methods to explain model results.	✓	✓					✓	✓					✓		✓	✓	✓

Table 2.6.1. Courses and other learning experiences by which the competencies are met [Global Health Track Competencies]

	Core Courses								Global Health Courses				Epidemiology Courses				
Global Health Track Competencies	Epidemiology 1	Biostatistics 1	Social & Beh Sci for Public Health	Environmental Health	HSA: Public Health Systems	Ethics	Thesis	Public Health Practicum	Project Development	Foundations in Global Health	Foundational Skills in GH	HSA: Lship & Mgt in GH	Epidemiology 2	Biostatistics 2	HSA: Program and Policy	Protocol Development	Grant Writing
Identify determinants of global health and development from an interdisciplinary vantage point.						✓		✓	✓	✓	✓						
Identify interventions used to ameliorate health and developmental problems, particularly in low-resource settings.								✓	✓	✓							
Explain and employ research and evaluation methodologies used commonly in the field of global health.								✓	✓	✓	✓						
Demonstrate knowledge of key community developmental principles.										✓							
Demonstrate proficiency in various organizational management and administration techniques.								✓			✓						
Identify fundamentals of organizational behavior and change and key organizational principles.								✓			✓						
Recognize the role of policy development and advocacy in global health						✓		✓	✓	✓	✓						

d. Analysis of the completed matrix included in Criterion 2.6.c. If changes have been made in the curricula as a result of the observations and analysis, such changes should be described.

During the design and development of the Global Health track, the program leadership reviewed Association of Schools of Public Health (ASPH, now ASPPH) and the Consortium of Universities for Global Health (CUGH) competency recommendations for Global Health and tailored them to the specific goals and objectives of the new track in the Vanderbilt MPH program. Identification of core and cross-competencies were also made in the process. These 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 them in 2011 prior to the launch of the Global Health track. The competencies were subsequently made publicly available in spring 2012. The current MPH students and recent graduates then received an email copy of the competencies for review and comment. These competencies are reflected in all core courses for the Global Health track and assessed through the thesis and practicum processes.

e. Description of the manner in which competencies are developed, used and made available to students.

Competencies are developed in an iterative fashion by program leadership and program faculty, with input from the MPH Advisory Committee, the MPH Curriculum Committee, the MPH Operations Committee, and from current students and MPH graduates. They may be based on national consensus guidelines such as the Association of Schools and Programs of Public Health recommended Core Competencies for all MPH graduates, on practice and research experiences, or from recommendations from external advisors. The competencies are intended to provide a framework for each course director. The course directors use the competencies in designing learning objectives for each course, with feedback when appropriate from the Curriculum Committee. Syllabi for MPH courses taught during the past academic year may be viewed in the Resource File. The competencies are posted on the MPH website and are also discussed with the students during orientation. At the beginning of each semester, the students receive an email communication with a link to the competencies. In June 2014, the competencies were reviewed and updated by program faculty and by the Curriculum and Advisory Committees.

f. Description of the manner in which the program periodically assesses changing practice or research needs and uses this information to establish the competencies for its educational programs.

The changing needs of public health practice are assessed by the program in various ways, including: Curriculum (biannual) and Advisory (annual) Committee meetings, faculty participation in national professional conferences and in professional societies (annual), our workforce development efforts (annual), and through information gathered from practicum evaluations (annual), exit interviews (annual), alumni surveys (every 3 years), and MPH employer surveys (every 3 years). Our public health workforce needs assessment activities

provide information about other potential competencies. Information gathered from all of these sources is used to identify emerging needs. As the need for new competencies is identified, the competencies are updated and addressed through curriculum review and adjustment.

g. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met with comment. An analysis of the Vanderbilt MPH program has identified:

Strengths:

- A structured system of explicit core and programmatic competencies, which were developed with input from key stakeholders and incorporated into the course offerings for all students.
- An annual assessment of the competencies by students, faculty, community public health practitioners, and School of Medicine leadership who serve on the Advisory Committee to ensure that the competencies continue to meet the needs of public health practice.

Weaknesses:

- Assessment of competencies is based on self-report.
- The program currently lacks a comprehensive student self-assessment survey for competencies, although students are asked about their competencies in public health domains in the exit surveys and interviews.

Plans to ensure that this criterion is met:

- We continuously monitor the extent to which courses seek to impart the required competencies through course evaluations, exit interviews, and advising sessions, which serve as input to the semiannual meetings of the Curriculum Committee. This Committee can then effect appropriate changes. The Advisory Committee has reviewed the required competencies and has the opportunity to propose curriculum modifications.
- We plan to incorporate questions about competencies into each of the course evaluations starting in Fall 2014 to assure that the course content matches the competencies.

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.

a. Description of the procedures used for monitoring and evaluating student progress in achieving the expected competencies, including procedures for identifying competency attainment in practice and culminating experiences.

Monitoring and evaluating student progress in achieving the required competencies occurs at several levels and includes course faculty and directors, thesis mentors, practicum advisors, program leadership, and student self-assessment. The Mentoring Committees provide input in the thesis research, program progress, and offer career guidance. The Track Directors also serve as formal academic advisors for all students, meeting with students in person or by email at least once per semester to provide program information, give and receive feedback, and provide career guidance. Evaluation occurs at all stages of the student's participation in the program from matriculation through the culminating experience.

As a result of the last self-study, the program recognized the need for all assessment to be competency based. Therefore, beginning in 2009-2010, Track Directors, Mentors and Thesis readers evaluated thesis projects and presentations through demonstrated competence in the core, cross-cutting and track-specific competency areas. The assessment form incorporating questions about student mastery of competencies can be found in the Resource File.

Instructor Evaluations
Student progress toward achieving required competencies occurs in the individual courses required of all students in the program as instructors evaluate student performance in meeting the specific learning objectives. These assessments are conducted using graded homework, quizzes, examinations, class projects, literature reviews, and/or class participation in discussion. All students enrolled in the program are required to receive a grade of a "C" or higher in order to received graduate course credit. Criteria for achieving a particular grade are defined in the course syllabi and are provided the students on the first day of each course. Syllabi are provided in the Resource File. For courses in which the student's performance is felt to be below the level of a B, however, the course director and student are given discretion as to finding an optimal solution. In nearly all instances, the course director and student develop a plan for the student to perform remedial work and then take a second assessment. Student performance in achieving core competencies is evaluated globally in the culminating experience by the MPH Operations Committee.

Academic Advisor Evaluations
Academic advisors provides an overall assessment of student progress through advising meetings which occur as a group at program entry, at the end of the first semester, and each semester thereafter. During the advising sessions, the Academic Advisor gives and receives specific feedback regarding the student's experience in the program. Students are specifically asked to provide their perspective on progress in the previous semester. The Academic Advisor also is notified whenever remedial work is required of a student and follows up with the Course Director and student to ensure that adequate progress is being made.

Mentor Evaluations
Whenever a student has difficulty with a course (e.g. requires remedial work), the student's Primary Mentor is notified and encouraged to communicate with the student to identify potential areas in which support might be provided for the student. In addition, the Program Director communicates via email with the primary mentors at the beginning of each semester describing the expectations for students in the upcoming semester and important program milestones.

Public Health Practicum
During the Public Health Practicum, the student is expected to demonstrate mastery of core public health competencies. The student prepares a written or oral report describing their experiences and the findings of projects conducted during the practicum. The student's overall performance is evaluated by the MPH Practicum Director and the student receives a passing or failing grade. The preceptor's evaluation also addresses whether the student demonstrated achievement in the core competencies.

MPH Thesis Research
Students present on the MPH research during a 1 hour research seminar. The seminar is attended by fellow second year students, first year students, core MPH faculty, and thesis advisors. The primary faculty provide a global assessment of student performance. Many students prepare a manuscript suitable for publication describing their research findings. In order to be accepted for credit, the thesis must be reviewed and approved in writing by the Thesis readers and Track Director. These are not competency-based assessments.

Exit Interviews
Students are asked about their mastery of MPH competencies during the anonymous exit interviews conducted by the School of Medicine's Office of Biomedical Research. Results of the past 3 exit interviews are available in the Resource File.

Alumni Surveys
Every three years, we survey our recent alumni about various aspects of the program. In this survey, we ask questions about whether the program prepared them for their current position overall and specifically regarding the core public health competencies. Detailed results are shown in section 2.7.f. with the full survey and results available in the Resource File.

b. Identification of outcomes that serve as measures by which the program will evaluate student achievement in each program, and presentation of data assessing the program's performance against those measures for each of the last three years. Outcome measures must include degree completion and job placement rates for all degrees included in the unit of accreditation (including bachelor's, master's and doctoral degrees) for each of the last three years. See CEPH Data Templates 2.7.1 and 2.7.2. If degree completion rates in the maximum time period allowed for degree completion are less than the thresholds defined in this criterion's interpretive language, an explanation must be provided. If job placement (including pursuit of additional education), within 12 months following award of the degree, includes fewer than 80% of graduates at any level who

can be located, an explanation must be provided. See CEPH Outcome Measures Template.

Several of the MPH program's key outcome measures address student achievement in achieving competence in the required areas of performance. These measures and the program's performance against the measures for each of the last three years is shown below.

Table 2.7.1. Degree Completion: Students in MPH Degree, By Cohorts Entering Between 2010-11 and 2013-14

	Cohort of Students	2010-11 (Class of 2012)	2011-12 (Class of 2013)	2012-13 (Class of 2014)	2013-14 (Class of 2015)
2010-2011	# Students entered	13			
	# Students withdrew, dropped, etc.	0			
	# Students graduated	0			
	Cumulative graduation rate	0.0%			
2011-2012	# Students continuing at beginning of this school year	12	17		
	# Students withdrew, dropped, etc.	1	0		
	# Students graduated	12	0		
	Cumulative graduation rate	92.3%	0.0%		
2012-2013	# Students continuing at beginning of this school year	0	14	24	
	# Students withdrew, dropped, etc.	1	3	0	
	# Students graduated	0	14	0	
	Cumulative graduation rate	0.0%	82.4%	0.0%	
2013-2014	# Students continuing at beginning of this school year	1	3	23	22
	# Students withdrew, dropped, etc.	0	0	1	0
	# Students graduated	1	3	23	0
	Cumulative graduation rate	100.0%	100.0%	95.8%	0.0%

Table 2.7.2 Destination of Graduates by Employment Type (2012-2014)	
Employed	50
Continuing education/training	3
Actively seeking employment	0
Not seeking employment (not employed and not continuing education/training, by choice)	0
Unknown	0
Total	53

Program Outcome Measures that Address Student Achievement in Achieving Competencies and Performance for 2011-2015 (see Table 1.2.a. for additional outcomes)				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
Students exhibit mastery of core public health competencies in a community-based setting.*	Practicum preceptors evaluate students' mastery of all 7 competencies	Annual practicum evaluation	At least 90% of students demonstrate mastery in all competencies (Stretch: 100%)	10-11: 50% 11-12: 67% 12-13: 33% 13-14: 82% *Note: there is significant missing data from 2010-2013.
Students exhibit mastery of core public health competencies in their thesis seminar presentation.	Program leadership rates students as demonstrating 15 of 23 core competencies	Curriculum Committee review	At least 90% of students demonstrate mastery in at least 15 core competencies (Stretch: 100%)	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Courses address core competencies.	Course syllabi address 100% of core competencies	Course syllabi	100% of core competencies covered	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Learning objectives and competencies identified in curriculum map to respective course content.	Learning objectives and competencies are included in syllabi and mapped to course content	Curriculum Committee review annually	100% of syllabi meet this target	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Students report they have achieved competency in the core subjects in Public Health (biostatistics, epidemiology, environmental health, Health services administration, Social and behavioral sciences).	On a scale of 1-4 (1=Agree Completely, 4=Disagree Completely), average mean score 1.5 or lower	Exit Survey	Average mean score of 1.5 or lower	10-11: 1.77 11-12: 1.70 12-13: 1.57 13-14: Epi: 1.37 GH: 2.182
Graduates express commitment to public health as a long term career goal.	% of graduates whose long-term career goals include public health	Exit interviews	At least 75% (Stretch: 100%)	10-11: 100% 11-12: 93% 12-13: 86% 13-14: 87%
Training in grant-writing is rated as excellent by students. [Epidemiology track]	Overall course evaluation for grant writing course has a median score >7	Course evaluations	The median rating for this course will be >7	10-11: 9 11-12: 8 12-13: 8 13-14: 8
Alumni feel prepared to compete for funding. [Epidemiology track]	On a scale of 1-4 (1=Agree Completely, 4=Disagree Completely)	Exit survey	Average mean score 1.5 or lower	10-11: 1.33 11-12: 1.85 12-13: 1.57 13-14: 1.38
Students indicate an interest in continuing educational opportunities in epidemiology [Epidemiology Track]	On a scale of 1-4 (1=Not Interested, 4=Extremely Interested)	Exit Survey	Mean score of 3 or higher	10-11: 3.09 11-12: 3.42 12-13: 3.07 13-14: ----- *Note: problem with this question in the 2014 Epi

				exit survey
Students indicate an interest in ongoing continuing educational opportunities in public health.	On a scale of 1-4 (1=Not Interested, 4=Extremely Interested)	Exit Survey	Mean score of 3 or higher	10-11: 3.27 11-12: 3.43 12-13: 2.79 13-14:3.25[GH] *Note: problem with this question in the 2014 Epi exit survey

c. An explanation of the methods used to collect job placement data and of graduates' response rates to these data collection efforts. The program must list the number of graduates from each degree program and the number of respondents to the graduate survey or other means of collecting employment data.

Degree completion rates are compiled annually by the program and used in program planning. These rates are calculated based on the completion of the program within four years, which is the maximum time allowed to complete the requirements of the degree program, unless there are unusual circumstances which merits an extension of this limit. Though the vast majority of our graduates finish the program in the typical two year time frame, we do allow students up to four years to complete their degree. In the past three years, 50 students graduated within the expected 2 year time frame, 3 students who were faculty members chose a 3-year course of study, and one student took 4 years due to delays in completing her thesis. Only one student who started the program in the last 3 years elected to leave after the first year and did not complete. Annual degree completion rates are based on the target graduation date for the cohort of students enrolling in the program two years prior. Job placement rates are recorded during exit interviews and in discussion with students prior to graduation and are calculated by dividing the number of students with successful job placement by the number of graduates for that year. In early 2014, we agreed to participate in an ASPPH pilot project to survey recent graduates on a variety of topics, which included job placement information. The survey included general questions from ASPPH, along with programmatic questions that were specific to the Vanderbilt MPH. Results of the ASPPH survey are included in the Resource File. Additionally in the spring of 2014, the MPH Program Manager began systematically soliciting current resumes and CVs from recent graduates through a survey tool and by email.We feel our high completion rate is one of our strengths and attribute the high rate to explicit attention in our planning to achieving completion rates as high as possible.

d. In fields for which there is certification of professional competence and data are available from the certifying agency, data on the performance of the program's graduates on these national examinations for each of the last three years.

Not applicable.

e. Data and analysis regarding the ability of the program's graduates to perform competencies in an employment setting, including information from periodic assessments of alumni, employers and other relevant stakeholders. Methods for such assessment may include key informant interviews, surveys, focus groups and documented discussions.

Over the past two years, the program has administered two different surveys to alumni. Historically, the program has administered a survey to alumni every three years but participated in an ASPPH pilot

project in 2014 to capture additional information on graduates of programs in public health. In December 2013, the program also surveyed employers of select graduates. Lastly, the program administers exit surveys and holds focus group for graduating students every year, some questions included students; perspectives on competencies gained in the program. A summary of results are below:

Vanderbilt MPH Alumni Survey

In our most recent survey of MPH alumni, conducted in Fall 2013, we received responses from 50/51

Indicate whether you agree with the following statements regarding the MPH program's preparation for your current position (if you are still in training, consider either your current position or your final career path). After completing the MPH program I am:	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
…well prepared for my current position.	40.0	46.0	14.0	0.0	0.0
…better able to apply evidence-based knowledge of health determinants to public health issues.	62.0	38.0	0.0	0.0	0.0
…better able to select and employ appropriate methods of design, analysis, and synthesis to address population-based health problems.	62.0	34.0	4.0	0.0	0.0
…better able to understand the interrelationship among the organization, delivery, and financing of health-related services.	24.0	54.0	18.0	4.0	0.0
… prepared to communicate public health principles and concepts with professionals or lay persons.	55.1	38.8	6.1	0.0	0.0

(98%) of graduates from each of the last three years. We asked the respondents to rate their level of agreement that the MPH program prepared them for their current position or planned career path in each of the public health competency areas. Key results are shown below, with full results available in the Resource File.

… prepared to employ ethical principles and behaviors.	68.0	32.0	0.0	0.0	0.0

We also asked our Alumni to rate the MPH program overall, quality of instruction, the admissions process, quality of fellow students, depth of faculty knowledge, grading and evaluation procedures, diversity of student body, and responsiveness of program staff. Among these measures all alumni surveyed were either satisfied or very satisfied with the MPH program overall, quality of fellow students, depth of faculty knowledge, responsiveness of program staff, and grading and evaluation procedures. In the areas of quality of instruction 98% of students were either satisfied or very satisfied. 98% of alumni also rated the admissions process experience as satisfied or very satisfied. While 96% of alumni also rated the diversity of student body as satisfied or very satisfied the remaining 4% were dissatisfied with the diversity of the student body. This continues to be a focus for our program and an area for improvement efforts.

ASPPH Survey and Results

In our most recent survey of Vanderbilt MPH alumni, conducted in the Spring of 2014, we received responses from 11/14 (79%) of graduates from the most recent graduating class of 2013. The survey aimed at collecting information on student's education history and employment status during their time in the MPH program. In addition, we asked the respondents to report on employment status following graduation. Key results are shown below:

Of the respondents to the survey, all were graduates of the epidemiology track and had either an MD (9), MS (1) or DO (1) degree. While earning the degree, 8 students were either full-time (6) or part-time (2) employed. Upon completion of the program 2 are continuing their education further. In addition, 8 have reported that they are now full-time employed while 3 others are in a fellowship/internship/residency.

The next part of the survey focused on those responding graduates with full-time employment. 7/8 graduates are currently employed in a different job than prior to earning their public health degree. Furthermore, all respondents are employed in a health related field with 7/8 reporting employment in a public health related field. Places of employment include: university or college (4), hospital or other healthcare provider (1), federal government (1), association, foundation, voluntary, NGO, or other non-profit organization (1), and other (1).

In addition, we asked for graduates to report on financial status following graduation from the MPH program. We found that most of our responding MPH graduates (10/11) do not find themselves in any more debt than before entering our MPH program. When asked about current salary ranges 2 reported more than $150,000 annually, 1 reported $130,001-$140,000 annually, 3 reported $80,001-$90,000 annually, 1 reported $70,001-$80,000 annually, and 1 reported $60,001-$70,000 annually. Finally, when asked to compare their current salary to their salary prior to completion of the MPH program, all but 1 experienced an increase.

Vanderbilt Employer Survey

In December 2013, we surveyed employers of selected graduates from 2010-2013 about whether the program accomplished the goal of producing innovative and effective public health researchers, faculty, and practitioners. We received responses from 28 of 32 (88%) employers that we contacted (note that

some employers had supervised more than one graduate). Key results from the survey are summarized in Table 2.7.f, with full results available in the Resource File.

Competency Demonstrated in the Work Setting	N/A	Not prepared	Prepared, but needed additional training	Adequately prepared	Well prepared
Apply evidenced-based knowledge of health determinants to public health	0.0	0.0	0.0	40.7	59.3
Select and employ appropriate research designs to address public health problems	0.0	0.0	3.7	40.7	55.6
Communicate in verbal form	0.0	0.0	3.7	37.0	59.3
Communicate in written form	0.0	0.0	11.1	48.1	40.7
Employ ethical principles and behaviors	0.0	0.0	0.0	18.5	81.5
Perform professional activities with cultural competence	7.4	0.0	0.0	22.2	70.4
Promote cultural and ethnic diversity	18.5	0.0	0.0	14.8	63
Apply public health knowledge in practical settings	3.7	0.0	0.0	18.5	77.8

In most areas, nearly all of the employers felt that the MPH graduates under their supervision were adequately or well prepared. We were quite pleased to see that the employers generally thought of the graduates as well prepared for their positions. Open-ended comments from the survey included such statements as this from a supervisor "We have been quite pleased with the product produced by the Vanderbilt MPH program. They lead in many conferences, help other residents and faculty better interpret and understand the literature, and are active change agents to promote evidence based decision making and practice."

Three areas where employers responded that students would have benefitted from additional training included communicating in verbal (3.7% of employers) and written (11.1%) form in addition to selecting and employing appropriate research designs to address public health problems (3.7%). One respondent suggested that better "database management and 'number crunching'" be employed. As a response to this sentiment the MPH Program is actively seeking ways to integrate the institutional expertise in biomedical informatics with our program.

This employer survey is an excellent example of growth for the MPH Program since the last survey in 2009. Not only are the majority of answers in the adequately and well prepared categories, but there were not any categories that were rated as not prepared by employers.

Exit Survey and Interviews

A two-part online exit survey was sent to all MPH students scheduled to graduate in 2014. Part I was identifiable and asked about students' meetings with mentors, mentoring committees, and future contact information. Part II of the survey was anonymous. Students were asked to rate the overall MPH program, coursework, and indicate their future career plans. Fourteen out of 15 Epidemiology track and all 9 of the Global Health track students completed the survey. Students were asked to indicate whether

they achieved competency in each of the following areas as a result of participating in the MPH program. (Note: Prior to 2014, "mastery" was used instead of "competency".)

Scale: 1=Agree Completely; 2=Agree Somewhat; 3=Disagree Somewhat; 4=Disagree Completely; 0=Not Applicable

Epidemiology Track						
	2014 Mean	2013 Mean	2012 Mean	2011 Mean	2010 Mean	2009 Mean
Biostatistics	1.13	1.86	1.64	1.91	1.94	1.67
Environmental Health Sciences	1.67	1.75	2.00	2.09	2.35	2.56
Epidemiology	1.13	1.21	1.36	1.36	1.41	1.67
Health Services Administration	1.33	1.64	1.71	1.91	2.13	2.22
Public Health	--	1.50	1.64	1.45	1.76	1.89
Social and Behavioral Services	1.60	1.50	1.86	1.91	1.88	2.22

Global Health Track	
	2014 Mean
Biostatistics	1.67
Environmental Health Sciences	3.13
Epidemiology	1.44
Health Services Administration	2.78
Social and Behavioral Sciences	1.89

g. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. An analysis of Vanderbilt MPH program has identified:

Strengths:

- Several methods of assessing and documenting the extent to which each student demonstrates competency in the required areas of performance.
- Mechanisms to provide this information to the program leadership and faculty and incorporate it into future planning and course offerings.

Weaknesses:

- Information on alumni has not been collected systematically in the past, but new efforts to do so exist through surveys, interviews and other program requirements.

Plans to ensure that this criterion continues to be met:

- We place a strong emphasis on assessment and advising of our students throughout their time in the program. We will continue to examine ways to enhance assessment and advising procedures through careful review of our annual exit interviews, feedback received during advising sessions, and information from our Alumni and Employer Surveys.
- We plan to administer a current student survey every April to first year students for quality enhancement purposes.

2.8 Bachelor's Degrees in Public Health.

a. Identification of all bachelor's-level majors offered by the program. The instructional matrix in Criterion 2.1.a. may be referenced for this purpose.

This criterion is not applicable. Our unit of accreditation offers only the MPH and does not include bachelor-level academic degrees.

b. Description of specific support and resources available in the program for the bachelor's degree programs.

Not applicable.

c. Identification of required and elective public health courses for the bachelor's degree(s). Note: The program must demonstrate in Criterion 2.6.c that courses are connected to identified competencies (i.e., required and elective public health courses must be listed in the competency matrix in Criterion 2.6.d).

Not applicable.

d. A description of program policies and procedures regarding the capstone experience.

Not applicable.

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

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.

a. Identification of all academic degree programs, by degree and area of specialization. The instructional matrix in Criterion 2.1.a may be referenced for this purpose.

This criterion is not applicable. Our unit of accreditation offers only the MPH and does not include doctoral degrees.

b. Identification of the means by which the program assures that students in academic curricula acquire a public health orientation. If this means is common across the program, it need be described only once. If it varies by degree or specialty area, sufficient information must be provided to assess compliance by each.

Not applicable.

c. Identification of the culminating experience required for each academic degree program. If this is common across the program's academic degree programs, it need be described only once. If it varies by degree or specialty area, sufficient information must be provided to assess compliance by each.

Not applicable.

d. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

Not applicable.

2.10 Doctor's Degrees in Public Health

a. Identification of all doctoral programs offered by the program, by degree and area of specialization. The instructional matrix in Criterion 2.1.a may be referenced for this purpose.

This criterion is not applicable. Our unit of accreditation offers only the MPH and does not include doctoral-level academic degrees.

b. Description of specific support and resources available to doctoral students including traineeships, mentorship opportunities, etc.

Not applicable.

c. Data on student progression through each of the program's doctoral programs, to include the total number of students enrolled, number of students completing coursework and number of students in candidacy for each doctoral program. See CEPH Template 2.10.1.

Not applicable.

d. Identification of specific coursework, for each degree, that is aimed at doctoral-level education.

Not applicable.

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

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.

a. Identification of joint degree programs offered by the program and a description of the requirements for each.

The MPH program offers a joint MD/MPH degree in conjunction with the School of Medicine, a joint Masters of Education (MEd) in International Education Policy with the Peabody College of Education and Human Development and a joint Masters of Arts in Latin American Studies with the Graduate School. Admission to the dual degree programs is considered separately. MD students are typically not admitted to the MPH program until the spring prior to their participation, so all students are first admitted to the School of Medicine. Students applying for the joint MEd/MPH or MA/MPH degree may first apply to either program which becomes their primary academic home.

Joint MD/MPH degree
This program is offered to only the most highly qualified students and rigorous evaluation criteria are applied to each student, which includes screening of potential applicants by the School of Medicine Dean for Students. For the Epidemiology track, there is a requirement of prior research experience or independence typically expected of a clinical fellow or junior faculty, and careful screening of students through the interview process to ensure that the program will meet their needs and that they have a high likelihood of completing the program successfully. For the Global Health track, students should have had significant experience working in a low-resource setting, whether locally or internationally, and demonstrate a commitment to global public health. The screening process limits the number of students admitted to the joint degree program (one student admitted in 2011, one in 2012,three in 2013 and two in 2014).

The combined degree students must complete all 42 credit hours for the MPH; currently, no credits from the MD program are counted towards the MPH requirement. Some of the MPH credits are counted towards completion of the MD degree, allowing completion of the two programs in 5 years. Students typically complete the first three years of medical school, including a year of clinical rotations and then enter the MPH program. The fourth academic year is spent in the didactic coursework for the MPH degree. The fifth academic year is split between the thesis work, practicum placement, and clinical rotations required for the final year of medical school.

Joint MEd/MPH degree
In December 2013, a joint degree program was established with the Masters of Education (MEd) in International Education Policy with the Peabody College of Education and Human Development. The joint degree seeks to equip participants for diverse positions in global public health and international education, thereby bridging two distinct but interconnected sectors. It prepares students for careers in policy and management, program monitoring and evaluation, advocacy, program development and implementation, to name a few. Students, domestic and foreign, who graduate from this dual degree program can be expected to benefit in competitiveness and competence for positions in governmental agencies (e.g., ministries of health and education), bilateral and multilateral institutions (e.g. UNICEF, World Bank, OSI, CDC), non-governmental organizations, international development agencies, private foundations (e.g. Gates Foundation), private consultancies and academia. Through an innovative, interdisciplinary curriculum grounded in didactic and experiential learning, the MEd/MPH dual degree

offers an opportunity for students to more fully understand and apply alternative solutions to current and emerging health and educational challenges across the globe.

Joint MA/MPH degree
In July 2014, the Graduate School and School of Medicine formally approved the joint degree program with the Master of Arts in Latin American Studies. The Vanderbilt MPH/M.A. dual degree program seeks to equip participants for diverse positions in global public health and Latin American Studies, and offers an opportunity for students to more fully understand and apply alternative solutions to current and emerging health challenges in Latin America and among Latina/Latino populations in the United States.

The combined degree students must complete all 42 credit hours for the MPH. No more than 15 credit hours of elective credit can be transferred in from the MA program. Course credit cannot be transferred from either the MA or MEd program that fulfull core public health or track specific course requirements. A list of pre-approved courses for the MPH program can be found in the electronic resource file. These graduate-level courses were approved by global health track leadership in the MPH program based on review of the course syllabi and/or relevancy to the public health context. Other courses that meet the requirements (see electronic resource file for course selection) can be considered by track leadership for elective transfer credit.

General Criteria for Joint Degree Programs:

- Will bring additional value to the MPH program by:
    - Providing a distinctive joint degree that would capitalize on the strengths of two nationally ranked schools/programs at Vanderbilt,
    - Serving to bridge expertise in the health and [relevant] sectors by producing graduates highly trained in both fields,
    - Expanding structured and diverse opportunities for field experience,
    - Increasing access to faculty and resources of others schools/programs,
    - Providing motivated students with interdisciplinary training and broad expertise to address the health and [relevant] needs of diverse populations,
    - Enhancing the existing spectrum of students with diverse backgrounds, interests, and experiences,
    - Maximizing benefits in terms of applicants, reputation and opportunity.
- There must be a demonstrated market demand for the dual degree.
- There should be consideration of financial aspects (i.e. administrative costs).
    - A student should be enrolled in at least 3 semesters in the MPH program

b. Assessment of the extent to which this criterion is met.

We believe this criterion is met. An analysis of the Vanderbilt MPH program has identified:

<u>Strengths:</u>

- Two joint degree offering in which the curriculum requirements for the MPH degree are exactly the same as those for all other students in the MPH program.
- Careful screening of potential combined degree students to ensure that students with sufficient preparation are selected for the program.

Weaknesses:

- Although the programs of study for the joint degrees have been established, there are often modifications that need to be made to accommodate the needs of the student and partnering program.

Plans to ensure that this criterion continues to be met:

- As the program evolves, we will continue to examine ways to strengthen the experience of our combined degree students. We plan to continue to require that combined degree students complete all MPH requirements to ensure that they receive the best preparation.
- There are discussions currently underway with the Doctor of Nursing Practice (DNP) program at the Vanderbilt School of Nursing and the Owen School of Management about dual degree programs.

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 process 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 the 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 teaching and learning methodologies and to systematically use this information to stimulate program improvements.

a. Identification of all degree programs that are offered in a format other than regular, on-site course sessions spread over a standard term, including those offered in full or in part through distance education in which the instructor and student are separated in time or place or both. The instructional matrix may be referenced for this purpose.

Not applicable.

b. Description of the distance education or executive degree programs, including an explanation of the model or methods used, the program's rationale for offering these programs, the manner in which it provides necessary administrative and student support services, the manner in which it monitors the academic rigor of the programs and their equivalence (or comparability) to other degree programs offered by the program, and the manner in which is evaluates the educational outcomes, as well as the format and methodologies.

Not applicable.

c. Assessment of the extent to which this criterion is met.

Not applicable.

Criterion 3

Creation, Application and Advancement of Knowledge

Vanderbilt University

Master of Public Health Program

Self-Study Report

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.

a. A description of the program's research activities, including policies, procedures, and practices that support research and scholarly activities.

The MPH faculty are engaged in research of public health relevance consistent with our stated mission. The program faculty have extensive research programs in relevant areas including 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, our faculty have a substantial record of attracting extramural funding, publishing in highly selective journals, serving on committees that influence policy as well as 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.

Case Study 7: MPH Students Participate in Faculty Research with Direct Public Health Impact

There are many examples of student participation in faculty research. One of our current students is involved with several MPH faculty (Grijalva, Schaffner, Edwards) and another MPH graduate (Halasa) on a CDC-funded project evaluating the impact of pneumococcal conjugate vaccine in Tennessee. This will form the basis for her thesis. In addition, for her practicum experience she travelled to the World Health Organization (WHO) in Geneva to work on a pneumococcal-related project related to introduction of conjugate vaccines to developing countries.

The Vanderbilt MPH program is not explicitly structured to conduct research within its organizational structure. Research at Vanderbilt is organized around departments and centers. Nonetheless, the MPH program benefits from operating in a research-rich environment. The Medical School's reputation for outstanding research is reflected in the amount of federal and private support it receives. Vanderbilt currently ranks 9th among all US Medical Schools in NIH funding. The institution currently has 865 NIH awards exceeding $367 million in annual NIH 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 current NIH center grants, 79 NIH training (K) awards, and 37 NIH training (T32) grants. Among the resources available to investigators (and MPH faculty leading these initiatives) are:

Institute for Medicine and Public Health (Robert Dittus, MD, MPH, Director). Vanderbilt's Institute for Medicine and Public Health is Vanderbilt's home for multiple centers and programs and over 200 faculty who are engaged in clinical and translational research and population health sciences. The Institute is university-wide and thus includes centers, programs and activities outside the School of Medicine. The mission of the Institute is to improve personal and public health through discovery, training, and service programs; to protect against threats to health; to promote healthier living, improve quality of health services, and prepare leaders to advance health and healthcare. Institute investigators have over $130 million in total funding and multiple research training programs, largely in the areas of epidemiology, clinical outcomes, health behavior, health literacy, health disparities, and health services research. IMPH was created as Vanderbilt's focal point for public health in November 2007, and is in a

rapid growth and development phase with a relatively new PhD program in epidemiology, and the increasing core research resources for investigators. Investigators are currently housed in two buildings encompassing more than 24,000 square feet on three floors of two buildings which are adjacent to the Vanderbilt campus. The Director, Dr. Robert Dittus, has extensive involvement in public health activities in his role as the Assistant Vice Chancellor for Public Health.

Center for Health Services Research (Russell Rothman, MD, MPP, Director). The Center for Health Services Research includes over 120 faculty engaged in over $50 million in annual research funding. This center can provide access to resources, pilot funding, and experts in health services, decision analysis, health disparities, comparative effectiveness research, quality and quality improvement, and other research disciplines. Center programs include: Clinical Epidemiology and Outcomes Research; Clinical Economics and Decision Science; Health Policy; Clinical Improvement and Operations Research; and Health Behavior and Education Research. The multidisciplinary faculty represents medicine, nursing, epidemiology, biostatistics, sociology, psychology, pharmacology, bioinformatics, engineering, management, law, religion, ethics, and education.

Vanderbilt Institute for Global Health (Sten Vermund, MD, PhD, Director). The mission of the Vanderbilt Institute for Global Health is to advance health and development in the world's resource-limited regions through service and capacity-building, training of Vanderbilt and in-country health professionals, and pragmatic research of public health importance. VIGH facilitates new international partnerships and works to strengthen existing global relationships involving Vanderbilt faculty, VU centers and institutes, and affiliated institutions at home and around the world.

The Clinical Epidemiology and Outcomes Research Program (Robert Dittus, MD, MPH, Director). The Clinical Epidemiology and Outcomes Research Program has faculty addressing a variety of diseases, including diabetes mellitus, asthma, respiratory failure, cognitive impairment in the critically ill, heart failure, cancer (with special foci in colorectal, breast, lung and prostate cancer), arthritis, and drug utilization in addition to research advancing the basic methods for such research. The group uses strategies and techniques from epidemiology, biostatistics and the social sciences to improve patients' health and the use of the healthcare system's technology.

The Vanderbilt Epidemiology Center (Wei Zheng MD, PhD, Director). The Epidemiology Center conducts research to understand the biological, environmental, and behavioral pathways of disease etiology, prevention, and treatment. Research contributes to primary, secondary, and tertiary disease prevention as well as identifying high risk and low risk groups, describing the role of diagnostic tests and therapies, and describing prognosis. Center faculty have core projects in Vanderbilt's breast, lung, and GI cancer Specialized Programs of Research Excellence (SPOREs). They have launched an historic, landmark study evaluating racial disparities in cancer and other chronic diseases and have other projects in cancer, asthma, cardiovascular diseases, diabetes, obesity, sports injuries and orthopedics, and maternal and child care. The Shanghai Women's (75,000 women) and Men's (60,000 men) Health Studies and the Southern Community Cohort Study (SCCS – projected enrollment 100,000) are noteworthy because they provide unique and extensive data and biospecimen repositories (projected: 137,000 blood, 111,000 urine, and 70,000 buccal specimens) to address questions regarding lifestyle and environmental, medical, and other determinants of disease risk, as well as gene-environment interactions. All are NIH funded. The SCCS—the largest-ever study of African Americans—will provide one of the most extensive data resources ever assembled to evaluate racial disparities in rates of

cancer, cardiovascular disease, diabetes, and other illnesses, placing Vanderbilt among the top institutions in the country in terms of resources for epidemiological studies. The SCCS has just received a 2nd percentile score for its renewal over the next five years.

Center for Interdisciplinary Health Workforce Studies (Peter Buerhaus, PhD, RN FAAN, Director). The mission of the Center for Interdisciplinary Health Workforce Studies is to measurably improve the performance of the health delivery enterprise, both at Vanderbilt and the overall performance of the national health care delivery system. The broad research program of the Center has a focus on the healthcare workforce. The Center's research addresses health care workforce supply, composition, demand, trends, forecasting, and the use of alternative providers. Center investigators examine causes of variation, consequences, and strategies to smooth variations in practice settings. Studies have been funded by NIH, AHRQ, CMS, and HRSA and have provided the empirical evidence that the decade of rapid employment and earnings growth of RNs ended in the early 1990s, the spread of managed care has reduced the employment of RNs, particularly in hospital settings, may have encouraged substitution of nurse aides for RNs, and that staffing levels are associated with the quality of care.

Center for Effective Health Communication (Sunil Kripilani, MD, MPH, Director). The Center for Effective Health Communication improves the communication of health-related information between and among patients, physicians, students, and other health care professionals, and the general public through original investigation, education, and dissemination of effective strategies. The multidisciplinary faculty at this Center include nationally recognized physician-scientists, nurse-researchers, nutritionists, pharmacists, health psychologists, and educational researchers. It provides research space, administrative and research support, and pilot funding. The Center faculty have successfully received funding from the NIH, the Agency for Healthcare Research and Quality, Robert Wood Johnson Foundation, Pfizer Clear Health Communication Initiative, American Diabetes Association, American Association of Diabetes Educators, American Heart Association, the National Kidney Foundation, and other sources. Program faculty have published important health communication studies in *JAMA*, *Annals of Internal Medicine*, the *American Journal of Preventive Medicine*, *Patient Education and Counseling*, *The Diabetes Educator*, *Journal of General Internal Medicine*, *Journal of Behavioral Medicine*, and *Pediatrics*. Faculty work has also been featured on CNN, in *The New York Times*, in *The Wall Street Journal*, and in more than 200 other media sources.

Center for Medicine, Health and Society (Jonathan Metzl, MD, PhD, Director). The Center for Medicine, Health and Sociey explores links between academic medicine, the humanities, and the social sciences through innovative curricular programs that examine health and health care in social and cultural contexts.

Center for Biomedical Ethics and Society (Keith Meador, MD, ThM MPH, Director). The Center for Biomedical Ethics and Society provides leadership in education, research, and clinical service concerning the ethical, legal, and social dimensions of medicine, health care, and health policy through multidisciplinary exploration of individual and social values, cultural dynamics, and legal and professional standards that impact clinical practice and biomedical research.

Office for Community Engagement (Consuelo Wilkins, MD, MSCI, Director). The Office for Community Engagement builds academic and community partnerships to promote integration of

research efforts in the context of community health priorities to foster the real-world applicability of research results. The Community Engagement and Research Core (CERC), a focused partnership between Meharry Medical College and the Vanderbilt University Medical Center, brings academic and community partners together to improve community health and healthcare through research. CERC shapes and supports innovative and translational community-engaged research by preparing scientists to impact the public's health; energizing communities to engage in research, and build transformative strategies and structures to support academic-community partnerships.

Center for Asthma Research (Tina Hartert, MD, MPH, Director). The Center for Asthma Research investigates the interplay of environmental, physiological, genetic, and other factors that can lead to the development of asthma and related conditions. Their major scientific programs include to identifying causal risk factors for asthma, understanding their mechanism of action, and developing and testing primary and secondary prevention strategies for asthma and allergic diseases. The Center's current areas of focus for primary and secondary prevention include the role of respiratory tract infections, dietary factors, the microbiome, and medication exposures and utilization. The Center is comprised of a group of highly collaborative and talented investigators, post-doctoral fellows, nurses, research assistants, and students who share a common goal to improve the health of people world-wide.

Center for Health Promotion and Disease Management (Robert Dittus, MD, MPH, Director). The Center for Health Promotion and Disease Management Works to promote health and well-being through a focus on preventive medicine and healthy lifestyles.

Center for Professional Health (Bill Cooper, MD, MPH, Director). The Center for Professional Health provides clinicians and other healthcare professionals with educational tools and programs to assist with professionalism and professional health issues.

Evidence-Based Practice Center (Melissa McPheeters, PhD, MPH, Director). The Evidence-Based Practice Center synthesizes scientific evidence to improve quality and effectiveness in health care through systematic reviews of evidence in clinical medicine, social and behavioral science, and economics.

Institute for Research on Men's Health (Derek M Griffith PhD, Director). The Institute for Research on Men's Health conducts research that bridges social sciences, humanities, medicine and public health to examine the role of sex, gender and other characteristics in improving men's health behaviors and health outcomes.

Women's Health Research Program (Katherine Hartmann, MD, PhD, Director). Women's Health Research is committed to developing knowledge to address key issues in women's health and the clinicians and researchers who can rapidly move discovery forward; programs such as the Building Interdisciplinary Research Careers in Women's Health (BIRCWH) mentored career development program foster interdisciplinary mentorship and research growth.

b. A description of current research activities undertaken in collaboration with local, state, national or international health agencies and community-based organizations. Formal research agreements with such agencies should be identified.

Our program faculty participate in a range of public health research projects, including partnerships with local, state, national or 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. Our workforce development partnership with multiple local institutions will be described in detail in a Section 3.3. Examples of the partnerships currently in place include:

Tennessee State Department of Health. Vanderbilt has strong partnerships with the State of Tennessee. The Department of Health Policy currently has contracts with the Departments of Health and Finance and Administration which provides no-cost access to data from the TennCare/Medicaid Program, Vital Statistics, the All-Payers Hospital Database, the Cancer Registry, and other data sources as needed for specific approved research. The State also facilitates our access to field data, such as hospital charts, when needed. These have been long-standing agreements (the Vital Statistics and Medicaid since 1973), which have facilitated the construction and maintenance of the longitudinal files needed for research. Both the data and the State cooperation have substantial value. Other organizations with insurance or medical record data are charging substantial fees (often in excess of $100,000 for a single study) for data access.

The Emerging Infections Program (EIP). The EIP is coordinated by staff of the Department of Health and the Vanderbilt University School of Medicine, Department of Health Policy (William Schaffner, MD, PI). The EIP is responsible for ongoing active surveillance projects, the Active Bacterial Core Surveillance and FoodNet programs, as well as separate projects on impact of HPV vaccine, surveillance for influenza (FluNet) and for tick-borne diseases (TickNet). The EIP catchment includes 11 Tennessee counties (the 4 largest metropolitan and surrounding areas) with an estimated population of 2.8 million, over half of the State's population. All hospitals in the surveillance area actively participate in these surveillance activities. Active Bacterial Core Surveillance identifies cases of invasive disease caused by H. influenzae, group A and B Streptococcus, N. meningitidis, S. pneumonia, and other bacteria. The State laboratory ensures that all isolates of N. meningitidis and H. influenzae that have not been typed at a state or local level are submitted to the CDC. The State laboratory ensures that all S. pneumoniae isolates from sterile sites are sent to the appropriate reference laboratory for sensitivity and serotype studies.

The Tennessee FoodNet Program. FoodNet monitors and investigates outbreaks of foodborne diseases, performs active surveillance for cases of hemolytic uremic syndrome, participates in a multicenter study to identify factors associated with listeriosis, and has a lead role in an Infant Salmonella/Campylobacter Case Control Study. FoodNet staff have developed an EpiInfo-based computer program to integrate analysis and facilitate transfer of data, including automatic processing of a number of reports used locally for data management and quality control.

HPV Impact Project: HPV Vaccine Impact Monitoring Through Surveillance of CIN 2/3, AIS, and Associated Types. In 2006, a vaccine against human papillomavirus, (HPV), was approved for use in girls and women ages 11-26. Though measuring the impact of the vaccine on cervical cancer incidence may take decades, the HPV Impact Project was launched to monitor short term changes that can be assessed through surveillance of CIN 2/3 and AIS, which occurs with greater frequency and is

detectable much earlier than cancer. These conditions were made reportable conditions through the Tennessee Cancer Registry (TCR) in 2008. Cases are identified by reporting from hospital and commercial pathology laboratories directly to the cancer registry. For some cases, histologic specimens are sent to the CDC for HPV subtyping. This multi-faceted effort involves monitoring vaccine coverage and cervical screening patterns in the population**.**

Metropolitan Health Department of Nashville Davidson County. One of the mandates of the Health Department is to monitor and report on the health status of Davidson County residents through population surveys and the analysis of birth and death records, communicable disease reports, and patient encounter data. More than 25 reports on health status have been published during the last four years. *Public Health Watch*, a bi-monthly newsletter for the health care community, has been published since 1997. The Health Department also develops, sponsors, and otherwise supports community coalitions to promote policies and behaviors that enhance the health and quality of life of Nashville residents. Included among these are the Child Death Review Committee, Immunization Coalition, STD Free!, Smoke Free Nashville, the Community Health and Wellness Team, the Violence Prevention Coalition, the Nashville Adolescent Pregnancy and Prevention Council, Parents Encouraging Parents, Bringing Out the Best in Children, and Racial Disparities in Health Coalition of Nashville. Local health department initiatives in chronic disease management and immunization promotion are being strongly supported by the Centers for Disease Control and Prevention.

Medicaid. Medicaid is a joint federal-state program that finances medical care for four broad categories of low income persons: parents and their dependent children, the disabled and blind, those aged 65 and older, or persons in these three categories with large medical expenses. Medicaid has grown substantially since its inception, in part because it has been the vehicle for providing financial access to health care for population subgroups considered to have inadequate care. Between 1993 and 1998, the population covered increased from 28.3 million persons to 41.3 million. In 1997, Medicaid had expenditures of $160 billion, or 12.4% of total national health care expenditures. It is widely recognized that Medicaid programs provide an important resource for medication and outcomes research. For administrative reasons, all states keep extensive records of medical care encounters for Medicaid enrollees, including medications. Because prescribers are identified in Tennessee and some other Medicaid databases, these provide the opportunity to identify problems in use of therapeutics, implement programs to improve practice, and evaluate the effectiveness of these programs. These databases also provide the opportunity to evaluate the effects of policies, particularly on pediatric medical care.

In Tennessee, Medicaid has 1,500,000 covered lives (27% of state's population) and contains approximately 22,000,000 person-years of experience. The program enrolls one half of the state's children. Drs. Cooper, Griffin and Ray have used the Medicaid database to study health of minority, pediatric, and elderly persons for several years. They have developed relationships with most hospitals in the State, and have worked to continue collaborative relationships that involve data sharing with the Tennessee Department of Health and the Department of Medicaid. They have been able to achieve high rates of participation in studies that involved patient consent for telephone interviews and have been welcomed into physician offices for educational interventions.

TN Hospital Discharge Data System (HDDS). Beginning in 1995, Tennessee began a statewide database of hospital encounters. All non-federal hospitals in the state are required to submit data on all

admissions and discharges, regardless of an individual's payer status (including self-pay). These data include individual identifiers, dates of admission and discharge, payer status, diagnoses (ICD-9-CM), procedures (ICD-9-CM), and fiscal information. Hospital-based encounters such as emergency department visits are included in the database as well. All-payers data is processed in a similar fashion to Medicaid. All-payers data is linked to other databases using an algorithm which assigns points for linkages based on personal identifiers and other demographics and is accurate in >90% of encounters.

Other State Databases. Other state available databases include computerized birth and death certificate files, maternal-child linkages, the Tennessee cancer registry, providing additional information on cancer occurrence in Medicaid enrollees.

Community Outreach: Meharry-Vanderbilt Alliance Collaborations. Meharry Medical College is the largest private, comprehensive, historically black institution for educating health professionals and scientists in the United States. The college is committed to the delivery of high-quality, patient-oriented health services and to research that fosters improved health outcomes and the elimination of health disparities. Meharry Medical College is designated as a National Center of Excellence.

In 1999, Meharry and Vanderbilt entered a formal alliance based on six common interests: 1) Biomedical Research and Training; 2) Clinical Science Training; 3) Academic Support; 4) Health Services Initiatives; 5) Institute for Community Health; and 6) Managing Cultural Diversity. The MVA facilitates collaborative working relationships between clinicians, researchers and students on both campuses, and community stakeholders, thereby enhancing the range and diversity of healthcare delivery services, research endeavors and educational opportunities that each institution is able to provide. In practical terms, this effort has opened libraries and research cores to users on both campuses, courses and clerkships to students, and resulted in mulitple joint research and research training activities. The Alliance is governed by a Steering Committee composed of leaders of both institutions.

Since their alliance, Meharry and Vanderbilt have been awarded more than 200 collaborative grants totaling more than $372 million, laying foundation for more than 240 publications. This number demonstrates a significant increase from the 19 collaborative publications prior to 1999. A significant fraction of combined research efforts focus on health disparities observed in underrepresented minorities, with an emphasis on cancer and HIV/AIDs. Each year the Meharry-Vanderbilt Alliance hosts a research symposium focusing on health disparities in a particular disease state. Roughly half of total grant dollars (both training and research) are directed toward these clinical areas. Examples of current and recently completed collaborative Meharry-Vanderbilt Alliance grants include:

The Community Outreach and Health Disparities Core (COHDC). The COHDC is located at Meharry (Margaret Hargreaves, PhD, Director), but exists as a joint effort of the Center for Diabetes Translational Research (CDTR) at VUMC (5P30DK092986-02, Tom A. Elasy, MD, PI). The purpose of the core is to provide Meharry with its own resources for the advancement of local translational research projects related to diabetes.The core has 3 aims: create effective investigator-community based research teams; help develop and evaluate community-based interventions; and evaluate projects through process and outcomes data using appropriate measurement tools. It has several service components including a community-based participatory research (CBPR) unit that helps develop research teams and protocols, a behavioral intervention unit that advises on the conduct, clinicial management (including the promotion

of adherence) and an assessment and evaluation unit (including assistance with surveys and community needs assessments).

The Vanderbilt Institute for Clinical & Translational Research (VICTR). This Vanderbilt CTSA award (2UL1TR000445-06, Gordon R. Bernard, MD, PI) has Meharry as a collaborating partner (Russell Poland, PhD, Meharry, PI of record). Resources available to both Vanderbilt & Meharry faculty (and students, as appropriate) include the following:

- Studios. On a rolling basis, investigators can arrange to meet with a small group of separate experts at Vanderbilt who will help with: hypothesis generation, study design, implementation, analysis and interpretation, translation, and manuscript development.
- Mock Study Sections. These mock study sections pre-review of to-be submitted R01s and, if time permits, K awards. The expert mock study section provides written comments in the same format provided by a regular NIH study section, which allows investigators an opportunity to improve their grants prior to submission.
- REDCap. This user-friendly Research Electronic Data Capture software provides a secure program for data entry and management for teams involved in collaborative clinical and translational research.
- REDCap Survey. This software is a similar program for the entry of data or information collected directly from research subjects. Both software products include full audit-trails in compliance with HIPPA security requirements.
- Vouchers. To facilitate the ability to obtain preliminary data for translational research grants, vouchers are available ($2K max) to purchase core resources and/or supplies. Both faculty and students are eligible.
- Community Engagement Research Core (CERC) and Community Engagement Studio. CERC can provide consultative assistance with study design and implementation, data collection/analyses, translation and dissemination of findings. The CE Studio will help provide buy-in from community stakeholders.

Robert Wood Johnson Foundation (RWJF) Center for Health Policy at Meharry Medical College. A joint effort with Vanderbilt and directed by Dr. Dann Howard at Meharry, the Center was initiated with an endowment from the RWJF. The Center recruits social scientists into the field of health policy; provides seminars, conferences and intensive coursework related to health policy; awards competitive grants to students and faculty pursuing health policy and health disparity research; and oversees a certificate program in health policy. Through its local and national interactions, the Center can also create a forum to disseminate information regarding research outcomes, particularly as they relate to policy needs.

Vanderbilt-Meharry Developmental CFAR (Center for AIDS Research). CFAR provides a multidisciplinary, collaborative environment for AIDS research. Funded by the National Institute of Allergy and Infectious Diseases, CFAR serves HIV researchers at both institutions and strives to advance all aspects of HIV/AIDS basic and translational science. They also seek to grow partnerships in community-engaged research and provide scientific leadership and enhance collaborative productivity of faculty between the two institutions.

The Center for AIDS Health Disparities Research (CAHDR). CAHDR at Meharry Medical College conducts research and other scholarly activities designed to identify, understand, and eliminate factors responsible for the profoundly disproportionate burden of AIDS and HIV infection among minority populations in the United States. The Center is reducing the burden of AIDS in local minority communities through basic, clinical, and translational research. It was funded by the National Center for Research Resources at the National Institutes of Health and involves both the University of Wisconsin-Milwaukee and Vanderbilt.

Meharry/Vanderbilt-Ingram Cancer Center/Tennessee State University Cancer Partnership. In 1999, the Centers for Disease Control's Office of Minority Health Disparities and the National Cancer Institute (NCI) launched several new initiatives to establish cancer research partnerships between NCI Cancer Centers and Minority Serving Institutions. In 2011, the partnership successfully competed for its U54 grant from NCI, which brought another $16 million to the partnership to support research and training activities for five years. The current leadership of the partnership is comprised of Drs. Samuel E. Adunyah and Steve Wolff (Meharry Medical College), Hal Moses and Ann Richmond (VICC), and Baqar Husaini and Margaret Whalen (TSU). This grant represents one of the very few U54s with a balanced focus on population science, basic research, and clinical research.

Meharry-Vanderbilt Center for Reducing Asthma Disparities. This center is one of four centers in the country supported by the National Heart, Lung, and Blood Institute aimed at determining and eliminating the underlying mechanisms in asthma disparities. The center is directed by Dr. David Grandison (Director of the Meharry Clinical Research Center and Acting Chief of Medicine at Meharry Medical College).

Southern Community Cohort Study. Funded by the National Cancer Institute, this study examines lifestyle habits and health status over time in 100,000 randomly chosen residents of the South, 70% of whom are African Americans. Vanderbilt University, Meharry Medical College, and the International Epidemiology Institute have teamed up to carry out the study, in which participants complete an interview about health and lifestyle, donate a blood, mouth cell, and/or urine sample, and are followed over time, hopefully for decades. Risk factors for other common and serious diseases, including diabetes, are also being studied.

c. A list of current research activity of all primary and secondary faculty identified in Criteria 4.1.a and 4.1.b., including amount and source of funds, for each of the last three years. These data must be presented in table format and include at least the following: a) principal investigator and faculty member's role (if not PI), b) project name, c) period of funding, d) source of funding, e) amount of total award, f) amount of current year's award, g) whether research is community based and h) whether research provides for student involvement. Distinguish projects attributed to primary faculty from those attributed to other faculty by using bold text, color or shading. Only research funding should be reported here; extramural funding for service or training grants should be reported in Template 3.2.2 (funded service) and Template 3.3.1 (funded training/workforce development). See CEPH Data Template 3.1.1.

Table 3.1.1 Examples of Research Activity of Faculty for the Last 3 Years (2011-2013)									
Principal Investigator and faculty member role	**Project Name & Number**	**Funding Period Start/ End**	**Funding Source**	**Amount Total Award**	**Amount 2011**	**Amount 2012**	**Amount 2013**	**Community-Based Y/N**	**Student Participation Y/N**
Aliyu	Optimizing integrated PMTCT services in rural North-Central Nigeria 5R01HD075075-02	2012-2015	NICHD	$1,583,700		$791,850	$791,850	Y	
Audet	Positive Prevention Training and Programming in Mozambique VUMC37489 (U2GPS002770)	2010-2014	Centers for Disease Control (CDC)	$324,345	$108,115	$108,115	$108,115	Y	Y
Audet	Improving Prevention of Mother-to-Child Transmission through Community Engagement VUMC39015(000)	2011-2014	Positive Action for Children Fund	$403,938	$134,646	$134,646	$134,646	Y	
Carroll	Pregnancy Folate Status & Early Childhood Respiratory & Atopic Disease Outcomes 5R01HL109977-03	2011-2016	NHLBI	$1,599,804	$533,268	$533,268	$533,268		
Cooper	Conducting Child Health Care Research in Vulnerable Populations 5T32HD060554-05	2009-2014	NICHD	$1,065,990	$355,330	$355,330	$355,330		Y
DeBaun **Aliyu, Co-investigator**	Primary Prevention of Strokes in Nigerian Children with Sickle Cell Disease 5R21NS080639-02	2012-2014	NINDS	$202,650		$101,325	$101,325	Y	Y
Dittus	MyHealth Team: Regional Team-Based and Closed-Loop Control Innovation Model for Ambulatory Chronic Care Delivery 1C1CMS33079-02-00	2012-2015	Centers for Medicare and Medicaid Services	$8,768,634		$4,384,317	$4,384,317		Y

Edwards **Grijalva, Zhu, Co-investigators**	The Incidence and Etiology of Influenza-Associated Community-Acquired Pneumonia in Hospitalized Persons Study 3U18IP000488-02S1	2011-2014	Centers for Disease Control (CDC)	$31,320	$10,440	$10,440	$10,440	Y	Y
Edwards **Zhu, Co-invesstigator**	Clinical Study of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccine (Tdap) Safety in Pregnant Woment T.O. #3 VUMC41979 (200-2012-50430) (TO#3)	2013-2015	Centers for Disease Control (CDC)	$538,691			$538,691		Y
Epstein	Child and Adolescent Needs and Strengths (CANS) Implementation GR-1133842	2009-2012	TDCS	$4,948,424	$1,237,106	$1,237,106			Y
Epstein	Center of Excellence for Children in State Custody GR-1131880	2010-2013	TDCS	$6,722,000	$1,680,500	$1,680,500	$1,680,500		Y
Filteau **Heimburger, Co-investigator**	Nutritional support for African adults starting antiretroviral therapy (NUSTART) IP.2009.33011. 004	2010-2013	EDCTP (EU)	$0					Y
Griffin	Comparative Effectiveness & Safety of Oral Antidiabetic Drugs (TO#2) HHSA29020100001 61	2010-2013	AHRQ	$1,842,626	$460,656	$460,656	$460,656		Y
Griffin	Annual Estimates of Influenza Vaccine Effectiveness: Davidson County TN U18 P000184	2010-2012	CDC	$1,356,458	$452,152	$452,152		Y	Y
Grijalva	Effectiveness of vaccination of children with PCV13 in Tennessee 12-IPA1210402	2012-2014	CDC IPA	$780,000		$390,000	$390,000		

Grijalva	Assessing the Role of Viral Infections in the Acquisition of S. Pneumoniae 0667x1-4492 Pfizer	2009-2011	Wyeth/ Pfizer	$300,000	$300,000			Y	Y
Hartert **Carroll, co-investigator**	Tools to Reduce Infant RSV Morbidity and Asthma: Use, Adherence and Effectiveness 5R01HS018454-03	2009-2014	Agency for Healthcare Research and Quality (AHRQ)	$3,626,181	$1,208,727	$1,208,727	$1,208,727		Y
Heimburger	University of Guyana-Vanderbilt-UCSF MPH Program Development for Guyana U2G-GH-000689	2012-2014	U.S. Centers for Disease Control and Prevention (CDC)	$439,966		$150,000	$289,966	Y	Y
Heitman	Creating Collaborative Research Ethics Education with Costa Rica R25TW007697	2006-2012	NIH	$1,562,114	$781,057	$781,057			
Heitman	Building International Research Ethics Capacity in China 1R25TW009511	2013-2018	NIH	$1,150,000			$1,150,000		
Kripalani	Multi-Center Medication Reconciliation Quality Improvement Study - MARQUIS VUMC 37380 (1R18HS019598-01)	2010-2014	Society of Hospital Medicine	$212,154	$70,718	$70,718	$70,718		Y
Kripalani	Health Literacy, Hospital Discharge, and Cardiovascular Outcomes 5R01HL109388-03	2011-2016	NHLBI	$1,266,417	$422,139	$422,139	$422,139		Y
Lindegren	CHAT: mHealth Innovation for HIV-MNCH Community Health Workers in South Africa VUMC41913 (R34MH097563)	2013-2014	NIMH	$8,170		$4,085	$4,085		
Lindegren/Wester	International Epidemiologic Databases to Evaluate AIDS (IeDEA) 5U01AI096186-02	2011-2016	NIH/NIAID	$753,846	$251,282	$251,282	$251,282		Y

McPheeters	Technical Brief on Care Transitions for Children with Special Healthcare Needs HHSA-290-2012-120009-I	2013-2014	Agency for Healthcare Research and Quality (AHRQ)	$225,000			$225,000		Y
McPheeters	System Evidence Reviews to support the US Preventive Services Task Force Screening for Autism	2012-2014	AHRQ	$419,374		$209,687	$209,687		Y
McPheeters	An approach to capture divergent stakeholder views on future research needs VUMC40988(000)	2012-2014	Patient-Centered Outcomes Research Institute	$103,272		$51,636	$51,636		
Miller **Griffin, Co-investigator**	Rates of rhinovirus species in adults and children with acute respiratory illness 5R03AI101629-02	2012-2015	NIAID	$100,000		$50,000	$50,000	Y	Y
Moon	Strengthening Communities through Integrated Programming - Zambezia, Mozambique VUMC35985 (656-A-00-09-00414-06)	2009-2014	U.S. Agency of International Development	$1,795,965	$598,655	$598,655	$598,655	Y	Y
Moses **YuShyr, Co-investigator**	MMC, VICC & TSU: Partners in Eliminating Cancer Disparties 5U54CA163072-03	2011-2016	NCI	$1,539,114	$513,038	$513,038	$513,038		
Penson	Comparative Effectiveness of Modern Therapies for Localized Prostate Cancer 1R01HS022640-01	2013-2018	Agency for Healthcare Research and Quality (AHRQ)	$1,358,968			$1,358,968		Y
Resnick **Penson, Co-investigator**	Self-referral for Advanced Imaging in the Management of Urolithiasis: Implicaions for Utilization and Quality of Care	2013-2014	American Urological Association Foundation	$40,000			$40,000		Y
Rothman	Public-Private Partnership Addressing Literacy-Numeracy to Improve Diabetes Care 5R18DK083264-04	2010-2015	NIDDK	$1,213,233	$404,411	$404,411	$404,411		Y

Schaffner	Emerging Infections Program - Enhancing Effort to Prevent, Control and Monitor Vanderbilt collaborates with the TN Dept. of Health in the EIP - 1U50CK000198-02	1/2013 - 12/2013	Tennessee Department of Health	$1,775,600			$1,775,600	Y	Y
Schaffner	EIP Program Renewal VUMC7131 (U50CK00198)	2012-2015	Centers for Disease Control (CDC)	$3,002,000		$1,501,000	$1,501,000	Y	Y
Schaffner	EIP Prevention and Public Health Funds (PPHF) Infrastructure Agency Tracking #34349-78014 VUMC41717	2013-2014	State of Tennessee	$59,700			$59,700		
Shu **Heimburger, co-investigator**	Vanderbilt Training Program in Molecular and Genetic Epidemiology of Cancer (MAGEC) 1R25CA160056	2012-2017	NIH/NCI	$0					
Talbot **Griffin, co-investigator**	Effectiveness of the Influenza Vaccine in the Aging Population 1R01AG043419-01	2013-2016	NIA	$205,000			$205,000		
Vermund	HIV Prevention Trials Network (HPTN) Leadership Group - FHI Subagreement #859 VUMC31800 (U01AI068619)	2006-2014	NIAID	$183,840	$61,280	$61,280	$61,280		
Vermund	Vanderbilt University-CIDRZ AIDS International Training and Research Program 3D43TW001035-15S1	2009-2015	FIC	$341,343	$113,781	$113,781	$113,781		Y
Vermund	Expanded Testing, Linkage, and Treatment for HIV Prevention Among MSM in China 1R34AI091446-01A1	2011-2014	NIAID	$460,758	$153,586	$153,586	$153,586		Y

Vermund	Developing an evidence map of the global impact of family planning OPP1094227	2013-2014	Bill & Melinda Gates Foundation	$272,727			$272,727		Y
Wester	Avante Zambezia: Technical Assistance to the Ministry of Health (MOH) for HIV Services and Program Transition in Zambezia 1U2GGH000812-01	2012-2017	CDC	$13,552,684		$6,826,342	$6,726,342		Y

Note: [1] If the PI is not a member of the accredited school/program's faculty, but a school/program faculty member serves on a grant in a capacity other than PI (eg, investigator, statistician), list the PI's name and affiliation, then ALSO list the relevant faculty member's name and title on the project; [2] Complete table/list can be found in the Resource File.

For the years 2011-2013, our program's primary faculty published a median of 4 to 6 peer review articles annually. Many articles appeared in high impact journals including *New England Journal of Medicine, Lancet,* and *JAMA.* Many of the articles resulted in changes in policy relevant to public health. For example, MPH primary facilty Drs. Griffin and Grijalva collaborated on a study of U.S. hospitalizations for pneumonia after a decade of pneumococcal vaccination. Following publication of the article in the New England describing their findings in *New England Journal of Medicine,* the Centers for Disease Control and Prevention decided to fund routine surveillance for pneumonia in their Emerging Infection Program network. Drs. Roumie, Griffin, Grijalva, Elasy, and Murff examined the association between intensification of metformin treatment with insulin vs sulfonylureas and cardiovascular events and all-cause mortality among patients with diabetes. Their research should influence practitioners to prefer intensification of diabetes therapy with sulfonylureas rather than insulin. Dr. Vermund's research in the field of vertical transmission of HIV has been foundational. High profile publications in *Lancet, AIDS,* and the *New England Journal of Medicine* described reduced risk for vertical transmission of HIV using antiretroviral therapy, including studies exploring the most cost-effective and efficient strategies. These studies have made important contributions to the current strategies for treating HIV infection during pregnancy, which have dramatically reduced risk for vertical transmission.

d. Identification of measures by which the program may evaluate the success of its research activities, along with data regarding the program's performance against those measures for each of the last three years. For example, programs may track dollar amounts of research funding, significance of findings (eg, citation references), extent of research translation (eg, adoption by policy or statute), dissemination (eg, publications in peer-reviewed publications, presentations at professional meetings) and other indicators. See CEPH Outcome Measures Template.

Faculty research is a key part of the program's mission, as the program seeks to "advance knowledge in the public health sciences through research and discovery." In recognition of the importance of research, several of the program's outcome measures evaluate the success of its research activities.

Table 3.1.a Outcomes Related to Faculty Research (see Table 1.2.a for additional outcomes)				
Measure	**Indicator**	**Assessment**	**Target**	**Outcome**
Faculty members contribute scientific	% of primary faculty	Faculty CV	100%	10-11: 100%

knowledge by publishing articles in the peer-reviewed literature.	publishing at least 1 article in the peer-reviewed literature per year	review		11-12: 100% 12-13: 100% 13-14: 84%
Faculty members contribute scientific knowledge by publishing articles in the peer-reviewed literature.	N articles per primary faculty member (median) per year	Faculty CV review	Median of at least 3 articles per primary faculty member per year	10-11: 6.7 11-12: 6.9 12-13: 3.9 13-14: 3.9
MPH faculty disseminate research findings to policy-makers, public health professionals & the general community through participation in public forums and press interviews.	% of primary faculty who participate in at least 1 press activity and/or public forum per year	Faculty CV review	75%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
Faculty members obtain grants to support public health research.	% of primary faculty members with grant support as PI or Co-Investigator each year	Faculty CV review	At least 75% [Stretch of 80%]	10-11: 100% 11-12: 100% 12-13: 75% 13-14: 75%
Faculty collaborate with at least one member of another department on research projects or grants.	% of Primary faculty collaborate with at least one member of another department on research projects or grants.	Faculty CV review	At least 75% of primary faculty	11-12: 100% (14 of 14) 12-13: 91% (21 of 23) 13-14: 88% (23 of 26) 14-15: 88% (23 of 26)
MPH students are involved in faculty research projects.	N of MPH students (second year) who participate in MPH primary or secondary faculty research	Annual Review and Exit survey	20	11-12: 13 (100%) 12-13: 17 (100%) 13-14: 24 (100%) 14-15: 22 (100%)
MPH students publish their MPH theses or on a topic closely related to their theses.	% of students who publish at least one article related to their thesis within 3 years of graduation	CV Review and PubMed Search	At least 60% [Stretch of 75%]	2010: 71% 2011: 91% 2012: 83% 2013: 71%* *Note: full 3 years have not elapsed

e. Description of student involvement in research.

Research is an important part of every student's course of study. 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.

Examples of Student Involvement in MPH Faculty Research, 2011-2014		
MPH Primary or Secondary Faculty	Student	Topic
Carolyn Audet, PhD, MSc	Imani Brown	Positive prevention in Zambézia province, Mozambique: How effective/useful is the messaging?

Russell Rothman, MD, MPP	Liz Dancel	Acculturation and Infant Feeding Styles in a Latino Population: Results from an Ongoing Randomized Controlled Trial of Obesity Prevention
	Yaa Kumah-Crystal	Technology Use for Self-Management Problem Solving in Adolescent Diabetes and its Relationship to Hba1C
William Cooper, MD, MPH	Candice Williams	Rural Residence and Access to Mental Health Care for Children and Adolescents after a Suicide Attempt
	Richard Epstein	Sudden Cardiac Death Risk and Psychotropic Drug Use in Young Women
Sunil Kripalani, MD, MSc, SFHM	Cecelia Theobald	Improving Quality of Care for Patients Transferred to VUH: Targeting Provider Communication
	Tera Howard	Health Literacy Defined as the Degree to Which Patients Can Obtain, Process and Understand Basic Health Information and Services They Need to Make Appropriate Health Decisions
Doug Heimburger, MD, MS	Chris Nyirenda	Plasma Polyunsaturated Fatty Acids in Zambian Adults with HIV/AIDS: Relation to Dietary Intake and Cardiovascular Risk Factors
	Albert Mwango	Determinants of Antiretroviral Therapy Program Efficiency
	Jay Bala	Diagnostic Trends in Rural Health Clinics in Southern, Zambia, 2003-2009: Informatics for Clinic Data Management
Troy Moon, MD, MPH	Charlotte Beuhler	Using Geographic Information Systems (GIS) to Examine Spatial Patterns and Clustering of HIV Knowledge within Three Districts of Zambézia Province, Mozambique
	Laura Edwards	Evaluation of a Health Management Mentoring Program in Rural Mozambique: Successes and Challenges of Year One of Implementation
David Penson, MD, MPH	Matthew Resnick	Self-referral for Advanced Imaging in Urolithiasis: Implications for Utilization and Quality of Care
Han-Zhu Qian, MD, PhD	Ellen Zheng	HIV Infection and Related Risk Factors Among Men who Have Sex with Men (MSM) with Commercial Sex Activates in China
William Wester, MD, MPH	Heather Paulin	Antenatal Care Uptake in Zambézia Province, Mozambique
Sten Vermund, MD, PhD	Crispin Moyo	WHO 2007 Policy Recommendation to Initiate Ant-Retroviral Therapy with Tenofovir Instead of Stavudine: Implementation Status in Zambia and 12-months Outcome Evaluation
	Leigh Howard	Health Literacy and Dosing Accuracy for Liquid Zidovudine in HIV-Infected Adults in Mozambique
	Anees Siddiqui	Condom Use During Commercial Sex Among Clients of Hijra Sex Workers in Karachi, Pakistan
	Jose Tique	Assessing Literacy and Numeracy in Patients with HIV Infection in Mozambique: Validation of the HIV Literacy Test

f. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. The Vanderbilt MPH program has identified the following:

Strengths:

- An institution that provides a rich environment for research for our faculty and students;
- Faculty who are engaged in a wide variety of research, with extensive funding and strong track records of publishing important research.
- Students who have ample opportunities to participate in faculty research, evidenced by the fact that students have engaged on almost 70 faculty research projects over the past three years.
- Several well-established community links to facilitate research to enhance the health of citizens in our community, state, and region.
- National and international links that allow for further opportunities to enhance the public health.

Weaknesses:

- Decrease in number of publications among faculty in recent years could be seen as a weakness. However, goals for metrics continue to be met, and the decrease is due in part to addition of new faculty, who spend a greater portion of their time in service and teaching activities, rather than research.

Plans to ensure that this criterion continues to be met:

- We continue to seek faculty and students who engage in public health research, and continue to make excellent research an important goal of our program.
- Dr. Sunil Kripilani, who just took over teaching our Grants Writing and Scientific Communication course, is heading up a new Center on Implementation Science. Housed within the Center for Health Services Research in the Institute for Medicine and Public Health, the new center will conduct research and assist Vanderbilt teams with the design, implementation and evaluation of clinical quality and safety initiatives. This will provide more opportunities for our students.

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.

a. A description of the program's service activities, including policies, procedures, and practices that support service. If the program has formal contracts or agreements with external agencies, these should be noted.

Service is vital to the teaching and research activities of the Vanderbilt MPH program and is integral to the mission of Vanderbilt University. The centrality of service is reflected in the program's mission to prepare our students to be leaders and innovators in "a program environment rich in learning, discovery, and service."

Case Study 8: World Health Organization National Surveillance System for Child Health in Africa

From September 2012 through June 2014, the Vanderbilt Institute for Global Health (MPH Faculty Aaron Kipp and Connie Haley and two MPH students) worked with the World Health Organization on a comprehensive study to identify factors improving and impeding progress in child survival in the Africa Region using quantitative and qualitative methods.
The project involved an extensive literature review and analysis of factors affecting declines in under-five mortality for the 46 African countries using publicly available, global indicator data. This was followed by in-depth case studies in four countries: Liberia and Zambia, which had demonstrated substantial declines in under-five mortality, and Kenya and Zimbabwe, which had not demonstrated substantial declines. A policy review of child survival policies, strategies, and program evaluations for each of the countries was conducted, followed by interviews with Ministry of Health officials, locally-based international funding partners, local and national community based organizations, and health care providers, and focus groups with community women. A follow-up meeting was held in Harare, Zimbabwe in May 2014 to disseminate the preliminary findings from the case studies and strateaize on future directions.

b. Description of the emphasis given to community and professional service activities in the promotion and tenure process.

Faculty in the School of Medicine are expected to participate in service activities as outlined in the Vanderbilt University Faculty Manual which describes the expectations for service at various faculty ranks and tracks (available in Resource File). The Vanderbilt Faculty Manual (http://vanderbilt.edu/faculty-manual/) describes service as "obligations that go beyond research, scholarship, or creative expression and teaching particularly in departmental or school activities and University governance." The Faculty Manual also 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." Service is an explicit part of promotion and tenure requirements for all tracks in the Vanderbilt University School of Medicine. Thus, School of Medicine guidelines for promotion on the tenure track explicitly address the service accomplishments of faculty being considered for promotion and tenure (http://www.mc.vanderbilt.edu/medschool/facaffairs/fac_promo.html).

c. A list of the program's current service activities, including identification of the community, organization, agency or body for which the service was provided and the nature of the activity, over the last three years. See CEPH Data Template 3.2.1. Projects presented in Criterion 3.1 should not be replicated here without distinction. Funded service activities may be reported in a separate table; see CEPH Template 3.2.2. Extramural funding for research or training/continuing education grants should be reported in Template 3.1.1 (research) or Template 3.3.1 (funded workforce development), respectively.

Service provided by program primary and secondary faculty encompasses a broad range of activities across many areas of public health concern and affecting diverse populations. A full list of the program's current service activities is provided in Table 3.2.1 below. MPH faculty regularly engage in service through technical assistance to the local and state health departments, as well as federal agencies including the CDC, FDA, and AHRQ. We consider service to be a primary way to improve public health through our faculty's expertise. The examples below illustrate the types of service provided by primary and secondary faculty in the Vanderbilt MPH program.

Table 3.2.1 Example of External Service Activity of Faculty for the Last 3 Years (2011-2014)*

Faculty Name	Organization	Role	Activity/Project	Year
Muktar Hassan Aliyu	American College of Preventive Medicin	Committee Member	Adolescent Health Committee	2010-2012
	Meharry Medical College	Committee Member	MSPH Faculty Advisory Committee	2006-present
	Meharry Medical College	Committee Member	Occupational Medicine Residency Advisory Committee	2006-present
	American College of Occupational & Environmental Medicine	Committee Member	Occupational Medicine Residency Directors' Committee	2010-present
	Mayo Clinic College of Medicine	Committee Member	Preventive Medicine Residency Advisory Committee	2010-present
	American College of Preventive Medicine	Committee Member	Preventive Medicine 2012 Planning Committee	2011-present
	Meharry Medical College	Committee Member	Preventive Medicine Residency Advisory Committee	2011-present
Kecia Nicole Carroll	Academic Pediatrics Association	Committee Member	Executive Research Committee	2010-present
James H. Clarke	Nuclear Regulatory Commission	Consultant	Advisory Committee on Reactor Safeguards	2008–present
	Board of Trustees, Rockford College	Committee Member	Academic Affairs Committee	2013-present
	American Nuclear Society	Committee Member	Executive Committee, Division of Decommissioning and Environmental Science	2011-present
Richard A. Epstein, Jr.	Guyana Ministry of Health and the University of Guyana	Advisory Committee Member	Master of Public Health Program	2013
	Canada Ministry of Children and Youth Services	Consultant	Autism Spectrum Disorders	2013
	Tennessee Department of Children's Services	Member	Mental Health Task Force	2008-present
	Tennessee Commission on Children and Youth	Member	Council on Children's Mental Health	2008-present
	Tennessee Three Branches Institute	Member	Convened by First Lady Crissy Haslam and Commissioner Jim Henry to facilitate all	2013-present

			branches of government working together to support Tennessee children and families	
	Tennessee Children's Cabinet	Member	Tennessee Young Child Wellness Council	2013-present
	Tennessee Department of Children's Services	Member	Philosophy Wars: Child Health	2014
	U.S. Department of Health and Human Services, Administration for Children, Youth and Families, Children's Bureau	Scientific Review Committee Member	Partnership Grants (RPG) to Increase the Well-Being of, and to Improve the Permanency Outcomes for, Children Affected by Substance Abuse	2012
	AcademyHealth	Committee Member	Steering Committee for Child Health Services Research Interest Group	2012-present
	Tennessee Department of Children's Services	Member	Mental Health Task Force	2008-present
	Tennessee Bureau of TennCare	Co-Chair	Mobile Crisis Assessment Workgroup	2010-2011
	Tennessee Department of Children's Services	Member	Program Improvement Plan (PIP) Assessment Workgroup	2010-2011
	Casey Family Programs	Expert Panel Member	Child and Adolescent Needs and Strengths Collaborative	2014
Marie R. Griffin	Center for Medicaid and Medicare Services	Committee Member	Medicare Evidence Development and Coverage Advisory Committee	2010-2012
Carlos G. Grijalva	International Symposium of Pneumococci and Pneumococcal Diseases 8 (Brazil)	Scientific Committee Member	The Global action plan for the prevention and control of pneumonia (GAPP): Tactics and Tools for a Global Campaign Against Pneumonia	2012
Douglas C. Heimburger	NIH	Grant Application Reviewer	Global Health: Innovative Training Programs, Fogarty International Center	2013
	University of North Carolina	Advisory Committee Member	Nutrition in Medicine project	2001-2011
	University of Texas Southwestern Medical Center at Dallas Office of Global Health	Advisory Committee Member	Office of Global Health	2011-2013
	U.S. Global Leadership Coalition	Committee Member	Tennessee Advisory Committee	2012-present

	NIH	Working Group Member	Implementing Nutrition Across the Continuum of Medical Education and Training and Research	2012
Brian L. Heuser	International Research & Exchange Board (IREX)	Committee Member	Field Selection Committee for the US Department of State Edmund S. Muskie Graduate Fellowship Program: Tajikistan, January 2010-11; Moldova, January 2012; Azerbaijan, January 2012	2010-2012
	David L. Boren National Security Education Fellowship	National Panelist	Selection Committee	2011-2012
Aaron Marshall Kipp	International Center for Research on Women/Global Network of People living with HIV/International Planned Parenthood Federation/UN Program on HIV/AIDS	Working Group Member		2009-present
Velma McBride Murry	Journal of Adolescent Research	Editorial Board Member	Editorial Board	2004-present
	Journal of Youth and Society	Editorial Board Member	Editorial Board	2000-2011
	Journal of Marriage and Family	Editorial Board Member	Editorial Board	2010-2012
	Journal of Clinical Child and Adolescent Psychology	Editorial Board Member	Editorial Board	2010-2013
	Child Development Perspectives	Editorial Board Member	Editorial Advisory Board	2011-2013
	Child Development	Editorial Board Member	Editorial Board	2013-present
	Journal of Women, Gender, and Families of Color	Editorial Board Member	Editorial Board	2012-present
	Child Development	Committee Member	Editor Search Committee	2012-2013
	Mental Health Disparities Research and Intervention	Advisory Member	National Program	2010-2011
	Institute of Medicine	Advisory Board Member	Advisory Board on Children, Youth, and Families	2010-2013
	Institute of Medicine	Committee Member	Standing Committee on Family Planning	2011-2012
	SAMHSA	Committee Member	Advisory Committee on Women's Service	2011 – 2013
	Office of AIDS Research	Advisory Board Member	Social and Behavioral HIV Prevention Research Think Tank	2010-2011
	American Psychological Association	Committee Member	Committee on Psychology of AIDS	2011-present

			(COPA)	
	American Psychological Association	COPA Subcommittee Coordinator	COPA and Black Entertainment Network (BET) National	2012-present
	Society for Research on Child Development	Committee Member	Publication Committee	2010 – 2013
	Society for Research on Adolescence	Committee Member	Publication Committee	2010 – 2013
	Family Process Institute	Board Member		2006-2012
	National Institutes of Health	Committee Member	Grant Review Study Panel Committee: Community Influences on Health	2010-2013
	National Institutes of Health	Committee Member	Program Committee Health Disparities in Mental Health	2010-2011
	Center for Health Services Program	Committee Member	Advisory Committee	2008-present
Han-Zhu Qian	Asian Pacific Journal of Tropical Biomedicine	Editorial Board Member		2011-present
	Jiangsu Journal of Preventive Medicine	Editorial Board Member		2011-present
David George Stevenson, Jr.	StoryCorps	Board Member	Legacy Initiative Advisory Board	2011-present
	U.S. Centers for Medicare and Medicaid Services	Member	5-Star Quality Rating System, Technical Expert Panel	2013-present
Thomas R. Talbot, III	SHEA Education Committee	Chair		2010-2012
	SHEA Education and Research Foundation Board	Member		2013
	Tdap Vaccination Strategies for Adolescents and Adults, Including Health Care Personnel: Strategies from Research and Practice	Faculty Editor	The Joint Commission Monograph	2011
	Healthcare Infection Control Practices Advisory Committee (HICPAC)	Member	Centers for Disease Control and Prevention	2011-present
	Infection Control and Hospital Epidemiology	Member	Editorial Board	2011-2016
	Tennessee Department of Health	Co-Chair	Multidisciplinary Advisory Group of Healthcare Associated Infections	2011-present
	International Federation of Libraries and Associations	Committee Member	Africa Section Standing Committee	2009-2013
	World Health Organization	Committee Member	GIEESC Education & Training Committee	
Sten H. Vermund	Institute of Medicine	Planning Committee Member	Interest Group on Maternal & Child Health & Human Development	2013-present
	UNAIDS	Committee Member	Scientific Expert Panel	2013-present

Consortium of Universities in Global Health	Velji Awards Committee Member		2012-present
Society for Pediatric Research	Richardson Prize Committee Member		2013-present
PLOS ONE	Academic Editor	Editorial Board	2011-present
Revista de Salud Pública (Journal of Public Health), Colombia	Scientific Committee Member		2002-present
Elizabeth Glaser Pediatric AIDS Foundation	Grant Review Panelist and Scientific Advisor	Ariel Project, Glaser Awards, Grant Awards	1995-2011
Columbia University/NY State Psychiatric Center	Senior Advisor	HIV Center for Clinical and Behavioral Studies	1997-present
National Drug Research Institute/New York University	External Advisory Committee Member	HIV/AIDS Center	1998-present
University of California, San Francisco (UCSF)	Advisory Board Member	AIDS Research Center	1998-present
HIV Preventive Trial Network	Executive Committee Member		2000-present
Duke University, External Advisory	Committee Chair	Center for AIDS Research	2007-present
University of California, San Francisco (UCSF)	External Advisory Board Member	Center for AIDS Prevention Studies (CAPS)	2007-present
NIH	Advisory Council Member	Fogarty International Center	2007-present
Institute of Tropical Medicine 'Alexander von Humboldt', Universidad Peruana Cayetano Heredia	External Advisory Board Member	International Clinical, Operational & Health Services Research Training for AIDS/TB	2008-present
Albert Einstein College of Medicine	External Advisory Committee Member	AIDS International Training and Research Program	2008-present
Institute of Medicine, Committee Member	Committee on Data Systems for Monitoring HIV Care		2011-2012
PEPFAR Scientific Advisory Board	Committee Member		2011-present
Development, Security, and Cooperation, Division of Policy and Global Affairs, National Academy of Sciences	Committee Member	Science and Technology Capabilities at the Department of State	2013-present

*Note: Complete list can be found in Resource File

d. Identification of the measures by which the program may evaluate the success of its service efforts, along with data regarding the program's performance against those measures for each of the last three years.

Two of our outcome measures evaluate the success of the program's service efforts. Data regarding the program's performance against those measures for each of the last three years are shown below.

Table 3.2.a. Program Outcome Measures Evaluating the Success of Service Efforts for 2010-2014 (see Table 1.2.a. for additional outcomes)				
Measure	Indicator	Assessment	Target	Outcome
Community-based public health professionals are included on the MPH Advisory Committee.	Inclusion of N public health professionals from the community on MPH Advisory Committee	Committee Roster	3	11-12: 7 12-13: 4 13-14: 4
The MPH program faculty participate in a community-based public health needs assessment at least every 2 years.*	Needs assessment is performed every 2 years	Needs assessment	100% completion of needs assessment	11-12: 100% 12-13: --- 13-14: 100% *Note: this assessment is only conducted every two years
Community-based public health professionals are involved in teaching core courses.	N core courses with at least 1 lecture by a community-based public health professional	MPH Core Syllabi	At least 5	10-11: 9 11-12: 9 12-13: 9 13-14: 9 14-15: 9
MPH faculty disseminate research findings to policy-makers, public health professionals & the general community through participation in public forums and press interviews.	% of primary faculty who participate in at least 1 press activity and/or public forum per year	Faculty CV review	At least 75%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
MPH students disseminate information from their practicum or thesis projects to the general community through participation in conferences.	% participation rate by MPH graduating students in at least one public-health/health-care related conferences during program	Exit surveys	100%	10-11: 100% (17 of 17) 11-12: 100% (12 of 12) 12-13: 100% (16 of 16) 13-14: 100% (24 of 24)
MPH faculty are engaged in collaborative research projects with a community-based collaborator.	% of primary faculty engaged in research projects with a community-based collaborator per year	Faculty CV and/or program review	At least 70%	11-12: 64% (9 of 14) 12-13: 74% (17 of 23) 13-14: 73% (19 of 26) 14-15: 73% (19 of 26)
MPH faculty are engaged in service through service to local, state, national and/or international public health agencies or to the field itself.	% of primary faculty with at least 1 service activity per year to local, state, national and/or international public health agencies or to the field itself	Faculty CV and/or program review	At least 90%	11-12: 93% (13 of 14) 12-13: 91% (21 of 23) 13-14: 85% (22 of 26)

e. Description of student involvement in service, outside of those activities associated with the required practice experience and previously described in Criterion 2.4.

Students are actively engaged in service activities at the local, state, and national level. Examples of student service activities are shown below.

Table 3.2.b. Example of Student Involvement in Service Activities – 2013 Graduates	
Student	Service / 2010-2013
Lanla F. Conteh, MD	American Gastroenterological Association, American Association for the Study of Liver Diseases
Liz D. Dancel, MD, MPH	Ronald McDonald House, Healthy Hoops South Carolina, Safe Kids
Jessica Yasmine Islam, MPH	Siloam Family Health Center, Vanderbilt PREP, Next Step Ambassador, Meyeder Jonno Asha (Hope for Girls) Teaching Intern, International Center for Diarrheal Disease Research (Bangladesh)
Yaa Aboagyewa Kumah-Crystal, MD, MA, MPH	Sweethearts: Adolescent Girls Diabetes support group (Organizer), Big Brothers Big Sisters of Middle Tennessee (Big Sister), Camp Sugar Falls: Diabetes Day Camp Tennessee (Medical Staff, 2011-2013)
Imani Brown, MPH	Alternative Spring Break (Saman, Dominican Republic), East Nashville Middle School (Tutor), Belmont Church Soup Kitchen, Next Step Public Charter School (Night School Teacher, Washington, DC), Student Action for Refugees (Program Coordinator, Cairo, Egypt)
Oliver Lee Gunter Jr., MD, FACS, MPH	Student/research mentorship for VUSM (2014, 2015)

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. The Vanderbilt MPH program has identified the following:

Strengths:

- Faculty and students are engaged in a broad array of service activities demonstrated above.
- Core measures that assess the extent of the program's service activities have been met.

Weaknesses:

- Lack a systematic process for collecting information on student service both to the university and externally.

Plans to ensure that this criterion continues to be met:

- Introduce opportunities for student service through orientation and through advising meetings.
- Systemitize the process for collecting data and measuring student involvement in service via survey tools and email at the end of each academic year.

3.3 Workforce Development. The program shall engage in activities that support the professional development of the public health workforce.

a. Description of the ways in which the program periodically assesses the continuing education needs of the community or communities it intends to serve. The assessment may include primary or secondary data collection or data sources.

In 2008, the program appointed Dr. Bettina Beech to serve as Director of Workforce Development. During her time in this role, Dr. Beech developed and implemented needs assessment activities in consultation with the Metro Nashville and Tennessee Health Department leadership, and implemented procedures, practices, and evaluations to support continuing education and workforce development. Dr. Beech designed and conducted a series of key informant interviews with leaders of the Metro Health Department and the Tennessee Department of Health to identify topics of interest. Further conversations were held with leaders from Meharry Medical College MPH program to see where our interests might overlap, and a survey was fielded in October 2009. Respondents identified up to 3 top training needs of their staff. The most common responses were: analytic skills (i.e. defining a problem, posing a question to answer, understanding basic research and epidemiology), advocacy (understanding how to plan and influence change), policy development and program planning skills, communication skills, and leadership/systems thinking. Respondents preferred guest lectures and identified inadequate funds and time constraints as the main barriers to addressing staff training. Based on these identified needs, the MPH program planned a series of Lunch and Learn sessions to be provided by MPH faculty. While the initial goal was to deliver these sessions in fall 2009, the departure of Dr. Beech introduced some delays, and within the next year The Nashville Public Health Learning Collaborative was formed.

Case Study 9: Vanderbilt MPH Faculty Provide Workforce Development Opportunities in Guyana.

An example of workforce development comes from the work of MPH faculty and administrators in the Institute for Global Health, Dr. Doug Heimburger, Dr. Richard Epstein and Ms. Marie Martin. Together with the U.S. Centers for Disease Control and Prevention, the University of Guyana, the Guyana Ministry of Health, and the University of California San Francisco (UCSF), Vanderbilt has played a critical role in addressing the shortage of public health professionals in the Republic of Guyana through the development of the country's first Master of Public Health (MPH) program.

The establishment of the MPH program at the University of Guyana in the fall of 2013 has played an important role in the development and sustainability of public health expertise in the country. The program expects to be instrumental in strengthening the ability of Guyanese to take part in large-scale public health evaluation, service, and research projects, assumimg leadership positions in initiatives such as PEPFAR, and appling for additional research and public health service funding to enhance the country's ability to lead and manage the response to various public health challenges.

The Nashville Public Health Collaborative

The Nashville Public Learning Collaborative (NPHLC) was established in 2010 as a partnership between Vanderbilt University Master of Public Health (MPH), Meharry Medical College Master of Science in Public Health (MSPH) Program, Tennessee State University MPH program, and Nashville's Metro Public Health Department. It is designed to engage the public health workforce in identifying and applying community-based public health competencies to real world settings. The planning committee is comprised of a representative from each of the academic institutions, as well as administrative

leadership from the Health Department. The main objective of the NPHLC is to create a more competent local public health workforce. The Vanderbilt representative has been the MPH Director.

Prior to the first learning session, the NPHLC planning committee assessed the curriculum needs of the Metro Public Health (MHP) employees. The needs assessment report is presented at as site accessible to all participants (https://starbrite.vanderbilt.edu/rocket/index.php?doc_id=1273). Based on the results, the priority competencies to be addressed in the first year were identified. The curriculum is organized around 3 broad public health concepts: Public Health Sciences, Cultural Competency, and Advocacy. The NPHLC partnered with the Office of Lifelong Learning at Meharry to provide Non-Physician CEU's for participants. The specific topic and learning objectives for each course are detailed below. For each session, the programs rotated the following roles: 1) lead, 2) case study preparation/presentation, 3) facilitation.

Public Health Sciences 1: Epidemiology & Evidence-Based Practice (25 participants)
Upon completion of this course, participants will be able to:

- Define epidemiology
- Discuss common causes of death in Middle Tennessee
- Discuss most common chronic and infectious diseases in Middle Tennessee
- Discuss determinants of health and underlying factors that impact disease patterns in Middle Tennessee
- Explain the importance of using data to drive public health decision making
- Identify sources local, state, and national public health data

Public Health Sciences 2: Program Planning and Evaluation (16 participants)
Upon completion of this course, participants will be able to:

- List necessary steps required to plan a health program for a well-defined target audience
- Discuss the benefits of program evaluation
- Identify 3 types of program evaluations
- Identify 3 methods of data collection for evaluation

Cultural Competency 1: Clients and Patients (22 participants)
Upon completion of this course, participants will be able to:

- Define cultural competency
- Assess personal cultural competence
- Utilize appropriate methods for interacting sensitively, effectively, and professionally with clients and patients from diverse cultural, socioeconomic, educational, racial backgrounds and lifestyles
- Recognize the role of culture plays in shaping health beliefs, attitudes, communication and health-seeking behaviors
- Discuss a service delivery model that focuses on equal access and the absence of discrimination
- List skills required to serve multicultural populations
- Discuss methods of problem solving when cultural differences and practices interfere with client and patient care

Cultural Competency 2: Colleagues (24 participants)

Upon completion of this course, participants will be able to:

- Utilize appropriate methods for interacting sensitively, effectively, and professionally with colleagues from diverse cultural, socioeconomic, educational, racial backgrounds and lifestyles
- Discuss methods of problem solving when cultural differences and practices interfere with workplace relations

Advocacy 1: Placing Advocacy in Context (14 participants)
Upon completion of this course, participants will be able to:

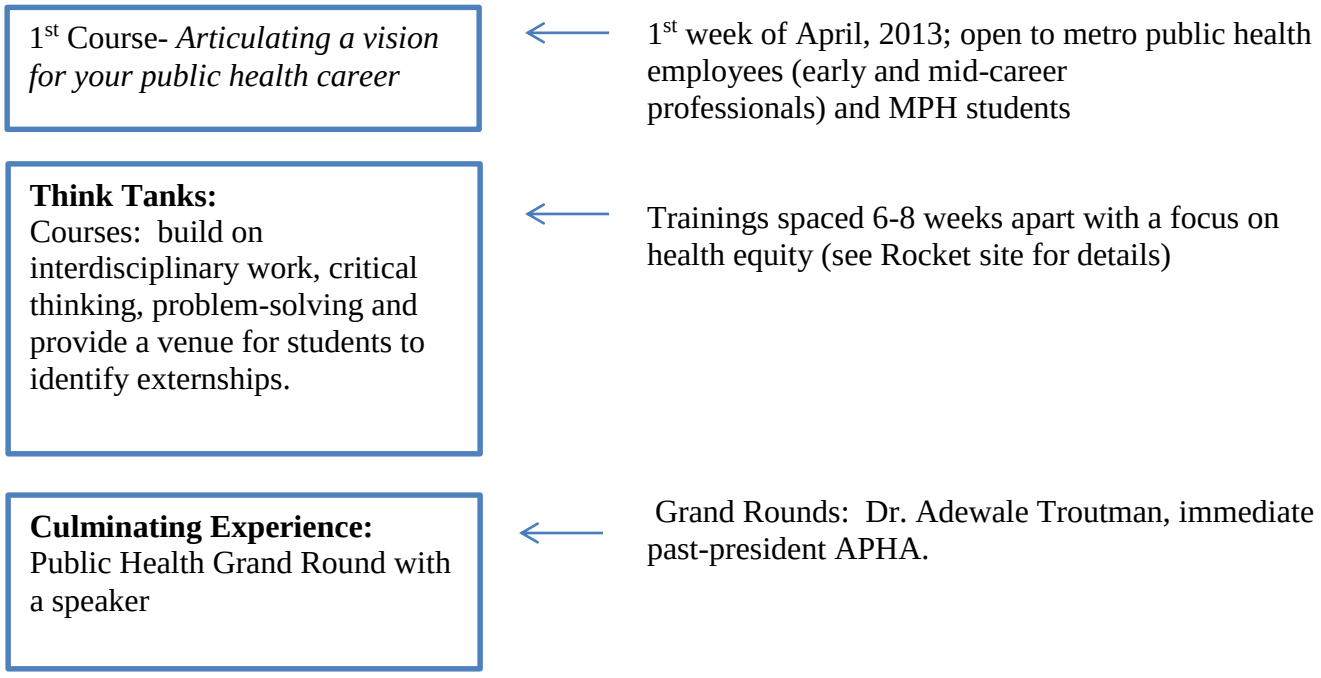
- Define public health advocacy
- Identify data sources to support advocacy efforts
- Discuss the impact of legislative and regulatory actions on local public health
- Create awareness about local public health concerns
- List 5 necessary skills needed to advocate for better public health

Advocacy 2: Implementing Advocacy Efforts (9 participants)
Upon completion of this course, participants will be able to:

- Identify allies and oppositional groups related to critical public health issues
- Promote effective state and local health policies in response to local public health concerns
- Mobilize community advocate groups
- Build alliances with community organizations
- Educate local policymakers about critical public health issues

After these 6 sessions, the Learning Collaborative re-evaluated their strategy and decided to focus the next set of activities on professional development for a career in public health with health equity as the theme for the curriculum for 2013-14.

The timeline for the model was:



To date, the NPHLC has met the objectives that were established in 2010:

1. Complete a needs assessment of the Metro Public Health Department employees in order to identify gaps in public health competencies and skills.
2. Identify competencies for Metro Public Health employees that might best be addressed through the learning collaborative.
3. Develop a curriculum that takes into account the needs assessment results, desired competencies, and resources of the Metro Public Health Department.

Preliminary Evaluation Data
Participants who attend the courses offered by the NPHLC received an electronic evaluation survey following the course. It was designed to assess the overall presentation of the session, content, and achievement of the learning objectives. Responses from the first 2 courses have been analyzed. Three questions were analyzed to determine satisfaction with the courses. The majority of the participants strongly agreed (66%) that the topics were current and relevant to public health. In addition, 47% strongly agreed that they were satisfied with the course session, and 50% strongly agreed the course was worth their time.

Future Plans
One of the great strengths of the NPHLC is partnership between the academic institutions and the Metro Public Health Department. It has been our experience that our partnership could be a model for other academic health centers and their respective public health department. We see the Learning Collaborative as a critical resource for translational science. As we introduce new and better ways to plan and assess the delivery of care to improve patient outcomes, the learning collaborative becomes a pathway to advance translational science. We will continue to work together to create a more congruent and up-to-date curriculum that reflects evidence-based research, programming, and evaluation. Additionally, we are working to find better ways to leverage resources from each academic institution.

In the summer of 2014, Jason Stamm from Metro Public health presented an update on the strategic plan for workforce development for Metro Public Health. Metro has decided to prioritize two initiatives: provide leadership training for all employees and develop a Public Health Leadership Institute. Metro requested help from the Collaborative to achieve their goals, and distributed competencies that had been developed. The NPHLC is now in the planning stages to decide how best to help meet these goals.

b. A list of the continuing education programs, other than certificate programs, offered by the program, including number of participants served, for each of the last three years. Those programs offered in a distance-learning format should be identified. Funded training/ continuing education activities may be reported in a separate table. See CEPH Data Template 3.3.1 (ie, optional template for funded workforce development activities). Only funded training/continuing education should be reported in Template 3.3.1. Extramural funding for research or service education grants should be reported in Template 3.1.1 (research) or Template 3.2.2 (funded service), respectively.

A listing of continuing education programs offered by program faculty, including the number of students served is shown in Appendix 3 (page 197). None of these offerings were offered in a distance learning format

c. Description of certificate programs or other non-degree offerings of the program, including enrollment data for each of the last three years.

Not applicable.

d. Description of the program's practices, policies, procedures and evaluation that support continuing education and workforce development strategies.

This has all been performed under the umbrella of the Learning Collaborative described above.

e. A list of other educational institutions or public health practice organizations, if any, with which the program collaborates to offer continuing education.

The Learning Collaborative includes Vanderbilt University Master of Public Health (MPH), Meharry Medical College Master of Science in Public Health (MSPH) Program, Tennessee State University MPH program, and Nashville's Metro Public Health Department to offer continuing education.

f. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is not met. The Vanderbilt MPH program has identified the following:

<u>Strengths:</u>
- The Learning Collaborative involves leaders from the three area public health programs as well as Metro Health.
- Initial offerings were based on a needs assessment and were well received.
- All participating programs require workforce development as part of their accreditation requirements and are committed to the collaborative.

<u>Weaknesses:</u>
- Programs offered to date are targeted to the entire workforce rather than to specific sectors, such as leadership or staff.
- A self-study by Metro Health has targeted leadership skills as a primary educational goal, which is not currently addressed.
- Programs with the State Department of Health have not been developed.

<u>Plans to ensure that this criterion continues to be met:</u>
- Continue to perform or evaluate public health needs every two years by a process that engages key personnel at the local health departments.
- Develop a series of professional development workshops focused on topics like leadership and management, media training and grant writing, which conform to the most current needs assessment

by Metro Health. The MPH program will commit funds towards 20% of a current MPH administrator's time for this initiative starting in March 2015.

- Approach leaders at the State Department of Health to address workforce development issues there.

Criterion 4

Faculty, Staff and Students

Vanderbilt University

Master of Public Health Program

Self-Study Report

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.

The program has a clearly defined faculty representing disciplines from several schools and centers at Vanderbilt and community public health professionals. All of our primary and secondary faculty have excellent educational preparation, and many actively engage in public health practice or bring previous experience in public health practice. The faculty include primary (≥0.50 FTE), secondary (0.05-0.49 FTE), affiliated (advising roles and public health practice), and adjunct (community public health professionals with teaching responsibilities but no Vanderbilt faculty appointment) faculty.

a. A table showing primary faculty who support the degree programs offered by the program. It should present data effective at the beginning of the academic year in which the self-study is submitted to CEPH and should be updated at the beginning of the site visit. This information must be presented in table format and include at least the following: a) name, b) title/academic rank, c) FTE or % time, d) tenure status or classification*, g) graduate degrees earned, h) discipline in which degrees were earned, i) institutions from which degrees were earned, j) current instructional areas and k) current research interests. See CEPH Data Template 4.1.1.

The program's primary faculty have appointments in the Departments of Health Policy, Pediatrics, Medicine, Obstetrics/Gynecology and Biostatistics. These faculty have expertise in each of the core disciplines of epidemiology, biostatistics, environmental health, health services administration, and social and behavioral health.

* ***Primary faculty*** *devote >0.5 FTE of their time and effort to activities associated with the program. They may teach a course, serve in a leadership role in the MPH program, or contribute substantially to the MPH program through a combination of primary mentorship, lectures, etc.*

One attribute of the program is the stability of our faculty. This stability allows us to continue to offer high quality teaching from experienced teachers. However, when needed, we intervene to ensure that high quality continues. For example, when the course evaluations for one of our core courses identified concerns with organization, the Curriculum Committee reviewed the evaluations and made recommendations. The chair of the Curriculum Committee passed the recommendations to the faculty meeting. The course evaluations for the next year improved substantially.

Table 4.1.1 2014-2015 Primary Faculty who Support Degree Offerings of the Program, by Track

Department (schools)/ Specialty Area (programs)	Name	Title/ Academic Rank	Tenure Status or Classification*	FTE or % Time to school or program	Graduate Degrees Earned	Institution where degrees were earned	Discipline in which degrees were earned	Teaching Area	Research Interest

Table 4.1.1 2014-2015 Primary Faculty who Support Degree Offerings of the Program, by Track									
Department (schools)/ Specialty Area (programs)	Name	Title/ Academic Rank	Tenure Status or Classification*	FTE or % Time to school or program	Graduate Degrees Earned	Institution where degrees were earned	Discipline in which degrees were earned	Teaching Area	Research Interest
MPH / Epidemiology [Future: Health Policy]	Melinda Buntin	Professor	Tenured	.55	PhD	Harvard	Health policy, economics	Health policy, economics	Health policy
MPH / Epidemiology	Kecia Carroll	Assistant Professor of Pediatrics (General Pediatrics)	Tenure Track	0.75	MD, MPH	Vanderbilt	Medicine, Public Health	Epidemiology 1	Asthma epidemiology, epigenetics
MPH / Epidemiology	William Cooper	Professor of Pediatrics (General Pediatrics) and Health Policy	Tenured	0.90	MD, MPH	Vanderbilt	Medicine, Public Health	Epidemiology 1, Grants, Protocol Development, Research Ethics	Pediatric Pharmacoepidemiology
MPH / Epidemiology	William Dupont	Professor of Biostatistics	Tenured	0.70	PhD	Johns Hopkins	Biostatistics	Biostatistics 2	Breast cancer, statistical methods
MPH / Epidemiology	Richard Epstein	Associate Professor of Psychiatry	Non-Tenure Track	0.80	MD, MPH	University of Chicago, Vanderbilt University	Psychology	Social and Behavioral Science for Public Health	Pharmacoepidemiology, Quality improvement, Child psychology
MPH / Epidemiology	Carlos Grijalva	Assistant Professor of Health Policy	Tenure Track	0.90	MD, MPH	Universidad Nacional San Luis Gonzaga, Vanderbilt	Medicine, Public Health	Epidemiology 1, Protocol Development	Pharmacoepidemiology, Pneumonia
MPH / Epidemiology	Marie Griffin	MPH Director, Professor of Health Policy and Medicine (General Internal Medicine)	Tenured	0.90	MD, MPH	Georgetown, Johns Hopkins	Medicine, Public Health	Epidemiology 1, Public Health Practicum, Grants	Pharmacoepidemiology, Influenza and Pneumonia

Table 4.1.1 2014-2015 Primary Faculty who Support Degree Offerings of the Program, by Track									
Department (schools)/ Specialty Area (programs)	Name	Title/ Academic Rank	Tenure Status or Classification*	FTE or % Time to school or program	Graduate Degrees Earned	Institution where degrees were earned	Discipline in which degrees were earned	Teaching Area	Research Interest
MPH/ Epidemiology	Sunil Kripilani	Associate Professor of Medicine (General Internal Medicine)	Tenured	0.80	MD, MSc	Baylor, Emory University	Medicine, Public Health	Grant Writing, Health Services Administration	Transitions of Care, Medication Adherence
MPH / Epidemiology	Mary Louise Lindegren	Associate Professor	Non-tenure Track	0.68	MD	Duke	Medicine	HSA: Public Health Systems	Evaluating care and treatment interventions
MPH / Epidemiology	Melissa McPheeters	MPH Epidemiology Track Director, Research Associate Professor	Non-tenure track	0.90	PhD, MPH	UNC Chapel Hill	Epidemiology, Public Health	Environmental Health	Maternal and child health, environmental health
MPH / Epidemiology	Wayne Ray	Professor of Health Policy	Tenured	1.00	PhD	Vanderbilt	Computer Science	Epidemiology 2, HSA: Program/Policy, Grants, Protocol, Public Health Seminar	Pharmacoepidemiology
MPH / Epidemiology	William Schaffner	Professor	Tenured	.55	MD	Cornell	Epidemiology	Infectious Disease Epidemiology	Infectious Disease Epidemiology
MPH / Epidemiology	Yu Shyr	Professor of Biostatistics	Tenured	0.95	PhD	University of Michigan	Biostatistics	Biostatistics 1, Clinical Trials	Clinical Trials Design
MPH / Epidemiology	Yuwei Zhu	Senior Associate in Biostatistics	Non-tenure Track	0.90	MD, MS	Shanghai Medical University, University of Houston	Biostatistics, Medicine	Biostatistics	Biostatistics, clinical trials, epidemiology

Table 4.1.1 2014-2015 Primary Faculty who Support Degree Offerings of the Program, by Track									
Department (schools)/ Specialty Area (programs)	Name	Title/ Academic Rank	Tenure Status or Classification*	FTE or % Time to school or program	Graduate Degrees Earned	Institution where degrees were earned	Discipline in which degrees were earned	Teaching Area	Research Interest
MPH/ Epidemiology [Future: Health Policy]	Robert Dittus	Albert & Bernard Werthan Professor of Medicine; Assistant Vice Chancellor for Public Health	Tenured	0.50	MD, MPH	Purdue, University of North Carolina	Medicine, Public Health	Decision Analysis, Health Services Administration	Health Services Research
MPH/ Epidemiology [Future: Health Policy]	John Graves	Assistant Professor, Health Policy	Tenure-track	0.80	PhD	Harvard University	Health Policy	Program and Policy Evaluation, Health Services Administration	Program and Policy Evaluation, Health Economics
MPH/ Epidemiology [Future: Health Policy]	David Penson	Professor of Surgery (Urologic Surgery) and Health Policy	Tenured	0.95	MD, MPH	Boston University., Yale University	Medicine, Public Health	Decision Analysis, Health Services Administration	Surgical Quality and Outcomes Research, Prostate Cancer
MPH/ Epidemiology [Future: Health Policy]	Lawrence Van Horn	Associate Professor	Tenured	0.75	MPH, MBA, PhD	University of Rochester, University of Pennsylvania	Managerial Science and Applied Economics	HSA: Healthcare Systems, Health Services Administration	Measurement of healthcare outcomes and productivity
MPH/ Epidemiology [Future: Health Policy]	David Stevenson	Associate Professor	Tenured	.80	PhD, MBA	Harvard	Health care policy, public health	Healthcare policy	Healthcare Policy, nursing home quality and issues

Table 4.1.1 2014-2015 Primary Faculty who Support Degree Offerings of the Program, by Track									
Department (schools)/ Specialty Area (programs)	Name	Title/ Academic Rank	Tenure Status or Classification*	FTE or % Time to school or program	Graduate Degrees Earned	Institution where degrees were earned	Discipline in which degrees were earned	Teaching Area	Research Interest
MPH /Global Health	Muktar Aliyu	Associate Professor of Health Policy, Vanderbilt Institute for Global Health	Tenured	0.65	MD, PhD, MPH	Ahmadu Bello University, University of Alabama, Birmingham, George Washington University	Medicine, Epidemiology and Biostatistics, International Health	Global Health, Environmental Health	Maternal and fetal outcomes associated with lifestyle choices; HIV; reproductive choices
MPH /Global Health	Carolyn Audet	Assistant Professor of Health Policy, Vanderbilt Institute for Global Health	Tenure-track	0.65	PhD	Vanderbilt	Archeology	Global Health, Social and Behavioral Health	Improving community health, anthropological studies and cultural barriers
MPH /Global Health	Doug Heimburger	MPH Global Health Track Director, Professor of Medicine (Epidemiology) and Health Policy	Tenured	0.90	MS, MD	University of Alabama, Birmingham; Vanderbilt	Medicine	Global Health, Epidemiology	AIDS/HIV, Nutrition, Epidemiology
MPH /Global Health	Elizabeth Heitman	Associate Professor of Medicine (Ethics)	Tenured	0.75	PhD, MPH	Rice University	Religious Studies, Public Health	Bioethics, Social and Behavioral Health	Bioethics
MPH /Global Health	Brian Heuser	Assistant Professor of the Practice in International Education Policy	Non-tenure Track	0.75	EdD, MTS	Vanderbilt	Education, Theology	Leadership, Policy and Organizations, Health Services Administration	Relationship of global health and education policy

Table 4.1.1 2014-2015 Primary Faculty who Support Degree Offerings of the Program, by Track									
Department (schools)/ Specialty Area (programs)	Name	Title/ Academic Rank	Tenure Status or Classification*	FTE or % Time to school or program	Graduate Degrees Earned	Institution where degrees were earned	Discipline in which degrees were earned	Teaching Area	Research Interest
MPH / Global Health	Troy Moon	Assistant Professor of Pediatrics (Infectious Diseases)	Non-tenure Track	0.80	MD, MPH	University of Florida, Tulane University	Medicine, Public Health, Infectious Disease	Global Health, Health Services Administration	Global Health
MPH / Global Health	Sten Vermund	Professor, Amos Christie Chair and Professor of Pediatrics	Tenured	0.75	MD, PhD	Albert Einstein, Columbia	Medicine, Epidemiology	Global Health, Epidemiology	HIV, Global Health

b. Summary data on secondary faculty.

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	Bassel Abou-Khalil	Professor	Vanderbilt Medical Center	.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Naji Abumrad	Professor	Vanderbilt Medical Center	.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Sari Acra	Professor	Vanderbilt Medical Center	.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Shari Barkin	Professor (General Pediatrics)	Vanderbilt Medical Center	0.30	MD, MSHS	Medicine, Epidemiology	Childhood Obesity, Health Disparities, Thesis Mentor
MPH / Epidemiology	Daniel Barocas	Assistant Professor (Urology)	Vanderbilt Medical Center	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Maciej Buchowski	Professor (Gastroenterology, Hepatology, & Nutrition)	Vanderbilt Medical Center	0.20	PhD	Medicine	Thesis Mentor
MPH / Epidemiology	Kerri Cavanaugh	Assistant Professor (Nephrology)	Vanderbilt Medical Center	0.20	MD, MHS	Medicine	Thesis Mentor

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	Lola Chambless	Assistant Professor (Neurosurgery)	Vanderbilt Medical Center	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Andre Churchwell	Professor	Vanderbilt Medical Center (Heart and Vascular Institute)	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Leslie Crofford	Professor (Rheumatology)	Vanderbilt Medical Center	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Michael de Riesthal	Assistant Professor (Hearing and Speech Sciences)	Vanderbilt Medical Center	0.20	PhD, CCC-SLP	Medicine	Thesis Mentor
MPH / Epidemiology	Michael Debaun	Professor (Haematology and Oncology/Paediatrics)	Vanderbilt Medical Center	0.30	MD, MPH	Medicine	Thesis Mentor
MPH / Epidemiology	Joshua Denny	Associate Professor (Biomedical Informatics)	Vanderbilt Medical Center	0.30	MD, MS, FACMI	Medicine	Thesis Mentor
MPH / Epidemiology	Alex Diamond	Assistant Professor	Vanderbilt Medical Center (Orthopedics and Rehabilitation)	0.20	DO, MPH	Medicine	Thesis Mentor
MPH / Epidemiology	Kathryn Edwards	Sarah Sell Professor and Vanderbilt Chair in Pediatrics (Infectious Diseases)	Director Vaccine Research Program, Vanderbilt University School of Medicine	0.40	MD	Medicine	Grant Writing, Thesis Mentor
MPH / Epidemiology	Todd Edwards	Professor	Vanderbilt Medical Center (Department of Epidemiology)	0.20	PhD,MS	Medicine	Thesis Mentor
MPH / Epidemiology	Wes Ely	Professor	Vanderbilt Medical Center (Allergy/Pulmonary & Critical Care)	0.30	MD, MPH	Medicine	Thesis Mentor
MPH / Epidemiology	Meira Epplein	Assistant Professor	Vanderbilt Medical Center (Epidemiology)	0.30	PhD	Medicine	Thesis Mentor

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	Kevin Ess	Associate Professor	Vanderbilt Medical Center (Pediatric Neurology)	0.20	MD, PhD	Medicine	Thesis Mentor
MPH / Epidemiology	Debra Friedman	Associate Professor of Pediatrics (Hematology/Oncology)	Vanderbilt University School of Medicine	0.45	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Irene Feurer	Research Professor of Surgery and Biostatistics	Director of Quantitative Services and Outcomes Research, Transplant Center, Vanderbilt Medical Center	0.45	PhD	Biostatistics	Social and Behavioral Sciences, Evaluation and Measurement, Thesis Mentor
MPH / Epidemiology	Debra Friedman	Associate Professor	Vanderbilt Medical Center (Pediatric Hematology)	0.30	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Nunzi Giuse	Professor of Biomedical Informatics and Medicine	Assistant Vice Chancellor for Knowledge Management, Vanderbilt Knowledge Management and Biomedical Informatics	0.40	MD, MLS	Medicine, Library Science	Thesis Mentor
MPH / Epidemiology	Andrew Gregory	Associate Professor (Pediatrics)	Vanderbilt Medical Center	0.20	JM, MD, FAAP, FACSM	Medicine	Thesis Mentor
MPH / Epidemiology	Peter Grubb	Associate Professor (Neonatology/Pediatrics)	Vanderbilt Medical Center	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Oscar Guillamondegui	Assistant Professor of Surgery (Trauma and Surgical Critical Care)	Vanderbilt University School of Medicine	0.40	MD, MPH	Medicine, Public Health	Thesis Mentor
MPH / Epidemiology	Tina Hartert	Professor of Medicine (Allergy/Pulmonary and Critical Care)	Vanderbilt University School of Medicine	0.40	MD, MPH	Medicine, Public Health	Grant Writing, Thesis Mentor

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	Raymond Harris	Professor	Vanderbilt University School of Medicine	.20	MD	Medicine, Nephrology	Thesis Mentor
MPH / Epidemiology	Stephan Heckers	Professor	Vanderbilt University School of Medicine	.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Pam Hull	Assistant Professor	Vanderbilt University School of Medicine	.40	PhD	Behavioral science, public health	Thesis Mentor
MPH / Epidemiology	Adriana Hung	Assistant Professor of Medicine (Nephrology)	Vanderbilt University School of Medicine	0.30	MD, MPH	Medicine, Public Health	Epidemiology, Nephrology
MPH / Epidemiology	Alp Ikizler	Catherine McLaughlin Hakim Professor of Medicine (Nephrology)	Vanderbilt University School of Medicine	0.40	MD	Medicine	Grant Writing, Thesis Mentor
MPH / Epidemiology	Angela Jefferson	Professor	Vanderbilt University School of Medicine	.20	MD	Medicine, Neurology	Thesis Mentor
MPH / Epidemiology	Tim Jones	State Epidemiologist	Tennessee Department of Health	0.40	MD	Medicine	Public Health Systems. Environmental Health Social and Behavioral Sciences, Practicum Advisor
MPH / Epidemiology	Howard Krishner	Professor	Vanderbilt University School of Medicine	0.20	MD	Medicine, Neurology	Thesis Mentor
MPH / Epidemiology	Julia Lewis	Professor	Vanderbilt University School of Medicine	0.20	MD	Medicine, Nephrology	Thesis Mentor
MPH / Epidemiology	Beth Malow	Research Assistant Professor	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	Dedrick Moulton	Associate Professor	Vanderbilt University School of Medicine	0.30	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Harvey Murff	Associate Professor	Vanderbilt University School of Medicine	0.32	MD, MPH	Medicine, Public Health	Health Disparities, Cancer; Thesis Mentor
MPH / Epidemiology	Barbara Murphy	Professor (Hematology/Oncology)	Vanderbilt University School of Medicine	0.30	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Alexander Parkih	Associate Professor (Pancreatic and Surgical Oncology)	Vanderbilt University School of Medicine	0.30	MD, MPH	Medicine, Public Health	Thesis Mentor
MPH / Epidemiology	April Petit	Assistant Professor	Vanderbilt University School of Medicine	0.30	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Ben Poulose	Assistant Professor	Vanderbilt University School of Medicine	0.32	MD, MPH	Medicine, Public Health	Surgery; Thesis Mentor
MPH / Epidemiology	Russell Rothman	Professor of Medicine (General Internal Medicine and Public Health)	Director, Center for Health Services Research, Vanderbilt University School of Medicine	0.45	MD, MPH	Medicine, Public Health	Social and Behavioral Sciences, Thesis Mentor
MPH / Epidemiology	Christianne Roumie	Associate Professor; Therapeutics and Pharmacoepidemiology program for veterans quality of care	Vanderbilt University School of Medicine; Veteran's Administration	0.32	MD, MPH	Medicine, Public Health	Pharmacoepidemiology; Thesis Mentor
MPH / Epidemiology	Stephan Russ	Associate Professor (Emergency Medicine)	Vanderbilt University School of Medicine	0.30	MD, MPH	Medicine, Public Health	Thesis Mentor
MPH / Epidemiology	William Schaffner	Professor of Health Policy and Medicine (Infectious Diseases)	Vanderbilt University School of Medicine	0.40	MD	Medicine	Epidemiology, Public Health Delivery, Thesis Mentor

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	David Schwartz	Professor (Gastroenterology, Hepatology, & Nutrition)	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Allen Sills	Associate Professor (Neurosurgery)	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Walter Smalley	Associate Professor	Vanderbilt University School of Medicine	0.30	MD	Medicine	Pharmacoepidemiology, Gastroenterology; Thesis Mentor
MPH / Epidemiology	Carmen Solorzano	Professor (Surgical Oncology)	Vanderbilt University School of Medicine	0.20	MD, FACS	Medicine	Thesis Mentor
MPH / Epidemiology	Ann Stark	Professor (Neonatology/Pediatrics)	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Michael Stein	Professor (Rheumatology, Clinical Pharmacology)	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Paul Sternburg	Professor (Ophthalmology)	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor
MPH / Epidemiology	Tom Talbot	Associate Professor; Hospital Epidemiologist	Vanderbilt University School of Medicine	0.32	MD, MPH	Medicine, Public Health, Infectious Disease	Infection Control; Thesis Mentor
MPH / Epidemiology	Digna Velez Edwards	Assistant Professor (Ob/Gyn)	Vanderbilt University School of Medicine	0.20	PhD, MS	Medicine	Thesis Mentor
MPH / Epidemiology	Lynn Walker	Professor (Pediatrics)	Vanderbilt University School of Medicine	0.20	PhD, MS	Medicine	Thesis Mentor
MPH / Epidemiology	Bill Walsh	Professor (Neonatology/Pediatrics)	Vanderbilt University School of Medicine	0.20	MD	Medicine	Thesis Mentor

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH / Epidemiology	Derek Williams	Assistant Professor (Pediatrics)	Vanderbilt University School of Medicine	0.30	MD, MPH	Medicine, Public Health	Epidemiology, Thesis Mentor
MPH / Epidemiology	Ellen Wright Clayton	Professor	Director Biomedical Ethics and Society	0.30	JD, MD	Medicine, Law	Thesis Mentor
MPH / Epidemiology, [future Health Policy]]	Kitt Carpenter	Professor of Economics	Vanderbilt University School of Medicine	0.30	PhD	Economics	Health economics, public policy, labor economics, evaluation, economic demography
MPH / Epidemiology, [future Health Policy]	Jesse Ehrenfeld	Associate Professor of Anesthesiology	Vanderbilt University School of Medicine	0.30	MD	Medicine, Epidemiology	Perioperative care (POC) efficiency, Anesthesiology, Biomedical Informatics, Surgery
MPH / Epidemiology, [future Health Policy]	Chandra Osborn	Assistant Professor of Medicine (General Internal Medicine)	Vanderbilt Medical Center	0.35	PhD, MPH	Psychology, Public Health, Biomedical Informatics	Health disparities, Diabetes and Chronic Diseases, Behavioral Change Theory
MPH / Epidemiology, [future Health Policy]	David Stevenson	Associate Professor of Health Policy	Vanderbilt Medical Center	0.40	PhD, MPH	Health Policy	Heath Policy
MPH /Global Health	Dominque Behague	Associate Professor	Vanderbilt University	0.40	PhD, MSc	Social Anthropology, Epidemiology	Social justice, global health, adolescent healt, anthropology of psychiatry, reproductive health
MPH /Global Health	Rosette Chakkalakal	Assistant Professor	Vanderbilt University School of Medicine	0.40	MD, MPH	Medicine, Public Health	Diabetes, health disparities
MPH/Global Health	Kate Clouse	Assistant Research Professor, Infectious Disease	Non-tenure Track	.50	PhD, MPH	University of North Carolina, Chapel Hill	Epidemiology, Public Health
MPH /Global Health	Joseph Conrad	Assistant Professor	Vanderbilt University	0.40	PhD	Immunology	Immunology, Basic Science, Translational research

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH /Global Health	Avery Dickins de Giron	Lecturer, Executive Director of the Center for Latin American Studies	Vanderbilt University	0.40	PhD	Anthropology	Anthropology, public health, Latin America
MPH /Global Health	Jenny Dyer	Lecturer, Executive Director of HTHH	Vanderbilt University	.25	PhD	Religion	Health policy, MCH
MPH /Global Health	Quentin Eichbaum	Associate Professor	Vanderbilt University School of Medicine	.30	Md, MPH, MFA	Pathology, Microbiology, Immunology, Global Health	Global Health, HIV immunology, signal transduction, transfusion medicine, diagnostics, global health and medical education
MPH /Global Health	Carol Etherington	Associate Professor	Vanderbilt University School of Nursing (Non-tenure track)	0.4	MSN, RN	Medicine, Nursing	Thesis Mentor, Community Health
MPH /Global Health	Lindy Fenlason	Assistant Professor of Pediatrics	Vanderbilt University School of Medicine	0.32	MD, MPH	Medicine, Public Health	Nutrition, Pediatrics
MPH /Global Health	Ted Fischer	Professor of Anthropology	Vanderbilt University	0.32	PhD	Anthropology	Anthropology, public health, Latin America
MPH /Global Health	Nico Forget	Assistant Professor	Vanderbilt University School of Medicine	0.30	MD, MPH	Emergency Medicine, Public Health	Thesis Mentor
MPH / Global Health	William Gregg	Assistant Professor	Vanderbilt Medical Center (Biomedical Informatics)	0.20	MD, MS, MPH	Medicine	Thesis Mentor
MPH /Global Health	Natasha Halasa	Associate Professor	Vanderbilt University School of Medicine	0.40	MD, MPH	Medicine, Public Health	Infectious Disease, Pediatrics
MPH /Global Health	Yvonne Joosten	Assistant Professor	Vanderbilt University School of Medicine	0.45	MPH	Community engaged research	Community engaged research, Thesis Mentor
MPH /Global Health	Marcia Kalish	Adjunct Research Professor of Medicine (Infectious Diseases)	Vanderbilt University School of Medicine	0.30	PhD	Experimental Pathology	Global Health

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH /Global Health	Aaron Kipp	Research Instructor in Medicine, Division of Epidemiology	Vanderbilt University School of Medicine	0.55	PhD, MSPH	Epidemiology	Thesis Mentor
MPH /Global Health	Francie Likis	Research Assistant Professor	Vanderbilt University School of Medicine	0.30	DrPH	Epidemiology, MCH	Thesis Mentor
MPH /Global Health	Velma McBride-Murry	Professor	Vanderbilt University Peabody College of Education and Human Development	0.32	PhD	Community psychology	Health Disparities
MPH /Global Health	Kelly McQueen	Associate Professor	Vanderbilt University School of Medicine	.32	MD, MPH	Medicine, Public Health	Surgery, anesthesia, public health, global health
MPH /Global Health	Doug Morgan	Associate Professor of Medicine Gastroenterology, Hepatology, and Nutrition)	Tenured	0.65	MD, MPH	Case Western, UC Berkeley	Medicine, Public Health
MPH /Global Health	Carol Nixon	Senior Research Associate	Department of Human and Organizational Development, Peabody College of Education and Human Development	0.30	PhD	Human and Organizational Development	Mentorship
MPH /Global Health	Han-Zhu Qian	Assistant Professor of Medicine (Epidemiology)	Non-tenure Track	0.65	MD, PhD	Tongji Medical University, China, University of Alabama, Birmingham	Medicine, Epidemiology
MPH /Global Health	Doug Perkins	Professor	Vanderbilt University Peabody College of Education and Human Development	0.40	PhD	Community development	Community development, global health

Table 4.1.1.a 2014-2015 Secondary Faculty who Support Degree Offerings of the Program, by Track							
Department (school)/Specialty Area (program)	Name	Title/Academic Rank	Title & Current Employer	FTE or % Time	Graduate Degrees Earned	Discipline for earned graduate degrees	Teaching Areas
MPH /Global Health	Sarah Suiter	Assistant Professor	Department of Human and Organizational Development, Peabody College of Education and Human Development	0.35	PhD, MS	Human and Organizational Development	Mentorship, Program Evaluation
MPH /Global Health	Sharon Shields	Professor	Department of Human and Organizational Development, Peabody College of Education and Human Development	0.20	PhD	Human and Organizational Development	Mentorship
MPH /Global Health	Margaret Tarpley	Senior Associate	Vanderbilt University School of Medicine	0.40	MLS	Library Sciences	Mentorship, Library Sciences, global health
MPH /Global Health	Bart Victor	Professor	Vanderbilt University	0.32	PhD	Management	Social responsibility, social entrepreneurship, global health
MPH /Global Health	William Wester	Assistant Professor of Medicine (Infectious Diseases)	Non-tenure Track	0.60	MD, MPH	Dartmouth, Harvard	Medicine, Public Health
MPH / Epidemiology	Consuelo Wilkins	Associate Professor (General Internal Medicine and Public Health)	Vanderbilt University School of Medicine	0.40	MD, MSCI	Medicine, Public Health	Thesis Mentor
MPH / Global Health	Carol Ziegler	Assistant Professor	Vanderbilt University School of Nursing	0.30	DNP	Nursing	Thesis Mentor

** **Secondary faculty** devote between 0.05 to 0.49 FTE of their time and effort to activities associated with the program. They may serve as a mentor (primary or on committee), as a teaching assistant, thesis reader or provide some other service to the MPH program of significance.*

MPH Program Affiliated Faculty (Affiliated faculty play important advising roles, but do not meet the definition of primary or secondary faculty).

Name	Title/ Academic Rank	Tenure status	FTE for PH	Gender	Race/ Ethnicity	Highest Degree Earned, Discipline (Institution, year)	Teaching Area	Research Interests	Current/ Past PH Activities *
Ellen Clayton	Professor	Tenured	0.10	F	W	MD (Harvard 1985), JD (Yale 1979)	Epidemiology	Ethics, genetics	IOM Committees
Keith Meador	Professor	Tenured	0.10	M	W	MD (Vanderbilt)	Psychiatry, Ethics	Epidemiological studies on mental health and socio-cultural determinants of health, ethics	Director, Center for Bioethics and Society
Martha Jones	Associate Professor of Medicine, Health and Society	Tenured	0.20	F	W	PhD (Berkeley), MPA, MPH	Public Finance, Worker's Comp., Disability, Demography, Economics	Public Finance, Worker's Comp., Disability, Demography, Economics	Variety of PH initiatives
Jonathan Metzl	Professor Medicine, Health and Society	Tenured	0.1	M	W	MD, PhD	Men's Health, Culture, Race, Gender and Inequality	Men's Health, Culture, Race, Gender and Inequality	Variety of PH initiatives
Mark W. Newton	Associate Professor	Tenured	0.15	M	W	MD (University of Texas Medical Branch 1987)	Anesthesiology	Anesthesiology, capacity building in low-resource settings	Kijabe Hopsital, Kenya outreach and public health initiatives
JuLeigh Petty	Senior Lecturer in Medicine, Health and Society	Non-tenure	0.20	F	W	PhD (Northwestern)	HIV/AIDS, Law, Research ethics, Sociology of Medicine	HIV/AIDS, Law, Research ethics, Sociology of Medicine	Variety of PH initiatives

MPH Program Adjunct Faculty (Adjunct faculty who are community public health professionals engaged in teaching or mentoring in the program who do not have Vanderbilt faculty appointments.)

Name	Title/ Academic Rank	FTE for PH	Gender	Race/ Ethnicity	Highest Degree Earned, Discipline (Institution, year)	Teaching Area	Research Interests	Current/Past PH Activities*
James Nardella	Executive Director, Lwala Community Alliance, Kenya	.50	M	W	M.Ed. (Vanderbilt, 2008)	Leadership, Education, Mentorship	Leadership, Community Development	Clinton Global Initiative
Deidra Parrish	TB, State Health Department	0.45	F	B	MD (UAB 2002), MPH (Tulane 2006)	Medicine, Infectious Disease, Mentorship	Infectious Disease	Metro Public Health Department, TB program
Todd Lawrence	Ingram Cancer Center, Vanderbilt	0.25	M	W	MA (International Development, American University)	Leadership, Policy, International Public Health, Development, Mentorship	International Public Health	Community educator, Former Peace Corps Volunteer, Zambia; Global Health Council

c. Description of the manner in which the faculty complement integrates perspectives from the field of practice, including information on appointment tracks for practitioners, if used by the program. Faculty with significant practice experience outside of that which is typically associated with an academic career should also be identified.

Several courses include guest speakers from the public health field of practice, including adjunct faculty with significant practice experience in public health. In addition, several members of the program's faculty have held/hold positions within the public health practice community, which allows them to provide their professional perspective to the educational process for our students. For example, Marie Griffin, Timothy Jones and Mary Lou Lindegren were EIS officers with the CDC, and Dr. Lindegren remained with the CDC for 21 years designing, implementing and analyzing population-based surveillance systems before joining the MPH faculty. Sten Vermund served as a branch chief for two different branches at the National Institutes of Health. Douglas Heimburger spends a portion of his time in working in low- and middle-income countries in his role with the Vanderbilt Institute for Global Health. Timothy Jones is the Chief Epidemiologist for the Tennessee Department of Health.

d. Identification of outcome measures by which the program may judge the qualifications of its faculty complement, along with data regarding the performance of the program against those measures for each of the last three years.

Table 4.1.c. Measures of faculty qualifications and performance for 2010-2015 (see Table 1.2.a for additional outcomes)				
Measure	Indicator	Assessment	Target	Outcome
Faculty have terminal degrees in their field.	% of primary faculty with doctoral preparation or terminal degrees in their field	Annual curriculum review	100%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
Faculty have experience in the range of disciplines pertinent to the core competencies: epidemiology, biostatistics, social and behavioral sciences, and global health.	Primary faculty teaching core offerings have experience in at least one core competency	Annual curriculum review	100% - Each core discipline is covered	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Faculty are considered to be excellent teachers by the students.	Primary faculty effectiveness ratings with mean scores >7 for each course	Course evaluations	At least 75% of courses (Stretch: 100%)	10-11: 93% 11-12: 93% 12-13: 91% 13-14: 91%
The program has excellent educational offerings.	Overall course evaluations with mean scores >7	Course evaluations	At least 75% of courses (Stretch: 100%)	10-11: 93% 11-12: 93% 12-13: 82% 13-14: 91%
At least 15 FTE of faculty time is dedicated to teaching or activities relevant to the public health program.	FTE count of primary faculty	Annual curriculum review	15.0 FTE	11-12: 10.78 12-13: 17.3 13-14: 20.6 14-15: 20.3
Community-based public health professionals are involved in teaching core courses.	N core courses with at least 1 lecture by a community-based public health professional	MPH Core Syllabi	At least 5	10-11: 9 11-12: 9 12-13: 9 13-14: 9 14-15: 9
Students would recommend the MPH program to others.	At least 75% of graduating students indicated agreement by selecting "yes"	Exit Survey	At least 75% of graduating students	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 74%

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. The Vanderbilt MPH program has identified the following:

Strengths:

- Primary faculty who all have doctoral preparation and experience/training in the core public health competencies appropriate for the classes they teach.
- Several faculty who work in public health settings, which provides our students exposure to practicing public health professionals in the community.

Weaknesses:

- Areas of environmental health and social and behavioral science are relatively weak compared to epidemiology, biostatistics, and health services research.
-

Plans to ensure that this criterion continues to be met:

- We will continue to seek the highest qualified faculty and will encourage our course directors to incorporate lectures from community public health professionals where appropriate.
- We plan to identify faculty with expertise in qualitative research methods to complement the strong expertise in quantitative skills.

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.

a. A faculty handbook or other written document that outlines faculty rules and regulations.

Policies governing recruitment, retention, and promotion of University-based faculty rest with the Departments where individuals have primary academic appointments. Faculty affairs are governed by the rules of the University and the by-laws of the School of Medicine. The program director, when requested, provides input to Department Chairs about the level and quality of faculty participation as teachers, advisors and contributors to the program. School of Medicine By-Laws regarding appointment and promotion of faculty members are found at https://medschool.vanderbilt.edu/faculty/policies-procedure.

b. Description of provisions for faculty development, including identification of support for faculty categories other than regular full-time appointments.

The primary locus of faculty development is within academic departments. 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 academically-related expenses such as textbook and software acquisition.

c. Description of formal procedures for evaluating faculty competence and performance.

Faculty performance is evaluated by department chairs where individuals hold primary appointments. The MPH program director provides information, when requested, relative to an individual's involvement and success in teaching, advising or supporting program activities. The curriculum committee reviews the teaching evaluations annually, and the MPH program has the ability to retain teachers or seek a replacement in cases of continuous suboptimal evaluations.

School of Medicine and other 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 (http://www.mc.vanderbilt.edu/medschool/facaffairs/fac_promo.html).

d. Description of the processes used for student course evaluation and evaluation of teaching effectiveness.

All courses are monitored through end-of-course student evaluations and feedback. Completion of the evaluation is required for all of the classes. Thus, for the past five years, we have had 100% participation in course evaluations for every MPH course which are administered electronically through REDCap. The evaluations allow students to assess the quality and scope of the curriculum, the effectiveness of the professor, and specific questions tailored to each course.

Students also provide feedback on their experiences during academic advising sessions with the Track Directors. Composite comments from academic advising sessions are communicated to the program leadership and where appropriate, to the Course Director.

Final course evaluations are processed shortly after the course ends and reviewed at the next scheduled MPH Operations Committee meeting. Mean and median scores, as well as running means and medians for the previous 5 years are reviewed. Anonymous free-text comments are also reviewed. Anonymous summaries are forwarded to each course director. If patterns are detected during the MPH Operations Committee review, the program director provides specific feedback to the Course Director. If modifications are warranted, the program director works with the Course Director to implement any needed changes. At the end of each semester, the MPH Curriculum Committee (which includes student representatives) reviews course evaluations, including running averages and verbal comments. Any specific feedback needed from this review is forwarded to the Course Directors by the Track Director. Summary course evaluations are also communicated to the MPH Advisory Committee.

The graduating student exit interviews, which includes face-to-face focus groups and an anonymous survey, are conducted each year and provide an opportunity to receive comprehensive feedback about teaching effectiveness. For example, in the 2014 exit interview, several students described the need for greater emphasis on practical skills, expanded content in health policy and budgeting, and a strengthening of the Health Systems Administration surveillance course. This information was conveyed to the Course Directors with specific recommendations for improving and expanding course content and delivery.

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. The Vanderbilt MPH program has identified the following:

<u>Strengths:</u>

- Well-defined policies to identify faculty in the program and the faculty are promoted within the School of Medicine framework.
- Course evaluations, advising sessions, and exit interviews that are used to evaluate competence and performance of faculty.

<u>Weaknesses</u>:

- Faculty who do not teach in the program are not formally evaluated; and,

- Mentors are monitored through their mentee performance, but there is no standard approach to evaluating mentors.

Plans to ensure that this criterion continues to be met:

- Operations Committee will discuss whether formal mentor evaluation is warranted.
- The program will continue to reward outstanding teachers by recommending them for teaching and mentoring awards.

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.

a. Description of the program's recruitment policies and procedures. If these differ by degree (e.g., bachelor's vs. graduate degrees), a description should be provided for each.

Historically, Vanderbilt MPH Program's recruitment efforts have focused on physicians or doctorally prepared individuals who will be clinical fellows or junior faculty during their time of participation in the program. The Program required that students identify a Vanderbilt faculty mentor prior to application to the program.

With the launch of the Global Health track in 2012, our recruitment efforts expanded to target individuals of different academic backgrounds with substantive experience in low-resource settings. These individuals included those with bachelor's, master's, and/or doctorate degrees, with varying levels of relevant professional experience.

Joining the Association of Schools and Programs of Public Health (ASPPH), using the Schools of Public Health Application Service (SOPHAS), and participating in three SOPHAS Virtual Fairs in 2013 increased the Vanderbilt MPH Program's visibility among potential applicants. Other recruitment procedures include targeted print and electronic announcements about the program and the admissions process, in-person information sessions open to the public, and personal face-to-face meetings, calls, or emails to departmental chairs, principal investigators of training grants, fellowship program directors, as well as health professions advisors and institutional leaders at Vanderbilt, Meharry Medical College, Fisk University, Tennessee State University, and the University of Tennessee. Representatives of the Vanderbilt MPH Program promote the program to professionals in the field at national and regional meetings like the Consortium of Universities for Global Health's annual conference and the Tennessee Public Health Association's annual conference.

We partner with the School of Medicine's Office for Diversity in Medical Education and representatives from Vanderbilt actively promote the Vanderbilt MPH Program and the David Satcher Public Health Scholars Program to potential applicants from under-represented backgrounds at a number of national recruitment fairs and events throughout the year.

b. Statement of admissions policies and procedures. If these differ by degree (e.g., bachelor's vs. graduate degrees), a description should be provided for each.

<u>Admissions Procedures and Application Requirements</u>
The Vanderbilt MPH Program follows the School of Medicine and University's policies on admission which explicitly state that Vanderbilt University does not discriminate on the basis of race, color, sex, religion, sexual orientation, national or ethnic origin, age,

disability or veteran status in any student program or activity administered by the University or with regard to admission or employment.

The eligibility criteria for admission to the program have expanded for the class entering in fall 2015, with more consistent eligibility criteria for all tracks of the program.

- Individuals with a bachelor's, master's, or doctoral degree are eligible to apply.
- All applicants must be fluent in written and spoken English.
- At least two years of relevant, post-undergraduate professional experience is strongly preferred.

The program works with admitted students to match them with mentors during the summer before matriculation and into the fall semester of the first year.

Applications are submitted through SOPHAS and candidates must select one of the three tracks (Epidemiology, Global Health, and Health Policy) at the time they apply.

Complete applications include:

- Current curriculum vitae or resume
- Official transcripts
- Official valid GRE or MCAT test scores **This requirement is waived for applicants with a doctoral level degree*
- Statement of purpose and objectives
- Two or more letters of reference from professional and academic sources

In their statement of purpose, applicants to the Epidemiology Track should include a research plan for their MPH thesis project with specific aims, background and significance, experimental methods and procedures, and a statement on how this proposed research plan fits into your long term career goals.

International applicants must also submit the following items with their SOPHAS application:

- WES academic credential evaluation
- Official valid TOEFL scores **This requirements is waived for applicants whose most recent academic degree was awarded by an institution whose language of instruction was English*

Candidates in residency or fellowship programs must ask their division director or department chair to submit a letter assuring the trainee 80% protected time for research and coursework and exemption from clinical duties.

<u>Application Deadlines</u>
Applicants to the Global Health or Health Policy tracks who wish to be considered for scholarships must have completed applications in SOPHAS by December 15.

All applications to the Global Health and Health Policy tracks must be received by January 15.

All candidates to the Epidemiology track (including who wish to be considered for scholarships) must submit completed applications to SOPHAS by March 1.

The Vanderbilt MPH Program does not offer admission on a rolling basis.

Admissions Review Process

The Program Manager performs an initial screening to verify that each application is complete with the correct required elements for the specific track.

Following independent reviews by two members of the Admissions Committee, selected applicants are invited to interview with one to two members of the Admissions Committee and faculty. Interviews are conducted in person, by phone, and by Skype.

The Admissions Committee meets on a weekly basis to discuss the admissions process.

Once all interviews are completed, the Admissions Committee meets as a group to review applicants on an individual basis and make a final admissions decision.

Candidates to the Global Health or Health Policy tracks who apply by the December 15 deadline may receive an offer of admission, a notification that they have been denied, or a notification that their application has been deferred and will be considered again in the next application round.

Through the Vanderbilt MPH Program review process, each candidate's entire application package receives thorough consideration from multiple members of the Admissions Committee.

We do not have minimum GPA or standardized test score requirements. The Admissions Committee is governed by a set of by-laws which can be found in the Resource File.

c. Examples of recruitment materials and other publications and advertising that describe, at a minimum, academic calendars, grading and the academic offerings of the program. If a program does not have a printed bulletin/catalog, it must provide a printed web page that indicates the degree requirements as the official representation of the program. In addition, references to website addresses may be included.

Vanderbilt MPH Program recruitment materials include:

a. The Vanderbilt MPH Program website: https://medschool.vanderbilt.edu/mph
b. Printed brochure (see Resource file)
c. Printed flyers and posters (see Resource file)
d. Email campaigns

- Printed School of Medicine course catalog with detailed information on academic offerings and policies: http://www.vanderbilt.edu/catalogs/medical/
- Program profile in ASPPH's online Academic Program Finder: http://www.aspph.org/program-finder/?program=5248
- Program profile in the SOPHAS online directory of academic programs : http://www.sophas.org/details.cfm?ConcentrationID=5248
- Program profile in SOPHAS Virtual Fair platform, CareerEco: https://www.careereco.com/events/SOPHAS

The Vanderbilt MPH Program website is the primary recruitment tool and includes information on academic calendars, academic policies, course offerings, degree requirements, etc.

The School of Medicine's printed course catalog includes a section on the MPH Program, along with detailed information on course offerings, academic policies, etc.

d. Quantitative information on the number of applicants, acceptances and enrollment, by concentration, for each degree, for each of the last three years. Data must be presented in table format.

Table 4.3.1 Quantitative Information on Applicants, Acceptances, and Enrollments, 2011 to 2014

		2011-2012 Admissions Year *(Class of 2014)*	2012-2013 Admissions Year *(Class of 2015)*	2013-2014 Admissions Year *(Class of 2016)*
Epidemiology	Applied	20	27	18
	Accepted	18	17	11
	Enrolled	14	15	10
Global Health	Applied	46	80	130
	Accepted	14	17	36
	Enrolled	10	7	13

Specialty area is defined as each degree and area of specialization contained in the instructional matrix (Template 2.1.1)

Applied = number of completed applications
Accepted = number to whom the school/program offered admissions in the designated year
Enrolled = number of first-time enrollees in the designated year

e. Quantitative information on the number of students enrolled in each specialty area of each degree identified in the instructional matrix, including headcounts of full- and part-time students and an FTE conversion, for each of the last three years. Non-degree students, such as those enrolled in continuing education or certificate programs, should not be included. Explain any important trends or patterns, including a persistent absence of students in any degree or specialization. Data must be presented in table format. See CEPH Data Template 4.3.2.

Table 4.3.2. Students and FTE Students for 2010-2015

	2010-2011	**2011-2012**	**2012-2013**		**2013-2014**		**2014-2015**	
	Epidemiology	*Epidemiology*	*Epidemiology*	*Global Health*	*Epidemiology*	*Global Health*	*Epidemiology*	*Global Health*
Full-time students	25	29	28	10	33	16	25	20
Part-time students	0	0	0	0	0	0	0	0
Total students	25	29	38		49		45	

Note: During the period shown, all of our students were full-time students.

The total number of students enrolled in the Vanderbilt MPH Program has grown with the addition of the Global Health track, starting in the 2012-2013 academic year.

The number of students enrolled in the Global Health track for the past two years has been smaller than the number of students in the Epidemiology track. The characteristics of applicants to the different tracks contribute to this difference in track enrollements.

The admissions process for the Global Health track is decidedly different from that of the Epidemiology track. For the past few years, the Epidemiology has received a somewhat constant level of applications, from candidates already employed by or in training programs at Vanderbilt University Medical Center. These candidates tend to have professional and personal ties to the university or the area which make them more likely to accept an offer of admission to the Vanderbilt MPH Program.

In contrast, we have seen applications to the Global Health increase steadily each year, from 46 to 80 to 130 in the 2013-2014 admissions cycle. These candidates come from across the country and the world and tend to apply to multiple masters-level public health programs. They weigh a number of considerations in their decisions to accept or decline an offer of admission. With each admissions cycle, we continue to refine and improve our processes and recruitment strategies to better understand the factors that influence applicants' decisions.

As a program, we are also mindful that the needs of students in the two tracks are noticeably different and providing the same level of highly individualized support, mentorship, and academic advising to each student is a top priority.

f. Identification of measurable objectives by which the program may evaluate its success in enrolling a qualified student body, along with data regarding the performance of the program against those measures for each of the last three years. See CEPH Outcome Measures Template 1.2.a.

Table 4.3.f. Recruit highly talented students with cultural diversity who are committed to population health and will likely make substantial contributions to the field (see Table 1.2.a. for additional outcome metrics)

Measure	Indicator	Assessment	Target	Outcome
Students have doctoral preparation and/or sufficient health-related experience to facilitate participation in the program. [Epidemiology Track]	% of incoming students with doctoral preparation or a minimum of 2 years of health-related experience	Annual Admissions Committee Actions	100%	11-12: 100% 12-13: 100% 13-14: 100% 14-15: 100%
Students have experience working in a low resource setting domestically or internationally.* [Global Health Track]	% of incoming students with at least 1 year of experience in a low resource setting domestically or internationally	Annual Admissions Committee Actions	At least 60% (Stretch: 80%)	11-12: ---- 12-13: 20% 13-14: 29% 14-15: 69% *Note: First Global Health track students matriculated in 2012
Student body is culturally diverse.	% of incoming students who are racial/ethnic	Annual Admissions	At least 20%	11-12: 29% 12-13: 38%

	minorities or from economically disadvantages backgrounds/countries	Committee Actions	(Stretch: 30%)	13-14: 27% 14-15: 13%
Graduates express commitment to public health as a long term career goal.	% of graduates whose long-term career goals include public health	Exit interviews	At least 75% (Stretch: 100%)	10-11: 100% 11-12: 93% 12-13: 86% 13-14: 87%
Graduates are likely to make substantial contributions in the field.	% of graduates who publish in the field of public health within 3 years of graduation	Publication search, CV review	At least 75% (Stretch 80%)	2011: 94% 2012: 100% 2013: 76%* (Note: 3 years have not yet elapsed)
Graduates are likely to make substantial contributions in the field.	% of graduates who present at local, national or international conferences during their time in the MPH program	Exit survey	At least 75% (Stretch 80%)	10-11: 100% 11-12: 100% 12-13: 100% 13-14: 100%
Graduates are likely to make substantial contributions to the field.	% of graduates in local, state, federal, or international public health agencies	Program review, ASPPH alumni survey	At least 30% (Stretch 50%)	10-11: 18% 11-12: 23% 12-13: 6% 13-14: 32%

g. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met. The Vanderbilt MPH program has identified the following:

Strengths:

- One of the strengths of the Vanderbilt MPH Program's admissions process is the highly individualized service and consideration each applicant receives throughout the admissions cycle. From initial inquiries about eligibility requirements, to questions about the SOPHAS application or aspects of the Vanderbilt MPH Program, each candidate interacts one-on-one with a member of the admissions team through phone calls, emails, and Skype calls. As applications are received by the program, a member of the admissions team is in contact with the applicant to keep them updated on their application's status.
- Similarly, each application is reviewed very thoroughly at every step in the admissions process and we use all components of the application to try to get the most complete picture of an applicant's qualifications and potential for success in our program and in a long-term career in the public health field. If any questions arise from reviewers about a specific aspect of the application, we contact the candidate to ask for clarification or more information.
- About one third of all candidates who submit completed applications are invited to interview with two members of the admissions committee through a telephone or Skype call. This is an opportunity for the applicant to ask more questions about

the Vanderbilt MPH Program, and for the reviewers to learn more about the applicant and his or her motivations to seek an MPH degree.

Weaknesses:

- An aspect of the Vanderbilt MPH Program's admissions process we are continuing to develop is increasingly targeted recruitment efforts. Because of the small size of our program and staff, we lack the capacity to increase our recruitment activities beyond email campaigns, SOPHAS Virtual Fairs, on-campus information sessions, and the occasional participation at larger conferences. We are not able to maximize the opportunities we have to increase awareness of our program to local and regional audiences, and to larger groups of potential applicants who may be interested in our program.
- Another weakness of our admissions process is that we do not engage all of our faculty members in the review and interview process to the extent that we would like to. Involvement from more of our faculty members would not only allow applicants to gain a different perspective of the program and learn more about the wide range of research and public health work at Vanderbilt University, but it would give faculty members a greater sense of ownership in the admissions process.

Plans to ensure that this criterion continues to be met:

- Having completed one admissions cycle using SOPHAS, plans for the Vanderbilt MPH Program's admissions process includes refining our use of WebAdMIT features for more efficient, but equally thorough, application review. The addition of the Health Policy track requires adapting our recruitment activities for new audiences of potential candidates.
- We also have plans to launch a redesigned website for the Vanderbilt MPH Program with content presented in a way intended to better address applicant's questions about the program and application process.

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.

a. Description of the program's advising services for students in all degrees and concentrations, including sample materials such as student handbooks. Include an explanation of how faculty are selected for and oriented to their advising responsibilities.

Student Academic Advising:
Students undergo academic advising and career counseling in a variety of ways. First, 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 the semester courses and academic plans for the upcoming semester and solicit feedback on their practicum and thesis progress. In addition, the 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.

b. Description of the program's career counseling services for students in all degree programs. Include an explanation of efforts to tailor services to meet specific needs in the program's student population.

Student Career Development:
Each student receives counseling about career opportunities, including their specific plans for seeking a job following graduation and various sources of support for their chosen career path.

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.

The MPH website has extensive information about career development, including links to the Vanderbilt Office for Clinical and Translational Scientist Development, as well as a variety of support sources for early career development (Website: https://medschool.vanderbilt.edu/mph/career-development).

When the program expanded to include the global health track in 2012, the need for expanded career counseling and development opportunities for different types of career paths was identified. While there were resources across campus for career development, there were few sessions that pertained specifically to global public health and unique pathways in that field. The Global Health track designed a MPH Professional

Development Series, which was offered for the first time in the 2013-2014 Academic Year. The list of professional development sessions for the current academic year can be found in the Resource File.

MPH Professional Development Series 2013-2014
September 12 from 12:00-1:00pm, VIGH, Suite 725, Conference Room 782 **Topic: Job Postings: How to search for positions** **Goal:** During this informal session, we will introduce you to a handful of online job databases. We will explore the databases and review select positions, while also considering the qualifications necessary to obtain them. What types of jobs would be of interest? Where do you start? Now is the time to begin searching for opportunities.
October 10 from 12:00-1:00pm, 2525 West End, 6th floor, Executive Conference Room **Topic: How to write a resume and cover letter; Tips for effective interviewing** **Guest:** Cathy Wiesbrodt, Assistant Director, Vanderbilt Center for Student Professional Development **Goal:** This session is focused on effective strategies to take when interviewing for jobs and developing a resume and cover letter.
November 14 from 12:00-1:00pm, VIGH, Suite 725, Conference Room 782 **Topic: Career Planning – creating a calendar** **Guest: Jennifer Staple-Clark, Founder and CEO of Unite for Sight** **Goal:** This session is intended to guide you in your career development and job search. Narrow down the types of jobs you want to pursue and create a 6 month – 1 year plan for your job search. Are you considering a fellowship opportunity? Will you pursue additional training in the future? What are your long term goals?
December 12 from 12:00-1:00pm, VIGH, Suite 725, Conference Room 782 **Topic: Networking** **Guest: Bill Cooper, MD, MPH, Director of the MPH Program** **Goal:** Have you heard the old adage, "it's who you know?" This session is devoted to networking for jobs and career opportunities.
January 9 from 12:00-1:00pm, VIGH, Suite 725, Conference Room 782 **Topic: How to navigate the Global Health job market** **Guest: Jena Lee Nardella, Founder and President of Blood:Water Mission** **Goal:** Invited guest will talk about her unique paths through the global health field. She'll provide stories, insight and advice as you navigate the job market.
February 13 from 12:00-1:00pm, VIGH, Suite 725, Conference Room 782 **Topic: Career Planning – check in** **Goal:** This informal session will be spent addressing individual questions. Where are you in the job hunt? What challenges are you encountering?
March 13 from 12:00-1:00pm, VIGH, Suite 725, Conference Room 782 **Topic: Salary Negotiation** **Goal:** Finding a job is one thing, negotiating a salary is something entirely different. This session will be dedicated to strategies for salary negotiations.

As mentioned above, the Vanderbilt Office for Clinical and Translational Scientist Development offers a **Career Development Monthly Seminar Series**. As part of an integrated career development program, the Vanderbilt Office for Clinical and Translational Scientist Development (CTSD) hosts a lecture series for MPH students and other students and trainees at Vanderbilt who are building clinical and/or translational research careers.

Sessions held during 2014-2015 are shown below:

September 11 What I Wish I'd Known Before I Wrote My K (Panel)

October 16	Getting a Job in Academia (Dr. William Cooper)
November 13	Keys to Academic Success (Dr. C. Michael Stein)
December 4	Maximizing the Effectiveness of the Individual Development Plan (Dr. Kathy Gould)
January 29	Top 10 Writing Mistakes (Ms. Hope Lafferty)
February 5	Presentation Skills for Scientists (Dr. Corey Slovis)
March 5	Authorship
April 16	Letters of Support (Dr. Nancy Brown)
May 14	Don't Put Your Foot In It! (Dr. Katherine Hartmann)

Sessions from 2013-2014 included:

August 8	Academic Mentoring: How to Give It and How to Get It (Dr. Wes Ely)
September 12	Strategies for Writing Your K Award (Dr. Satish Raj)
September 25	Negotiating Your First Academic Position (Dr. Bill Cooper)
October 10	What Does It Mean to Collaborate? (Dr. Dan Roden)
November 14	Time Management (Dr. Paul Harris)
December 12	Inside Study Section (Dr. Katherine Hartmann)
January 9	Your Professional Identity: Networking Is the Common Thread (Dr. Alyssa Hasty)
February 13	Beginning to Manage Others (Dr. Lawrence Marnett)
March 13	What is Scientific Misconduct? (Ms. Maria Garner)
April 10	Leadership Skills/Styles (Dr. Mary Zutter)
May 8	Non-Federal Funding (Dr. Ashley Brady)

Additional career development opportunities offered through the School of Medicine and other Centers and Departments across the Institution include: **The BRET Office of Career Development** provides career resources for graduate students and post-doctoral fellows in the biomedical and biological sciences. Services include Bi-monthly e-newsletters, Monthly Career Connections seminars, Annual career symposium and a Path to Career series.

Center for Student Professional Development helps students effectively develop their professional capabilities, define their identities, and build resilience as they prepare for employment. There are opportunities for industry specific listservs, Career Days, employer information sessions, notices about job and internship opportunities, plus information about professional development workshops. They also provide resources on such topics as networking, professional etiquette, interviewing, cover letters, and resumes.

Program Funding for Career Development. A list of current development funding programs can be found at the Clinical and Translational Scientist Development Program website. Examples include: Building Interdisciplinary Research Careers in Women's Health (BIRCWH), Vanderbilt Clinical & Translational Research Scholars program (VCTRS) and the Vanderbilt Clinical Oncology Research Career Development program (VCORCDP).

Grant Writing and Submission. In addition to didactic training in manuscript and grant writing, students and early career investigators may receive infrastructure support for grant preparation. Through VICTR grant review studios, a panel of experienced faculty critically reviews grant applications and provides feedback to enhance the chance of funding. Through the Office for Clinical & Translational Scientist Development, NIH-like internal study sections by senior Vanderbilt faculty are conducted six times a year in advance of NIH cycles for first submission R and K awards, resubmissions, revisions and renewals, for basic and clinical investigation. StarBRITE is an interactive system that provides one stop shopping for research needs, including online and in-person training sessions, grant writing resources, and other researchers support services. FIND Grants is the Foundation INitiatives Database of the Foundation Relations program to help Vanderbilt University faculty, clinicians and scientists identify and obtain non-federal funding and honorific prizes. The Eskind Biomedical Library offers tools, resources, and in-person training. And additional resources can be found at the VUMC Office of Research, the Office of Sponsored Programs, the Vanderbilt Writing Studio, and the Jean and Alexander Heard Library.

Additional Opportunities for Skills Development**:**

- Biostatistics and Biomedical Informatics Clinics
- CRC Research Skills Workshop Series. Recent topics include *Effective Medical Literature Searching, Guidelines to Data Collection and Data Entry, Creating Effective & Visually Attractive Scientific Posters, Submitting studies to the IRB, Writing a Paper for Publication*
- Responsible Conduct of Research and Biomedical Ethics
- Evidence Based Practice and Nursing Research
- The Center for Science Communication

c. Information about student satisfaction with advising and career counseling services.

In 2008-2009, a specific question about academic advising and career counseling was added to the exit interview.

At the conclusion of the 2013-2014 MPH Professional Development Series, an evaluation was administered to participants. A report of that survey is included in the Resource File. In response to the results of the surveys, we will be inviting a broader spectrum of practitioners and leaders in global to speak, incorporating workshops on additional topics and providing opportunities for particular skill development. We will also expand the series for the next academic year to include topics and speakers of relevance to both the Epidemiology and Global Health tracks. This series, in combination with the Vanderbilt Office for Clinical and Translational Scientist Development (described below), provides twice monthly career development opportunities for the MPH students. Reports from these surveys and sessions are available in the Resource File.

How would you rate the following elements of the MPH?
Scale: 1=excellent; 2=good; 3=fair; 4=poor; 0=no opinion

Table 4.6.a. Student Satisfaction with Advising Services from Exit Surveys (Epidemiology track)						
	2014 Mean	2013 Mean	2012 Mean	2011 Mean	2010 Mean	2009 Mean
Monitoring of research project progress	n/a	1.43	1.36	1.55	1.59	1.67
Monitoring of mentor-mentee relationship	1.40	1.64	1.79	1.64	1.59	1.78
Overall academic advising	1.73	1.50	1.43	1.45	1.59	1.67
Availability of career counseling	2.13	1.79	1.57	1.45	1.82	2.22
Clinical Career Seminars	2.20	1.67	1.38	1.55	1.76	1.75

Table 4.6.a. Student Satisfaction with Advising Services from Exit Surveys (Global Health track)	2014 Mean
Mentor-mentee relationship	1.78
Overall academic advising	2.56
Career counseling	3.22
Clinical Career Seminars	2.83

d. Description of the procedures by which students may communicate their concerns to program officials, including information about how these procedures are publicized and about the aggregate number of complaints and/or student grievances submitted for each of the last three years.

Evaluations: Students are able to communicate their concerns and provide feedback on academic and career advising through a series of anonymous surveys administered every semester. No official complaints or student grievances have been filed during the past three years.

Exit interviews: In the 2014 exit interviews and surveys, students recommended more career panels and additional preparation for mentoring committee members in career development counseling for students. Both of these suggestions have been incorporated into the preparation of the 2014-2015 academic year, including an enhanced professional development monthly series and a mentoring workshop for faculty in the MPH program in October 2014. Global Health track students also requested more structured advising sessions, so modifications were made during the summer 2014 to meet the particular needs of this track by redesigning the academic advising form, utilizing track director and associate director for advising sessions and creating a pre-approved list of graduate-level courses for the students.

Advising sessions: The students are requested to share their thoughts and provide constructive criticism during the academic sessions. Examples of recommendations that have been incorporated relate to the course content (expansion of examples of cases to include more global application) and additional thesis advising support (resulting in additional thesis workshops during the fall semester of the second year).

e. Assessment of the extent to which this criterion is met and an analysis of the program's strengths, weaknesses and plans relating to this criterion.

We believe this criterion is met with comment. The Vanderbilt MPH program has identified the following:

Strengths:

- A system for academic advising and career counseling that is well-publicized.
- Monthly professional development sessions focused on students entering into the global health field.
- Extensive institutional career development opportunities for epidemiology track students.
- Regular ongoing evaluation of our academic advising and career counseling activities through our annual Exit Interviews and our every three year Alumni Survey.

Weaknesses:

- The program continues to hone its advising processes based on important and constructive feedback from students and other constituents.

Plans to ensure that this criterion continues to be met:

- Continued support for advising of our students, including incorporating information from our evaluations in the Exit Interview.
- Enhancement of the MPH Professional Development series based on student feedback and availabily of additional speakers/topics.
- Expansion of career counseling efforts by incorporating career counseling into the 2nd semester advising email and scheduling a specific session with second year students to discuss career counseling issues.